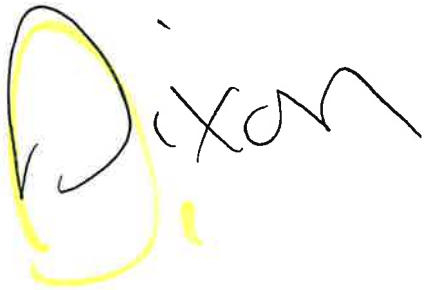

EXHIBIT 17

FILED UNDER SEAL

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IN THE CIRCUIT COURT
TWENTIETH JUDICIAL CIRCUIT
ST. CLAIR COUNTY, ILLINOIS
–oOo–

DIANA HOFFMANN, Individually and as Independent Administrator) of the Estate of THOMAS R. HOFFMANN, Deceased, et al.,)
Plaintiffs,)
vs.) No. 17-L-517
SYNGENTA CROP PROTECTION, LLC, et al.,)
Defendants.)

VIDEO-RECORDED VIDEOCONFERENCE DEPOSITION OF
MONTY DIXON
VOLUME II (Pages 251-557)

January 7, 2021

(Beginning at 8:05 a.m.)

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(Exhibits attached electronically.)

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IN THE CIRCUIT COURT
TWENTIETH JUDICIAL CIRCUIT
ST. CLAIR COUNTY, ILLINOIS
–oOo–

DIANA HOFFMANN, individually and as Independent Administrator) of the Estate of THOMAS R. HOFFMANN, Deceased, et al.,

Plaintiffs,

vs.) No. 17-L-517

SYNGENTA CROP PROTECTION, LLC, et al.,

Defendants.

–oOo–

VIDEO-RECORDED VIDEOCONFERENCE DEPOSITION OF MONTY DIXON, VOLUME II, produced, sworn, and examined on Thursday, January 7, 2021, taken on behalf of the Plaintiffs, with the witness appearing from Jamestown, North Carolina, before RENEE COMBS QUINBY, a Certified Court Reporter (MO) #1291, Certified Shorthand Reporter (IL) #084-004867, Certified Shorthand Reporter (CA) #11867, Registered Diplomate Reporter, and a Certified Realtime Reporter.

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--oOo--

IT IS HEREBY STIPULATED AND AGREED by and between counsel for the Plaintiffs and counsel for the Defendants that this deposition may be taken in machine shorthand by RENEE COMBS QUINBY, a Certified Court Reporter and Notary Public, and afterwards transcribed into typewriting and the signature not waived by agreement of counsel and consent of the witness.

--oOo--

PROCEEDINGS 8:05 a.m.

THE VIDEOGRAPHER: We're on the record. Today's date is January 7th, 2021, and the time is 8:05 a.m. This is the video-recorded deposition of Montague Dixon, Volume II, in the matter of Diana Hoffmann, et al., versus Syngenta Crop Protection, LLC, et al., Case Number 17-L-517, in the Circuit Court, 20th Judicial Circuit, St. Clair County, Illinois.

This deposition is being held at remote locations. The reporter's name is Renee Quinby. My name is Shaun Steele. I'm the certified legal videographer. We're with Alaris Litigation Services.

Would the attorneys present please introduce themselves and the parties they represent.

MR. TILLERY: For the plaintiffs, Steve Tillery of the law firm of Korein Tillery.

MR. WEIR: Tom Weir from Kirkland & Ellis on behalf of Syngenta.

MS. KIMBALL: Anne Kimball from Heyl Royster on behalf of Growmark.

MS. CECIL: Jennifer Cecil from Husch Blackwell on behalf of Chevron USA.

MR. ZACHER: Gerhardt Zacher from Wilbur Ellis Company.

THE VIDEOGRAPHER: Would the court reporter please read the stipulation and swear in the witness.

THE REPORTER: This is Renee Quinby. I am a Certified Court Reporter. This deposition is being taken remotely, and those participating in these proceedings today are attending via videoconference with the witness appearing from Jamestown, North Carolina.

Counsel acknowledge their understanding that I am not physically present with the witness and that I will be reporting this proceeding

remotely. Counsel further acknowledge that I will not be administering the oath in person but am doing so remotely. The parties and counsel consent to this arrangement and waive any objections to this manner of proceeding.

Counsel, please indicate your agreement verbally on the record by stating your name and that you stipulate to these terms, after which, I will swear in the witness and we may begin.

MR. TILLERY: This is Steve Tillery on behalf of the plaintiffs. We agree and stipulate to these arrangements. Have no objection to them.

MR. WEIR: Tom Weir on behalf of Syngenta. We stipulate and agree as well.

MS. KIMBALL: Anne Kimball on behalf of Growmark. Stipulate and agree.

MS. CECIL: Jennifer Cecil on behalf of Chevron. We agree and stipulate.

MR. ZACHER: Gerhardt Zacher from Wilbur Ellis. Stipulated.

MONTY DIXON,

of lawful age, having been first duly sworn to testify to the truth, the whole truth, and nothing but the truth in the case aforesaid, deposes and

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says in reply to oral interrogatories propounded as follows, to-wit:

--o0o--

EXAMINATION

BY MR. TILLERY:

Q. Would you state your name again for this record because of the time that has taken place from your first deposition, could you just state your name for this record.

A. My name is Montague Dixon.

Q. And, Mr. Dixon, the last time or first time we spoke was in June of last year, right?

A. Yes, sir.

Q. What work have you done in connection with this lawsuit in preparation in any way for this deposition since that June deposition?

A. Since the June deposition, I've had multiple conversations with counsel. I have reviewed documents provided by the counsel as potential documents to be familiar with. And essentially that's been it, sir.

Q. Have you read – strike that.

Have you reviewed any depositions?

A. Yes, sir. I was presented with two

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depositions that I skimmed just to be familiar with, but did not spend any significant time other than just a quick read.

Q. Who were those depositions of?

A. I believe one was -- the last name was Greenamyre, and I don't remember the name of the -- of the other gentleman. I think it was a gentleman, but I don't recall the name, sir.

Q. Do you remember the subject matter of the person's testimony or opinions?

A. No, sir. I really just read them very cursorily. Did not spend any time getting into it other than just a quick read.

Q. What was the take-away from your quick read of Dr. Greenamyre's testimony?

A. Honestly, I don't recall. It was such a cursory read that I spent no time trying to really get into it or to understand it.

Q. Okay. What else did you do in terms of preparation for this deposition?

A. Reviewed the documents that I was provided along the way and also received additional documents from counsel to review, and so reviewed those. Went back and rereviewed, which was

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contained in those documents, the PowerPoints from the communications we had with EPA around our research program. Primarily that's what -- that was the extent of my, you know, review of the existing documents.

Q. Do you have any documents with you today?

A. No, sir. Not in the room obviously. You know, the documents that were provided previously are downstairs.

Q. Where are you taking the deposition?

A. I am in my home.

Q. Okay. Is there any other work you've done since your deposition started in June that you haven't told me about?

A. No, sir. And just, as I mentioned, just reviewing the documents we've had. You know, reviewing -- I did review labels and timelines, some of those were in the documents, but just trying to familiarize myself with the label history of our -- of the products prior to, you know – prior to Syngenta having ownership of them.

Q. So you went back as far as you could to look at the labels on the – on the product from the

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'60s, I presume?

A. I was able to look at one label from the '60s. I was able to find one. There's one that's also, I believe, in the deposition prep materials but also on the EPA website from the early 1970s; however, it's very difficult. You can barely read it. There's like streaks and lines going through it, but I was just trying to familiarize myself with the history of paraquat labels.

Q. Okay. Did you look at any emetics documents?

A. As far as emetics documents, I reviewed the calculations that go into how to create -- to establish the emetics, so I did look back. As we've registered products over the years, most recently we registered a new end use product, so I went back and reviewed how we prepared the emetic concentrations and stated those on the CSFs.

As over the time that I've been regulatory manager we changed how we referenced them on the CSFs, so I wanted to make sure that I was familiar with the -- how you actually get to the end concentration based upon the CSF because it's not a straightforward calculation.

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Q. Did you look at any surfactant documents?

A. No, sir.

Q. Has paraquat ever been sold in the United States with a surfactant included in the product shipped?

A. My understanding would be that's very likely. I would have to look at the CSFs to be sure. I know in our Gramoxone Inteon there were antifoaming agents which I don't know if those qualify as surfactants or not.

I do believe that there was a series of products that were manufactured and produced in the '80s and into the '90s, some of which were combination products, and as such, it's certainly possible those may have contained surfactants.

Q. One of the things we should get out of the way is this discussion of emetics and the formula. Because in reviewing your deposition, there was some confusion I think a little bit about the emetics formula. And I spoke with Mr. Botham about this earlier this week, and I wanted you to clarify this if you can.

What is the percentage of PP796 that

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was added to paraquat the very first time it was used?

A. The very first time?

Q. That would have been, what, 1982?

A. I believe approximately – I believe the emetic received EPA approval, which as a tolerance approval, around 1981ish; and so that being the case, 1982 would be approximately the time frame you would expect the first registration.

Q. And is that when ICI, Syngenta's predecessor, first started selling paraquat products in the United States itself?

A. I am not 100 percent sure of when ICI initially started. I certainly know at some time point in the '80s ICI certainly was selling. I believe the first emetic formulations may have been submitted sometime, but I don't know if they were submitted by Chevron or the ICI predecessor in the late '70s. And --

Q. Do you mean for registration or –

A. I would believe for registration. I believe those formulations – before something such as the emetic could be used in a formulation, it must first get what's called an inert clearance or a

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tolerance, so I believe those petitions were made sometime around 1976 or 1977, but I don't think the approval took place until the early 1980ish maybe.

I think the 1981, towards the end of the year is when the Federal Register notice was published establishing that tolerance. At that point then a registrant would have the ability to include that in an end use product.

Q. All right. At that time what was the formula or calculation for the amount of emetic included in paraquat products?

A. I apologize, but off the top of my head I do not know what that exact amount would have been.

Q. Well, just give me your best estimate. If you were selling a two-and-a-half-gallon jug of concentrate to a farmer, how much emetic would have been included if it were in place in paraquat?

A. As I try to answer that I'm going to work my way backwards from what I know, which is when we had our product Gramoxone Inteon, which was registered in 2006, and I appreciate that you're asking about 1980. I'm just trying to work through in my mind the ratios I'm familiar with. In 19- –

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in 2005, we went to 1.5 grams per liter. Prior to that it was .5 grams per liter.

Q. When you say "prior to that," prior to 2005?

A. Yes, sir.

Q. Products – if you don't mind, I'm trying not to interrupt you, I'm sorry –

A. Sure.

Q. – Mr. Dixon. But I want to just make sure the record is very clear on this.

So you said prior to 2005, the product that – the paraquat product that was being sold contained .5 milligrams of PP796 per liter of material sold?

A. No, sir, that's not quite – it's – for a particular product that we sold, and this is not talking about the combination products. I'm talking about the one that I'm – that we replaced when we did the Gramoxone Inteon. It was 5 grams per liter, not milligrams. 5 grams per liter.

Q. I'm sorry. I misspoke. I'm sorry.

A. No worries.

Q. Yes, 5 grams.

A. Per liter.

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Q. Per liter, okay.

And how long – just so we're clear – how long had 5 grams of PP796 emetic been used in Syngenta products prior to 2005?

A. I cannot speak on all of the products. I certainly could if we could look at the CSFs. I certainly know that Gramoxone Max, which was the product that we replaced with Gramoxone Inteon, had that .5 grams – I'm sorry. I said "5 grams" earlier. I also misspoke. It was .5 grams per liter, not 5.

I believe going back even further that was a standard concentration. I'm saying that without knowing all the different possible formulations that were there, but I believe the .5 grams per liter was the target concentration that ICI and Syngenta targeted from the '80s up through the '90s, into the early 2000s.

But I would like to, just for the record, say I'm doing that based on my understanding of one product and not necessarily knowing the combination or other products that could have been there. And certainly we could look at CSFs and try to interpret those if need be.

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Q. All right. So let's see if we can solve this riddle this way. At the first break, you have those documents present at your home. Would you secure those documents and just do a quick confirmation of the accuracy of your last answer, okay?

A. To the best of my ability I will take a look at what I have and try to come back to that, sir. Yes, sir.

Q. All right. So now if we can summarize, as best you know, subject to confirmation through a series of documents you referred to as "CSF," what are those?

A. Confidential statements of formula. Those are documents that are required when a formulation is registered at EPA to establish the contents of the formulations.

Q. All right. So subject to your confirmation through CSF documents, it's your current recollection that .5 grams of the emetic PP796 was added to paraquat from the time it was first added in the United States until Inteon, paraquat Inteon, was sold in 2005, correct?

A. I can't go quite that far because I

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certainly believe there could have been products, and this may have been predecessor to the ICI products. It may have been the ICI products when the emetics were first being developed. I believe they were looking at different ratios, and so it was certainly possible there could have been different ratios. The .5 grams per liter, to my knowledge, was based on trying to meet the FAO specifications.

Q. So you're looking at that or thinking of it, as I understand your answer, as a default formula in large measure? In other words, unless there was some specific product that might be in some way deviating from that default, they used .5 grams of the emetics PP796 per liter of – of concentrate, correct?

A. Yes, sir. And I believe early on, which would be the case as companies are trying to develop formulations, there's always variants that are being considered trying to be developed, and so it is possible that in those variants – when I say "variants," different compositions in a formulation -- that there could have been different ratios.

But my understanding certainly from the

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times that I've been the paraquat reg manager and going back prior at least into the '90s, I believe the target concentration was always that .5 grams per liter with the caveat there could be a formulation that it was tweaked one direction or another.

Q. And Inteon changed that formulation to increase the PP796 by an order of magnitude of three, right?

A. Yes, sir, that is correct.

Q. So it -- in Inteon it went to 1.5 grams per liter of emetic in the concentrated product, correct?

A. That is the target concentration in the end use product, yes, sir.

Q. Was there a change in the effectiveness of the emetic by the inclusion or addition of surfactants by the applicator?

MR. WEIR: Object to form and foundation.

THE WITNESS: Mr. Tillery, I'm afraid I wouldn't have the knowledge on that, what the impact of adding surfactants would be.

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BY MR. TILLERY:

Q. Okay. Have you ever analyzed that topic?

A. As far as the impact of adding surfactants, I'm not aware of, but that would not have been an area I would have been focused in, so I can't say that there's not been an analysis of it. I'm just not familiar with it.

Q. Has anyone ever suggested to you that absorption within the gut could be enhanced, thereby rendering the effectiveness of PP796 as an emetic by the inclusion of a surfactant?

MR. WEIR: Objection. Foundation.

THE WITNESS: Can I answer or should I answer? Is that good?

MR. WEIR: Yeah.

THE WITNESS: Okay. Mr. Tillery, I have -- I believe somewhere in the past -- I can't remember specifically, but I certainly would not be surprised if that concept or the conversation has been had. I can't point to any specific thing, but it certainly seems, at least at a high level, that I could imagine and recall that there could be discussions along those lines, what would be the

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impact of adding surfactants.

BY MR. TILLERY:

Q. What was the reason for increasing the emetic, PP796, by 300 percent in the Inteon product?

A. I think it was part of the holistic approach that we were trying to accomplish to try to mitigate the risks associated with oral ingestions of the product. So the Inteon formulation was a technological attempt by adding something called an alginate, as well as the increase in the emetic, and also a purgative.

And the idea being that the alginate once it reached the acidic nature of the stomach would become a gel which would allow more time for the emetic to get to the center of the brain that would cause the emesis, and so I think it was a multifaceted approach to try to improve the survivability of an oral ingestion of the concentrated product.

Q. And were all of those features, the alginate and the -- you said the purginate -- were these all added at the same time that the levels were tripled?

A. Yes, sir. That is correct.

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Q. So that would be in the Inteon product, correct?

A. That is correct. That is the definition of Inteon in the U.S. The U.S. Inteon product was we had a two-pound paraquat product with 1.5-grams-per-liter emetic, the alginate, and then the purgative, which was magnesium sulfate, and that was designed to try to flush anything that may have gotten into the small intestine.

Q. And was there anything besides manganese sulphonate in what you refer to as the purginate?

A. As far as the purgative, the magnesium sulfate performed that function. In that formulation there was also the dye and odorant and I believe also an antifoaming agent.

Q. And how long did that formula persist?

A. Until approximately 2011 or '12, at which time we submitted to replace the product with another product.

Q. What was the product that you used to replace it?

A. It was called Gramoxone SL2.0. The only significant difference between the two products

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was the removal of the alginate piece.

Q. Why was the alginate piece removed?

A. There were a couple of factors that played into that. One was that the manufacturer had sold the alginate business and we were not guaranteed to be able to continue to get the material.

Plus we also had done testing that had demonstrated that the formulation with the alginate compared to the formulation without the alginate -- so the Gramoxone Inteon, which is the formulation with the alginate was compared in these dog toxicity studies with the replacement product, the Gramoxone SL2.0.

And they were showed -- these tests showed that at 64 milligrams per kilogram body weight in the dog, as well as 128 milligrams per kilogram body weight in the dog, which was the key ratio that we were concerned in demonstrating the safety on, that there was no statistical difference between the plasma concentration of paraquat in blood at those two values with or without the alginate, so ...

Q. So would it be fair to say that your

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subsequent testing confirmed that alginate really wasn't helping improve the safety of the product?

A. That's -- those tests showed that you had equivalent safety with or without the alginate, yes, sir.

Q. Did you do similar tests with the purginate?

A. The purgative, that was not isolated for testing, so it was -- we did not do that same focused testing compared with or without.

Q. Did you do any testing to determine that it was important to raise the level of PP796 from .5 grams per liter to 1.5 grams per liter?

MR. WEIR: Object to the form.

THE WITNESS: And, Mr. Tillery, before I answer that, just I want to clarify on my last question when I said that I believe the only thing that was removed was the alginate. I don't recall directly whether or not in the SL2.0 the magnesium sulfate was also contained.

I believe it may have also been removed, but I would have to confirm that. So just for clarity, I'm not sure if it was just the sodium alginate or magnesium sulfate.

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So with respect to the question that you just asked --

BY MR. TILLERY:

Q. If you can, we'll come back to my question in a second and I'll restate it, but let's follow up on what you just said.

So that if, in fact, you removed those chemicals that you referred to as a purgative -- what did you call it? What is your term, sorry?

A. I believe it was referred to as we were doing the development as a purgative.

Q. Purgative?

A. Yes, sir. I believe that's how it was referred to.

Q. Okay. And you also referred to something as an alginate.

A. That is correct, sodium alginate.

Q. Okay. So what you're saying is is that you believe that in around 2015, it's -- you're going to check this in your CSF manuals -- but you think that it's possible those two, purgative and alginate, were removed at that time?

A. The timing would have been 2011 or '12.

Q. That would have been --

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(Reporter clarification.)

MR. WEIR: Sorry. I objected. I thought it misstates testimony, and then I think Mr. Dixon clarified.

BY MR. TILLERY:

Q. Go ahead. You can clarify all you want.

A. Okay. So at -- the time frame for that, Mr. Tillery, was around 2011 or '12.

Q. All right.

A. And I am definitive that the alginate was removed. I also believe that the magnesium sulfate -- I will confirm that. When we did present the data to EPA, we were -- we did demonstrate to them the equivalence of the tox profile of the two formulations which allowed their decision to register the new product, and then subsequently.

And where the 2015 date may have come from, I believe that's when we actually canceled the Inteon formulation. But I will confirm the -- whether or not the magnesium sulfate was pulled out in the 2012.

Q. Were you still using the Inteon formula after Gramoxone SL2.0 came out?

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A. No, we transitioned away from Inteon into the SL2.0 relatively quickly.

Q. Was PP796 the only emetic Syngenta has ever used, as far as you're concerned, of paraquat?

A. To my knowledge that is correct.

Q. When Gramoxone SL2.0 came out, was the percentage of emetic at 1.5 grams per liter maintained?

A. Yes, sir.

Q. So the only change in America to your knowledge in terms of the percentage of emetic occurred in approximately 2005 with the Inteon product when it tripled the amount of the emetic from .5 grams to 1.5 grams per liter?

A. Could you please restate that, sir?

Q. Absolutely. So the only change in terms of American paraquat products sold to your knowledge in terms of the percentage of emetic occurred in approximately 2005 with the sale of the Inteon product when Syngenta tripled the amount of the emetic from .5 grams to 1.5 grams per liter?

A. So to the best of my knowledge -- and I'm hesitant to make a 100 percent definitive statement because I do not know if I've seen all the

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formulations, all the possible formulations that could have existed -- my understanding is that at least from the '90s going into 2000s, that the target emetic was always .5 grams per liter. And I believe that was the case even into the mid '80s.

As far as when it first came out, I'm not sure, because I do believe there were multiple variants being considered at that initial time by one of the legacy organizations, so I don't know with 100 percent accuracy that .5 grams per liter has always been the concentration prior to 2005.

Q. But you're going to check that by looking at CSF documents, right?

A. Yes, sir.

Q. At the first break, right?

A. I'll take a look and see as much information as I can pull up during the first break, yes, sir.

Q. All right. So let's assume your recollection of .5 grams per liter of emetic is correct from 1982 until 2005. My question then to you is is the only change in terms of the percentage of emetic per liter of paraquat when the Inteon product came out in 2005 when it tripled the amount

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from .5 grams to 1.5 grams?

A. That is the one I am aware of, and that is established, the ratio, that we recently registered another product and we maintained the ratio of emetic. I believe we talked about this in our last conversation, Mr. Tillery, is that that 1.5 grams to 2 pounds created a ratio of emetic-to-paraquat concentration.

Our current product that we are now selling, and we're moving away from Gramoxone SL2.0. The Gramoxone SL3.0, the emetic level is no longer 1.5 grams per liter in that. It's about 2.3 grams per liter, but the rationale for that is that maintains the same ratio of emetic-to-paraquat ion concentration. So because the paraquat concentration was increased, we had to increase the emetic concentration to maintain that ratio, sir.

Q. So in your view, the 1.5-grams-per-liter ratio is maintained according to your formula because of the difference in the concentration of the active ingredient?

A. Yes, sir, that is correct.

Q. And what change was there in the percentage of the active ingredient?

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A. We went from a 2-pound-per-gallon product to a 3-pound-per-gallon product, and so I believe the percentages here will be pretty close, off the top of my head. A 2-pound-per-gallon product is approximately a 30 percent paraquat concentration product, and a 3-pound-per-gallon product is approximately a 42 percent paraquat concentration in that product.

Q. And was there, to your knowledge, a commensurate increase in PP796 as an emetic to accompany that new product?

A. Yes, sir.

Q. And when is that product on the market?

A. We received registration for that this past year. I believe in October. We're in the process of -- we've actually started selling the product and we're continuing to transition to that product and away from the Gramoxone SL2.0 product.

Q. So when Gramoxone SL2.0 was sold up until now when you're replacing it with this new product -- for the record, though, what is the name of the new product again?

A. Gramoxone SL3.0.

Q. Okay.

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A. And just for absolute clarity of the record, the official EPA name -- so EPA you have what are called primary brand names and alternate brand names. The primary registered brand name is Gramoxone 3LB. However, our business partners down the road made the decision before the actual registration they would like to mirror the previous name of Gramoxone SL3.0.

So if you were to look at the official registration, it says Gramoxone 3LB as the primary and Gramoxone SL3.0 is an alternate brand name.

Q. Okay. Now, let's go back to the Inteon product where you increased PC796 from .5 grams to 1.5 grams, okay? Are you with me?

A. Yes, sir.

Q. Okay. Why did you do that?

A. I am not 100 -- I wasn't part of the formulation development, so my understanding -- but this is my understanding of it, is the intention was to have a higher level of emetic so that as you had the purgative closing the sphincters -- there's something called the pyloric sphincter in the stomach -- that by having an increased level of emetic, you had a higher opportunity for that to get

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to the center of the brain that would start the emesis.

Q. So effectively by tripling the amount of the emetic you increased its effectiveness, right?

A. I believe the -- sorry. Okay. I believe the thought was that having a higher level of emetic would allow it to get to the brain faster.

Q. And that would improve its effectiveness, right?

A. I think it would -- it would be viewed as increasing the speed of the emesis so that would -- if your goal is to have an emesis event doing it faster, I would think would be considered increasing the effectiveness.

Q. And was the goal to have an emesis as quickly as possible?

A. I believe, sir, yes, sir, that is correct. The idea is to try to evacuate the stomach as quickly as possible. The idea behind the Inteon technology was to trap the material into the stomach, to -- at such point to allow emesis before it could be absorbed into the bloodstream. So that's the idea is you trap it in the stomach and

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you try to get an emesis event as rapidly as possible.

Q. Did any of this decision-making take into account the number of people who were dying from either accidental or intentional ingestion of paraquat?

MR. WEIR: Object to the foundation and the form.

THE WITNESS: The purpose of the Inteon formulation was specifically to eliminate to the extent possible accidental ingestion fatalities, with the recognition that in the case of suicides, a deliberate ingestion may involve such a bind that the technology would not be able to be successful. But the thought was and the intention was to try to increase the survivability of an accidental ingestion to the extent possible.

BY MR. TILLERY:

Q. Do you know how many people have died from ingestion either accidental or intentional of paraquat worldwide since it went on the market?

MR. WEIR: I'll object to the foundation. I also think it's outside the scope.

THE WITNESS: Mr. Tillery, I do not

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have an exact number. However, I do know the number is -- is a lot more than -- than any company would ever want. You know, certainly my understanding in the U.S. alone over the last probably 15 to 20 -- 15 years, there's probably been 20 or more worldwide. I'm sure that number is substantially and significantly higher.

BY MR. TILLERY:

Q. I will represent to you that on Tuesday of this week, Dr. Philip Botham estimated the worldwide number of deaths to be approximately 10,000 from the intentional or accidental ingestion of paraquat.

Do you have any data or information to dispute that number?

MR. WEIR: Object again to the scope.

THE WITNESS: From my perspective, Dr. Botham would be a lot more knowledgeable in that area. I don't have a specific number, so, you know, that number is certainly a high number, and I have no firm basis to know if it's an under- or overestimation.

BY MR. TILLERY:

Q. You couldn't dispute it, right?

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A. I could not dispute it, no, sir.

Q. We're going to come back later and talk about a database that -- where you're the custodian of that database. How did you become the custodian of such a database?

A. I think to call me the "custodian" of that database would exaggerate my role. Our company has a contracted database. I'm assuming, sir, you're referencing to what was formerly called Prosar and is now referred to as ProPharma; is that correct?

Q. That is correct.

A. Yes, sir. So that is an organization that our company has a relationship with that tracks incidences for any of our products. Where I'm knowledgeable and brought into is any products that I'm responsible for, such as paraquat, where if there is a -- an injury or a fatality, the database is typically contacted.

The group called ProPharma, they do the relevant investigation and try to assist to the extent possible in the treatment of an individual, and ultimately they are the recorder of all the events. And then we use that information to satisfy

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our -- our obligations with respect to 6(a)2 in reporting either injuries or in the tragic situations, fatalities.

Q. Has the formulation for the percentage of emetic in paraquat differed in other parts of the world?

A. With respect to the amount of emetic, sir?

Q. Yes, sir. I'm sorry.

A. Yes. I don't -- I don't have a definitive answer. I'm sorry. I'm much more familiar with the U.S. formulations. I don't think I can give you an accurate answer on the rest of the world.

Q. Well, for example, are you aware of the fact that the amount of emetic in paraquat sold in France was much higher?

MR. WEIR: Object to the form.

THE WITNESS: I do not believe I was aware of that, Mr. Tillery.

BY MR. TILLERY:

Q. Okay. Do you have any reason based upon any information that you've ever seen that's been shared with you at Syngenta, for an emetic

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percentage being different in a paraquat product sold anywhere in the world outside the United States?

MR. WEIR: Object to the form and foundation.

THE WITNESS: My understanding, sir, is that we've tried to meet the emetic requirements in the FAO specifications, so that would lead me to believe that the amount of emetic would be consistent with the FAO specification except in cases such as the Inteon where we went above it.

But my focus has been the U.S., so I would not necessarily be able to speak to formulations in, say, Brazil or New Zealand or someplace like that with any expertise.

BY MR. TILLERY:

Q. Was there any analysis of any of the data sets, data maintained in any kind of Prosar or other international database that was used analytically as a basis for increasing the amount of the emetic in 2005?

MR. WEIR: Object to the form.

THE WITNESS: Okay. My understanding, sir, is the decision to increase the emetic as part

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of the end count formulation predates 2005. Probably goes back into the -- the '90s. So with respect to a question about an analysis for a U.S. decision around 2005, I'm not aware of any.

BY MR. TILLERY:

Q. Who was the scientist or scientists who created the Inteon formulation for Syngenta?

A. As far as the actual formulation chemist or the -- I believe the patent holder would be Professor Heylings.

Q. It was Jon Heylings, wasn't it?

A. Yes, sir, I believe that's correct. That's my understanding.

Q. And he was the -- the so-called inventor of the Inteon formulation, wasn't he?

A. That's what I have come to understand over the last year or two.

Q. Okay. Who told you that?

A. I want to make sure that we're within the attorney-client --

Q. Well, you know, you learned from a lawyer presumably?

A. Yes, sir.

Q. Okay. Now, has there been any other

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product to your knowledge sold in the United States -- any other paraquat product sold in the United States that contained a different level or percentage of emetic than you've told me about?

A. I believe -- and now this involves a little bit of speculation -- that our competitive products that are out there have a different level of emetic, and that would be the non-Syngenta products. I believe that they are selling a slightly higher level of emetic that we believe approximately 2.5 grams per liter.

But, again, that's -- that's based upon our understanding of what the other products are. We don't have, you know, clear line of sight of how the other products are composed, but that's our understanding.

Q. What is the cost of the emetic per liter?

A. Sir, I don't know the cost. In the regulatory realm, we would not be involved with, you know, costing or things along those lines, so I'm not sure what that would be.

Q. Which product -- strike that.

Which paraquat product sold by a

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competitor contains 2.5 grams of emetic per liter?

A. There have been -- so to answer that I'd like to give just a little bit of -- of history because I think it will help with the answer is when we developed the Inteon formulation, we tried to make that the standard to be used throughout all of the paraquat products in the U.S. And at the time we went to submit it for the Inteon, we were the only registration. But then in 2005 and '06 the other products were registered.

It was at that time when we were advocating for the Inteon technology to be the standard that we were advised -- and not from EPA. I think this was more competitive discussions that the generics at the time, and at the time there was one called Parazone and another one that was called Firestorm, that they were registered on the basis of instead of having to go to the Inteon formulation, they instead would put the maximum allowed amount of emetic into their products.

We did do an analysis of two of the products and found that the numbers seemed to be consistent with that, so this would be around 2006 or '07, Mr. Tillery. At that time there were two

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products. Now there's approximately 25 other paraquat products. So the ones in 2006 or '07, where I believe we have more firm knowledge than we have now, would have been Parazone and Firestorm, and we believe those were at the 2.5-gram-per-liter concentration.

Q. And that was from your own internal analysis?

A. We did do an analysis of those formulations and we believe the 2.5 was based upon, as I mentioned, in 1981 when the emetic was first approved the EPA established a tolerance which is the maximum amount allowed in a formulation. And our seeking the registration of Inteon in order to be able to increase the level of emetic, we had to establish a new tolerance.

And that new tolerance was .3 percent by weight in a final formulated product, and that is the number we believe those two products were targeting. And if my recollection serves correctly, analysis showed that that was approximately where they were at.

Q. Who manufactures Parazone?

A. At this point -- at the original time,

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ADAMA, or at the time it was called Makhteshim. They became ADAMA. Now, it is being manufactured and sold by a company called AMVAC.

Q. Okay. What about Firestorm?

A. Firestorm, I believe the company's name at the time was Sinon. I may not be remembering that correctly, but I believe it was Sinon. S-i-n-o-n. I believe the product is still registered. There's currently, as I mentioned, probably 20 to 25 other paraquat products on the market now.

Q. Okay. Let me ask you what are they using as their emetic formula?

A. I -- I do not know definitively. We think in the case of the Parazone and the Firestorm where we did do the analysis it was the PP796. I don't believe we've done an analysis on the others, and the statements of formula are confidential. EPA does not require a specific emetic in paraquat formulation.

Prior to the proposed interim decision, which just came out, the agency just said an "effective emetic," so that would allow a registrant to choose an emetic that they deemed effective. I

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know the one we use, and I'm not familiar with what may be in the others.

Q. Okay. Let's switch topics if we can at this point.

In the last two years, let's say from the beginning of 2019, okay? I want to go through all of your contacts with the EPA regarding paraquat, okay?

A. Okay.

Q. And what was your first contact in 2019 in that two-year period? What was your first contact regarding paraquat with the EPA?

A. My recollection is not going to be able to break it down by what day or what it was, but the topics we would have been speaking about would have been the proposed interim or the -- I'm sorry. The implementation of the human health mitigation decision. We would have been talking about the registration review.

We did have discussions with EPA around the emetic, but I just -- it's hard for me to recall every specific interaction, but I will say we've had frequent interactions.

Q. All right. That -- that's what I was

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going to ask. In the year 19- -- strike that.

In the year 2019, approximately how many interactions did you have with the EPA, and I'm meaning to include anybody at the EPA in any role or capacity, regarding paraquat?

A. I'm going to take my best guess and would say 10 to 15. That would be phone calls, meetings, potentially hallway interactions.

Q. Okay. And likewise in 2020, okay? How many similar contacts did you have with the EPA?

A. I would say, you know, with the COVID situation it's certainly been much more remote. I would say that number is, with respect to paraquat, maybe 10 to 12, primarily around label amendment for our new product, as well as working through the draft risk assessments and then the current proposed interim decision.

Q. Now, let's make sure we get on the record a clarification of these topics. One was labeling for the new product, and that's the SL3, right?

A. Correct, sir.

Q. Okay. And we'll come back to that. So that's one of the topics that you would have been

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discussing with, okay?

A. Right.

Q. And the other is the draft risk assessment, right?

A. Correct.

Q. And tell, for the ladies and gentlemen of the jury, what do you mean by the EPA's draft risk assessment?

A. Yes, sir. So EPA every 15 years for all products does what's called registration review. And paraquat's registration review opened in 2011. And it's a multistage process that involves initially a docket opening, a DCI, a data call-in, if there are areas where the agency believes they need additional data.

There's -- ultimately the agency will come out with draft ecological and human health risk assessments, and I believe in the case of paraquat -- and this is a standard process for all products. Prior to -- to issuing what they currently have, which is called a proposed interim decision, they will publish an ecological and a human health risk assessment where they take a look at the existing uses and run it through their risk

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paradigms.

As a result of that, then there's a public comment period. That public comment period for paraquat closed in December of 2019. Syngenta made comments addressing questions and concerns we had during the draft risk assessments. That closed in 2019.

Then what -- the next phase after EPA gets the response to the public comments, they take those into consideration. Then they issue what is called a proposed interim decision. And that takes into account the agency's response to the draft risk assessment.

So in the case of this particular molecule, paraquat, the agency reached out to Syngenta and the other registrants, not just Syngenta, in approximately July and indicated, okay, in response to the draft risk assessments and your public comments, these are the label mitigations we are proposing going forward. That would be published in the proposed interim decision.

The registrants had a teleconference with the EPA on that. I had a follow-up email or two with EPA on that on some topics. And then

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ultimately the proposed interim decision was published in October, and so we are currently in the public comment period for that.

So those communications with the EPA, for example, this summer involved some of their proposals that they were going to include in the proposed interim decision.

Q. So if we go back to 2019, tell me what those communications with the U.S. EPA would have involved regarding paraquat.

A. There could have been multiple different topics, certainly label -- label modifications, because as part of the human health mitigation, there were label submissions requirements based upon EPA communications to modify some of the labels that we had out there.

I'm trying to remember all of the potential conversations we could have had. In 2019, there was the discussion about emetic. We did meet with the EPA and discuss the emetic.

Q. And this was after you were approached by Professor or Dr. Jon Heylings, right?

A. That is correct, sir.

Q. And then you went to the EPA?

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A. We did. I had a phone call. We also met with the agency and discussed the situation and –

Q. Okay. So let's -- let's just start there if we can. That was in May of 2019, right?

A. I believe that's when our meeting was, yes, sir.

Q. And who went with you to that meeting?

A. My recollection is it was John Abbott.

Q. What was his role in the company?

A. John is -- at the time I believe he was my immediate supervisor. He's now been promoted a role up, and there's another person in between. I don't believe John was in that role yet, so he was either my immediate supervisor or on his way to his next role which is to lead the group.

Q. And when you say "lead the group," lead the group worldwide?

A. John has responsibility for the U.S. and Canada for regulatory and stewardship.

Q. Okay.

A. And then my immediate supervisor now who replaced John in that role is Charles Pierson.

Q. And –

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A. And he heads the regulatory teams for North America.

Q. And what was your reason -- you're -- strike that.

You're the one at Syngenta that initiated the contact with the EPA about the emetics issue that Dr. Heylings had raised, correct?

A. Yes.

Q. And you reached out to Marianne Mannix, right?

A. Marianne would have been my primary contact.

Q. So she's the one you would have reached out to?

A. Yes, sir.

Q. And when you reached out to Marianne Mannix, you told her you wanted to come in and have a meeting with her and with other members of the EPA to – to counter or to at least explain Syngenta's position regarding the claims being made by Dr. Heylings, right?

A. Correct.

Q. And this was -- was this before Dr. Heylings had ever approached the EPA?

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MR. WEIR: Object to foundation.

THE WITNESS: Mr. Tillery, I'm not sure when Mr. Heylings would have first reached out to EPA.

BY MR. TILLERY:

Q. Okay. So did you know at that time that Jon Heylings had talked to the EPA or tried to talk to them?

A. I believe we were aware of that.

Q. How did you become aware of that?

THE WITNESS: Tom, want to touch base on the attorney-client privilege there? Is that –

BY MR. TILLERY:

Q. So if – you found out about this through legal channels presumably, right?

A. Correct.

Q. So you learned through legal channels that – and let me ask you this. I don't believe this is attorney-client protected. Was this a communication from lawyers at the EPA?

A. The lawyers I'm referring to are – are internal lawyers, sir.

Q. Okay. So you're talking about people employed by Syngenta, correct?

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A. Correct, yes, sir.

Q. And presumably somehow they became aware that Dr. Heylings had notified the EPA and other regulatory bodies around the world, right?

MR. WEIR: Object to the foundation.

Mr. Dixon, you can answer to the extent that it's not going to reveal any attorney-client conversations.

THE WITNESS: Sure. My recollection, Mr. Tillery, is that Dr. Heylings was in communication with Syngenta colleagues in the UK, and those communications then were relayed to us in discussions with our local counsel.

And that's where we became aware of the fact that Mr. Heylings had indicated that he intended to reach out to EPA and that, you know, he certainly expressed his, I guess – or my understanding from these communications, he expressed his intention to make the regulatory bodies aware of his concerns.

BY MR. TILLERY:

Q. And based upon that information, you then reached out to a woman named Marianne Mannix who had responsibility for paraquat in her role at

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the EPA, correct?
A. Yes, sir.
Q. And you set up a meeting where you and others, including Mr. Abbott, could come and explain your position or Syngenta's position with respect to the issues being raised by Dr. Heylings, right?
A. Yes, sir.
Q. Did the people you spoke to at the EPA acknowledge that they knew that Dr. Heylings had made claims?
A. I don't recall specifically at the meeting what they said. I did reach out to Marianne subsequent, and as I'm thinking back on it, my recollection of the conversation is that Marianne said that Mr. Heylings had reached out to them and that his concerns would be ultimately published into the docket as – as a comment, public comments.
Q. Have they ever been published?
A. Not to my knowledge, sir.
Q. Have – do you keep a daily review of that docket?
A. I would say not daily. I do as, you know, part of just stewarding the molecule, check it on occasion, and I have gone and looked through the

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docket probably as recently as two or three weeks ago as we're working on these public comments for the PID. To my knowledge, Mr. Heylings' statements are not in the public docket yet.
Q. Right. And they've been – that's been about a year and a half since he talked to them, right?
MR. WEIR: Object to the foundation.
THE WITNESS: Yeah. I would say given the time frame for our -- my communications which would have been, you know, in the spring of 2019, that would be about a year and a half ago, so that probably is in the ballpark time frame.
BY MR. TILLERY:
Q. And what, to your knowledge, did Dr. Heylings tell the EPA about the emetics issue?
MR. WEIR: Object to the foundation.
THE WITNESS: Yes, sir. I don't have an understanding or knowledge of what he said, certainly I don't recall any specifics. I know what his comments to our internal folks were.
BY MR. TILLERY:
Q. What were those comments to your internal folks by Dr. Heylings?

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A. That he did not believe the level of emetic in the formulations was sufficiently high enough.
Q. And when? At what level at what time?
A. I'm afraid -- Mr. Tillery, I'm not sure of any specific level that he may have been suggesting. I just -- it's my understanding that his concerns were that the information underpinning the ultimate determination to go with the level that the company was using was inaccurate, not based upon what he felt was correct information.
So my understanding is his position is the emetic level should be higher and, if so, he believed that would have a beneficial impact to reduce fatalities.
Q. And what position –
MR. WEIR: Sorry, Steve, before you go on.
Renee, I just wanted to get in that I had a form objection to that last question. Thank you.
BY MR. TILLERY:
Q. And what did you say in response to those claims when you spoke to Marianne Mannix and

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her supervisor at the EPA in the spring of 2019?
A. We made the – a position that we believe the emetic levels that we had in the formulation were adequate, were appropriate, and that, you know, we had not only maintained the .5 but we also pointed out that our products had even increased once we went to the Inteon and we had maintained that same level and that same ratio.
I do recall in the meeting pointing out to the agency that same ratio that we discussed a little bit earlier, Mr. Tillery, and how we at Syngenta were, even in our new product formulations, striving to maintain that higher emetic ratio.
Q. Now, let's go back to your conversations with the EPA in 2019 and 2020. You mentioned that you discussed the draft risk assessment.
Do you remember that?
A. Yes, sir.
Q. Did you see a copy of that before it became public?
A. The EPA draft risk assessment?
Q. Yes, sir.
A. No, sir, I do not believe -- I believe

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all registrants received those at the same time. They're published in a public docket.

Q. Did you receive any portion of the draft risk assessment by the EPA before the entire document was published?

A. Not that I recall, no, sir.

Q. Did you receive the proposed interim decision before it was publicly published?

A. Not the proposed interim decision. We did receive a communication of what their proposed label mitigations were, but not the actual decision itself. It would be highly unusual and I would be really surprised, like I said.

To my recollection, the best -- I don't think I've -- I'm pretty confident we've never received, like, the draft risk assessments ahead of time for any of the molecules that I've worked on. At least I cannot recall that ever being the case.

Q. When you spoke to the EPA representatives about the draft risk assessment, did you talk to them in any detail about what they were going to put in the public domain before it was published?

A. No, sir.

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Q. Likewise, with the proposed interim decisions, when you had conversations with them, did you speak to them about what was going to be within the content of their proposed interim decision?

A. We spoke to them, for example, within the content of the proposed interim decision about potential concerns that we have on the impact. For example, with a proposed interim decision, one of the EPA proposals is to eliminate handheld equipment or backpack equipment. And so, as I mentioned, we had a conference call with the agency and the other registrants in July.

I followed up with a call with -- with Ana Pinto who has subsequently taken over for Marianne, but also Marianne. We followed up to try to provide clarity on what the implications that would have, for example, on research organizations. So those are the type of discussions you might have.

The agency was -- the reason for their scheduling the call with us, for example, was we're proposing, for example, to limit applications -- aerial applications to one crop only, one use only. Can you guys live with that? What do you think that will mean?

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And our role in that discussion is to try to help the EPA understand what implications they may have by making those restrictions. So there is a deliberative process there, but as far as the agency, the agency publishes what it believes is the right determination based upon their evaluations.

So the registrants, we may be asked questions, we may provide clarifying information, but the agency publishes what they're going to publish.

Q. But would you agree with me that it's a process where the agency reaches out and gets input from you before they reach a final decision?

A. That is accurate, yes, sir.

Q. And they might ask, for example, about information about personal protective equipment, right?

A. Correct.

Q. And they've done that in the past, haven't they?

A. With respect to personal protective equipment, yes. For example, I could think of a situation where, not for this particular molecule

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but in a related situation, trying to mitigate through a risk assessment concepts of can you mitigate the risk by adding additional pieces of personal protective equipment are factored into the agency's decision.

So they may talk to a registrant and say, "We're thinking about requiring coveralls, you know. What's the potential implication of that?" So there is that type of dialogue.

Q. And when they say "What's the potential implication," they mean for you to comment on what that could mean to the sales of a product, right?

A. No, sir. Not necessarily the sales. It's more important, for example, if you think about a user may be in a very hot, humid area. Let's talk, for example, aquatic applicators in Florida requiring a coveralls and maybe a very restrictive full-face respirator, for example. You could run into situations where you could create heat stroke or heat concern.

So it's understanding what the implications of the changes might mean on the actual user. So if you were, for example, to propose to eliminate aerial applications, you could create a

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situation where a grower who relies on a product but has to make aerial applications perhaps because the ground is often too wet, they no longer would have access to that product. So it's a multifaceted consideration.

Q. And is this an ongoing dialogue that takes place as sort of an iterative process before they come out with their proposed interim decisions?

MR. WEIR: Object to the form. Thank you.

THE WITNESS: It can be an iterative process, Mr. Tillery. Often when the EPA is reaching out, they're trying to more fully understand the circumstances. And so as you provide information, there's certainly a possibility that you provide information and they might circle back for additional information, so it could be an iterative process.

BY MR. TILLERY:

Q. Okay. I want to ask you some questions and see if you agree with these comments, okay? And if you don't, I want to know why.

Could you tell me if you agree with this statement: Neither the OPP – you know what

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that stands for, right?

A. Office of Pesticide Programs.

Q. That's right. Office of Pesticide Programs. And I'll start over.

Neither the OPP nor any other governmental agency conducts any testing of products in conjunction with obtaining a pesticide registration. That burden lies exclusively with the company who is the registrant to provide data and present an argument for registration.

MR. WEIR: Object to the form.

THE WITNESS: I agree that it's the registrants that provide the data. I don't believe OPP -- I believe EPA does have laboratories and may do some testing. That, I'm not 100 percent sure on. But when it comes to registration of a product, it is the registrants that provide the data.

BY MR. TILLERY:

Q. Do you agree with this statement: Agency staff is limited to reviewing only the information that the applicant provides under a set of published data requirements and guidelines as well as voluntarily submitted. If information is withheld or not disclosed by the applicant, the

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agency may not know about the omission until an adverse event occurs.

MR. WEIR: Object to the form. Foundation.

THE WITNESS: So just to make sure I'm understanding exactly your question, Mr. Tillery. You're saying that the agency would only act on information provided by the registrant, and if the registrant did not provide information, then the agency would not act upon it unless they received the information from a 6(a)2 type submission? Am I framing that correctly or no, sir?

BY MR. TILLERY:

Q. No, that's not the question.

A. I'm sorry.

Q. Yeah. In -- in this question I'm really saying something else, and let me start over.

The EPA agency staff, or preceding them the USDA agency staff, is really limited to reviewing only the information that the applicant for registration of a pesticide provides under a set of published data requirements and guidelines, as well as data that may be voluntarily submitted to them. If information is withheld by the applicant

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for registration, the agency will not know about that omission until an adverse effect occurs.

MR. WEIR: Same objections.

THE WITNESS: So as I understand what you're saying there, that seems to me to be correct that the agency would not be able to act on information they did not have or were not aware of.

BY MR. TILLERY:

Q. Yeah, that's what I'm saying to you. And if, for example, if Syngenta and Chevron knew that paraquat was neurotoxic in 1966 and did not tell the USDA when they sought the registration of paraquat in that year, there was no mechanism, method, et cetera, by which the USDA could go out and do its own analysis to determine whether it was neurotoxic at that time, correct?

A. I'm not sure that that -- I would agree fully with that. Only in that certainly EPA is aware of literature. They do literature searches. They -- they are very familiar with the science. In the 1960s, I'm not sure how FDA would have done it but I do also acknowledge that somebody cannot act on information they don't have. So if they're not aware, they cannot act upon something.

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Q. So if the information wasn't in the public domain where they found it, and if Chevron -- and at that time the Syngenta predecessor was ICI -- if ICI and Chevron didn't tell the USDA about it at the time of registration, the USDA wouldn't have information about the neurotoxicity of paraquat, would they?

MR. WEIR: Object to the form.

THE WITNESS: I would agree that the agency could not act on information they were not aware of or did not have.

BY MR. TILLERY:

Q. To your knowledge from your review of all this information, did Chevron ever inform the USDA or the EPA while it was in the business of selling Syngenta's paraquat formulation that paraquat either was or might be neurotoxic?

A. I am not familiar with any communications. I don't know that Chevron believed or had reason to believe it was neurotoxic and, if so, I'm not familiar with any communications they may have had on that.

Q. Well, let's -- I -- well, let's move to strike your answer as unresponsive.

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Let me read it again. To your knowledge from your review of information in preparation for this deposition, and in terms of anything you know personally from your association with Syngenta and predecessors, did Chevron ever inform the USDA or the EPA that Syngenta's paraquat formulation either was or might be neurotoxic?

A. I don't recall seeing any communications that would say that the product -- that they communicated. My knowledge of the neurotoxicity is based upon the studies that we've done.

Q. Sir, I'm just trying to get you to focus on my question.

A. Yes, sir. I understand. I'm just trying to add my context, but I understand what you're asking, sir. So as I recall the documents, I went through a lot of documents. Nothing jumps out to me as saying that there was a known neurotox issue that Chevron communicated to EPA.

Q. And, likewise, with respect to Syngenta, at that time called "ICI," did Syngenta at any time ever inform either the USDA or the EPA that paraquat either was or might be neurotoxic?

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MR. WEIR: Object to the form.

THE WITNESS: To the best of my knowledge I do not -- I'm not aware of any such communication.

BY MR. TILLERY:

Q. Okay. Would you agree with the statement that the Environmental Protection Agency can only review the information that is submitted to assess the consequences of allowing the application or registration of the product. It is the responsibility of the registrant to provide the agency with pertinent data about the product which only the company may possess.

MR. WEIR: Object to the form.

THE WITNESS: So my understanding of the question is that EPA would analyze the data it was provided by a registrant, and so if a registrant did not provide information, the EPA would not have it in their possession. They could not evaluate something they did not have.

BY MR. TILLERY:

Q. Would you agree with that statement then?

A. I would agree with that statement.

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Q. Yeah. Do you agree with this statement: Traditionally, companies only provide data that is required by the Environmental Protection Agency to convince the scientific reviewers that the product meets the criteria for acceptance?

MR. WEIR: Object to the form. Foundation. It's probably outside the scope as well.

THE WITNESS: Mr. Tillery, would you please reread your question?

MR. TILLERY: And I'll agree to a scope and form -- form -- just so we're clear on the record is -- it's interrupting the flow of our -- in our transcript, and it's 211-02 deposition, and I don't know if you -- and I don't mean to be condescending, but the form objection doesn't apply in Illinois.

So -- I mean, it's -- I can lead, I can -- it's full cross-examination. So if there's a specific problem with my question and I can obviate it and you can help me, that's fine; but if it's just done to disrupt the flow of a dep in these circumstances, I object to the use of this objection

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tool for that purpose.
MR. WEIR: To be clear, I was not objecting to interrupt your flow. My form objection to the last question was I believe your question was vague and ambiguous, and the foundation questions you were asking about other companies that Mr. Dixon does not work for, and is not here to represent. And I also believe it's outside the scope for that same reason.
With my form objections, I am keeping them short in order to not interrupt your flow. If you'd like me to explain my form objections, I'm happy to do so moving forward.
BY MR. TILLERY:
Q. So, Doctor -- strike that.
Mr. Dixon, do you agree with the statement: Traditionally, companies only provide data that is required by the Environmental Protection Agency to convince the scientific reviewers that the product meets the criteria for acceptance?
MR. WEIR: Same objections, please.
THE WITNESS: I'm trying to -- my experience would be, and what I think in your

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question you're saying "traditionally," companies would provide all of the required guideline studies to show that the product meets the FIFRA standard for registration. I would certainly agree that's what they would do. I think there are times when companies would provide additional information to the agency depending on the nature of the information.
BY MR. TILLERY:
Q. And you're talking about a 6(a)2 situation, right?
A. Well, not even just a 6(a)2. Sometimes a company might do an additional study, maybe it's a non-guideline study that would be able to provide the agency even more information to inform their decision.
Q. Okay. Based upon the knowledge that only manufacturers may know about their own product, a pesticide registrant has an obligation and duty to protect the public even beyond its obligations to the EPA; would you agree?
MR. WEIR: Object to the foundation.
THE WITNESS: I believe an organization, Mr. Tillery, certainly would strive to

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meet all of the EPA requirements and that would strive to do everything in the public interest, yes.
BY MR. TILLERY:
Q. Well, if the EPA doesn't call, for example, for neurotoxicity testing but the product manufacturer determines scientifically that there may be some evidence of neurotoxicity, irrespective of whether the EPA calls for no toxicity testing, would you agree with me that a prudent and responsible manufacturer should go ahead and do the testing, neurotoxicity testing for the product before putting it on the market?
MR. WEIR: Object to the form. It's vague and ambiguous. It's also an incomplete hypothetical.
THE WITNESS: Okay. So if I'm following your scenario, Mr. Tillery, it would be that if a company has a reason to believe their product has a potential health concern do they have an obligation to further convince themselves it's not a real concern? Is that where your question is, sir?
BY MR. TILLERY:
Q. That's a very general summary of my

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question, yes.
A. So I would say a company should as good stewards if they had a reason to believe their product had a potential concern, do everything in its power to fully understand whether or not it's a legitimate or real concern.
Q. Would you agree they have an obligation, irrespective of whether any agency, state or federal, mandates a specific test or not?
MR. WEIR: Object to the form. It's vague and ambiguous.
THE WITNESS: I think a good -- a good steward would do that. If they had a reason to believe there was an issue with their product, they would do the work to fully understand that issue.
BY MR. TILLERY:
Q. Okay.
MR. WEIR: Steve, I don't want to interrupt your flow. We've been going for about an hour and a half. Whenever you get to a --
MR. TILLERY: That's fine. We can take a ten-minute break.
MR. WEIR: And we may need a little more time if you want Mr. Dixon to look at those

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CSFs.
MR. TILLERY: We'll be here and we'll come back at 10:00 just to check on in, and you can let us know if you're ready to confirm those documents -- the documents about which he testified to.
THE WITNESS: Mr. Tillery and Tom and everybody on the call, so I will not necessarily have CSFs from the '80s. What I can do is try to look in my records of what we know, but I would have not have other companies' CSFs. I only have our internal CSFs.
BY MR. TILLERY:
Q. Well, please take a look at those and see what you can confirm.
A. Yes, Mr. Tillery.
MR. TILLERY: We can go off the record.
THE VIDEOGRAPHER: We're going off the record. The time is 9:32. This ends Media Unit Number 1.
(Recess taken.)
THE VIDEOGRAPHER: We're going back on the record. The time is 9:53. This begins Media Unit Number 2.

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BY MR. TILLERY:
Q. When we went off the record and you were looking, I think, at your private documents at your home to confirm your answers regarding the percentage of emetic that had been placed into paraquat products prior to 2005. Did you find any answers to those questions or confirm –
A. Mr. Tillery, I was able to look at four CSFs. I was able to find – the earliest one that I found going through my records was one from 1989. So there certainly may be CSFs before that. I did not come across any before that. The 1989 CSF I looked at, I did confirm had the .5 grams per liter emetic.
I also looked at CSFs from 1999, as well as early 2000, and they – they had that .5 gram per liter. The earliest I could get to was 1989, which had that .5-gram-per-liter concentration.
Q. Thank you very much, sir.
Would you agree that except for required formatting and specific precautionary words set out by regulation, the applicant for registration and the applicant for a particular

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pesticide product is responsible for submitting use directions, precautions, and warnings because the company should know the consequences of using its product.
MR. WEIR: Objection. Form. Vague and ambiguous.
THE WITNESS: When we submit for a product registration, we submit a label that includes precautionary statements as well as use directions.
BY MR. TILLERY:
Q. And warnings and proposed warnings?
A. Yes, sir.
Q. So I take that to mean you agree with the statement?
A. Yes, sir. Your feed broke up a little bit.
Q. Well, let me start over and make sure you understand or hear it. If you don't, let me know, please.
A. And I may be having a poor Internet connection. I'm just having a lot of freezing here right now. I don't know if anyone else is seeing Mr. Tillery freeze, but I'm -- so it might be my

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connection. I'm sorry, sir.
Q. Okay. Let's start over then, okay?
Would you agree that except for required formatting and specific precautionary words required by the regulation, okay, the applicant for a pesticide registration is responsible for submitting use directions, precautions, and warnings to the agency?
A. I agree with that. They are with respect to the precautions and you caveated it. There are specific precautionary statements that must be included as well as specific warnings, and then in many cases – or I won't say "many cases." In other cases registrants will select to go even beyond what may be required specifically in a statute if they felt it was appropriate.
Q. For example, if Chevron or ICI wanted to put that the product was potentially neurotoxic, they could put that on that warning, couldn't they?
MR. WEIR: Object to the form and the foundation.
THE WITNESS: I would assume. I don't know if EPA would actually accept a statement like that. A registrant could certainly propose any

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language they wanted to have included as a proposal to the EPA, and then ultimately the EPA has the final determination on what's allowed on the label or what's not allowed on the label.

BY MR. TILLERY:

Q. You're not suggesting, though, that you've ever seen the EPA reject a recommendation to warn against neurotoxicity in any chemical you've ever seen reviewed by the EPA for warnings, right?

MR. WEIR: Object to the form. Vague and ambiguous.

THE WITNESS: I --

BY MR. TILLERY:

Q. And it's -- you're overriding his answer every time.

Can you -- do you remember the question? I mean, if we're going to --

A. Yes, sir.

Q. All right. What's your answer, please?

A. I don't recall or I'm not aware of ever seeing EPA reject a statement such as that.

Q. So assuming that they would accept the recommendation by the people who actually have the manufacturing obligation and sales obligation for

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the product, assuming they would recommend it, if ICI or Chevron had wanted to put that the use of this product could increase your odds of getting Parkinson's disease, they could have put that on the label had they wanted to, couldn't they?

MR. WEIR: Objection. I object to the form. It's vague and ambiguous. It's an incomplete hypothetical.

THE WITNESS: I believe a registrant could request any language they deemed relevant if they felt that they wanted to do that to the EPA. Yes, I think they could do that.

BY MR. TILLERY:

Q. Would you agree that the Office of Pesticide Programs does not conduct any testing or suggest label change except as required under its mandate. Okay? Do you understand my question?

A. Yes, sir. I would agree with that. I was just trying to pause in case there was a second there for Tom to get in. I'm trying not to immediately overspeak. I apologize.

Q. You agree with the statement?

A. I do.

Q. Do you agree that the EPA relies on the

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representations of a company like Chevron or ICI for the proposed use directions, precautions, and warnings and product information on the label?

A. I would agree with that.

Q. You also agree that unless brought to their attention by the applicant of a pesticide registration or by chance of institutional knowledge of the product or public domain science, the Office of Pesticide Programs would not know if there could be any problems with applying the product under all possible scenarios?

MR. WEIR: Objection. I object to the form. It's vague and ambiguous. It's compound. Object to the foundation as well.

THE WITNESS: I would agree that the regulators could not take action on knowledge they did not have.

BY MR. TILLERY:

Q. And if it wasn't supplied to them by the registrant, they wouldn't know that, would they?

MR. WEIR: Same objections.

THE WITNESS: Given the caveats that you put into the initial question about there not being internal knowledge or in a public form, if

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they have no way of knowing, then they would not know and could not act on information they did not know.

BY MR. TILLERY:

Q. Right. Are you aware of the fact that it is considered to be misbranding under FIFRA and that the EPA has consistently and adamantly stated on many occasions that companies cannot state in their advertising that a product is EPA approved or safe?

A. I can't say that I have a perfect knowledge of that. I think the statement you said I would agree generally makes sense to me. I don't believe EPA actually endorses a particular product or a particular use. They just register it.

Q. Right. Now, do you know who Dr. Dino Di Monte is?

A. Yes, sir.

Q. Who is he?

A. He is a neuroscientist. I'm not sure if he's with the Parkinson's Institute, but I know he is a scientist that's done work in that area.

Q. And you say "that area," you mean in the area of the cause for Parkinson's disease?

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A. Research into Parkinson's disease and etiology of it is my understanding. He's an expert in this area.

Q. You knew he was a consultant for Syngenta at one point?

A. I may have been aware of that. I certainly have seen his name and know he has been very active in that area of research. I'm not sure if I had a definitive recollection that he was a consultant, but certainly have seen his name and I certainly know our scientists have had some interactions with him. I think at technical meetings potentially.

Q. And you understand that your scientists at Syngenta have a great deal of respect for his research and conclusions too, correct?

MR. WEIR: Objection. Object to the foundation. And, Steve, can I get a standing objection on scope to questions about Dr. DI Monte?

MR. TILLERY: Yes.

MR. WEIR: Thank you.

THE WITNESS: My understanding is that he was somebody that they had mentioned in reference, so I would say that he is a highly

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qualified scientist.

BY MR. TILLERY:

Q. He's currently a researcher at the German Center for Neurodegenerative Diseases. Did you know that?

A. I may have been aware of that. I would not have been spontaneously able to recite that to you, but that seems like it would make sense he could be in a position like that.

Q. And he's a group – he is a group leader in neurodegeneration and neurodetection in Parkinson's disease. Does that make sense as well? Whether or not --

A. Yes, sir.

Q. But that's consistent with what you know about him, right?

A. That would be consistent with my understanding of his abilities.

Q. And before that I think, as you said, he was a researcher at the Parkinson's Institute in California, right?

A. I believe that's correct, yes, sir.

Q. There he was the director of fundamental research for that institute, right?

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A. I will yield that if that's his position. I have no reason to doubt that. I know he was there.

Q. And in a general sense, you understood that he had run research programs in paraquat in the Charles River black mouse at both the Parkinson's Institute and at the German Center for Neurodegenerative Diseases, right?

A. I would not be surprised if that's the case. I know he's done research in that area. I can't cite the specifics, but that would certainly seem plausible with my understanding of his expertise.

Q. And the published studies that he's done indicate that his work at the Parkinson's Institute involved finding that paraquat caused loss of dopaminergic neurons in the substantia nigra pars compacta of the Charles River black mouse, right?

MR. WEIR: Object to the form. Foundation.

THE WITNESS: My response to that would be I'm not a tox expert. My understanding – so I'm not the best person and most knowledgeable of all the research publications, but if you indicate he

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has done that work, then I would certainly accept that's the case.

BY MR. TILLERY:

Q. All right. Okay. And I'd also represent to you from his published literature, his published scientific literature that's been discussed at great length with Dr. Botham, that his group at the Parkinson's Institute also found loss of striatal dopamine in paraquat-treated mice, okay?

A. Okay.

Q. You don't have any reason to dispute or doubt that statement, right?

A. No, sir. No reason to dispute or deny it.

Q. I believe that he became a consultant with Syngenta around 2009. Does that sound about right in terms of your recollection of what you've heard?

A. I would think so, yes, sir.

Q. Okay. Now, I think he was at one point an external member of the Extended Paraquat Health Science Team. Were you aware of that personally?

A. I can't say that I specifically recall that, but I would know the Health Science Team did

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have external contacts and he would be a logical person, so I think that's -- I accept that.

Q. Okay. So let's pull up number 14 just to refresh you and confirm for you that what you're talking about is consistent with the documents, okay? So if you can look at your eDepoze now and look at Plaintiffs' Deposition Exhibit Number 14. This is a document produced by Syngenta. The first Bates page is Syngenta-PQ-01116217. If you'd take a look at that.

(Exhibit 14 was marked for identification.)

THE WITNESS: Yes, sir, it's opening up. 6217?

BY MR. TILLERY:

Q. That's the Bates number on the document. It's five pages long.

A. Okay.

Q. And the only purpose for showing you this is to confirm for you that these minutes of a meeting reflect external members of the Paraquat Health Science Team to include Dr. Dino Di Monte. And if you could look at the document first.

A. Yes, sir.

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Q. And just take your time --

A. It's currently opening. I'm -- it's not opening very quick -- yeah. I don't know. I don't know if I'm having an issue here. It's just still spinning and saying "Opening." Maybe if I shut the eDepoze and then reopen it, it might help. I'm not sure.

Q. All right.

A. Let me try that. I apologize to everyone here. Okay. When I click on the exhibit it's spinning.

Q. It could be the bandwidth of your system at home.

A. Yeah, I'm afraid that might be giving us a headache. I hope not. I'm going to -- my eDepoze just shut down, so I need to go back to that, or if it's --

MR. WEIR: If you can look in the chat there.

MR. TILLERY: We can go off the record for a moment and let him reconnect his system.

THE VIDEOGRAPHER: We're going off the record. The time is 10:11. This ends Media Unit Number 2.

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(Discussion off the record.)

THE VIDEOGRAPHER: We're going back on the record. The time is 10:22. This begins Media Unit Number 3.

BY MR. TILLERY:

Q. If you would look at that document, sir, which has been marked as Deposition Exhibit Number 14.

A. Okay, sir.

Q. Tell me when you've familiarized yourself with it a little bit.

A. Okay. Okay. I think I'm good.

Q. Okay. And the title of this document is "Paraquat Health Science Team Action Minutes for Marlow Meeting 5th, 6th, 7th October 2009," right?

A. Yes, sir.

Q. "The Compleat Angler, Marlow, UK."

A. Correct.

Q. Presumably that is some hotel or lodge, correct?

A. That would seem correct, yes, sir.

Q. All right. And listed there under the Health Science Team are many of the scientists that we've talked about. That would be Lewis Smith,

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Charles Breckenridge, Philip Botham, Nick Sturgess, Kim Travis, Andy Cook, Janis McFarland, D. Berry, and is it Kersten Mewes?

A. Yes, sir.

Q. Kersten Mewes, right?

A. Yes, sir.

Q. These were all at that time members of the Syngenta Company's employees?

A. That's correct.

Q. And then there's an Extended Health Science Team, and that's Health Science Team plus, and it says the people from external included C.L. Berry, a person named P.L. Nicotera, right?

A. Correct.

Q. J. Tomenson?

A. Correct.

Q. And then Dino Di Monte. Do you see that?

A. Yes, sir.

Q. All right. And then if you skip down just a little bit you'll see a section under "MDA In vivo Study Reviews." Do you see that?

A. I do.

Q. And they're talking about the MPTP and

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paraquat for dose/magnitude of effects. Neurochemistry. Do you see that?
A. I do.
Q. "There are reports in the literature of decreases in dopamine activity with paraquat administration, although the large decreases are associated with Maneb and paraquat exposure. In our studies, we found consistent increases in" – and what does that "DA" stand for?
A. I believe dopamine activity, sir.
Q. Dopamine activity, okay.
MR. WEIR: I just want to get an objection for the words that you skipped as you were reading that, Steve.
MR. TILLERY: And I'm happy to include more if you want me to. I'm trying to speed along.
MR. WEIR: I know you skipped a parenthetical that I think is important, and I just wanted to make sure.
BY MR. TILLERY:
Q. All right. Let's go back and include that. There's a parenthetical that he references here, "though slight," he said. "In our studies, we found consistent (though slight) increases in

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dopamine activity." Is that what it says?
A. Yes, that's what it says, yes, sir.
Q. And then the next paragraph it says, "Stereology: The Quantification Unbiased Image Digital method show a 10 to 20 percent difference to stereology counts," doesn't it?
A. Yes, sir.
Q. Okay. Now, do you know what these meetings were for?
A. My understanding would be that this was part of the paraquat research program that Syngenta had embarked on to try to fully understand the information around paraquat and the -- and the IP models and the black mouse studies.
MR. WEIR: Can I get another continuing objection on scope with respect to questions about the research program or the Health Science Team?
MR. TILLERY: Yes. And just for the record for the court's purposes, this is a preliminary background for this witness necessary because he is not listed in some of these documents as a member of the meetings or a participant or copied on emails as a predicate to asking him some PRF questions and regulatory questions that are

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premised upon this information. But in short, yes, I agree to your continuing – to a continuing objection.
MR. WEIR: Thanks. Understood.
BY MR. TILLERY:
Q. If you'd look on page 4 of the document, you'll see the circulation list, right?
A. Are we talking Bates 6220, sir?
Q. Yes, sir.
A. Yes, sir, I see that list, yes, sir.
Q. Those are all the people who would have received this document as circulated and as it was written after the meeting, right?
A. Yes, sir.
Q. And the minutes were prepared and issued by Mr. Berry. If you'd go to the very next page. Do you see at the top?
A. I see that, yes.
Q. Okay. Now, let's go to Exhibit 15.
(Exhibit 15 was identified for the record.)
BY MR. TILLERY:
Q. And the only reason that I raise this for you is for one point. And after you get the

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document, take a look at it.
A. Okay. I have it here, sir.
Q. All right. If you would go to page 5 of that document. Before we do that, let's identify this document. This is Syngenta-PQ-00486991, and it's an update on Syngenta's research program, right?
A. That is correct, sir.
Q. And it says -- on the front page, it looks like a PowerPoint presentation, doesn't it?
A. It does. It looks like it was intended or presented in Brazil.
Q. Right. On the 13th of February 2012, right?
A. Correct.
Q. And the people who were participating included Kersten Mewes, Nick Sturgess, Charles Breckenridge, Rose Rodrigues, Ligia Quiroga, right?
A. Correct.
Q. All right. And in this document if you'd go to page 5, there's a reference?
A. Okay. I'm looking at page 5. Okay. I'm ready for your question, sir.
Q. All right. And do you see in the

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second paragraph under the primary bullet, the title of this is "Understanding of mechanisms of nigrostriatal degeneration."

A. Sir, I might be on the wrong page. I'm on page 5 of the PowerPoints. Is this Bates 6991?

Q. Yes, it is.

A. Okay. All right. And "Use of non-human primates" is what I have as the second bullet point.

Q. Yes, "Use of non-human primates (NHP)," and they reference marmosets and macaques "can include behavioral studies and considered more relevant to study Parkinson's disease in humans."

Do you see that?

A. I do.

Q. Were you also aware of that fact?

A. Not being a toxicologist, I don't know specifically but it would seem to me the use of non-human primates would be much -- would be -- I guess I could agree with that statement just on the concept of non-human primates and humans.

Q. And you're basing that on the genetic similarity that we have to other non- -- other primates, correct?

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A. Just layman's understanding but, yes, sir.

Q. All right. Now, let's go to number 16.

(Exhibit 16 was identified for the record.)

THE WITNESS: I have it up. I need to make it quite a bit bigger, though, so give me just a moment, please. Okay, sir.

BY MR. TILLERY:

Q. And this is a document which is Bates numbered Syngenta-PQ-01117480 is the beginning page, and it's entitled "Paraquat Health Science Team Action Minutes from Marlow Meeting 20 and 21 April 2009. The Compleat Angler, Marlow, UK," right?

A. Correct.

Q. All right. Now, if you go down and look at the attendees and just confirm that on the Extended Health Science Team, Dr. Dino Di Monte is included. Do you see that?

A. I confirm that, yes, sir.

Q. At this presentation there's a reference to Professor Joan Abbott, right?

A. John Abbott.

Q. Joan Abbott actually.

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A. Oh, okay.

Q. Do you see under the Monday, April 20th on the first page?

A. Yes, sir.

Q. There's an agenda item.

A. Okay. Monday, April 20th. I'm sorry. I'm maybe not --

Q. On the very front page of the document.

A. Yes.

Q. It's on the left-hand column or left-hand side.

A. Left-hand column. Oh, I see that. I'm sorry, sir.

Q. So it says, "Professor Joan Abbott" and she made a presentation on the blood-brain barrier, right?

A. Correct.

Q. She's a Professor of Neuroscience, Blood-Brain Barrier Group, Pharmaceutical Science Research Division, School of Biomedical and Health Sciences, King's College, London, right?

A. Yes.

Q. All right. So these are a set of minutes from that same Health Science Team at a

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different date, April 20th, 21st, 2009, right?

A. Yes, sir.

Q. Okay. Now, if you look at the last column here -- hold on. In the fourth row. Where it says in the third one down -- oh, okay. I'm having the same trouble you're having being able to read this study. Okay. I've enlarged that, and if you go under "Slides not available." Do you see that section? "Comments from Professor Di Monte"?

A. Okay. Let me find that. What page is that?

Q. It's on the front page and it's in the lower right-hand corner of the document.

A. Okay. "Slides not available."

Q. That's the one. It's the heading. It says "Slides not available."

A. I see that, yes, sir.

Q. Okay. So Dr. Di Monte gave a presentation of the results from his studies with paraquat in squirrel monkeys. If you could look at that and confirm. It's the second bullet.

A. I see that, yes, sir.

Q. Okay. And Dr. Di Monte treated four squirrel monkeys with paraquat, right?

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A. The "n" is four, yes.
Q. He gave monkeys paraquat at 5 milligrams per kilogram of their body weight, right?
A. Let's see here. I'm just trying to read the bullets to catch them all. It does look like --
Q. If you want to take a minute and read this to familiarize yourself with it.
A. Yes, if I could, please, sir.
Q. Absolutely.
A. Okay, sir, if you could please go back.
Q. Sure. So my question that was before you was he gave monkeys paraquat at -- initially at 5 milligrams per kilogram of their body weight.
A. That is correct. It looks like that was one of the dosing regimens.
Q. But at the 5 milligrams dose, monkeys died due to lung toxicity after the second and third doses?
A. I see that, yes, sir.
Q. All right. Lab mice and rats have tolerated doses greater than 5 milligrams per kilogram. Were you aware of that?
A. Yes, sir.

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Q. Okay. In Syngenta's studies, lab mice have tolerated up to 25 milligrams per kilogram of their body weight, right?
A. That's my recollection.
Q. Whereas, 5 milligrams here was enough to kill the monkey, right?
A. That's what's in the statement, yes, sir.
Q. Okay. So that tells you that the squirrel monkeys died at one-fifth of the dose that was given to lab mice which tolerated the dose, right?
A. That certainly seems to be the case.
Q. Okay. So Dr. Di Monte's squirrel monkeys were much more sensitive to paraquat's toxicity than rodents, correct?
MR. WEIR: Objection to the form. It's vague and ambiguous.
BY MR. TILLERY:
Q. Go ahead, sir.
A. Based upon those dosing regimens and the survivability, that seems to be the case.
Q. And squirrel monkeys are primates just like humans, right?

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A. Yes.
Q. Dr. Di Monte reported that primates are more sensitive to the systemic toxic effects of paraquat, didn't he?
MR. WEIR: Objection to the form.
THE WITNESS: I'm not seeing that as a specific statement but --
BY MR. TILLERY:
Q. It's an inference from what he presented to them.
A. It certainly seems that the squirrel monkeys were much more susceptible to the lung toxicity at those lower dose rates.
Q. So Dr. Di Monte lowered the dose to 2.5 milligrams per kilogram body weight to keep the monkeys from dying, correct?
A. Yes, sir.
Q. And the animals received six weekly doses of paraquat at the new dose of 2.5 milligrams per kilogram and they were then sacrificed for analysis, correct?
A. Yes, that appears to be the case.
Q. Okay. And there's a note on that, if you look at that, he says, "No difference in number

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of dopaminergic neurons," right?
A. Okay. Let's see here. No clinical -- yes, I see that.
Q. Okay. But the alpha-synuclein was upregulated in paraquat-treated animals, right?
A. That's what's stated, yes.
Q. And do you understand that alpha-synuclein plays a very significant role in Parkinson's disease in humans?
A. I cannot say that I have an expert knowledge of that. I've seen the term, but certainly could not speak definitively to the role of that particular molecule.
Q. Okay. Let's go to Exhibit 17 now.
A. Just as a technical question on the eDepoze here, is it possible to make the screen any larger than what it is?
Q. Up in the upper left-hand corner there's a plus and a minus that you can hit that will increase it.
A. Got it. I got that. It's just when I make it bigger then it cuts off part of the screen. I didn't know if I could make it a small box on my screen here, but I can go forward with what I've

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got. I'm sorry for the distraction.
Q. Do you see the two boxes to the left of those?
A. Yes, sir.
Q. If you hit one of those it will change the format of the document that you're --
A. Okay. Thank you.
Q. You're welcome.
(Exhibit 17 was identified for the record.)
THE WITNESS: Okay. So I do have the document up here.
BY MR. TILLERY:
Q. Okay. And this for the counsel on this deposition is Syngenta-PQ-01305484, and this is a summary of the notes of Dr. Di Monte's presentation at the Marlow meeting, isn't it? If you'd go through and confirm that.
A. Yes, let me read it, if I may just take a moment.
Q. Absolutely.
A. Okay. So I do -- just with a quick read, these certainly seem to be exactly what they said, that they're the summary of notes.

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Q. And if you want to confirm by going to page 3, you can confirm that they are the notes of Nick Sturgess that were generated in April 2009. If you go to page 3, it will confirm that for you, sir.
A. I see that, yes.
Q. All right. Do you see that? Nick Sturgess, April 2009, right?
A. I see that, yes.
Q. Okay. Now, if we go back to the first page, if you look at the third paragraph, it says, "Studies conducted with paraquat" -- strike that.
"Studies with paraquat conducted to replicate the mouse paraquat dosing regimen (3 times weekly doses of 5 milligrams per kilogram paraquat s.c.) resulted in greater than 50 percent lethality. Loss of striatal dopamine was noted in the dead animals but was not quantified."
Is that what it says?
A. That's what it says.
Q. That wasn't recorded in the Health Science Team minutes, was it?
A. I do not recall seeing that in those minutes.
Q. All right. In the monkeys who were

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given the lower dose of paraquat, Dr. Sturgess noted that Di Monte did not observe a change in total TH neurons, right?
A. I'm -- yes, sir.
Q. If you go down, take your time and read it.
A. Yes, I just wanted to go back up and reread and confirm. So that's the first paragraph we just read in three was about the mouse, not the non-human primate. Okay?
Q. Right. Well, it says --
A. Yes, sir.
Q. It says, "Studies with PQ conducted to replicate the mouse PQ dosing regimen."
A. Okay. Thank you.
Q. And he was talking about the monkey, squirrel monkey studies.
A. Yes, sir, okay.
Q. Okay.
A. And so --
Q. And the results of squirrel monkey studies reported by Dr. Di Monte. Do you understand that?
A. Correct, yes, sir.

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Q. All right. And he reports loss of striatal dopamine was noted in the dead animals was not quantified. Do you see that?
A. I see that.
Q. Okay. And in the monkeys who were given the lower dose of paraquat, Dr. Sturgess noted that Dr. Di Monte did not observe a change in total TH neurons, right?
A. That appears to be what's stated there, correct, yes.
Q. Do you see where it says "detailed histochemical analysis"?
A. Yeah. I see that.
Q. Okay. But Dr. Di Monte did report, "Detailed histochemical analysis indicated a change in neuromelanin staining phenotype of some neurons when examined 4 weeks post dose," right? That's what he -- that's what he put in his paper, if you want to go back and look at it.
A. No change ... (reading). Okay. Can you please restate that last sentence.
Q. Yeah, Dr. Di Monte did report that, and I'm quoting, "Detailed histochemical analysis indicated a change in neuromelanin staining

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phenotype of some neurons when examined 4 weeks post dose."

A. Yeah.

MR. WEIR: I'll object to the form for the missing line of the study you skipped over.

BY MR. TILLERY:

Q. Go ahead, sir.

A. That's what I'm reading here, yes. That seems to be consistent.

Q. That finding was not reported in the action minutes either, was it?

A. I don't recall seeing that.

Q. Dr. Di Monte observed a change in the type of dopaminergic neurons in the substantia nigra pars compacta in the treated monkeys too, didn't he? If you look here and see?

A. Where is that on this, sir?

Q. It should be on the same – on the front page.

A. Front page, okay.

Q. Of exhibit – this exhibit that we're on now which is Syngenta-PQ-01305484, and that's Exhibit 17.

A. And, I'm sorry. I'm struggling to

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follow. This is pretty technical, and it's the first time I've seen it –

Q. I apologize. I'm doing this as a prelude and then we'll get into areas where this information was relevant directly to your work, okay?

A. Okay.

Q. Doing this as a preliminary.

A. Okay.

Q. What my question to you was is that Dr. Di Monte observed a change in the type of dopaminergic neurons in the substantia nigra pars compacta in paraquat-treated animals.

A. Is that – Is that stated there or is –

Q. Yeah, that's stated here, and in – in paraquat-treated monkeys, there was an increase in neurons that contained neuromelanin only. Did you know that?

A. I did not know that.

Q. All right.

A. Is this on page 1 –

Q. Let's go to the next page.

A. Okay.

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Q. And do you see the top line?

A. Yes, sir.

Q. "Ratio of TH and neuromelanin staining to neuromelanin only staining neurons changed in the group dosed with paraquat and assessed 4 weeks post dose."

Do you read that?

A. I do read that, yes.

Q. And an upregulation of alpha-synuclein was also noted in brain samples taken 2, 4, and 8 weeks post dose, right?

A. Correct.

Q. None of this was reported in the minutes, was it?

A. I do not recall seeing that in the minutes.

Q. So compared to controls, paraquat-treated monkeys had more of these neurons – well, strike that.

So based on this, there was a decrease in neurons that contained both TH plus and neuromelanin based on these notes?

A. Taking these notes at what they say, I have no reason to dispute that.

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Q. All right. If we look at that first paragraph on page 2, Dr. Di Monte reported that the ratio of neurons that contained both TH plus and neuromelanin to the number of neurons that only contained neuromelanin changed with paraquat treatment, correct?

A. That appears to be what that says, yes.

Q. The ratio went down?

A. Yeah.

Q. And if you look at the section, the third paragraph, "The conclusion Dr. Di Monte drew from these experiments was that at the MTD in the squirrel monkey, paraquat did not induce a lesion that resulted in neuronal cell loss in the substantia nigra (quite different in the mouse model) but that it may induce a change in the histochemical phenotype in some of the neuromelanin containing cells. The toxicological significance of this apparent phenotypic change is unclear."

Do you see that?

A. I do.

Q. So based on this, Dr. Di Monte included – strike that.

Based on this, Dr. Di Monte concluded

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that paraquat treatment caused a change in neuromelanin containing neurons, right?
A. That appears to be his conclusion, yes.
Q. Paraquat treatment reduced the number of neurons that contained both TH plus and neuromelanin and increased the number of neurons that contained only neuromelanin from this, right?
A. From my reading here that appears to be what's being said, yes.
Q. Okay. And the last sentence in that paragraph is, "The toxicological significance of this apparent phenotypic change is unclear." Was that Dr. Dino Di Monte's conclusion or was that Syngenta's conclusion; do you know?
A. I'm unable to tell from the way the minutes are or whether or not that was his – if he was being quoted or if that was the interpretation of the folks recalling his information.
Q. And the toxicological significance of decreasing TH plus neurons and increasing neuromelanin-only containing neurons is a loss of dopamine-producing neurons, correct?
MR. WEIR: Object to the foundation.
THE WITNESS: I'm unfortunately not

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knowledgeable enough to answer that as far as from a tox or physiological perspective.
BY MR. TILLERY:
Q. Okay. Let's go to Exhibit 18.
(Exhibit 18 was identified for the record.)
BY MR. TILLERY:
Q. Plaintiff Deposition Exhibit Number 18 is a document produced by Syngenta and Bates numbered – it's – we'll pull that back. Bates numbered Syngenta-PQ-02601795. That's 19? I think it's 18. Sorry.
And this is the document I just gave you the Bates number for. Are you able to open it on your system, sir?
A. What I'm seeing, sir, is Syngenta Human Safety, Potentially Referable Findings Approach Committee.
Q. That is correct. That is the document I intended to put on the eDepoze system. And it lists as chairman Phil Botham and then a whole number of people. Are every single one of these people from England?
A. No, sir. Certainly John Akins is –

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was located in Greensboro. Pete Hertl at that time is – would have been located in Greensboro. The other folks, Phil and Dick, they appear to be all EU based, as was Bob Parr-Dobrzanski, I believe.
Q. Let's go through and see who these people were and what their role was at that time.
Phil Botham was head of human safety for the entire organization, right?
A. Correct.
Q. And Pete Hertl was head of product safety, Americas, right?
A. Correct.
Q. John Akins was head of human safety, Americas, right?
A. I'm not sure if he was head. In that time I believe John was one of our toxicologists, but I don't know that he had a leadership position.
Q. Okay. And then there was R. Lewis at human safety, EAME. Where is that?
A. That is our European designation. Europe – and it stands for Europe and Middle East.
Q. And then E. Puri was global product registration. What was E. Puri's role in that division?

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A. I am not sure, to be honest with you. I know the name but I had very minimal interactions with him, so I'm not really sure what his technical role was.
Q. You've seen these sorts of documents many times, haven't you?
A. Many times, no, but I have seen them.
Q. Okay. And this is a document that reports the findings of the Potentially Referable Findings Approach Committee, correct?
A. Correct.
Q. And we talked about this in the first part of your deposition a few months ago, and you mentioned this is a prelude to it being sent – the result being sent to the – to another committee, right?
A. Correct.
Q. And what was the next committee up the line?
A. This committee would be the technical review. The next committee, which would be the North America specific committee, would be comprised of a legal representative, typically the person that's the chairperson of the committee.

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Potentially the regulatory manager for the relevant compound, and often there is other folks that sit on the committee as a standing – standing appointment.

Q. At the time of this committee meeting on May 19th, 2009, as reflected in these minutes, what was your role at the company?

A. I was regulatory manager, and paraquat was one of my molecules that I was responsible for.

Q. For North America?

A. For the U.S. primarily.

Q. For the United States? And who did you report to?

A. In 2009, it may have been Jerry Wells or it may have been Dan Campbell.

Q. Okay.

A. I'm not sure exactly. One of those two gentlemen in that time frame.

Q. Okay. And so this committee met, and if we look at this, have you reviewed these minutes or this document before in preparation for this deposition?

A. I believe this is the first time I've ever seen this document.

Q. These are minutes of the Potentially Referable Findings Approach Committee on May 2009, right?

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A. Yes, sir.

Q. Dr. Di Monte made his squirrel monkey presentation in April 2009, right?

A. Correct.

Q. A month earlier Dr. Di Monte had made his presentation. That was in the exhibit that we went to first, I believe.

A. Yes.

Q. Okay. And this committee met the very next month, right, in May?

A. Yes, sir.

Q. And one of the items the committee took up was the information provided by Dr. Di Monte, right?

A. That appears to be point number 3, yes.

Q. Exactly. Third item on that list.

MR. WEIR: Steve, before we go on, could I get a standing objection to the scope here? Mr. Dixon was not designated as a corporate rep on PRF or on 6(a)2.

MR. TILLERY: I'm reasonably certain he was designated on regulatory issues.

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MR. WEIR: This is a regulatory issue for United States that we designated Dr. Botham on PRF and on 6(a)2, and I believe you asked him questions about that so --

MR. TILLERY: This is preliminary to the whole process on the regulatory issues in the United States. Dr. Botham in his deposition I'll represent to you yesterday said this went to America. They made the decision. That's what he said.

MR. WEIR: Okay. I will -- sorry. I didn't mean to cut you off.

MR. TILLERY: It's a matter of record what he said. I actually accused him of blaming the Yanks yesterday when he said that. Okay?

So bottom line is is that that's what he said. So that's why you're up.

MR. WEIR: Do I –

MR. TILLERY: Mr. Dixon.

MR. WEIR: Before you go on – before you go on, I would like --

MR. TILLERY: According to Dr. Botham -- I'm sorry, Counsel?

MR. WEIR: I wanted to say before you go on I would like to make my objection and –

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MR. TILLERY: And I'll consent --

(Simultaneous speech interrupted by the court reporter.)

BY MR. TILLERY:

Q. So let's look at number 3, "Review of verbal presentation by Dr. Di Monte regarding preliminary findings from experimental studies with paraquat and MPTP in non-human primates (squirrel monkeys)."

Do you see that?

A. I do.

Q. And the conclusion of the committee is represented here too if you go forward.

A. May I read that paragraph?

Q. Absolutely. Please do. And it's page 2, the top of the page in the first paragraph.

A. Okay. Thank you. Okay.

Q. Okay. Now, the committee concluded, "The brain findings in the non-human primate were unanimously agreed as constituting new data," correct? Top of page 2, first sentence.

A. Yes.

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Q. All right. There were two brain findings according to this. One was the upregulation of alpha-synuclein in the squirrel monkey, right?
A. Yes.
Q. Sorry?
A. Yes.
Q. And the second was reduction in the ratio of neurons containing TH plus and neuromelanin to neurons containing only neuromelanin, correct?
A. That's what I recall from what we just reviewed.
Q. The committee goes on to say, if you follow along on the second sentence, "The participants noted that the study had not yet been completed, peer reviewed, or published and that the data, by Dr. Di Monte's own admission, required further verification."
Do you see that?
A. I do.
Q. Okay. Is it your understanding that the preliminary data need not be reported as a potentially adverse finding to the EPA?
MR. WEIR: Object to form. Calling for

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a legal conclusion.
THE WITNESS: I would say that's not -- not my understanding. I would rely upon advice given -- and I apologize. Somebody is -- I thought I had my phone turned off there. I apologize.
In a situation like that, depending on the evaluation of the committee and advice of the -- of the committee would be how we determine whether or not to submit that.
BY MR. TILLERY:
Q. Right. So you'd listen to the lawyers primarily, right?
A. The members of the committee which would certainly include a lawyer, yes, sir.
Q. Right. And what I'm trying to figure out is as a member and as the person -- the liaison with the United States Environmental Protection Agency and the guy who signs off on these reports, right?
A. When there's a 6(a)2 on one of the ones I'm responsible for, I would sign it, yes, sir.
Q. Okay. And in those situations, would you deem preliminary data like this to be excluded from reporting obligations under FIFRA 6(a)2 because

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it's preliminary?
MR. WEIR: Same objection. Calls for a legal conclusion.
THE WITNESS: My answer on that is I would not make that determination myself. I would work with the committee and follow the determination and guidance of the committee, and if the committee and the attorney deemed it was reportable, then certainly would execute the submission of that report.
BY MR. TILLERY:
Q. So you wouldn't make the decision one way or another, right?
A. I would not -- and I don't recall being involved in this particular one, but in a situation where I'm brought in, I would make my contributions known and as part of the deliberative process.
Q. Okay. So would you have a vote in this decision-making process?
A. It depends on what the particular 6(a)2 situation is and who's in the room. You know, if I'm invited into the meeting and asked to have a determination, then, yes, I would.
Q. In a situation like this in 2009, who

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was the person in charge of that group in the U.S.?
A. I believe -- and I may not have the timeline quite line right, Mr. Tillery. I believe it would have been Tim Pastoor, but if not Tim, then potentially Nina Heard.
Q. Now, if we go forward to page 2, I'm looking for the conclusion. Yeah, the last sentence of that paragraph that you were referencing. "On the basis of the preliminary nature of the findings and the lack of obvious adverse consequences of the findings in the brain, the data do not meet the necessary technical criteria for referral."
Do you see that?
A. I do.
Q. What does that mean?
A. I read it to mean that the committee or this particular group of experts has evaluated the information put before them and their conclusion was that, as stated here, they did not feel that these findings met the criteria for referral. They -- I take it at what it says there, sir.
Q. And that means they didn't send it to you in America to evaluate, did they?
A. It was 11 years ago. I don't recall

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having seen that. I can't say definitively what the meeting minutes were in 2009. If I was involved with that, I don't recall -- I don't recall seeing this. But that certainly, that statement there says it did not -- at least at the end of that paragraph it says they did not meet the technical criteria for referral.

Q. And if it had been referred, what would have been the next logical step in the process at Syngenta?

A. My view is it would have been -- been communicated to the lead in the U.S., and if it was Tim, I believe he's on this. He would already know of it. Certainly Peter would have known of it. He's on here. The committee in the U.S. then would have taken the information, held a meeting, discussed whether or not they agreed with the recommendations from the technical committee and whether or not they believed it should be submitted under the 6(a)2 provisions.

Q. Effectively the potentially referable findings committee concluded that a paraquat-induced reduction in dopamine-producing neurons was not an adverse effect that should be reported; would you

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agree with that.

MR. WEIR: Object to the form. I think it misrepresents the facts.

THE WITNESS: I would say based on the information that they listed here, the determination where the findings did not meet what they believed were the criteria for referral.

BY MR. TILLERY:

Q. Those findings included a -- their recognition in their own notes of a scientific investigator of great repute and recognition who had found a reduction in dopamine-producing neurons and an increase in neurons that don't produce dopamine, and that as a result of that it was not adverse, correct?

MR. WEIR: Same objection.

THE WITNESS: That appears to be the conclusion was that after they evaluated the data, they did not feel it met the technical criteria for referral.

BY MR. TILLERY:

Q. And they also found -- that is, the Syngenta potentially referable findings committee -- found that paraquat's upregulation of

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alpha-synuclein was not adverse, correct?

A. Based upon what I'm reading here, they appeared to make -- reach the conclusion that that didn't meet the necessary criteria.

Q. When Dr. Di Monte made his squirrel monkey presentation to the Paraquat Health Science Team, he agreed to share the brain tissue with Syngenta to perform a residue analysis study, didn't he?

MR. WEIR: Object to the legal conclusion.

THE WITNESS: I believe that is correct, sir.

MR. TILLERY: Okay. So let's go take a three- or four-minute break because we've got to connect up for your next exhibit.

MR. WEIR: Before we go off the record, Renee, can I just -- can I double-check that my standing objection to the PRF and the 6(a)2 questions was put on the record and Mr. Tillery confirmed that he entered into that. I checked the realtime and I didn't see it there.

(Discussion off the record.)

MR. WEIR: All right. Just for the

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record, I want to make clear that we have a standing objection to any question of Mr. Dixon that the objection is to the scope of the questioning about potentially referable findings or the 6(a)2 process, since Mr. Dixon was not designated as a corporate designee on those topics.

MR. TILLERY: So did you fix that? We're going to just take one second. We're going to need to go off the record to withdraw the last one and affix it because there was a technical glitch in assigning a number. Are you okay? Okay.

Q. So we'll now go to Syngenta-PQ-01117480 which is Exhibit Number 16, Mr. Dixon.

A. Going back to Exhibit 16, sir?

Q. It's going to -- go to 16, yes.

A. Okay. Let me go back.

MR. WEIR: Just while we're in a little pause, it's 12:15 Eastern Time and we've been going for a little while, so maybe after your next round we can take a lunch break. Is that going to work?

MR. TILLERY: I'm actually about to start something that's going to take a while. Do you want to take a break now or?

MR. WEIR: Well, I guess, Monty, would

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you like a lunch break or if you want to --
MR. TILLERY: Can we go for, say, 30 minutes? Would that be okay for you?
THE WITNESS: That works for me. Whatever works best for everyone.
MR. WEIR: Thanks, Steve.
BY MR. TILLERY:
Q. Can you go back and open number 16?
A. Okay, sir, I think I have it opened.
Q. I'm looking for where it says it. All I asked you to do this for is to confirm with me that the April 20/21 note says, I have an interest that Dino Di Monte would be willing to share striatal material with Syngenta for PQ concentration analysis. I just wanted to offer this to you to confirm that that's what it says?
A. Okay. Yes. And I'm just looking down. Where roughly is that, sir?
Q. It's in the lower right-hand corner.
A. Lower right-hand corner. Dino Di Monte to conduct stereology -- yes, I see the lung pathology report. I'm sorry. I'm not -- I'm still not seeing sending the tissues, I apologize. I'm sure it's right in front of me. Quantity, I see

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Kersten indicating that they would estimate the quantity, so, yes, it seems that the tissue --
Q. Look – if you look under the heading "Preliminary results from squirrel monkey." Do you see that?
A. Let's see here. Preliminary -- yes, I see that, yeah.
Q. The last bullet.
A. Well, I see that. Okay. Sorry. I apologize.
Q. It says "DDM" Dino Di Monte?
A. Yes.
Q. "Willing to share striatal material with Syngenta for PQ concentration analysis."
A. I see that, yes.
Q. All right. Okay. And the purpose of the residue analysis would be to confirm the presence and concentration in the squirrel monkeys' brains, correct?
A. That's what -- yeah, that's what it says there.
Q. All right. Now, if we can go to the next exhibit which is number 19.
A. Back to number -- okay. So 18 was

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replaced.
Q. Oh, is that right?
A. 18 originally when it first came up to me appeared to be a publication.
Q. Oh, okay.
A. But then it looks like 18 now is the one we were just going over which was the PRF meeting minutes.
Q. Do we have it in twice? That's okay. So this is number 19? All right. This is number 19 that I'm pulling up now, sir.
A. Okay.
(Exhibit 19 was identified for the record.)
THE WITNESS: Okay. I see this.
BY MR. TILLERY:
Q. Are you familiar with this document?
A. Yes, sir.
Q. This was sent to your office, wasn't it?
A. Sent to the office? It certainly was in our files.
Q. Okay. And this is Syngenta-PQ-00044965, and it's Plaintiffs'

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Deposition Exhibit Number 19. It's a study completion dated January 21, 2011, and its author is William J. Ray. Do you see that?
A. I do.
Q. The laboratory was Syngenta Crop Protection in Greensboro, correct?
A. Correct.
Q. This is the final report for the study of the paraquat residues in the brain tissue of Dr. Di Monte's squirrel monkeys, isn't it?
A. Yes, sir.
Q. The final report, again, bears the date January 21, 2011, right?
A. Correct.
Q. Now, if you turn to page 5 of this, it shows the study initiation date of September 13, 2010, right?
A. I see that, yes.
Q. And this was more than a year after Dr. Travis requested permission to conduct the study, right?
A. The timing there seems about right, yes.
Q. And the study completion date was

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October 29, 2010, right?
A. That's the experimental termination date, not necessarily the study completion date.
Q. Okay. Okay. The -- it's experimental termination date October 29, 2010?
A. Yes, sir.
Q. Okay. And that was about three months before the final report was issued, right?
A. That sounds about right. I think we said the final report was January of the next year, so about three months, yes.
Q. Now, if you go to page 7.
A. Okay.
Q. Under "Executive Summary."
A. Okay.
Q. Okay. Take a look at that for a second and then see if you can follow along with me.
A. Yes, sir.
Q. First paragraph, quoting, "The study objective was to analyze paraquat residues in the brain tissues of Squirrel Monkeys exposed to paraquat in laboratory setting."
Do you see that?
A. I do.

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Q. "A total of 15 treated tissue samples and one control tissue sample were received from SRI International under the direction of Dr. Dino Di Monte," correct?
A. Correct.
Q. Second paragraph in that section says, "The monkey brain tissues exhibited paraquat residues which range from .007 to" -- I'm sorry -- ".007 to .256, except samples 664, 666, and 6" -- "and 732, which were less than the level of quantification," right?
A. Yes.
Q. So Syngenta confirmed that paraquat was present in the brains of Dr. Di Monte's squirrel monkeys, didn't they?
A. That's what this finding indicates.
Q. And if you go back to the first page of the section marked "Data Requirement(s): EPA Guidelines," okay?
A. Okay. I am -- okay.
Q. And it lists EPA guidelines OPPTS 860.1480 (1996) is listed, right?
A. I see that, yes.
Q. Does that mean that the study was

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performed in accordance with the data requirements for residue chemistry studies issued by the U.S. EPA?
A. That would be how I would interpret that, yes.
Q. But this study was never submitted to the U.S. EPA?
A. I believe the study was submitted in 2019 to the EPA.
Q. And we're going to talk about that.
In 2011, when it was -- 2010 that it was done and finalized in January 2011, it was never submitted, was it?
A. It was not submitted at that time, no.
Q. Was it sent to you at that time?
A. I do not recall ever seeing it. I can't say that I did not but I certainly do not recall.
Q. You don't recall seeing it until a year ago or a little over a year ago in December 2019 when it was sent to you to file with the EPA, correct?
A. I certainly was much more aware of it then when it was time to submit it. I don't know

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the specific date I first became aware of the study, but I would say it was much closer to the submission date then. I don't recall an awareness back in 2011 of it.
Q. Okay.
A. That was ten years ago, so my recollection is not perfect; but to the best of my knowledge, I was not aware of it at that time frame.
Q. Now, if we can -- is this a -- so what was submitted to the U.S. EPA? In December 2019, you submitted to the EPA a residue study called "The Analysis of Brain Samples from Paraquat-Exposed Squirrel Monkeys for Residues of Paraquat," right?
A. Right.
Q. Okay. Is that the document we have up right now?
A. I believe so. I believe so.
Q. Okay.
A. I could confirm it by confirming the study number, but I have no reason to believe it's not the same study, sir.
Q. Okay. Syngenta submitted that report right before the public comment period for paraquat's reregistration ended, right?

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A. Correct.
Q. And –
A. That was the public comment period for the draft risk assessment. There's currently another public comment period going on. So just for clarity, that was specific to the draft risk assessment period, sir.
Q. And the author of the study is William Ray, right?
A. Correct.
Q. And that's the same study completed January 21st, 2011, right?
A. I believe it's the same study.
Q. So would you agree there was about roughly a nine-year delay in turning it over to the EPA?
MR. WEIR: Object to the form.
THE WITNESS: That time frame from the time it's completed to the submission appears about right.
BY MR. TILLERY:
Q. Okay. Syngenta had fish – strike that.
Syngenta had 15 tissue samples from the

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frontal cortex of monkeys that were administered PQ – paraquat, right?
A. Correct.
Q. Syngenta found paraquat residue in 12 out of 15 of those samples, right?
A. I believe that's what the study found, yes, sir.
Q. The monkeys again were dosed with 2.5 milligrams per kilogram of paraquat via subcutaneous administration once per week for six weeks under the test protocol, correct?
A. That's what I recall from what you showed me earlier.
Q. Okay. And the monkeys were sacrificed at two, four, and eight weeks post-dosing, right?
A. That seems correct.
Q. Did anyone at the EPA contact you or anyone at Syngenta after you submitted the Ray study to them?
A. About that study, no.
Q. Did they ever talk to you about the study?
A. I do not believe we've had any discussions about that study.

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Q. Did anyone at the EPA ask Syngenta questions in follow-up as to missing information in the study?
A. I do not recall any such inquiry.
Q. Do you know if anybody besides you had any contact with anyone at the EPA to discuss the Ray study?
A. To the best of my knowledge, no. I don't recall any – any inquiries to me or anyone else from EPA once the study was submitted.
Q. When you submitted the Ray report to the EPA, did you tell the EPA what the dosing regimen was for the monkeys?
A. No. I don't recall that being in the submission letter.
Q. Why wouldn't you tell them what the dosing regimen was?
A. It would be contained in the report, sir.
Q. Okay. Did you know whether or not the Ray report included the dosing regimen for the monkeys?
A. I actually do not.
Q. Would you find it rather unusual for

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the submitted report to leave out the dosing regimen for the animals?
MR. WEIR: Object to the form.
THE WITNESS: From my personal experience, I would have expected the dosing regimen to be included.
BY MR. TILLERY:
Q. All right. Did anybody from the EPA call or ask you or anyone at Syngenta what the dosing regimen was for the monkeys?
A. To my recollection there was no communication back from EPA once the study was submitted.
Q. All right. Now let's go – what exhibit is this? Number 20. Let's go to Exhibit 20.
(Exhibit 20 was identified for the record.)
THE WITNESS: Okay. I see the document, sir.
BY MR. TILLERY:
Q. All right. Now, if you wouldn't mind, take a look at that. This is a document from the United States Environmental Protection Agency, isn't

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it?
A. It is.
Q. It's dated a few weeks ago, September 24th, 2020. Do you see that?
A. I do.
Q. Okay. If you go to page 9 of that document.
A. Okay. Okay. I have that document open.
Q. If you look in the middle of the first paragraph.
A. Okay, sir.
Q. One study submitted. Do you see that?
A. I see that, right, yes.
Q. It says, "One study submitted by Syngenta (Ray, unpublished) quantified paraquat in cortical brain tissue collected from spider monkeys. The brain tissue samples were provided to Syngenta by SRI International and were collected as part of a separate study conducted at SRI International to investigate the effects of paraquat on nigrostriatal function/integrity. The original study was conducted three to four years prior to the brain tissue analysis during which time the tissues were

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kept in frozen storage."
And this is a sentence I want to direct your attention to: "Although the study demonstrated quantifiable concentrations of paraquat in brain tissue, the study report did not indicate the route of administration nor dosing regimen in the original study. The agency thus could not utilize these data to further characterize paraquat toxicokinetics in monkeys."
Do you see that?
A. I do.
Q. Did I read that correctly?
A. I take it, yes, you read it exactly as it's written.
Q. So in the middle of this whole process where they're taking a deep dive into paraquat and its potential toxicological effects, when this was submitted a year ago, you left out the dosing regimen and the route of the administration, correct?
MR. WEIR: Object to the form.
THE WITNESS: That appears to be the case, sir.

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BY MR. TILLERY:
Q. So the agency, the Environmental Protection Agency, couldn't utilize the primate data to further characterize paraquat toxicokinetics in the monkeys, correct? They rejected it because it didn't contain the information which we, all of us on this call, have right in front of us, right?
A. That's -- that's what the agency states, sir.
Q. Syngenta knows, I know, the reporter knows, videographer knows what the dosing regimen is for the monkeys in the Ray study, but the federal agency in charge of evaluating this chemical apparently does not know that information, right?
MR. WEIR: Object to the form.
(Phone interruption.)
THE WITNESS: I'm so sorry about that.
I take the agency, what they said, is exactly what's -- is in the document there, sir. It says that they did not -- I've lost the sentence, but that they did not have the dose or the route of administration.
BY MR. TILLERY:
Q. I'll read it to you again.

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A. Yeah, and I'm going to turn this phone off so we quit getting interrupted. I apologize about that.
Q. That's no problem, sir.
I'll read you the last sentence again. "The agency thus could not utilize these data to further characterize paraquat toxicokinetics in monkeys," correct?
A. That's what is stated there, yes.
Q. So Syngenta did not provide the information to the EPA for them to be able to utilize the data to further characterize paraquat toxicokinetics in monkeys, correct?
A. Based upon what is stated here and what was submitted in the report, the agency is indicating that the lack of administration or dosing regimen prevents them from using it in that direction.
Q. And that, as we've said, is probably the most relevant study animal to humans, the non-human primate, correct?
MR. WEIR: Object to the form and foundation, scope.
THE WITNESS: Not being a toxicologist,

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my layman's view is I would assume a non-human primate study would be a relevant model, but I'm not a toxicologist. That's just a layman's view.

MR. TILLERY: So at this point let's take a break so we can have some lunch, okay?

THE WITNESS: Thank you.

THE VIDEOGRAPHER: We're going off the record. The time is 11:33. This ends Media Unit Number 3.

(Recess taken.)

THE VIDEOGRAPHER: We're going back on the record. The time is 12:19. This begins Media Unit Number 4.

BY MR. TILLERY:

Q. In preparation for this deposition, did you go back and look at the early labels that were used on paraquat products in the United States?

A. I did look at some labels, the ones that I was able to find and some that were provided in prep material, sir.

Q. Can you – are you getting his sound quality okay?

THE REPORTER: (Nods head.)

THE VIDEOGRAPHER: (Nods head.)

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BY MR. TILLERY:

Q. All right. Thank you.

And did it give you a good representation in your own thought about the content of the labels? I know you probably didn't look at all of them or look at a lot of them, but did you get a good cross-reference understanding of what those labels said?

A. I think so. There was one from the '70s that was quite difficult to read from the EPA website and -- but there was one from the '60s that I could read and then I was able to read the ones from the '80s relatively well.

Q. All right. In all of the labels that you saw or any accompanying material, did either Chevron, ICI, Zeneca, Syngenta ever warn about potential neurotoxicity of paraquat?

A. I don't recall ever seeing any type statements such as that on the label, sir, no.

Q. Did they ever mention the word "Parkinson's disease" in any way on the label, whether it was a warning or anything else?

A. I'm not aware of any label that would have had that reference. I certainly have not seen

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one.

Q. Okay. In the 1960s, whose role was it to interact with the EPA about the content of paraquat labels?

A. To the best of my knowledge – and I don't believe EPA actually existed that early. I think it may have been FDA, sir, but –

Q. Yeah, just so you're -- Mr. Dixon, just so you're aware, the first registration of this was with the USDA in the mid '60s.

A. Okay.

Q. So I didn't mean to mislead you. Sorry about that.

A. No worries. Just trying to keep all the "DAs" straight in my brain.

Q. Right. Okay.

A. So it would have probably been somebody within one of the organizations at the time. I would assume they were in a managerial role. I'm not sure if they were broken down into like regulatory or what have you, but I assume there would have been a person that would have been a -- charged with those type of interactions and responsibilities.

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Q. So as between Chevron and ICI at that time, who had the responsibility for procuring the registration with the USDA?

A. If my recollection serves correctly, I believe that would have initially been Chevron.

Q. Did ICI play a role in that process?

A. In the '60s, I'm not sure. I believe in the '70s there would have been collaborative interaction between the two organizations and probably even in the mid to late '60s. So I believe there would have been some collaborative work in trying to establish those registrations.

Q. And as between the two companies, who had primary decision-making control over the content of the label?

A. I don't believe I know which of those two companies had the primary role on that, sir.

Q. Did you see one of the companies having a more active or dominant role in the creation of the content of the label over another?

A. To the best of my recollection from reviewing some of the prep documents, I believe in the U.S. Chevron had more of a leading role in that.

Q. And up until the time of 1982 when ICI

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went into the distribution of paraquat business? Is that when it ended? Or up until the time Chevron got out of the business in '86?

A. I believe ICI had the prominent role in the '80s starting about the time frame you had mentioned. So I think in the '80s, it would have most likely been ICI with the registrations and the labeling.

Q. And are you saying after Chevron got out in '86?

A. I'm doing the best I can just from the -- the information I saw in the background. Once Chevron was out, it clearly would have been all ICI. I believe there could have been dialogue between the two organizations leading up to that on how to position the labels as they were working collaboratively on registration actions.

Q. Was there ever a time when their products had different label content?

A. Afraid I haven't had a chance to compare the two different labels, so I do not know, sir.

Q. Okay. When the primary registrant registers the label and the label content with

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respect to warnings and operator instructions as listed and registered with either the USDA or the EPA, are other companies who sell the same active ingredient required to use the same label, instructions, and warnings?

A. It's dependent, sir, on a couple of things: One would be the nature of the formulation. So, for example, formulations go through acute toxicity testing, and it is possible depending upon the results of those testing you could have, theoretically, for example, different precautionary statements. That could be because combinations may -- of products may have different constituents in there.

If a registration is granted as a "me too" registration, and then essentially what that requires is that all of the use patterns are essentially identical to the registered product for which it's seeking that substantially similar registration, so it's -- it can be some differences depending on the circumstances.

Q. Okay. Let's at this point pull up Plaintiffs' Deposition Exhibit Number 21.

(Exhibit 21 was marked for

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identification.)

THE WITNESS: Okay. Okay, sir, I see the document.

BY MR. TILLERY:

Q. Yes, it's a three-page letter and it's Bates stamped Syngenta-PQ-02510030. And just for the record, this is a letter dated 18th May 1966 to Dr. W.G. Toland, manager research and development, Chevron Chemical Company Ortho Division to -- from Mr. A.A.B. Swan of ICI.

Now, if you'd just take a look at that, I've got a couple questions to ask you.

A. Yes, sir. Okay, sir, believe I'm familiar enough to answer.

Q. Okay. Dr. Swan from ICI was commenting about proposed label additions by Chevron, correct?

A. Correct.

Q. And in terms of a reference, a point of time, this was one month before the initial registration of paraquat was accomplished with the USDA in June of 1966, correct?

A. That seems correct, although from my memory I have thought that date was 1964, but perhaps this is the first registration.

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Q. Was '64 for the experimental aspect of this chemical?

A. Okay.

Q. For limited use approval?

A. Okay, sir.

Q. And was this for -- I think June was for the broad range of broad sales in agricultural purposes; would that be fair?

A. That sounds about right.

Q. Okay. If we look at this letter, second sentence, Dr. Swan says, "We are puzzled and concerned that you're considering changing the label for paraquat at this moment when the present label has been agreed with U.S. authorities and the petition which is filed with the U.S. F. & D.A. is now presumably under consideration."

Do you see that?

A. I do.

Q. All right. And it says, "You yourself say the current label should suffice, and it seems to us that the introduction of the skull and crossbones implies, by comparison with other products, a greater hazard than in fact exists," right?

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A. That's what it says, yes, sir.
Q. All right. And if you skip down to the end of that page, last paragraph, Dr. Swan says to Dr. Toland, "Paraquat's toxic property of special concern is its inhalation toxicity; so far, despite very widespread use, the only untoward effect of accidental spray inhalation has been nosebleeding or soreness of mouth and throat," correct?
A. That's what it says, yes, sir.
Q. Okay. "Lung injury from inhalation is a laboratory phenomenon, caused by respirable aerosols which are technically difficult to produce, and has not occurred in man," right? Is that what he says?
A. Yes, sir.
Q. Okay. And if you skip over to the third page, middle of the page.
A. Okay.
Q. It says – Dr. Swan's – A.A.B. Swan says, "We take care of the 'spray mist' hazard by warning against the use of air-blast sprayers, and we recommend the use of respirators, et cetera, only when the type of spray equipment or application warrants this precaution," right?

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A. Correct.
Q. Now, let's go and see what happened when – I've got a 1968 Ortho Paraquat CL label, and we'll pull it up as Exhibit 22.
(Exhibit 22 was identified for the record.)
BY MR. TILLERY:
Q. While we're looking to pull it up, do you know who A.A.B. Swan was at –
A. I do not. I've seen the name as I've been reviewing some of the documents for the deposition, but I'm not familiar with who that person was.
Q. Okay. All right. Let's open Exhibit 22.
A. Okay. Wow, this is going to be quite challenging. Let me try to enlarge it, sir.
Q. It is. It is, I agree with you. It is. And what you may have to do is find the area under the "Warning" areas and then increase the size of it.
A. Okay. Let me try to increase it.
MR. WEIR: Steve, just to be clear, are you going to be looking at the right column on where

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it says "Warning" there?
MR. TILLERY: Yes, sir.
MR. WEIR: Okay. Thank you.
THE WITNESS: All right. Let's see if I can get that to blow up again. When I blow it up, unfortunately I cannot get the "Warning" area to show. Let me see if there's a different way to do that.
MR. WEIR: I don't know if yours is different than mine, but when I scroll down outside of the document, I'm able to get a left-right scroll bar which allows you to scroll over to the right where you can see that –
THE WITNESS: Let me try that, Tom. I will do what I can, sir, to try to read it.
BY MR. TILLERY:
Q. If you keep enlarging it you can see it.
A. Unfortunately, once I get to a certain point it enlarges and it does not – it pushes it beyond the window and I'm not able to scroll it, so – but I'll make do. I can squint and try to take advantage of these readers as best I can. "May be fatal if swallowed," I can make it out, sir.

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Q. There's no skull and crossbones on this warning, is there?
A. I do not see a skull and crossbones, no.
Q. And would you agree if you look at this that the focus is on acute injury?
A. Okay. May be fatal if inhaled, absorbed through the skin, will cause it – yes, it all does appear to be geared at acute use injury type concerns which is consistent with what typically is on labels.
Q. Okay. Nothing about wearing gloves while applying paraquat, if you could confirm that.
A. I am not seeing any reference to gloves under the "Warnings" section.
Q. Nothing about wearing a respirator when applying paraquat?
A. Actually, hold on, sir. I do see wear a face shield, rubber gloves, but when handling the concentrate.
Q. Right.
A. Okay. Do not –
Q. That's what I was going to say, but when applying it there's nothing about gloves, is

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there?
A. Let's see. When spraying or when contract spraying -- wear waterproof -- I see wear waterproof footwear and clothing, but not a direct reference to gloves.
Q. And nothing about a respirator when applying paraquat?
A. I do not see a reference to a respirator.
Q. No indication about any potential neurotoxic effect, right?
A. No. I do not see anything that reads that way.
Q. No warnings of cumulative effects, correct?
A. I do not see any such warning.
Q. And nothing is on the label that the user may end up with Parkinson's disease, right?
A. Certainly in the section I'm reading I see no reference to that. Now, I'm assuming there will be nothing over in the directions for use, but I do not see anything that makes a reference to Parkinson's disease.
Q. I want to make sure that you're

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comfortable that the date I gave you is correct for this, because I told you it was printed in January 1968, okay? And I want to tell you how because I had trouble identifying that and I want to make sure you know how I did it.
There's a reference number on this that gives the form of the document, and if we pull up then the next -- this is number 23.
(Exhibit 23 was identified for the record.)
THE WITNESS: Okay. I see --
BY MR. TILLERY:
Q. If you look at this, which was produced to us by Chevron Chemical Company.
A. Okay.
Q. All right. So this, by the way, is CUSA-00114447. Okay? And do you see this? It looks like the outside of a folder?
A. It does.
Q. All right. And if you look up at the top you'll see a reference to the top -- to a four-digit number.
A. I do, 7129.
Q. Do you see that 7129? You'll see that

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corresponds with the numbers on the form here, okay? And that's how we dated this. I just wanted you to be aware of it, okay?
A. Okay.
Q. Does that make sense to you?
A. It does. It seems very reasonable.
Q. All right. Thank you. Let's go to number 24.
(Exhibit 24 was identified for the record.)
THE WITNESS: Okay. I have it open, sir.
BY MR. TILLERY:
Q. All right. And this is another Syngenta document. For the record it's Syngenta-PQ-02508227.
A. Okay.
Q. And this is a May 12th, 1971 document and it's to R.D. Wessel, Manager of Research and Development, Chevron Chemical Company in Richmond, California. And it's signed by Mr. N. Wright, and I believe that is of ICI. Can you verify who N. Wright was at the time?
A. I am not familiar with who Mr. Wright

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was or -- Mr. Wright, yeah, I'm not familiar with that person.
Q. All right. And then on the inside on the front page alongside Mr. Wessel's inside address there's a reference to Mr. Ian D. Bruce, ICI America.
A. I see that.
Q. That must have been a person who was in the United States working for ICI in the American-affiliated company, correct?
A. That's how it would be that.
Q. All right. And then there's a Dr. J.T. Braunholtz at PPL. What was PPL at that time?
A. I believe it stood for Ag Protection Limited.
Q. Okay. Now, the only reason I referenced this is a couple of things. If you look at the second paragraph, middle of the second paragraph, Mr. Wright was discussing with Mr. Wessel the subacute human exposure of paraquat, and he indicated, "One realizes only too well that farmers do not invariably follow label directions, even -- but even in the worst circumstances, it is hard to believe that more exposure occurs than the

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occasional splash of concentrate and that farmers do not wash themselves at least once a day."

Do you see that?

A. I see that.

Q. How long has Syngenta or its corporate predecessor been aware of the fact that farmers don't always follow label directions?

A. If it – if it's all right, sir, I'd like to read the paragraphs around it.

Q. You read the whole letter. Take your time and tell me when you're ready to talk about it.

A. Yes, sir. Okay, sir, I'm ready for your first question. If you could just restate it to make sure I answer it correctly.

Q. Right. I referenced the sentence that said, "One realizes only too well that farmers do not invariably follow label instructions," that sentence.

A. Yes, sir.

Q. All right. How long has Syngenta or its corporate predecessors been aware of that fact?

A. My view on that is I'm not necessarily sure that that's a fact so much as Mr. Wright's opinion on the situation. I'm not sure if there's

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any studies or any documentation that would quantify how often growers use the labels. We certainly encourage it.

Q. And if you go to page 2 of that May 12th, 1971 letter.

A. Okay, sir.

Q. Last paragraph and just read that.

A. Okay. Okay. I have read that, sir.

Q. And does he state there, "The rapid rate of excretion of paraquat, which has been studied and discussed on many occasions in the past, the monitoring of urinary levels in paraquat feeding experiments and other biochemical studies all point to the fact that paraquat is not stored in the body"?

A. That's what it stated there, yes, sir.

Q. Do you know yourself whether or not paraquat is stored in the body?

MR. WEIR: Object to the foundation. Outside the scope as well.

MR. TILLERY: Actually, I'll withdraw it. There's no problem. Let's go to Exhibit 25.

(Exhibit 25 was identified for the record.)

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THE WITNESS: Okay. I have the exhibit open, sir.

BY MR. TILLERY:

Q. Would you familiarize yourself with that exhibit?

A. Yes, sir. Okay, sir, I've scanned it. I didn't read every line but I scanned it. I think I can answer your questions.

Q. All right. Syngenta's involvement with Chevron's labels continued through the 1970s, according to this, didn't it?

A. It does.

Q. These are notes from ICI concerning a February 27, 1974 meeting with Chevron concerning proposed label changes, right?

A. That's correct.

Q. One of the bases of concern that is noted here is the number of reports of toxicological effects of paraquat to applicators in the field, right?

A. I see that.

Q. That's under "Basis of concern (a)." Do you see that?

A. Yes, sir.

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Q. And under (b) it says, "General growing concern amongst California State Officials brought about by (a) together with fatal poisoning incidents (by swallowing) and drift damage," correct?

A. Correct.

Q. And then if you go to (e), it says, "If incidents with paraquat continue, it is believed that officials may recommend Glyphosate when this is registered," right?

A. I see that, yes.

Q. Okay. And the notes then discuss proposed label changes, don't they?

A. Yes.

Q. And it also mentions that Chevron was looking at the studies on the application of paraquat by sprayers, right?

A. I believe I saw that as I scanned it.

Q. That's on page 2, sir. Under Roman numeral (viii).

A. Okay. I see that, yes, "operator exposure trials."

Q. Okay. And the last sentence reflects ICI's concern about adding language concerning goggles and respirator use to the label, right?

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A. Correct.
Q. ICI told Chevron they didn't believe that a label warning about using goggles and a respirator while spraying was necessary; is that correct?
MR. WEIR: I'll object to the form.
THE WITNESS: Sir, can you help me with the sentence? I'm reading here where it says, "regard this study as an alternative to the need to insert 'wear goggles and respirator.'" Is that the sentence that you're questioning on?
BY MR. TILLERY:
Q. Yeah, let me see if I can find it for you. If you go to "Proposed Label Changes."
A. Okay.
Q. Under the second paragraph.
A. Okay.
Q. And it says, "I felt," and the person here who's speaking is A. Calderbank, right?
A. Correct.
Q. And this is a person who works for ICI, correct?
A. Yes, sir.
Q. All right. And he said, "I felt this

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recommendation on the U.S. paraquat label might have repercussions on our markets outside the United States and promised to let Chevron have PPL and IHRL comments before March 11th. However, it seems unlikely that Chevron could be persuaded that this precaution is unnecessary - even if the only justification is political. Chevron believed this added precaution would not inhibit sales in the United States."
Do you see that?
A. I do.
Q. Was the additional precautions always viewed in the context of what impact it might have on sales?
MR. WEIR: Object to the form. Foundation.
THE WITNESS: As I read this, sir, my interpretation of it is that obviously a company that's selling a product in regions would think about the implications of changes in one region versus another, so this is certainly what Mr. Calderbank is speculating. I'm not sure that it was the company's position, but certainly it was his view on it.

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BY MR. TILLERY:
Q. Okay. Okay. Let's go to number 26.
(Exhibit 26 was identified for the record.)
THE WITNESS: Okay, sir, I have the document open.
BY MR. TILLERY:
Q. This is Syngenta-PQ-13119252. Do you see that?
A. I see that.
Q. And at the top of that document it says "Dr. Swan" in handwriting, right?
A. Yes, sir.
Q. And it says, "Notes on Discussions with Chevron San Francisco, March 28 and 29th, 1974, Paraquat Label," right?
A. Correct.
Q. "Present for formal discussions on the Ortho Paraquat label were," and then it lists a large number of people from Chevron. It lists one person from Industrial Bio Test Laboratories, correct?
A. Correct.
Q. So there was a Dr. Florence Kinashita

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from IBT, right?
A. Correct.
Q. And there was an IHRL representative, Dr. K. Fletcher. And there was a PPL representative, two of them, Jenkins and Schumacher, right?
A. Correct.
Q. Would you take a moment to familiarize yourself with that particular document?
A. Okay. Okay, Mr. Tillery.
Q. Okay. Now, if we can, if you'd go to the page 2 of the document.
A. Okay.
Q. And if you go to the fourth paragraph that says "It was agreed" and read that, please.
A. Okay. Okay, sir.
Q. So it says in that paragraph, "It was agreed that the label should give prominence to precautions for avoiding or reducing hazard; and that it was important that it should carry helpful and constructive advice on how to avoid getting" – "creating a spray mist. Nevertheless, it was argued that some workers would work in a spray mist and the label should be worded so that Chevron could resist

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claims for industrial injury (however slight) in such instances. (Such a case might come about if the guidance on how to avoid creating a spray mist were thought by a court to be not sufficiently clear.) Before the point was conceded by PPL, Dr. Fletcher confirmed in answer to a direct question that IHRL had no experimental evidence to support the contention that there is no chronic effect from continual exposure to spray mist at subacute effect levels."

Do you see that?

A. I see that.

Q. And do you see in the margin where it says, "i.e."?

A. I see the, i.e., yes.

Q. And it then it says, "We have no" -- "We have done no long-term inhalation studies." Does that appear to be what it says?

A. That appears to be what it says.

Q. Okay. And then if you skip down one paragraph, it says, "It was agreed that the use instructions should be removed to the existing separate leaflet already packed with each bottle and the label should carry only the product name,

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legally required data, and panels covering Dangers, First Aid, and Precautions. There were some difficulties with language. 'Respirator' in American can be very light protection, whereas 'mask' can mean to some a gas mask," correct?

A. Yes, I'd like to read that paragraph again one more time just to make sure I can really understand what he's saying there about what's going to be on the container.

Q. Okay. Go ahead, please, read it.

A. Okay.

Q. And then if you go to the last page of the document.

A. Okay.

Q. Number 14.

A. Okay.

Q. "I said to Carl Tanner 'How about putting "manufactured by ICI" on the label.' He said, 'Sure, for a price.' The topic was not pursued."

What is the significance of that, if you know?

A. I have absolutely no idea what they're referencing there.

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Q. All right. Okay. Let's go to number 27.

(Exhibit 27 was identified for the record.)

THE WITNESS: Okay.

BY MR. TILLERY:

Q. This is a CUSA document, CUSA-00341060, March 29, 1974, meeting report regarding paraquat label revision. Upper right-hand corner it's got "152.31 pg," and then a handwritten note, "R.D. Cavalli," on the upper left-hand corner, correct?

A. Correct.

Q. All right. And then if you go to the -- under "History and Background," the second paragraph, it says, "Our present label has been severely criticized as being inadequate in that the instructions are not clear and can be misinterpreted."

Do you see that?

A. I see that.

Q. Okay. And if you go to the third page. This is a set of minutes recorded by F.X. Kamienski. Do you know who that was?

A. I do not.

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Q. So these are obviously Chevron notes, correct?

A. Yes, I would assume. It's on their letterhead, so I would assume that's their notes.

Q. If you look at the front page, it was a meeting that was held March 28th and 29th with ICI to discuss proposed label changes for paraquat?

A. I see that, yes.

Q. And it lists all the people who were present at the meeting, correct?

A. Correct.

Q. And then if you look under "Legal" it says, "Doppelt," who apparently was a lawyer, "pointed out that the evidence available to the regulatory agencies implicating Paraquat to be hazardous, even though not scientific, is legally dangerous and admissible as court evidence. Searle and Doppelt felt there were many shortcomings in our present label which would be difficult to defend in a court of law. The punitive aspects of liability are not favorable at the present time. They felt that preventive measures in the form of stricter label recommendations were the best course of action."

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Did I get that right?
A. Yes.
Q. All right. If you go to the next page under "Toxicology" it says there, "It was felt that the lack of chronic inhalation toxicity information and epidemiological surveys were a definite weakness in properly evaluating the safety of Paraquat use or properly defending the safety of Paraquat. ICI indicated that the worker-hazard study now in progress in Ireland would aid in evaluating the potential hazard to Paraquat users. Dr. Fletcher felt confident that the Ireland study would demonstrate that Paraquat is safe and minimal amounts are absorbed by workers after prolonged use usage"; is that correct?
A. That's correct.
Q. Did you ever become aware of the results of the Irish studies?
A. I do not have any recollection of ever seeing the Irish studies.
Q. Okay. If you go to the next one under "ICI," the next paragraph midway down, "They pointed out that respirator and goggles need not be worn at all times when spraying as outlined in Chevron's

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proposed label revision," correct?
A. I see that, yes.
Q. Okay. And was that what ICI pointed out, as far as you could tell?
A. (Reading.) It appears that's summarized in ICI's position, so I would assume that's what -- who was making the recommendation there.
Q. Okay. So let's go to the 1974 Ortho Paraquat CL label which is Exhibit Number 28.
(Exhibit 28 was identified for the record.)
BY MR. TILLERY:
Q. And see if you can recognize this as one that you might have reviewed in preparation for the deposition.
A. I'm not sure that this is one I've actually reviewed. I don't believe it is.
Q. Why don't you take a second and look at this.
A. Yes, sir.
Q. I have a couple of questions about it.
A. Okay.
Q. And I think my questions are focused on

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the concentrate mixing warnings and spray application warnings, in other words, focused on the warning labels.
A. I notice it mentions a supplemental pamphlet for use. Is that also part of this or?
Q. It's certainly not attached to this warning.
A. Okay.
Q. I don't think you have it. If you go through, I think you just have two pages.
A. I just have two pages, yes, sir. Okay. I think I can try to answer your questions.
Q. All right. The label requires a new requirement -- strike that.
The label includes a new requirement of wearing a full face shield when handling concentrate, correct?
A. It does say that, yes.
Q. And it says, "Concentrate/Mixing. Wear a full face shield, rubber gloves, and apron when handling concentrate."
A. Yes, concentrate/mixing method, yes, that's what that says, yes.
Q. Label includes a new requirement of "If

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there's a risk of exposure wear goggles and approved face mask capable of filtering spray droplets when spraying."
A. I see that.
Q. Okay. Was this the first time they ever included a reference to any kind of approved face mask, to your knowledge?
A. Different than the face shield. Yes, I mean, this is the oldest label I've looked at and the first one we looked at didn't have that. This has it, so my assumption is this would be the first time it's on there. But I only have for reference the other label you showed me as well as this one.
Q. All right. And then under "Spray Application," it says, "Avoid working in spray mist."
Do you see that, sir?
A. I do see that.
Q. All right. It says, "If there is a risk of exposure to wear goggles and approved face mask capable of filtering spray droplets."
A. I see that.
Q. In 1974, do you know how most farmer applicators could avoid working in paraquat spray

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mist when they were applying?
MR. WEIR: Object to the foundation and the scope.
THE WITNESS: Not necessarily specific to any one time frame. But the application equipment that would have been used, if it was a traditional ground boom type of equipment, you would have less of a potential of generating spray mist than if it was a piece of application equipment that may have been used called an air blast.
Air-blast equipment creates a -- more of a cloud that it pushes out. However, it's very unusual and unlikely to use that with a non-selective herbicide because you would run the risk of killing desired vegetation as well. So only knowing the type of application equipment, some equipment you have much less of a chance of coming into a contact with the spray than you would with others.
BY MR. TILLERY:
Q. Okay. Now let's go to the Gramoxone paraquat label, and this is Exhibit Number 29.
(Exhibit 29 was identified for the record.)

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THE WITNESS: Okay. I see the letter, sir.
BY MR. TILLERY:
Q. It should be a letter, and then if you go behind it there's the content.
A. Okay.
Q. And if we go to page 20, if you could just go to page 20, I think that will get us directly to the safety.
A. Okay.
Q. And this may be difficult for you to read.
A. I'll do the best I can.
Q. Actually, it may be so difficult. If you'd skip back to 17, sorry. Let's see if that helps you.
A. Yes, that's quite a bit more legible.
Q. Yeah, if you can ...
A. Okay, sir.
Q. All right. And the first warning says "Wash splashes from skin and eyes," right?
A. Correct.
Q. Do you know what hazard that warning language is warning against?

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A. Certainly if – prolonged contact of paraquat concentrate has the potential to cause dermal irritation and potentially burns, and then if you were to get a product like paraquat into your eyes, if you can wash it immediately, you have a much less chance of an injury than if you were to delay getting corrective measures.
Q. Do you know what human health risk would be implicated in getting it on your skin or in your eyes?
A. With respect to human health risk, in the case of skin, you could end up with some dermal burns. With eyes you could have potential damage over time. I'm not a medical expert, but my understanding is it can lead to some significant injury to the eye if it -- prolonged uncorrected exposure happens.
Q. Okay. The next warning says, "Remove and wash contaminated clothing." Do you see that?
A. I do.
Q. All right. Do you know what the hazard was that was warned against by that particular language?
A. That is on almost pesticide products,

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and it's designed to prevent prolonged dermal exposure that could happen from a user who were to get a spill on to their clothing but continue to work and have a longer exposure than if they correct -- you know, cleaned it up and corrected it.
Q. Was there any particular human health risk that was contemplated by removing and washing contaminated clothing?
A. I think, and I may not be 100 percent accurate in my recollection, sir, but I think at this point this is standard label requirements from EPA that would have been potentially dictated by the acute tox, so when a category has a certain classification, these would be the mandated statements on products.
Q. But there wasn't anything in particular at that time, as far as you know, about the chemical that prompted this language?
A. Correct. To my knowledge, this isn't paraquat specific but more in line with what's required for general worker-protection-type language around pesticide products.
Q. All right. And the same with respect to wash before eating, smoking, and drinking?

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A. Correct.
Q. Is that the same category?
A. I believe so. But I've seen very similar statements on almost every pesticide product label. You know, one of the concerns there is, you know, somebody who may have gone to the bathroom, for example, and they did not wash their hands after handling the product, so it's designed to minimize inadvertent exposures that way.
Q. Got it. Okay. The next warning applies to concentrate and mixing and it says, "Wear full face shield, rubber gloves, and apron when handling or mixing concentrate."
What is the hazard that this warning is warning against, to your knowledge?
A. The full face shield is trying to prevent exposure to eye, nose, or mouth from droplets that could occur from splashes, for example, if somebody were to be engaged in mixing and loading activities.
Q. Okay. The next one says, "Avoid working in spray mist. If there's a risk of exposure, wear goggles and a full face mask capable of filtering spray droplets."

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Do you know what hazard this warning is warning against?
A. As I -- the goggles is obviously to protect the eyes, and with respect to the face mask -- face mask, it's trying to prevent droplets from entering the nasal or the mouth area. In the case of nasal exposure, you could have nasal irritation, potential nosebleeds.
Obviously, paraquat products, if the concentrate were to -- and in this case it's talking about the application mixture which is more diluted, oral hazard from paraquat is significant if it's a concentrated product.
Q. And -- and the oral hazard meaning droplets getting into the body and from that the application, right?
A. You know, when the face shields have been required and -- it's really trying to prevent the more of the concentrated product getting into the mouth. This case they're saying it in the case of trying to avoid the spray mist getting into the mouth.
Q. Okay.
A. That's in the application section.

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Q. All right. So in the spray mist situation in terms of that warning language, what very specific human health risk or hazard was being warned against, as far as you know?
A. My read of that would be they were trying to prevent oral absorption.
Q. And oral absorption could or might result in what kind of problem that was being warned against?
A. I did not necessarily know the specific tox problem that it would be trying to get to. In general, when you register a product you do acute oral toxicity testing which establishes oral LD50s, and so those are based upon negative tox impacts that are given from oral dosing studies.
So my assumption looking at this without knowing the absolute rationale that went into that statement is they were trying to prevent paraquat entering into the bloodstream and through oral absorption.
Q. And what your concern -- what you would be concerned about is that it might get into the back of the mouth and then somehow get into the bloodstream?

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A. Yeah, certainly as I read that, it seems the intention is trying to prevent the material getting into the facial area which would be the routes of -- portals of entry would be eye, nose, mouth, and so trying to prevent it from entering those areas with that.
Q. And do you know what beyond that once it entered the bloodstream, what human health hazard this warning would be protecting against?
MR. WEIR: Object to form.
THE WITNESS: I'm sorry. I do not.
BY MR. TILLERY:
Q. If a person called Greensboro and talked to Syngenta Crop Protection, LLC, employees and asked very specifically based on this warning, "Hey, what would this stuff do to me? What might it do to cause me harm if I don't wear a face mask?" What would, to your understanding, the answer be to that person?
MR. WEIR: I'll object to the scope.
THE WITNESS: So from my understanding the biggest concern would be the oral absorption because paraquat is known to, when you have significant oral absorption of the molecule, to

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result in very severe health consequences.
BY MR. TILLERY:
Q. You're talking about – you're talking about poison?
A. Poisoning, yes, sir.
Q. All right. And that poisoning is the same type of poisoning that appears in some of these spreadsheets and databases that we're talking about, right?
A. Correct, sir.
Q. All right. The next warning says, "Wear waterproof footwear and clothing when spraying or when contacting vegetation wet with spray."
Do you see that?
A. I do.
Q. What was the hazard that this warning is warning against, the human health risk?
A. Dermal absorption or dermal contact potentially which could lead to -- prolonged contact could lead to skin abrasion, skin injury, and potentially you could have some absorption through those routes.
Q. Okay. Would you agree with me that none of these warnings that we've just gone through

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were designed to warn against the neurotoxic effects of paraquat?
A. My – my answer on that, Mr. Tillery, is that, you know, these warnings are designed to prevent the exposures. I don't believe there was any belief that there were neurotoxic effects, so they wouldn't be warning against something they don't believe was a risk.
Q. So you would agree with my statement that none of the warnings were designed to warn against the neurotoxic effects of paraquat, correct?
A. I think I would say it as – as I said, is that there was not an understanding or certainly I don't believe there was an understanding there was neurotoxic effects, so they would not be writing warnings for something they did not believe was a hazard.
Q. Okay. I'm trying to look for more direct answer to my question though. Whether or not Syngenta believed, Chevron believed, or they didn't believe, or they had information to believe, or didn't have information to believe – okay? – would you agree that as these warnings appeared on a paraquat product, none of them were designed to warn

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against a -- the neurotoxic effects or potential neurotoxic effects of paraquat?
MR. WEIR: Object. Asked and answered.
THE WITNESS: I'm sorry, Tom, I didn't understand that.
MR. WEIR: You can go ahead and answer, Monty.
THE WITNESS: Okay. Thank you.
These statements I -- as written, sir, I do not believe were targeted to any neurotoxic effects.
BY MR. TILLERY:
Q. Okay. None of the warnings as written were designed to warn against the risk of getting Parkinson's disease from using paraquat, were they?
A. I do not believe the way those warnings are structured there was any – any statement there that was directed towards Parkinson's disease.
Q. Okay. Since paraquat was first sold in the United States in the mid 1960s up until today's date, has any warning on any label warned against the neurotoxic effects of paraquat, to your knowledge?
A. To my knowledge, there are no U.S.

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labels that make any warnings – that our paraquat products make any warnings about neurotoxic effects.
Q. Okay. Since paraquat was first sold in the United States in the mid 1960s up until today's date, has there ever been a warning label on any paraquat product, to your knowledge, warning against the risk of getting Parkinson's disease from using paraquat?
A. To my knowledge, there are no U.S. labels that have ever addressed Parkinson's disease with paraquat that I'm aware of.
Q. Has Syngenta ever warned users of paraquat about any long-term chronic effects from the exposure to paraquat?
A. From a U.S. perspective, I am not aware of there ever being any such statements.
Q. Okay. Let's go to number 30. And this, for the record, is Syngenta-PQ-13120361.
(Exhibit 30 was identified for the record.)
THE WITNESS: I have the document open, sir.
BY MR. TILLERY:
Q. And can you tell me what this document

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is?
A. So it appears to be a confidential email written from Mr. Willis of ICI to Mr. Hughes, Northcott, and Slade. I'm not sure who "P&BSG" are. So it appears to be a document that addresses labeling, and it appears that there's some legal ramifications because of the term "plaintiffs" in here, so it looks like it's a label change as a result of a lawsuit.
Q. And it says, "Paraquat Labeling: USA," and in the first page it says, "This is further to our discussion with David Walker last Friday," right?
A. Correct.
Q. And it says, "Chevron has obtained EPA's approval for detailed wording changes to the Ortho Paraquat CL labeling."
A. Correct.
Q. "This note sets out the details of the proposed changes, the background to them, and the comments which I fed into the system on them," right?
A. It says that, yes.
Q. "The proposed changes stem from the

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recent Ferebee lawsuit. In that action the plaintiffs argued, and Chevron replied, along the following lines," and then I won't go through this, but it lays out the plaintiffs' position, Chevron's position, et cetera, right?
A. Yes, sir.
Q. And if we go to the next page, okay – actually the third page.
A. Okay.
Q. There's a paragraph number 3, second sentence. It says, "At the technical level I was not very happy because there was no practical problem with dermal or inhalational poisoning when the product was used as recommended in accordance with normal standards of good agricultural practice."
Do you see that?
A. I do.
Q. Was this in reference to a proposal to use a respirator or some other type of mask?
A. I would need to read the document more to be able to –
Q. You know, given our time constraints I'm just going to direct you to the last words on

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that page.
A. Okay.
Q. And where it says, "However, we have always been."
A. I can --
Q. Go to the last paragraph, if you wouldn't mind.
A. Okay.
Q. And does it say, the carryover language, "However -- however we have always been able to explain away the differences on the basis of the specific and unreasonable requirements of the U.S. system although the recent changes will make that more difficult. Those changes do not alter the overall appearance of the label and they are likely to go unnoticed by all those who have a specific effort to compare the old and new texts in detail."
Do you see that?
A. I do.
Q. So was the effort here to try to create a label that satisfied legal concerns but which was simply designed such that any changes would not be noticed and read with the user?
MR. WEIR: Object to the form and the

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foundation.
THE WITNESS: I'm just reading the sentence again, sir. I'll be answering in a second.
It appears what they're trying to do here is to make a label change that will not impact the overall use of the product, so it does appear that that's the intent here is that they feel like they have to make a change with respect to the U.S. labeling, but they're hoping the change will not impact the use in other areas.
BY MR. TILLERY:
Q. And that it won't be noticeable, right?
A. They -- they certainly say here they are likely to go unnoticed.
Q. Would you say that the interpretation I give is reasonable of that sentence?
A. Would you give me your interpretation again just to make sure I address it correctly?
Q. Right. That the changes that are being proposed could be handled such that they do not alter the overall appearance of the label and are likely to go unnoticed by all but those who make a specific effort to compare the old and new texts in detail?

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A. That's what the document says, sir.
Q. All right. And Chevron had proposed doing something which caused ICI a great deal of stress at that time. If you'd read the next paragraph. If you can confirm this.
A. Okay, sir.
Q. One act that Chevron had proposed which Mr. Willis, who wrote this email, objected strongly to was to circulate a letter to distributors drawing attention to the changes, correct?
A. That's what's in this paragraph.
Q. And he says in the last sentence -- well, he says in the next sentence, "That letter is certain to find its way into various overseas markets, as we found when we circulated a letter in 1977 announcing the withdrawal of bupirimate from U.S. development. I believe that without such a letter the label changes would pass mainly unnoticed. However I understand that Chevron's lawyers deemed circulation of the letter to be mandatory to meet the legal obligations."
So Chevron was doing it because they thought it was being done to meet legal obligations to protect themselves, right?

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A. That's what is stated there, yes.
Q. All right. And he then continues, "If we are to use senior level inputs to modify Chevron's behavior pattern in this whole matter, I would place a high priority in seeking to persuade them not to circulate any such note."
Do you see that?
A. I do.
Q. And what he's saying is is that we need to go to the head of the company to call the other head of the company and say, "Don't do this," correct?
A. It certainly seems the intention is to persuade them not to circulate the note.
Q. Now, let's go to Exhibit 31.
A. Mr. Tillery, I know we're pushing here. In a minute would it be okay to take a biological break?
Q. Absolutely. Take your time. How much time would you need, please?
A. Could we do a five-minute bio break and then I have a brief call or a brief touch base with Tom on one issue.
MR. TILLERY: Absolutely.

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THE VIDEOGRAPHER: We're going off the record. The time is 1:30. This ends Media Unit Number 4.
(Recess taken.)
THE VIDEOGRAPHER: We're going back on the record. The time is 1:49. This begins media number 5.
BY MR. TILLERY:
Q. Do you know when the first competitor to Syngenta and Gramoxone or paraquat products came on the scene in the United States?
A. Mr. Tillery, my first knowledge is around 2000, there was a company called Griffin, I believe it was, that had a product called Boa herbicide. But they ultimately -- I believe the agency canceled that.
There may have been, although I'm not 100 percent sure, but just doing research over the years I had seen where I believe Monsanto may have at one point had products with paraquat in them. I'm not 100 percent sure, but I believe that I have seen that in some of the data records in the NPIRS data system.
Q. Let me revise my question and ask you

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when was the first time that you saw a company that captured more than 5 percent of the market share --
A. My assumption --
Q. -- in selling paraquat products in the United States.
A. Yes, sir. My assumption that would have been sometime probably after 2006 when we had Parazone and Firestorm on the market, and certainly in my time as a regulatory manager, those were the first competitor products that hit the market, so I would say it's been since 2006.
Q. And do you know what their respective market shares were?
A. I do not. I know over the last 10 or 12 years there's been significant increase in other paraquat products on the market, and as a consequence I don't -- and I don't know the actual sales numbers or figures, but certainly I think the Syngenta market share has gone down with the introduction of more and more of these generic products.
Q. Well, do you know what the market share was in 2006 for Syngenta's paraquat products?
A. I do not have definitive knowledge. My

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best estimate would be since we were the only registrant on the market, probably prior to 2005, we would have certainly been the very prominent share, I would say, the vast majority without trying to put a number to it. But I would guess being the only registrant, we would have -- up until 2006, we should have had the majority of the market.

Q. And after 2006, has Syngenta maintained a majority of the market?

A. I -- my understanding is that we no longer are the -- as a sole registrant, the majority share. I think our share has come down now. I don't know the exact market share number, but I think we're probably -- probably less than 50 percent of the market share now.

Q. How many competitors do you have now in the United States?

A. Sir, I believe there's probably 22 to maybe 25 different products.

Q. By many -- sorry, go ahead, sir.

A. I was going to say most of those have come on -- have received registration probably in the last five to six years. But there is probably 12 to 15 different registrants, maybe more that have

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those products. And as I mentioned, I think the number of products is greater than 20, probably less than 30 but closer to 30 than 20.

Q. Of those 20 to 30 products, how many companies are involved in the manufacture of them?

A. I don't have a specific number. I would guess as far as the actual manufacturer, not the sales and distribution, probably my best estimate would be 8 to 14.

Q. How many of them are in the United States?

A. The company themselves that are selling the product for the most part are in the U.S., their sources most likely, and where they would get their technical product would be outside of the U.S. The companies that -- just to kind of make sure my numbers are right thinking about it. There's Amvel [phonetic], there's Helm, there's Sinon. I guess I would probably waste our time, but there's a significant number of companies.

Q. And are these primarily located in China?

A. The actual companies I just mentioned, some of them are global. Many of them are U.S.

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based and they just bring in their material. They source their material from outside of the U.S. but they're actually U.S. companies with U.S. registrations.

Q. And do you know where the manufacturing plants are principally located for these companies where the active ingredient is made?

MR. WEIR: I'm going to object to the scope here.

THE WITNESS: Mr. Tillery, I don't know specifically. I do know that there are some sources in China, which is where I would assume the majority come from.

BY MR. TILLERY:

Q. Yeah.

A. But I don't know the actual specific locations or controls for all of them.

Q. Okay. Let's go to Exhibit 31.

(Exhibit 31 was identified for the record.)

THE WITNESS: Okay. I have this, sir.

BY MR. TILLERY:

Q. This is a label, and if you'd go to -- I think it's -- this is Syngenta-PQ-13800146, 1986

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Gramoxone Super label, okay?

A. Yes, sir.

Q. And I think the information that you're going to want to look at is on page 3.

A. Okay. Okay. I have it open, sir.

Q. If you can look at that, and I hope it's big enough that you can read it.

A. I should be able to.

Q. All right. Thank you, sir.

A. End use product so ...

Q. And again I'm looking at the worker safety --

A. Okay.

Q. -- area.

A. I see that, yes, sir.

Q. General warnings.

A. Okay.

Q. And the first warning says, "Do not get on skin, eyes, clothing." Do you see that?

A. I do.

Q. And I don't know if we dealt with this exact same language, but to cover the same point in a way we did before, what hazard, if any, that was different was this warning guarding against?

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A. I believe this is very consistent with the one we did before. This looks like precautionary language. It is protecting against skin, eyes, and clothing. Skin and clothing obviously would be dermal-related exposures. Eyes would be ocular exposures.

Q. Okay. So – and I don't want to run you through all these same questions. There's no reason to do that, okay? But if you wouldn't mind looking at these and tell me if there's any additional human health risks or hazards that you see from any different language and any warnings.

For example, the next warning says, "Do not inhale the spray mist," and we talked about that before, you know. Is that the same risk that we're guarding against that we discussed at length before?

A. I certainly would anticipate it. It does appear to be for the same -- same concerns.

Q. Okay. And the next one says, "Wash splashes from skin and eyes immediately."

A. Correct.

Q. Would your answer to the previous language in the prior warning be the same, your answer be the same?

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A. Yes, sir, Mr. Tillery.

Q. All right. And the next says, "Remove and wash contaminated clothing." We went over that at length. Is that the same risk that we talked about before?

A. It is.

Q. All right. And then it says, "Wash before eating, smoking, or drinking." That same language?

A. Correct, yes.

Q. Okay. And the next says, "Wear full face shield, rubber gloves, and apron when handling or mixing concentrate." I believe we covered that as well?

A. I believe so. I don't recall if the apron statement was on there before.

Q. Right. And maybe we should cover that to make sure we're complete. What, to your knowledge, would the inclusion of the apron be designed to warn or guard against?

A. It's a further protection against dermal exposure, so the apron would go over the outer clothing and so it creates a barrier against splashes or spills from a mixer and loader. And

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that's typically who would be asked to wear an apron would be mixer/loaders and not applicators.

Q. Okay. And the next one says, "Wear waterproof footwear and clothing when spraying or when contacting vegetation when it's wet with spray." Is that one we covered before?

A. It is.

Q. Okay. Would your answer be the same there?

A. It would.

Q. All right. Next, "Do not enter treated areas without protective clothing until sprays have dried," and that's new. What is it that – do you think that warning is guarding or warning against?

A. Against potential dermal exposure. Once the material is dried on the surface of plants, in particular knowing the binding properties of a molecule like paraquat, you wouldn't expect there to be exposure through brush-off or through contact. However, when the spray is wet, you certainly have a higher risk of potential transfer.

So that's – that's a relatively common statement on labels, but that's the concept behind that is to prevent a more probable transfer from

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contacting wet material.

Q. Okay. The next one says, "Avoid working in spray mist. If there's a risk of exposure wear goggles and approved face mask capable of filtering spray droplets."

Do you see that?

A. I do.

Q. Okay. And have we covered that in the past?

A. I believe we did.

Q. If we didn't, could you tell me what that warning was protecting or seeking to warn against in terms of human health risk?

A. So it would be warning against potential exposure through a couple of routes. One would be through the nasal cavity or through the mouth, if somebody were to breathe it in. And the goggles obviously would be trying to protect the eye. So it's trying to prevent those exposures which could lead to dermal or to absorption of the – of the active ingredient.

Q. Would the emetic be a – a product which if a person got enough of it into their mouth through the application procedure that the emetic

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could help guard against them in that process?
MR. WEIR: Object to the foundation and the scope.
BY MR. TILLERY:
Q. Do you understand what I'm saying?
A. I do, Mr. Tillery. My understanding of the role of the emetic is primarily if somebody were to drink the concentrated product. I do not have the awareness of what would be the implication of somebody being exposed to a much more dilute amount of the emetic, which is what you would see in a spray volume.
So obviously as you put it into a spray tank and add the carrier volume, you would dilute the overall concentration. So I don't have knowledge on what level of dilution, what impact that would have on the effectiveness of the emetic.
Q. Okay. You don't know whether it would work or not, right?
A. I do not know, sir.
Q. Okay. It would certainly be the hope that if you got enough of it in your system that the emetic would work to keep the person from becoming poisoned by having ingested it during the

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application process, right?
A. That is the intention of the emetic that if somebody were to – to have an unfortunate situation of an oral exposure that the emetic would cause the emesis, so you would certainly want it to have that effect.
Q. And you'd want it to have that effect whether or not they intentionally drank concentrate or whether they were exposed to enough of it during application that it could hurt, right?
MR. WEIR: Object to the scope again.
THE WITNESS: And I think to answer that to the best of my ability, I'm not necessarily being an expert toxicologist is I think the whole concept and focus of the emetic is on the concentrate. I'm not sure that it's ever been viewed as a potential mitigant in spray solution, sir.
BY MR. TILLERY:
Q. Okay. The next warning says, "Keep all unprotected persons out of operating areas or vicinity where there might be danger of drift."
Do you see that?
A. I do see that.

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Q. That's a new warning, right?
A. It is a new warning.
Q. Okay. So we're talking about a year here for the first time of this of being 1986, right?
A. Correct.
Q. Okay. Now could you tell me what that hazard is that this is warning against?
A. It appears to be warning against the potential for somebody to be exposed to a pesticide product that was being applied through potential drift of the application particles.
Q. And what human health harm would that drift cause that this warning would protect against?
A. One thing I'm not sure about on this particular warning, Mr. Tillery, is whether or not this is a standard precautionary statement that EPA has required or whether or not it was something that was put on specifically at the time by ICI.
So I can speak in generality that if you're putting in a prohibition about avoiding drift, then you're trying to prevent dermal or inhalation exposure, is what I would think, to a bystander.

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Q. And if there was dermal exposure it would be to avoid some toxic effect from it getting into the bloodstream, right?
A. That would be the most likely concern, epidermal exposure. You could have oral irritation or other, depending on the nature of the chemical. And that's where I'm not sure if this is a paraquat-specific statement that EPA may have required or was it a standard statement from the EPA precautionary language? I'm just not sure, sir.
Q. All right. And if it were inhalation, what would the human health end point be that you'd be warning against?
A. Well, traditionally if thinking about inhalation, and this is traditionally, not necessarily specific to paraquat, you -- the EPA does risk assessments for inhalation exposure compared to an inhalation tox end point, to use the term you used.
In the case of paraquat when the respirators were required in 2000, and I recognize we're going here it was more mitigating nasal irritation, nasal exposure, so I'm not sure if that's directly answering your question.

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I recognize we're talking about the '80s, but inhalation, when someone references an inhalation end point or an inhalation effect, it could be very specific to an adverse effect being driven by the lungs, or as we saw later with EPA, they were trying to mitigate things such as nasal irritation.

Q. And nasal irritation resulting in perhaps nosebleeds, correct?

A. Perhaps nosebleeds, yes, sir.

Q. And as a matter of fact, that's documentation -- strike that.

That's documented throughout these references is nosebleeds, right?

A. Correct.

Q. And that's what these masks, these sort of dust masks were really intended to guard against, weren't they?

A. I certainly know from the 2000s forward that was the intent of it. I believe that was the intent here. My knowledge at this time frame is not as good as it is for the 2000 where I was directly involved with -- EPA had removed the requirement for respirators in '97 and then reinstituted in 2000, so

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I was involved at that point. I believe the intent here though, sir, is to prevent the particles from creating nasal irritation.

Q. Yeah, and what I see nasal exposure, nasal irritation, is in the immediate area of the nose causing a nosebleed, right?

A. Correct. Yes, sir.

Q. It's not -- you're not trying through -- strike that.

You're not through this warning trying to use some kind of dust mask to protect against neurotoxicity; would that be a fair statement?

A. I think that's a fair statement. I think the dust/mists were purely about the nasal irritation, as you described.

Q. Okay. And none of the warnings we just went over again were designed to warn against neurotoxic effects, if they existed, of paraquat, correct?

A. That's correct. These are more acute, day-of-event -- day of, worker-exposure-type warning statements, sir.

Q. All right. As a matter of fact all of them are acute, day of application warning -- worker

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exposure --

A. Correct.

Q. -- warnings, right?

A. Yes, sir.

Q. All right. None of them were designed to warn against the risk of getting Parkinson's disease, right?

A. That is not the intention of those warnings.

Q. None of them were designed to warn against potential latent effects of paraquat, right?

A. I do not believe that's their intention.

Q. Okay.

A. Just adding just a little bit to what I've said there is that, you know, when a person goes to use the label, these are the measures on the label that warn them about the safety equipment they should be using while they're handling or spraying the product, so it really is a day of -- day-of-use-type set of precautions there.

Q. Okay. Let's go to Exhibit Number 32. And this is Syngenta-PQ-01832754. It's a 55-page document.

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(Exhibit 32 was identified for the record.)

BY MR. TILLERY:

Q. If you'd look at the front page.

A. Okay.

Q. It's a Gramoxone Super product information document. Do you see that?

A. It is, yes, sir.

Q. And it says ICI Americas. Printed in the U.S.A. And I don't believe -- and just for the record -- just for the record it's Syngenta-PQ-01832754.

I'm looking for a date on this document, and can you tell me when Gramoxone Super was first put on the market or a general time when that happened?

A. Based on I think the label that we looked at a few moments ago, I would say this is probably mid to late '80s.

Q. Okay.

A. Would be a ballpark guess.

Q. And ICI Americas was still in operation at that time, as far as you know?

A. As far as I know.

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Q. All right. Now, this appears to be a brochure for Gramoxone Super, right?

A. Yes, sir.

Q. What would Syngenta or ICI Americas as a predecessor use this kind of brochure for? What was the purpose of it?

A. I would think a brochure such as this would be potentially distributed to potential customers. It looks there where it's saying "New Universal Rates," so there has potentially been a change in the rate. It looks there, like, for example, it talks about an old Paraquat Plus product compared to a new rate, so it seems they're trying to get out information to make sure you are using the correct rate.

Farmers often when it comes to a product they've used before, they've used it multiple times, they know what the rate is, so this appears to be saying pay attention, there's a new rate. So this would probably be given out at distributors and dealers to try to communicate that information.

Q. It shows a farmer holding a plant, right?

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A. It does.

Q. On the cover. And if you would go to page 42, and page 42 starts a section of the brochure. Up until then they've given various different information about the product and -- and take your time if you want to look at the brochure in any other way.

Have you seen the brochure before?

A. I have not seen that brochure before.

Q. Okay.

A. It's --

Q. Go ahead, sir.

A. I'm -- I've seen similar type brochures on other products, so it's -- it's not surprising to me we would have a brochure that would describe, you know, a product and how a farmer might use it.

Q. Right. Was it sort of standard practice when you're introducing a new product to do this?

A. I'm not -- I don't necessarily know what all the marketing strategies or plans are, so I can't answer that definitively, but it would seem that if you are rolling out a new product that would be a good way to increase grower awareness of it.

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Q. All right.

A. Okay. Sir, I am seeing "Myths Versus Facts."

Q. Okay. Now, I think if we go to the next page, do you see the definition where Syngenta discusses what myths are untrue statements. Do you see that?

A. I do.

Q. "Myths are untrue statements that usually arise from misunderstandings or misinterpretations of facts. They can be spread for personal, political, or economic gain."

Do you see that?

A. I do.

Q. Okay. And then over on the left there's a reference to "Gramoxone Super is a formulated product containing 1.5 pounds" -- so it gives us background information and orients us to a point in time -- right? -- to that product?

A. Correct.

Q. All right. Now, if you go to the next page --

A. Just one second. I just want to read that whole box there.

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Q. Absolutely. Take your time. And as a matter of fact, if you want to look at earlier portions of the document, please do.

A. Okay. Thank you.

So the prior part looks like a label type, okay. Okay. I'm ready for the -- you said go to the next page, sir?

Q. Yes, if you'd go to the next page -- I think that's where they start -- and in the lower right-hand corner.

A. Okay.

Q. Here we have just for orientation -- bear with me -- at the upper right-hand corner it says, "Myths about the use of Gramoxone Super."

Do you see that?

A. I see that.

Q. "Myth. Paraquat was recently developed by the U.S. government to spray on marijuana in an effort to deter the illegal use of the plant," right?

A. Correct.

Q. And then below that Syngenta comes up with a fact, and they respond to that statement, right?

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A. Correct, yeah.
Q. And they do that. The next one is, "Paraquat-treated marijuana causes lung damage when smoked."
That's the myth, okay? And then – and they set facts down in response, right?
A. That's – yes.
Q. Okay. Now, look at the – on the right it says, "Paraquat must be a dangerous chemical to use because it is so often in the news."
Do you see that?
A. I see that.
Q. And then if you look at the fact answer does it say, "Diluted Gramoxone Super used to spray solution" – "used in spray solutions according to label directions poses no undue risk to agricultural workers or neighboring individuals, livestock or wildlife"?
A. It does.
Q. "The exercise of common sense and good spray practices will reduce the chance for drift."
Is that what it says?
A. That's what it says.
Q. All right. And then if you go to the

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next page, please, and just so we're clear on what page we're on, that's Syngenta-PQ-01832798.
Over in the right-hand column it says, "Gramoxone Super causes Parkinson's disease."
That's the myth, right?
A. That's what it says.
Q. And the fact is it says, "It was recently suggested that paraquat may cause Parkinson's disease because its active ingredient has a chemical structure similar to that of a compound known as MPTP which causes the disease. But paraquat is distinctly different from MPTP, and can't be converted to it. There is absolutely no scientific evidence that Gramoxone Super can cause Parkinson's disease."
Do you see that?
A. I do.
Q. Is this still Syngenta's position to this day, 2021?
A. That paraquat does not cause Parkinson's disease?
Q. Yes.
A. That is my understanding of our science and our research is we do not believe paraquat is a

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causative agent of Parkinson's disease.
Q. But now let's see if you can tell me if this is their position: "There is absolutely no scientific evidence that Gramoxone Super can cause Parkinson's disease."
Is that your position?
MR. WEIR: I'll object to the scope.
THE WITNESS: So I think that statement reflects the time in which the brochure was put out, and that sounds like this was all relatively recently to the MPTP, so I believe the statement at the time was intended to say there's no scientific evidence for Gramoxone Super.
It's still my understanding that based upon all of the Syngenta research and our understanding is that Gramoxone -- that paraquat does not cause Parkinson's disease.
BY MR. TILLERY:
Q. And that there's absolutely no scientific evidence that it causes it. Is that still your position?
MR. WEIR: Same objection.
THE WITNESS: I would say that is not the position. I think the evidence -- there is

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evidence out there that is – certainly been positioned by researchers and others that seem to feel there is a potential for paraquat use to be associated with potential etiology of Parkinson's disease.
BY MR. TILLERY:
Q. All right. Let's go to the next one. "Breathing spray mists of Gramoxone Super will cause lung damage." That's the myth.
"Fact: In fact, there has been no substantiated cases of systemic poisoning or death from inhaling spray mists containing paraquat." Is that Syngenta's position?
If you go to the next page, "In order for a particle to enter air spaces in the lungs, its size must be 10 microns or less (a micron is one millionth of a meter). Smoke particles are in the 10 micron range. The majority of droplets emitted from spray equipment typically used in applying agrichemicals are 100 to 200 microns in diameter. These large-size droplets generally are not inhaled. Instead, they are deposited in the nasal passages and throat or pharyngeal portion of the respiratory tract."

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Does Syngenta stand behind that statement as well today?

A. I believe we would still stand behind that statement today.

MR. WEIR: I'd just like to put in a scope objection as well, please.

BY MR. TILLERY:

Q. The next myth is "Breathing the vapors of Gramoxone Super can be fatal." Do you see that?

A. I see that.

Q. And -- and the answer is -- the fact that Syngenta states is, "Breathing the air near an open container of Gramoxone Super poses no harm because it has no measurable vapor pressure"; is that right?

A. That is my understanding that paraquat is not at all volatile.

Q. Okay. So breathing the vapors of Gramoxone from a container poses no harm because it has no measurable vapor pressure, right?

A. Not being a toxicologist, I'm not an expert, but my view on that and my understanding has been that paraquat is not volatile because of the exceptionally low vapor pressure, therefore you

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would not expect there to be any adverse health effects from that.

Q. Now, let's go, if we can, to Syngenta-PQ-01832800, and this is -- this is page 47 of the document. Do you see that?

A. I do.

Q. Okay. In the right-hand column, it says, "Gramoxone Super always requires special clothing to protect workers from exposure."

Do you see that?

A. I see that.

Q. Here's what Syngenta told potential customers of Gramoxone Super. They said here's the fact: "When handling the concentrated product, workers should wear rubber gloves, apron, face shield, and waterproof footwear. After mixing, however, diluted Gramoxone Super poses no serious risk to spray operators as a result of absorption through the skin, although prolonged contact with skin can lead to irritation. Once mixed, only waterproof footwear and work clothing need to be worn. However, it is a good idea to keep rubber gloves handy in the event that a nozzle or equipment adjustments are necessary."

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Do you see that?

A. I do see that.

Q. Now, was that consistent with the label warnings on the product at that time?

A. I'm struggling to answer just trying to remember actually what was on the label, but I do recall the label talking about wearing -- wearing the clothes, the boots, and washing if you have immediate contact, so I would say that is consistent.

Q. Okay. Let's go to the next one on that same page, "Paraquat accumulates in the body."

That's the myth. Do you see that?

A. I see that.

Q. And fact: "Paraquat is a water-soluble chemical, so it is not stored or accumulated in body fat. Paraquat that may have been absorbed into the blood is rapidly and effectively eliminated in the urine by the kidneys."

Do you know if that is still Syngenta's position?

A. Given the caveat that I'm not a tox expert on how it's excreted through the body, I still believe that is our understanding that it is

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rapidly excreted through the urine.

Q. Okay. So that would still be the official position of Syngenta?

MR. WEIR: I'll object to the scope.

BY MR. TILLERY:

Q. Right?

A. I believe that is our still our understanding that the majority of paraquat is very rapidly excreted.

Q. Okay. Let's go to -- let's see. This will be page 49, sir, if you could go there.

A. Okay. Okay, sir.

Q. And this says the myth, "Paraquat in the soil can eventually contaminate groundwater, streams, and lakes."

Do you see that?

A. I do.

Q. And the fact that's told by Syngenta to correct that myth is that "Because of its strong absorption to minerals, organic matter, and clay particles in the soil, paraquat cannot be released from soil particles to contaminate groundwater. Even when soil particles containing paraquat do not" -- I mean, "do find their way into groundwater,

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the chemical is irreversibly bound to particles, thus rendering it biologically inactive. Gramoxone Super is so tightly bound that to release it for analysis, the clay particles have to be destroyed by boiling it in concentrated acid for several hours."

Is that still Syngenta's position?

A. Yes. That is still my understanding of our position on that.

Q. Okay. Let's go to Exhibit 33 now, please.

(Exhibit 33 was identified for the record.)

BY MR. TILLERY:

Q. For the record, this is Syngenta-PQT-ATR-12448188.

A. I have the document open, sir.

Q. And if you go to page 9.

A. Okay. Okay. I'm on page 9, sir.

Q. Okay. If you'd just look at the cautionary statements, please.

A. Okay.

Q. This is a Gramoxone Extra label from 1992, correct?

A. Let's see here -- the date on -- I

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don't see a date on this particular page.

Q. Let me see if I can help out.

A. I'll stipulate if it's '92. I have no reason to doubt you on that.

Q. All right. I'll see if I can find that reference and confirm it.

A. And it could be on the front, although typically when you see this accepted stamp there's typically the date there. It looks like it just didn't come through on the scan.

Q. All right. Rather than make you wander through this whole document, I will just point to there's a change to the warning for pouring, loading, mixing concentrate or when exposure to concentrate is possible, if you could verify that.

A. Yes, I see that.

Q. There's an addition to wear a "NIOSH/MSHA-approved pesticide respirator." What is that?

A. Well, NIOSH is the group that I guess issues certification. We've all recently heard of N95, for example. It's been very common in the news. So that is a type of respirator that here it doesn't necessarily give the specifics on which one,

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it just says a NIOSH/MSHA-approved respirator.

Q. Is that the same kind of respirator that 60 percent of the American population is willing to wear?

A. I wish I could get ahold of them. The N95s, there is a series of ways respirators are qualified, so I'm not 100 percent sure how -- and this is probably -- I imagine this document looking at it is '92 to '94ish, somewhere in that ballpark. I think as the agency has evolved, it's now much more prescriptive when it requires a respirator, so you actually have a description of what it needs to be. That's seems to me a pretty general statement.

Q. So I'm trying to figure out as we look at these warnings how this differs from what you just described from this sort of dust mask that we talked about before that was really designed to guard against nosebleeds that we discussed at great length.

A. Yes, sir.

Q. Is this a different requirement for a different mask?

A. I'm afraid I'm not knowledgeable on exactly what that statement would have meant in

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1992. I can tell you that as the respirator label language has evolved, now you have much more specifics saying such, as example, 21C or different requirements.

So there all I can tell you is it's just saying a NIOSH/MSHA-approved pesticide respirator, and I just don't know. Was that a respirator? Was it a class of respirators? Did it have different stages? All I can tell is what's written there, sir.

Q. Right. So here's what I'm getting at. In terms of the human health risk it's designed to guard or protect against, was the intention of the use of this still to guard against nasal irritation and nosebleeds?

A. My assumption is yes. I do know around this time frame there was a change in the -- something called the Worker Protection Standard and that added respirator requirements across many products. I'm not sure if this statement was put in as a response to the WPS change.

I certainly know that this was done shortly before the paraquat RED, in which there was some changes on respiratory -- respirator

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requirements in that time frame. So there was a lot changing in this time frame, sir, with respect to respirators.

Q. So are you at this point unable to tell me whether the respirator requirement was protecting against a human health risk that extended beyond nasal irritation and nosebleeds?

A. I'm unable – I'm unable to tell you that, sir.

Q. Okay. Well, what would at that time Syngenta have told a customer calling into their help center about what kind of mask they needed to go out and buy when they applied their paraquat products?

A. To be label compliant they would probably have quoted this NIOSH/MSHA-approved respirator. Certainly if somebody called a technical service center they would probably have specific recommendations. I would think they would not just give a general just do what the label says, but -- but that's my assumption. Certainly don't know how that would have been handled in 1992.

Q. Okay. Do you know if there was a different mask contemplated or a different

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respirator contemplated, what any additional human health risk was being warned or guarded against by that different mask or respirator?

A. From my understanding and –

MR. WEIR: I'll object to the form.

THE WITNESS: Yeah.

BY MR. TILLERY:

Q. Go ahead, sir.

A. So, Mr. Tillery, my understanding, and this would be based upon knowing what ICI/Zeneca did in the same time frame which was in responding to the paraquat RED, that there was a strong position that the company felt that the same discussion we just had about the particle sizes being too large to get to the deep lung, that -- that logic, that rationale hasn't changed from what we were looking at earlier through what it was said in -- in the time frame that happens right after this.

So my assumption just based on those two pieces of fact is nothing had changed in the Zeneca position on that, so this would still theoretically, that being the case, be guarding against that nasal irritation and not necessarily being driven because there's some new awareness of

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an inhalation risk that they didn't previously have.

Q. They wouldn't be using this to prevent the particles from getting into the bloodstream; is that what you're saying?

A. No, I'm not necessarily saying that. I think this is still geared at the potential of trying to prevent the nasal irritation, which if you do have the nasal irritation and bleeding, then you do have a potential access to the bloodstream.

Q. Okay. So aside from nasal irritation and nosebleeds and getting into the bloodstream through the nose, as far as you know this NIOSH/MSHAR, the dust filter mask that we spoke of previously, would not have been designed to guard against those particles of paraquat that went into the tubules of the lung and crossed into the bloodstream through the alveolar surfaces?

A. I'm not aware of any change in the position that Zeneca or the company had with respect to the particle sizes not getting into the deep lung, so I -- I don't believe that position changed at that time frame.

Q. Well, just so the ladies and gentlemen of the court understand that, because you and I

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perhaps understand each other but just so we're clear, that means the ICI/Zeneca and subsequent Syngenta position has been that these masks were not designed to guard against or protect against spray mist of paraquat getting into the deep portion of the lung and passing into the bloodstream through the alveolar structures of the lung, correct?

A. I would say that's correct in that the position was there was not believed to be a risk of that due to the droplet size of the particles, so these respirator requirements were addressing instead what they had seen which were the nasal cases, the irritation cases, but –

Q. And that would be a guard against nosebleeds too, right?

A. Correct.

Q. All right. Now, to finish out this particular exhibit, if you would verify there's nothing about wearing a respirator while spraying paraquat, right?

A. I do not see any indication of having to wear a respirator while making an application.

Q. The NIOSH/MSHA-approved pesticide respirator was only for when you're

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pouring/loading/mixing concentrate, right?
A. That's – that's the only section it's in.
Q. And there's nothing about wearing gloves when you're spraying, right?
A. I do not see anything requiring gloves.
Q. And there's no indication anywhere in this document of any potential neurotoxic effect of paraquat, right?
A. Not that I'm aware of, sir.
Q. The name or -- strike that.
The word "Parkinson's disease" is never mentioned, is it?
A. I would certainly -- I mean, just would not at all expect it to be on this document.
Q. All right. Let's go to the next exhibit which is number 34.
(Exhibit 34 was identified for the record.)
BY MR. TILLERY:
Q. And while you're looking at this –
A. Okay. I have it.
Q. – go to page 3 of your document, sir?
A. Yes, sir.

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Q. While you're looking at it I'll reference that this is Syngenta-PQ-03711838 is the first page of the document, but that the text does not start until 03711844. And if you would look at it and then for the record describe what the document is.
A. It's entitled "Paraquat Backpack Risk Assessment." It looks like it's discussing a risk assessment for workers that would be making applications with backpack equipment. Okay. And it appears to go into some information about how EPA may choose to do the risk assessment and what could be potential end points if EPA were to do a risk assessment.
MR. TILLERY: Okay. Yeah. Excuse me a second, sir. Hold on one second. We're just going to go off the record here for a second.
(Discussion off the record.)
BY MR. TILLERY:
Q. If you would go to page 7.
A. Page 7, sir? Okay.
Q. There we go. Sorry.
A. Okay.
Q. Okay. This is a document where the

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author is Becky Sherman, right?
A. Yes, sir.
Q. Dated March 9th, 1993, right?
A. Correct, yeah.
Q. And it says, referenced in the first paragraph, "Attached is a draft of the defense Jenna and I have put together using your" – and a blank there – I don't know what else – they left a word out – "to try to avoid the 48-hour reentry time and additional PPE for applicators. Review and have comments back to me by Friday a.m."
Do you see that?
A. I see that.
Q. Okay. Is this at this time frame a Zeneca document?
A. It would most likely be Zeneca. Syngenta was formed in 2000, so I believe this would be Zeneca.
Q. Okay. If you'd go to the next page – actually it's the fourth page. It's actually page 13, I'm sorry.
A. Okay. Page 13, okay.
Q. And you see the topic "Introduction"?
A. Yeah.

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Q. I'll just read this into the record, you tell me if I get it right.
"In August, 1992, the EPA issued a revised worker protection standard to protect workers entering treated areas and to protect employees mixing, loading, and applying pesticides. Under the revised standards restricted entry intervals" – they refer to them as REIs, okay? – "and personal protective equipment are predetermined based upon the toxicity classification of the technical material and the formulation, respectively. Paraquat dichloride has been classified by the Environmental Protection Agency as Toxicity Category I based on acute oral inhalation and eye toxicology studies and Toxicity Category II based upon acute dermal and skin toxicology studies. Therefore a reentry interval of 48 hours is required. Additional PPE is also required when mixing/loading/applying when compared to the current labels. A comparison of the current label to required changes under the worker protection standard are listed in Appendix 1."
Do you see that?
A. I do.

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Q. Now, if you'd go to the next page. Actually two more pages.
A. Page 15, sir?
Q. It's page 19.
A. Okay.
Q. Under "Inhalation Exposure."
A. Okay.
Q. Okay. It was Syngenta -- I'm referring to them because this was the predecessor. It was Syngenta's position if you look at the very last sentence of that section, "The addition of a respirator for applicators as is required in the worker protection standard is not necessary."
Do you see that?
A. Yes, sir.
Q. Was that their position?
A. I'd like to read that whole paragraph --
Q. Absolutely. Take your time.
A. Okay, sir, I'm ready and that is consistent with what I understand the position to be about agricultural sprays not producing droplets that would be small enough to get into the deep lung.

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Q. And that's Syngenta's position today, isn't it?
A. It is, sir.
Q. That a respirator for applicators is not necessary, correct?
A. That is correct.
Q. All right. Now, if you go to the very next page, it continues on and says, "No change in personal protective equipment is required to improve the protection of mixers/loaders of paraquat. There is no risk of oral exposure to the applicator; so addition of a respirator as required in the worker protection standard, which would offer oral as well as inhalation protection, is not necessary."
Do you see that?
A. I do.
Q. And that's been the position as of this statement in 1992 and it's been the same for the last 28 years, hasn't it?
A. It has, sir.
Q. And it was from the time the product was first introduced in the market, wasn't it?
A. I seem to recall very similar logic in some of those earlier documents we looked at.

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Q. All right. And if you continue to the bottom of that same page under the heading "Dermal Exposure."
A. Okay.
Q. It says, "For this reason." Do you see that about six lines up?
A. Okay. "For this reason." From the bottom?
Q. It would be in the last full paragraph.
A. I see that.
Q. "For this reason, Zeneca believes the personal protective equipment already listed on the labels: Waterproof footwear (in addition to wearing a disposable suit/coveralls or long-sleeved shirt and pants and a wide-brimmed hat) is adequate. The addition of protective eyewear and respirator and chemical resistant gloves as required is excessive."
Do you see that?
A. I do.
Q. Is that the position of Syngenta today?
A. The position of Syngenta today is not quite aligned with that in that with our current labels and just part of the label process when a product is registered obviously as we've discussed,

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the company recommends label requirements and protective measures and statements and then EPA ultimately reviews and determines whether or not the statements proposed satisfy the EPA's view of what's required.
And so what we currently have on our labels today are all reflective of what we have submitted and been mandated to have on the labels working through that registration process which would include changes such as the agency is specifying, for example, current on the PID, new glove language.
Q. And were gloves added for the first time in 1994 as a requirement when applying the product?
A. I do not know that definitively, but as is mentioned in this document, this is all very close to the time when the WPS standards were revised and that may have been a requirement of the WPS, so it is certainly possible that that would have been a time frame for that.
Q. And when they came back in first – for the first time and added a respirator during application in the '90s, in the mid '90s, I think

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that was 1994, what kind of -- what kind of respirator was that?

A. Yes, sir, I'm sorry. Based on what we saw before on the label it was that NIOSH/MSHA respirator. I'm -- unfortunately don't know if that was a single type of respirator or that appears to me to be a class of respirator in that it says a NIOSH-approved respirator so ...

Q. All right. Let's -- let's go to that document at Exhibit 35 and see if we can answer the riddle.

A. Okay.

(Exhibit 35 was identified for the record.)

BY MR. TILLERY:

Q. And if you go to page 29 of this exhibit.

A. Okay. Let me just take a quick look to see what we've got here.

Q. Absolutely. Take your time.

A. Thank you, sir. It looks like a label submission, okay. Page 29 did you say, sir?

Q. This is, for the record, Syngenta-PQT-ATR-16564722, and I have it down as 29

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of 30.

A. Hang on. I see that, sir.

Q. Okay. I don't know how well you're going to be able to see it.

A. I can see it, sir.

Q. Okay. And so please familiarize yourself with it and let me know when you're able to talk about it a little bit.

A. Okay. Yeah, this looks like a -- just a label panel, and I'm looking at the personal protective equipment area, so I think I'm ready, sir.

Q. Okay. The use of gloves for applicators was new, right?

A. I'd say yes, sir.

Q. And there had been no formulation change in paraquat that changed the active ingredient -- the active ingredients have been the same all the way through, hasn't it?

A. I think in the '60s there was some different salt forms of it, but essentially from the '70s on, I believe it's always been the dichloride salt.

Q. Okay. So what was the hazard that was

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being warned against for the use of gloves for applicators?

A. That would be a dermal exposure warning.

Q. And the use of a respirator was new. Do you see on the -- on the warning the type of respirator?

A. Yes, sir, this now is referring a little more specifically than what we saw earlier to a dust/mist filtering respirator, and it does give that approval number of a TC-21C.

Q. So this is the dust -- this is the dust type now designed to protect against vapors from getting into the lungs and bloodstream, is it?

A. This is -- this is just the classic dust/mist filter. Half respirator or half like we've seen before.

Q. And for the court and jury, I mean, I think we -- we hear the word "respirator" and we hear the word "mask," and I think it's important that you and I clear this up.

I mean, you know, there's like gas masks that people see, and those things have canisters in them that are replaceable canisters

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that guard against, like, for example, if there is a riot and there is teargas, these things will guard against this and prevent people from getting sick. Now, this is not that kind of mask, is it?

A. No, sir. This --

Q. And please explain this.

A. Sure. And I'm not an expert on the respirators, but I can talk in generalities that you do have different levels of respiratory protection. The dust/mist filters are considered to filter approximately, I believe, 90 percent of the particulate versus when you go to what are called PF50. So now you might here a phrase PF10 versus PF50, which is protection factor.

So what you do get into the respirators that you were just referring to, Mr. Tillery, are much more what you see when you think of gas masks. They could be complete forced-air systems where the person is essentially like in a canopy or you could have cartridge -- very specific cartridge respirators.

And the respirator, even the dust/mist filter language evolves over time to have in additional prefixes of N, R, or P, and those refer

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to whether or not – the different types of particulate it might be filtering or some of them may be effective against oils versus not.

So as labels have evolved over time and EPA's respirator requirements have evolved over time, you will see that increasing specificity as we see here versus the last label we looked at.

Q. So this isn't a – for clarification, one of those gas masks, is it?

A. No, this would not be -- a dust/mist filter would not, in my mind, be called on as a gas mask.

Q. This would be something you'd go down when you're buying a can of paint to paint your garage door that they might give you a little white mask. This is something comparable to that, isn't it?

A. Well, I think in today's parlance and the way the Worker Protection Standard has evolved now, there are some specific classifications to where the typical just painter's mask would not fill – would satisfy that. However, in 1995 or '6 or '7, I'm not sure those distinctions were as well defined as they are now.

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Q. So they may well – that kind of mask may well have been satisfactory?

A. It would have had to satisfy on this label whatever the requirements for the TC-21C are.

Q. Okay. And then let's go to 36. This is Plaintiffs' Deposition Exhibit 36.

(Exhibit 36 was identified for the record.)

MR. TILLERY: And this is Syngenta-PQ-00226998.

THE WITNESS: Okay, sir, I have this open.

BY MR. TILLERY:

Q. It looks like a submission from Zeneca?

A. Okay.

Q. And if you'd go to page 3.

A. Page 3, I'm sorry. I went one too far. Okay. Page 3.

Q. Yes, it is there. And if you go to the middle of the page.

A. Okay.

Q. This is a submission from new Cyclone label, and it's dated November 27th, 1996 by Syngenta. And it says, "The label change from the most recently approved labeling is removal of the dust/mist filtering."

Do you see that? And "respirator" in the middle of the page?

A. Middle of the page. Let's see here.

Q. Three of 73.

A. Three – yeah, I'm on 3 of 73, removal –

Q. "The label change from the most recently approved labeling is removal of the dust" –

A. I see that, yes, sir.

Q. Thank you.

A. I'm sorry. I see that.

Q. Okay. So it is gone. No more dust/mist filter using applying the product, right?

A. Correct.

Q. Okay. And if you go to page 9 of this exhibit.

A. Okay.

Q. At the bottom, do you see the reference to OREB?

A. I do.

Q. What does that stand for?

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A. I am actually not sure. OREB could be occupational review or something along there. OREB. I don't believe EPA uses that phraseology now.

Q. It's a governmental agency of some sort, right?

A. It certainly seems to be, yes, sir. When I look above it talks about revised OREB chapter, and it may be now what is considered like the human exposure, HSRB – HRB now.

Q. Okay. And it says, "OREB has removed the dust respirator from the list of minimum active ingredient based PPE for applicators of all paraquat products, based on the unique properties of paraquat: Low vapor pressure, liquid formulation type, and large spray droplet size." Okay? And that, "However, OREB dismisses Zeneca's statement that the ingestion," whatever that says.

A. Yeah.

Q. Was this based upon a – a statement submitted to the regulatory authorities by Zeneca, to your knowledge?

A. I believe so. I believe they provided also data on droplet spectra, I believe. I can't put it specifically, but I believe they did.

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Q. And as a result of that, the respirator – the dust/mist respirator requirement was removed from the label, correct?
A. Correct.
Q. Okay. Let's go to Exhibit 37.
(Exhibit 37 was identified for the record.)
THE WITNESS: Okay. 37.
Okay, sir, as I'm reading this, this may have been where my mind was thinking about the information on the droplet spectrum, so it may have been more in this time frame here.
BY MR. TILLERY:
Q. All right. This is a September 1, 1998 Zeneca document signed by Ralph Riggs, regulatory product manager, and he's writing about specification of a respirator. And at the bottom of the first page, last sentence, does he say, "The specification for use of a respirator is unnecessary for products containing paraquat when the spray droplet size spectrum produced by paraquat application equipment is considered."
Do you see that?
A. I do.

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Q. And that's consistent with the position that Syngenta has taken throughout, isn't it?
A. Correct.
Q. Let's go to Exhibit 38.
(Exhibit 38 was identified for the record.)
BY MR. TILLERY:
Q. Now, this is Syngenta-PQ-00544073. It's a 1999 paraquat concentrate warning, 3/26/99.
A. Okay, sir.
Q. And I think we need to go to page 7.
A. Page 7. Okay.
Q. And if you look under "Personal Protective Equipment."
A. Okay.
Q. It says, "Applicators and other handlers (other than mixers and loaders) must wear: Long-sleeve shirt and long pants, waterproof gloves, shoes plus socks, protective eyewear," right?
A. Correct.
Q. "Mixers and loaders must wear: Long-sleeve shirt and long pants, waterproof gloves, shoes and socks, face shield, and a chemical-resistant apron," right?

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A. Correct.
Q. So there's no respirator warning there, is there?
A. No, sir.
Q. Okay. But if we go to 39.
(Exhibit 39 was identified for the record.)
THE WITNESS: Sir, is that Exhibit 39 or page 39?
BY MR. TILLERY:
Q. I'm sorry. It's Exhibit 39. It's coming up now.
A. All right. Thank you.
Q. I apologize.
A. Okay. I see this.
Q. Okay. This is a letter to all paraquat registrants from the EPA dated February 12th, 2001, right?
A. Correct.
Q. And the letter states that the EPA – EPA has decided that respirators are necessary to protect applicators and handlers of paraquat products, right?
A. Correct.

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Q. Okay. So on page 1, first paragraph, line 5, "I'm writing at this time to inform you that the EPA has made a determination on this issue, concluding that applicators and handlers of paraquat products should wear a dust mist filtering respirator when mixing, loading, or applying paraquat."
Do you see that?
A. I do.
Q. In the third paragraph they say, "CDPR based their request on the fact that although there is no documented risk of systemic paraquat poisoning from inhalation of paraquat spray droplets, use of the compound without proper respiratory protection has been reported in the public domain literature to cause epistaxis (nosebleeds) and other forms of respiratory irritation," right?
A. Yes, sir.
Q. So that's exactly what you were talking about earlier, the dust/mist filter was designed to protect against nosebleeds, right?
A. Yes, sir.
Q. So this indicates that the EPA considered nosebleeds and respiratory irritation as

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indicative that some droplets were being inhaled during mixing, loading, or application of paraquat, right?

MR. WEIR: Object to the form.

BY MR. TILLERY:

Q. You can answer, sir.

A. It certainly looks like EPA views this as a necessary barrier to prevent that.

Q. Did the EPA make that change?

A. It did. Up until this time frame as part of the '97 RED where the PPE requirements were established, there was not a requirement for the respirator, but then upon the receipt of this letter, all paraquat products going forward would have to have that respirator, end use products.

Q. Has that respirator, end use type, stayed on the label since?

A. It has.

Q. Okay.

A. It has. There has been as I mentioned a little bit earlier, Mr. Tillery, some refinement in how EPA mandated the statements be listed, some additional specificity, but essentially from this time forth that respirator requirement consistent

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with this was a mandate for all paraquat products.

Q. Okay. Now, let's go to Exhibit 40.

(Exhibit 40 was identified for the record.)

THE WITNESS: Okay.

BY MR. TILLERY:

Q. Please read this.

A. Okay, sir.

Q. The first email is from you, and it's dated May 30th, 2001. Do you see that?

A. I do, sir.

Q. All right. And that is to Greg Watson regarding a paraquat meeting follow-up; investigation of alternative PPE for paraquat, right?

A. Correct.

Q. Was this in response to the EPA's decision?

A. Yes. Internally at the time I was not in the Regulatory Affairs Group. I was doing operational and worker risk assessments. I was contacted to see if -- to do an analysis of what the requirements were and to seek options, and so this email appears to be the response that I would

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have -- that I gave to Greg Watson at the time based upon conversations that I had had with our chemical hygienist, Chip.

Q. Chip Witcher?

A. Yes, sir.

Q. All right. Let's read this into the record if we can. It says -- you said, "Dear Greg, I have investigated the availability of Personal Protective Equipment alternatives for preventing the nasal irritation that have been reported for Paraquat use. I have not found any other reasonable PPE that would alleviate the problems. I have consulted with our Chemical Hygienist, Chip Witcher, and his only recommendation would be to increase the awareness of the users to the potential nasal irritation problems.

"From a worker standpoint, we recommend the following steps to reduce incidences of nasal irritation:"

One, or the first bullet, "Require applications to be made in a closed cab environment."

Two, second one, "Utilization of a respirator equipped with an appropriate vapor

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cartridge (this would not be the dust-mist type of mask, as it is our belief this would increase the potential for nasal irritation by trapping the paraquat residue in the close proximity of the skin and nasal passages and thus potentially aggravate any skin irritation.)

"Please let me know if I can provide further assistance with this matter."

Is that what you said?

A. Yes, sir.

Q. And then Greg Watson says, "Guys, we need to follow up on this."

A. Yeah.

Q. And what was the follow-up on this?

A. As I recall, what was happening at that time frame is there was -- initially I hoped not to have to go back to putting respirators on -- in particular because it was initially being driven from a California perspective.

That second bullet there, is my recollection is that one of the concerns with the dust/mist type of mask, as we discussed, is that sometimes workers would -- would do things such as if they were to have an itch on their nose, they

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might lift up their mask and scratch their nose and then by putting the mask back on, that would actually trap the material or the potential material in there.

So that was what the thought process was, so the question I was asked was, are there -- you know, what would be the measures that could potentially reduce nasal irritation? And at the time these were the recommendations that we came up with.

Q. So who was Greg Watson at that time?

A. Greg Watson at that time would be somebody similar to the role that I am in now. He would be one of our regulatory managers and one of the leaders in the Regulatory Affairs Group at that time.

Q. So you were really being tasked with the responsibility of evaluating PPE alternatives for preventing nasal irritation from paraquat application, right?

A. To at least reduce the potential.

Q. And paraquat applicators were complaining of nasal irritation when they sprayed paraquat. You knew that, right?

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A. It's my understanding that the issue was raised from complaints of these applicators having issues in California, and CDPR then, you know, communicated a desire to go back to the respirator. So that was kind of the genesis of it. It would have been in response to reports of alleged incidences or actual incidences.

Q. And those included nosebleeds, correct?

A. That's -- that's my recollection, sir.

Q. After investigating the matter, you couldn't find reasonable personal protective equipment which would protect against the problems with nasal irritation that the applicators were experiencing. That's what you said in your letter, correct?

A. That's the phraseology I used in the letter. In hindsight, as I'm looking at it, I'm not so sure that the term "reasonable" is the best phrase there. You know, I think if -- in looking at this in the context, it was trying to see if there were workable solutions that would help address the issue that would be minimal impact on the user.

Q. Back in 2001, though, you said "I have not found any other reasonable PPE that would

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alleviate the problems," correct?

A. That's -- yes, sir, that's what's stated there.

Q. And so after consulting with Syngenta's chemical hygienist, Mr. Witcher, you made your own recommendations, right?

A. Those are the recommendations there, yes, sir.

Q. And you recommended that application be done in a closed cab environment, right? One of them?

A. Yeah, that's one -- to reduce the nasal -- incidence of nasal irritation, that would be a way to do that.

Q. And so we're clear, a closed cab environment means an air-conditioned unit that captures the entire tractor or other -- other farm implement and protects it and controls the air and filters the air inside the unit, correct?

A. That's what closed -- in the term of -- in agronomics when one refers to enclosed cab or a closed cab tractor, it's as you described. It's a -- a cab that controls the airflow in and out. It typically has filters in different devices on there

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to -- you know, to kind of make sure the air coming in is clean.

Q. What was that change designed to protect against in terms of human health risk?

A. To reduce the potential for nasal irritation.

Q. And nosebleeds?

A. Nosebleeds.

Q. Was it to protect against potential neurotoxicity?

A. No, sir. It was specifically being directed at trying to answer the question as to how could we reduce the cases of this nasal irritation nosebleeds.

Q. Okay. It wasn't designed to protect against the enhanced possibility of developing Parkinson's disease, was it?

A. It was specifically designed to address the nosebleed issue.

Q. Now, you also recommended the use of a respirator equipped with a vapor cartridge, right?

A. Correct.

Q. And you discouraged the use of a dust-type mask which was recommended at that time

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because it was your belief that the dust-type mask actually increased the potential for nasal irritation by trapping the paraquat residue in close proximity to the skin and nasal passages, correct?

A. I wouldn't use the term "belief." It was based upon the discussions of -- and it would have been more focused than just myself -- that we were looking at this issue as we were thinking through the different options. That would be one of the potential challenges that a dust/mist filter could create, so it was identifying a potential complication that the dust/mist could create.

Q. You actually used the words "this would not be the dust-mist type of mask as it is our belief this would increase the potential for nasal irritation by trapping the paraquat residue in the -- in close proximity to the skin and nasal passages and thus potentially aggravate any skin irritation."

Are those the words you used?

A. Those are the words, yes, sir.

Q. So the dust-type mask in your view and your belief would aggravate the irritation, correct?

A. At that time the belief was it had the

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potential to aggravate the nasal irritation.

Q. And how long had the dust-type masks been recommended for use with paraquat by the time you wrote this email in May of 2001?

A. Actually at this point -- so you had the time period of '92 to '94 that we were talking about when the WPS came out. Then when the RED was issued in '97, that removed the respirator requirement, so this would be relatively close and about the same time when EPA was coming back with the recommendations.

So at this point, there was not a long history. It was basically coming back to the fact the EPA had taken -- removed that requirement and we were being asked to -- to potentially put it back on in the business and the company was trying to look at the best options to reduce the nasal irritation.

Q. Up until this time, May of 2001, had any other type of mask been recommended for paraquat applicators?

A. I don't believe, and we looked at those earlier labels. I believe that was a NIOSH/MSH was what was recommended, and then we saw it went to the TC-21 -- 21C. I think that was on an earlier label

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we looked at, sir.

Q. But they're comparable masks, aren't they?

A. I believe a TC-21C, or certainly when I said a dust/mist filter and then it had in the parens if you'll recall, that meet NIOSH 21C, those are equivalent.

Q. These aren't -- those are certainly not vapor cartridge masks, are they?

A. No, vapor cartridge mask is a different -- different respirator. Requires different fit testing. It's a different type of piece of equipment.

Q. And that would literally filter at multiple levels all of the air that entered a person's lungs, wouldn't it?

A. Certainly a vapor cartridge respirator does a more intense job of filtering than a dust/mist filter.

Q. Was that recommendation of using a filter-type mask accepted by Syngenta? A vapor cartridge mask?

A. No, we did not do the vapor cartridge. We went with the dust/mist filter.

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Q. Okay. And would -- strike that.

Did your recommendation of using closed cab application, was that recommendation accepted?

A. That recommendation is on labels but not as a mandate. It is part of what's standard label recommendations under the WPS, so those recommendations would be on labels typically, but our labels did not specifically require someone to use a closed cab.

Q. And they still don't, do they?

A. Not currently.

Q. And you say "not currently" because you see the changes that may be required in the future that could alter that, right?

A. That is correct, Mr. Tillery, yes. It looks like going forward there will be either a closed cab requirement for folks handling greater than 80 acres, or less than 80 acres, they would have an option of a respirator mask or the closed cab.

Q. So as of today, we're talking about a dust-type mask and a recommendation of closed cab but not a requirement, correct?

A. On the current label.

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Q. And that's been the case since 2001, hasn't it?
A. Since the respirator requirements went back on the label, yes, sir.
Q. Okay. These proposals you made were not designed to protect against neurotoxicity, were they?
A. No, sir. These were specifically designed to address the questions around the nasal blood – I think they called it epistasis or nosebleeds.
Q. Did you ever consult with Syngenta scientists about the significance of these proposed label changes with respect to potential neurotoxicity of paraquat?
A. I do not recall any such conversations.
Q. Okay. Let's go to number 41.
(Exhibit 41 was identified for the record.)
THE WITNESS: Sir, I have the document up.
BY MR. TILLERY:
Q. All right. If you'd familiarize yourself with this.

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A. Yes, sir.
MR. WEIR: Steve, while he's doing that, I'm not sure how much you have left, but we've been going for an hour 45 or so. Maybe after this document.
MR. TILLERY: This is fine. Let's take a break. I'm trying to get finished, Tom, I promise.
MR. WEIR: No, I understand. It's been a while, but I'm happy to work through this document unless you think it makes sense to stop now.
MR. TILLERY: No, no, let's -- maybe this -- while we're off and taking a five-minute break you can familiarize yourself with the document, please.
THE WITNESS: Yes, sir.
MR. TILLERY: No problem. We'll take a five-minute break.
THE VIDEOGRAPHER: We're going off the record. The time is 3:26. This ends Media Unit Number 5.
(Recess taken.)
THE VIDEOGRAPHER: We're going back on the record. The time is 3:43. This begins Media Unit Number 6.

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BY MR. TILLERY:
Q. Exhibit Number 41, did you have an opportunity on the break to read through that document?
A. Yes, sir.
Q. All right. And if you'll look on the second page of that, did you happen to look at that as well?
A. I did.
Q. All right. And this is an email where Jerry – who is Jerry that wrote it?
A. So Jerry Wells was the paraquat regulatory manager that was the predecessor to me taking that role, so at that time he was the paraquat registration manager.
Q. And it says, "Please review the document prepared by Monty Dixon." And is that document attached? It's not, is it?
A. I do not see that attached.
Q. Do you remember what that document was?
A. I – I believe just knowing the nature of the role that I would have been in and I think it mentioned on this – next page, it would have been

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my analysis as a worker exposure assessor on what the potential options were going forward to try to address the concerns from a worker exposure standpoint.
Q. So for the record, and because this isn't really being captured, this is a September 17th, 2001 email exchange, isn't it?
A. Yes, sir.
Q. All right. And it has a PQT document, and it says, "Gentlemen, please review the document above prepared by Monty Dixon. I think it hits the mark for where we are trying to go to get the dust mist filter requirement removed from the paraquat labels in the United States. And as soon as I get your comments and we agree on proper wording, I plan to submit ASAP to the EPA," right?
A. Correct.
Q. And was your document or some iteration of it ultimately submitted to the EPA?
A. I do not know, Mr. Tillery. In that time I would have provided it to the regulatory team and they would have made the submission. I am not sure if Jerry submitted the document I provided or if he would have written his own potential letter

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using points and statements from that document, so I'm not sure whether that specific document was submitted or not.

Q. Okay. If you look back in the preceding page, there's a reference from Ian Wheals to -- to Jerry Wells, right?

A. Correct.

Q. What's the significance of this particular email exchange?

A. When I look at the email exchange and looking at the folks that are on the email exchange, it looks like they were working through their regulatory path forward to try to address the dust/mist filter. It summarizes much of what we were just talking about in the prior exhibit about trying to point out the potential to create a sink, a sink being a potential reservoir for repeating irritation.

And I think it was also pointing out or going through trying to establish the logic to present to EPA about making sure that it's reiterating the position on inhalation not being a relevant route to exposure, talking about the -- just day-to-day activities where somebody could

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potentially gain an irritation.

We've talked about on the label, Mr. Tillery, like washing your hands before smoking, drinking. It seems to be just building those -- those points into what would ultimately be the position that the company was going to take.

Q. And it's been the position of the company from basically from the first year of application of this that an applicator in the field is not required to wear a mask, right?

A. Are you referring all the way back to 1966, sir?

Q. You bet.

A. Okay.

Q. I sure am.

A. Based on all of the documents we've reviewed and what we've seen, it's been a consistent position that the inhalation exposure is not considered a risk and so there hasn't been a consistent position that people should wear a mask.

Q. Well, there's been a consistent position that they don't need to wear a mask, right?

A. We -- we have made that -- that petition and that -- taken that position, yes, sir.

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Q. And you still do?

A. We still do believe that the inhalation risk is not – with paraquat we do not believe because of the particle and droplet size that inhalation risk is a real world risk. It is when you get the inhalation end point from these studies where they've done it in the rats where they create artificially small particles, you get these – you get the point of departure that -- that's driving the current risk assessments.

But it's been Syngenta's position and consistent position that inhalation exposure risk is not a relevant risk to workers.

Q. Let's go to the next exhibit, number 42.

(Exhibit 42 was identified for the record.)

BY MR. TILLERY:

Q. And just if we can quickly, look at this. I think this is the follow-up letter to the EPA that was generated from your work.

A. I'd like to read the cover letter, please, sir.

Q. Well, yeah, take your time, sir.

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A. Okay, sir, I think I am ready.

Q. Okay. Look at the second paragraph, first sentence. It says, "The requirement" – he's referring to the dust/mist filter requirement, right?

A. Correct.

Q. "The requirement was not due to concerns over inhalation of paraquat," correct?

A. Correct.

Q. Did the EPA agree with that?

A. Yes. You can see in different EPA documents where the EPA has indicated that inhalation risk for paraquat should be assessed only if there is a – basically a risk for that. The 2001 HIARC, for example, which would have been about this same time frame reaches that conclusion. I believe there's also roughly something to that same rationale presented in the '97 RED.

Q. Okay. If you go to the next paragraph, first sentence.

A. Yes.

Q. "The request to add the requirement for the dust mist filter was due to reported incidents of epistaxis (nose bleeds) and upper respiratory

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irritation associated with exposure to paraquat," right?

A. Correct.

Q. It wasn't due to neurotoxicity. That's what you're saying, right?

A. Correct, sir.

Q. And if you go to the second page, next to the last paragraph.

A. Yes, sir.

Q. The last sentence.

A. Okay.

Q. "Syngenta respectfully submits that the changes proposed in the attached label amendment which emphasize the importance of minimizing hand to face contact and avoiding contact with spray mist are more effective in preventing epistaxis than the addition of a dust mist filter to applicators PPE," correct?

A. That's what is stated there, yes, sir.

Q. All right. And 43 is next.

(Exhibit 43 was marked for identification.)

BY MR. TILLERY:

Q. I just want to ask some general

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questions. Did Syngenta continue to take the position with regulators that a mask -- strike that.

Did Syngenta continue to take a position with regulators that a respirator of this dust/mist-type respirator was not required?

A. Yes, sir. Let me -- I just got the exhibit. Let me read it real quick to answer your question.

Q. Yes.

A. So that was an email from Scott to -- and I'm sorry. Mr. Tillery, can you restate your question just --

Q. Yeah, I'm trying to get to -- to a general state on this where there's no issue about -- so I don't have to pull up a whole series of documents.

A. Sure.

Q. Is it fair to say that Syngenta has taken a position with regulators and elsewhere and have led the way sort of that it's not necessary to wear these dust/mist filters when you're applying this -- paraquat products?

A. We have taken that position. I believe once this has resolved, or was resolved back in this

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time frame and EPA said, "No, these are required," we no longer have been trying to advocate the removal of the dust/mist filter.

Once this series of back-and-forths with the agency came into place and established that those respirators were going to be required, I think -- I do not believe Syngenta has made any further efforts to remove the respirator at that point.

Q. Okay.

A. The dust/mist filter.

MR. WEIR: And let me just impose an objection to the last question. Sorry I was muted when I said it.

BY MR. TILLERY:

Q. Okay. And here if you could look at that second paragraph. It says -- and this is an email exchange, correct?

A. Correct.

Q. And it's February 27th, 2002 at the bottom, and it's Gramoxone DOT changes, right?

A. Yes, sir.

Q. And that's from Austin -- no, that's from Rusty Wendt, right?

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A. Correct.

Q. And then at the top there are a large number of people involved in that discussion, right?

A. Correct.

Q. And this exhibit is Syngenta-PQ-31448158, and the person who wrote this is Chuck Foresman; is that right?

A. Correct.

Q. And who is he?

A. Chuck Foresman would have been what we call a brand manager, so what Chuck would be involved with is coming up with the marketing and business strategies around that product.

Q. And he says in that email, "For your information, we are steadfast in our resolve to get this dust mist filter requirement off the label in the future and are working with the state of California to accept new PPE labeling directions more pertinent to reducing exposure to the applicator, for instance, avoid contacting your nose with your finger after contaminating it with Gramoxone. Will keep you informed," right?

A. Yes, sir.

Q. So as of the date of this email which

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was 2002 in February, Syngenta was still very strongly committed to getting rid of the dust/mist filter requirement on the label, right?

A. That's what this email indicates.

Q. Okay. Now, let's look at 44.

(Exhibit 44 was identified for the record.)

BY MR. TILLERY:

Q. I want to show you this and I have a couple questions for you.

A. Let me scan this really quickly, sir.

Q. And this is Syngenta-PQ-01981745. The 12/12/03 document entitled "Paraquat: A unique contributor to agriculture and sustainable development."

Do you remember seeing this document at the time?

A. Mr. Tillery, I don't recall seeing this document at the time. I may have but I certainly do not remember seeing it if I did.

Q. This is what appears to be a report and created by a Mr. Srinivasan, correct?

A. Let's see here. Yes, Mr. Srinivasan, okay.

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Q. And if you look at the bottom under number 6.

A. And, Mr. Tillery, just it's called a report. It looks to me or the question about this report, this looks to me more like a Q & A type.

Q. Yes, I think you're right. It's a Q & A is what it really is.

A. Yes, sir, for number 6.

Q. Yeah, dated December 12th, 2003, and it is in fact just that. And it demonstrates on point 6 that he got paid by Syngenta, a sum not -- as he referred to it, a nominal fee to complete the assessment but retained editorial control, okay?

A. Okay.

Q. And he is in paragraph 5 saying why he's releasing this now, and he says "This comprehensive review has been in progress for over the last 12 months and is now ready for release. Syngenta believes in the importance of making balanced and credible information available to consumers, users, regulators, and all stakeholders," right?

A. Yes, sir.

Q. All right. So let's go with

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paragraph 16.

A. Okay.

Q. And that would be on page 3.

A. Okay.

Q. It's paragraph -- strike that.

"Is paraquat safe for operators?" And I'll read it into the record. "Under normal use conditions (i.e., as recommended on the label and in minor predictable deviations) the product is safe to the user and the bystander. When spraying Gramoxone, Syngenta recommends the operator does not need any special protective clothing. Normal clothing, that is, a long-sleeved shirt, long trousers and waterproof shoes are generally advised for spraying all pesticides including Gramoxone."

Was that Syngenta's position at that time in 2003?

A. I'm trying to remember specifically what the label said. The answer would certainly have had the position the label must be followed, so if those were the clothing requirements on the label, then that would have been our position.

Q. Why would then this be released by the Greensboro communications specialist about the use

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and safe use of paraquat if it didn't dovetail directly with what was on the label?

A. My assumption is that --

MR. WEIR: Sorry, Monty. I object to foundation and outside the scope, I believe.

BY MR. TILLERY:

Q. Go ahead, sir.

A. My assumption is that it does dovetail with the label, but I just -- since I'm on the record here, I don't want to make a definitive statement unless I have a definitive recollection of it.

Q. Okay. Well, let's talk about if you go -- we're going to come back -- but let's go to the next page and paragraph 17.

A. Yes, sir.

Q. It says, "In developing countries with hot climates, the protective clothing you describe is often impractical. How are farmers supposed to protect themselves from paraquat exposure in these situations?"

And then he writes an answer, doesn't he?

A. He does.

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Q. So the question is what I read is, and the answer is, "Results from more than 40 years of field use and many worker exposure studies show that paraquat can and is being used safely by millions of farmers in both the developed and developing world. This includes circumstances where minor and predictable deviations from the label are taken, such as not always wearing shoes" -- "wearing gloves and mask. In fact, the safety record of the product in the developing world matches that in other regions.

"We advise normal work wear for spraying Gramoxone: Long trousers, long-sleeved shirt, and waterproof boots. For mixing and loading, the addition of nitrile gloves and a face shield is also recommended. Some regulatory authorities recommend gloves and face mask on the label.

"The skin is actually an excellent barrier to paraquat, and the product has no vapor pressure to allow it to be inhaled," right?

A. Correct.

Q. So is it your belief today that the skin is an excellent barrier to paraquat?

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A. Intact skin for short-term exposure is. I believe the normal absorption by you has been demonstrated to be about 0.3 percent.

Q. So getting it on your hands wouldn't be something you'd be concerned about if the person didn't have some cut, scrape, bruise, abrasion, et cetera, that would allow it to penetrate into the bloodstream?

A. It certainly is our recommendation that you immediately would stop and wash the hand. That's in the paraquat training materials we developed that are now part of the standard training. So our position would be certainly if you have dermal exposure, immediately wash it off.

I think the data has shown that for a short-term exposure there is very low potential for dermal absorption, but given longer-term exposure you could have skin irritation and that could complicate the situation.

Q. Now, this Q & A is dated December 12th, 2003, isn't it?

A. I believe that's correct.

Q. Right. And this is two years after the EPA and the discussion with the EPA about the dust/mist filter, right?

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A. That would be correct, two years after.

Q. And Syngenta is taking a very clear position that it is not required, aren't they here?

MR. WEIR: Object to the form.

THE WITNESS: Okay. Yes, I mean, the position that they're taking here, and I think it's an acknowledgment that you have in different regions different regulatory standards. The EPA tends to be one of the more highly regulated regions that some regulatory authorities will require more mitigations and -- than others.

And in the case of the face mask or the dust/mist filter is Syngenta clearly had taken the position that it didn't believe it was warranted. However, once EPA mandated it, then it would be something that we would have on our U.S. labels.

BY MR. TILLERY:

Q. And you have them on the label, but if people ask you, and this is a question and an answer. This was an official position, question and answer. You told them in your opinion it wasn't necessary, right?

MR. WEIR: Object to the form.

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THE WITNESS: Okay.

BY MR. TILLERY:

Q. Is that correct?

A. Our position is always you must follow the label directions.

Q. Well, but here look at number 17 and the answer.

A. Yes, sir.

Q. "We advise normal work wear for spraying Gramoxone: Long trousers, long-sleeved shirt and waterproof boots." That's what you recommend, right?

A. That's what is stated there, yes, sir.

Q. Yeah. I mean, that doesn't say one word about a -- a spray mist filter, does it?

MR. WEIR: Object to the form. I think it misrepresents the document.

BY MR. TILLERY:

Q. Go ahead, sir.

A. And my position on that or the way I view this is taking that one paragraph as it is written doesn't make a reference to the label. The label is the law and Syngenta always recommended people follow the label.

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Q. Right. But you don't say that here, do you? Where does it say – let me just say this to you. You say it's hot in developed – hot climates, okay? Hot climates cause people to compromise and not always follow instructions, and you say your advice would be to wear what you would have them wear, normal work wear for spraying Gramoxone, long trousers, long-sleeved shirt, and waterproof boots, right? That's what you say.

A. That's what the document there states.

Q. Right. And for mixing and loading, the addition of nitrile gloves and a face shield is also recommended, right?

A. That's what's said there, yes, sir.

Q. Now, that's the end of your recommendations?

A. No, sir. I think if you go to the very next sentence it also indicates some regulatory authorities recommended gloves and face mask on the label, so there's a reference there that you should make sure that you're doing what's recommended on the label.

Q. But that's not what you're – the way this is worded isn't what you're recommending. You

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say "We advise," and then you say "some regulatory authorities recommend gloves and face mask," right?

A. As I read that, that's all comprehensive in the same paragraph, sir.

Q. Okay. And then the skin is an actual barrier to paraquat and the product has no vapor pressure to allow it to be inhaled, correct?

A. That's what is stated there.

Q. All right. Let's go to the bottom of the page and number 18.

A. Yes, sir.

Q. The question is "What role does paraquat play in Parkinson's Disease?"

A. Okay.

Q. Do you see that?

A. That is number 18, sir?

Q. 18. It's the number, paragraph 18.

A. Yes, sir.

Q. Do you see it?

A. I'm not seeing the reference to Parkinson's, but maybe I'm overlooking it, sir.

Q. It's on that same page that you were on.

A. I'm sorry, sir. I got confused because

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18, 19, back to 18.

Q. Yeah, no, it's – it's – it's the paragraph.

A. I'm with you now, okay. So the one that's highlighted here?

Q. Right.

A. Okay.

Q. And it says, "There is no scientific or reliable epidemiological evidence to link paraquat with Parkinson's Disease. Previous studies have demonstrated that paraquat does not cross the blood-brain barrier easily, meaning that it does not reach to specific location in the brain necessary to produce Parkinson's symptoms. Epidemiology studies in areas of high and long-term exposure usage have shown no increase of neurotoxic incidents."

Is that right? Is that what it says?

A. That's what it says, yes, sir.

Q. All right. Now, let's go to the bottom there of the page and look what it says. "Syngenta communications contact." This came from Sherry Ford's office in Greensboro, didn't it?

A. It did.

Q. Okay. Let's go to Exhibit 45 now.

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(Exhibit 45 was identified for the record.)

THE WITNESS: Let me make sure I have the document open.

BY MR. TILLERY:

Q. All right. If you'd open that and --

A. Okay.

Q. The question-and-answer document by Mr. Srinivasan that we looked at went along with a 2004 report on paraquat by Mr. Srinivasan, right?

A. That appears to be this case, yes, sir.

Q. And Mr. Srinivasan was paid by Syngenta to prepare the report, right?

A. That's what -- yes, that was stated in the other document.

Q. And that's still on or was at least a few weeks ago on the paraquat.com website that Syngenta maintains, correct?

A. I do not have a reason to doubt that. I can't confirm it, but I don't have a reason to not believe that.

Q. Okay. So if we can, go to page 50.

A. Okay. And just for clarity, as I'm going to page 50, Mr. Tillery, when you said it was

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on the paraquat.com website, I'm assuming that was that Q & A that we just reviewed?

Q. I think this report is what's on – or – I think the report is what I'm referring to.

A. Okay. All right. So I am now on page 50, sir.

Q. And this is adverse effects?

A. That's – yes, sir.

Q. Okay. And if you go to the second paragraph.

A. Okay.

Q. "Concern has been raised over the fact that some workers do not use the protective clothing recommended for pesticide spraying."

Do you see that?

A. I see that.

Q. "However, this is understandable in an environment where temperatures routinely exceed 27 degrees Celsius (80 degrees Fahrenheit) and humidity can be close to 100 percent. Whilst few workers wear full protective clothing, studies have found that most workers use appropriate safety equipment and apparel. Moreover, WHO" – is that the World Health Organization, sir?

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A. I believe that's what that would be referencing.

Q. "WHO studies confirm that safety" – "that despite this practice there is no evidence indicating long-term health impacts of workers that are occupationally exposed to paraquat. There are no recorded instances of fatalities from occupational exposure to paraquat and no reason to believe that there ever will be any fatalities."

Is that what he said?

A. That's what he said, sir.

Q. Okay. Now, if we go to 69 of that same document, that report. There's a section called "Paraquat safety." Do you see that?

A. I do see that.

Q. Now, according to Syngenta, he says, "Safe handling and use of paraquat may be ensured by following five simple rules (these are promoted by Syngenta as the '5 golden rules'.)" Okay?

"1. Be aware of risks," right?

A. Yes, sir.

Q. "2. Understand safety precautions - avoid exposure, avoid contact with skin and eyes, secure containers." Okay? Is that number 2?

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A. That is number 2.

Q. Number 3 is "Personal hygiene - wash and change clothes at the end of spraying," right?

A. Correct.

Q. 3 is "Knapsack sprayer maintenance." Do you see that?

A. I see that.

Q. And 4 is "Appropriate personal protective equipment - simple protection, provided by work clothes and boots, is sufficient."

Is that what they say?

A. That's what they say, yes, sir.

Q. Is there any reference there that you can see to any kind of masks or gloves?

A. There is no reference there to mask or gloves.

Q. Okay. Now if we can I'd like to go to the paraquat – paraquat.com website. Okay?

A. Okay.

Q. And this is -- this is Exhibit 46.

(Exhibit 46 was identified for the record.)

BY MR. TILLERY:

Q. And this is the paraquat information

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center?

A. Okay.

Q. The paraquat.com website was created and is maintained by Syngenta, right?

A. Correct.

MR. WEIR: Would you mind if I can get a standing objection on scope here since we designated other witnesses on the website?

MR. TILLERY: Okay. Is this Botham's topic?

MR. WEIR: I don't recall if we did for Botham or Mr. Ouzts, if I'm honest, but I know it wasn't for Mr. Dixon.

BY MR. TILLERY:

Q. Hold on. Okay. Let's just cover a brief section. If you'd go to this called "Safety FAQs." Do you see that?

A. Yes, sir, I see that.

Q. Under number 5.

A. Okay.

Q. And just so we're clear, was the website intended to provide facts and information about paraquat to people who might be able to access it and answer questions?

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A. That's my understanding of the intention of the website is to be a location with factual information to inform folks about paraquat.

Q. Does it mention using a respirator to use paraquat safely?

A. I do not see a reference to a respirator, sir.

Q. Okay. Actually, it says in number 5, "Use personal protective clothing and equipment (PPE) where required. For paraquat this is defined as using" -- sorry -- strike that.

"For paraquat this is defined as using eye protection and gloves when handling concentrated product and normal work wear, such as long-sleeved shirt, trousers, and waterproof shoes, for spraying," right?

A. That's what's stated there, yes.

Q. And that's -- that's good as of 2020?

A. Correct.

Q. Okay. Not a mention of a mask, right?

A. The only mention would be as part 5 where it says, "Use protective clothing and equipment (PPE) where required." So if you're in a region where the label requires PPE, that indicates

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you should use that required PPE.

Q. You don't think this is sending a message to people who are -- a farmer who's accessing this on his home computer and looking at it, you don't think this is sending a message to him that there's no need to wear a mask? Is that --

MR. WEIR: Objection. Sorry, object to the foundation and the form.

THE WITNESS: I certainly yield the point that it does not specifically say mask, and what it defines as the protection there, there is that clause that says "Use PPE where required." So it's -- this document is intended to cover -- or this website, I believe, is intended to cover the world, and so there are some differences, I guess, in the regional requirements, and perhaps that's why that sentence is phrased the way it is.

MR. TILLERY: I see.

Let's go off the record now and see if I can wrap up, okay? Just for a second.

THE VIDEOGRAPHER: We're going off the record. The time is 4:22. This ends Media Unit Number 6.

(Recess taken.)

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THE VIDEOGRAPHER: We're going back on the record. The time is 4:28. This begins Media Unit Number 7.

BY MR. TILLERY:

Q. On the record. I'm told that I did not record on the record the Bates number for Plaintiffs' Deposition Exhibit Number 43. And that is Syngenta-PQT-ATR-01330649.

Mr. Dixon, did Syngenta ever internally research or examine the overall effectiveness of its paraquat warnings and labels?

A. I'm not sure exactly how to answer that, sir. I don't have any recollection or first-hand knowledge, but I can't say that over the years there's not been a case where they potentially tried to evaluate the labels. One of the key elements of the labels, of course, is that most of the statements on there are mandated by the EPA, their Label Review Manual.

So once our labels are submitted and we have the approval, it's been vetted with the EPA, and the statements typically are based upon what's required through that Label Review Manual and the different requirements within the 40 CFR for labels.

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Q. I understand your point, but my question to you is different. Irrespective of the origin of each word or each sentence on the label, what was mandated by FIFRA or anything else, did Syngenta ever initiate any research to examine the effectiveness of its warnings or labels, to your knowledge?

A. To my knowledge, I'm not aware of any such activity.

Q. Okay. Did Syngenta ever hire a third party to research the overall effectiveness of its warnings or labels?

A. To my knowledge, I'm not aware of that being done.

Q. Did Syngenta ever internally research or examine the specific language of its warnings or labels?

A. To my knowledge, no. I will indicate that when we did do the Spanish translations that we've done, part of that involved discussion with the EPA to ensure that we were able to select the appropriate -- there's many different Spanish dialects, so that was an attempt to ensure that the Spanish translations that we put particularly on the

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counter card would be clear to the most like users who would be predominantly Spanish-speaking people.

So that was an attempt to use a professional organization to improve the readability of that part of the label.

Q. Did Syngenta ever hire a third party to research the specific language of its warnings or labels?

A. Not that I'm aware of, sir. Not that I recall.

Q. For example, in order to address the effectiveness of any statement on the label regarding the use of any kind of mask or respirator, did Syngenta ever hire anybody to do any kind of analysis to decide how many people were actually following that direction or regulation or warning on the label?

A. I -- to the best of my recollection, I have no awareness of that being done. I don't recall ever seeing anything like that.

Q. Okay. We're going to do a Share screen now real quick to finish, and that Share screen will involve a database that's listed -- listing you as the custodian, okay?

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(Exhibit 47 was identified for the record.)

BY MR. TILLERY:

Q. Can you see this document, sir?

A. I do, although I'm not sure what this is.

Q. Well, we were going to ask you the same thing. This is a -- this was given to us as the document. If you look at all the columns --

A. Right.

Q. -- of people who have been exposed through ingestion of paraquat.

A. Okay.

Q. And it lists you as the custodian.

A. Yes, and I am struggling because this does not look like -- I am not familiar with this. I -- I have done -- and I guess some of these folders -- are those folders' names associated with the discovery process or?

Q. You mean in this case?

A. Like, where I see Syngenta group identifier or original file path control --

Q. We got this document exactly the same form as is being shown to you right now.

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MR. WEIR: That was going to be my question, Steve. This was a document that was produced like this to you by us?

MR. TILLERY: Yes, by your partner.

MR. WEIR: Okay.

BY MR. TILLERY:

Q. And it was the subject of discussion in Dr. Botham's deposition, and he suggested that we direct our questions to you. Okay?

A. So he has -- he had -- you know, as I'm looking at this, Mr. Tillery, I don't -- it looks to me, and I'm just piecing together looking at this screen, I'm seeing file names and different people. It looks like -- I see some references to Prosar. This looks to me like some generated database that may have had something to do with recovering files, but I am struggling. I see Steven Wall's name. I see Steven Goldsmith. I don't even know who that is.

Q. Yeah, so these -- what we're trying to figure out is is your connection to or involvement with maintaining databases of people who have ingested paraquat.

A. I don't have any database that I

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maintain, sir. What we do have is we have our relationship with Prosar that became ProPharma that I have the ability to access through a pass code, you know, like a website login. I certainly over the years at times downloaded reports from Prosar or ProPharma to try to understand the data that was in there.

But I do not have any type of database that I maintain, and so looking at this document I see a lot of references to ProPharma from people like Fernando Suarez who's a toxicologist. Earlier on I went down I saw different Syngenta people, Pat McCain who I would assume would have no real interaction. So it looks to me -- I'm not sure where this came from.

Tom, do you have any idea because it's not a database -- I don't maintain any databases, sir.

Q. Let me ask you this: Is -- is the information contained here limited in time to a beginning point, to your knowledge?

A. Can I have -- let me scroll to the top just to see what's there.

Q. Is there any way we can give him

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control? They tell me no.
THE WITNESS: So, for example, Tom, are those Bates numbers there, those SYNG stuff or?
MR. WEIR: I probably shouldn't be doing any testifying here. I mean, those are --
MR. TILLERY: I don't mind if you do just as a way of an explanation. We're not going to play this -- we stipulate that we are not going to play this to a jury or judge.
MR. WEIR: I'll say, Steve, that this to me doesn't look like a document that we would have produced. It looks like an export from a database that lists documents that were produced, but if you want to -- if you want to send me along the email from Ragan or something that attached this, I'm happy to take another look at it and we can get back to you.
MR. TILLERY: Yeah, I'm -- unfortunately this is you see here other kinds of people listed.
THE WITNESS: You know, I don't even know who Steven Goldsmith is. I do see Pat McCain, but he's not associated with paraquat. And these control numbers, I have no idea what those are.

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MR. TILLERY: Okay. Well, we don't either. But we were just going to ask. So thank you very much, Mr. Dixon. Thank you for your time and these depositions hours. No further questions.
THE WITNESS: Thank you, Mr. Tillery.
MR. WEIR: No redirect from Syngenta.
MR. TILLERY: All right. And let me take this down, please, and can you take that down? And we're going to put -- you know, an exhibit placeholder 47 just to reference it.
MR. WEIR: Yeah, that's fine. Thanks, Steve.
MR. TILLERY: Off the record now.
THE VIDEOGRAPHER: We're going off the record. The time is 4:38. This ends Media Unit Number 7.
(Discussion off the record.)
THE VIDEOGRAPHER: We're going back on the record. The time is 4:39. This begins Media Unit Number 8.
Go ahead, Renee.
THE REPORTER: Standing orders for everyone?
MR. TILLERY: There are for the

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plaintiffs, correct?
MR. WEIR: Yes, for Syngenta.
MS. CECIL: Yes, for Chevron, thank you.
MS. KIMBALL: Yes, for Growmark.
THE VIDEOGRAPHER: And standing orders for everybody on video?
MR. TILLERY: For the plaintiffs, yes.
MR. WEIR: For Syngenta, yes.
MS. CECIL: For Chevron, yes.
THE VIDEOGRAPHER: Ms. Kimball?
MS. KIMBALL: I don't think we have a standing order for the video. The standing order is no order.
THE VIDEOGRAPHER: Perfect. Thank you. This concludes the video-recorded deposition of Montague Dixon. We're going off the record at 4:40.
(Whereupon, signature was not waived and the witness was excused at 4:40 p.m.)
--oOo--

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CERTIFICATE OF REPORTER

I, RENEE COMBS QUINBY, a Registered Diplomate Reporter, Certified Realtime Reporter, Certified Court Reporter (MO), Certified Court Reporter (IL), and Notary Public within and for the State of Missouri, do hereby certify that the witness whose testimony appears in the foregoing deposition was duly sworn by me to testify to the truth and nothing but the truth; that the testimony of said witness was taken by stenographic means by me to the best of my ability and thereafter reduced to print under my direction.

I further certify that I am neither attorney nor counsel nor related nor employed by any of the parties to the action in which this deposition was taken; further, that I am not a relative or employee of any attorney or counsel employed by the parties hereto or financially interested in this action.

My Commission expires April 9, 2021.

Renee Combs Quinby, RDR, CRR, CCR (MO) #1291, CSR (IL) #084-004867

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ALARIS LITIGATION SERVICES

January 18, 2021

Tom Weir, Esq.
Kirkland & Ellis, LLP
1301 Pennsylvania Avenue NW
Washington, D.C. 20004

IN RE: DIANA HOFFMANN, individually and as Independent Administrator of the Estate of THOMAS R. HOFFMANN, Deceased, et al. v. SYNGENTA CROP PROTECTION, LLC, et al.

Dear Mr. Weir:

Please find enclosed your copies of the deposition of MONTY DIXON taken on January 7, 2021 in the above-referenced case. Also enclosed is the original signature page and errata sheets.

Please have the witness read your copy of the transcript, indicate any changes and/or corrections desired on the errata sheets, and sign the signature page before a notary public.

Please return the errata sheets and notarized signature page to our office at 711 N 11th Street, St. Louis, MO 63101 for filing prior to trial date.

Sincerely,

RENEE COMBS QUINBY

Enclosures

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ERRATA SHEET

Witness Name: MONTY DIXON
Case Name: DIANA HOFFMANN, individually and as Independent Administrator of the Estate of THOMAS R. HOFFMANN, Deceased, et al. v. SYNGENTA CROP PROTECTION, LLC, et al.
Date Taken: JANUARY 7, 2021

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Witness Signature: _____

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STATE OF _____)

COUNTY OF _____)

I, MONTY DIXON, do hereby certify:

That I have read the foregoing deposition;

That I have made such changes in form and/or substance to the within deposition as might be necessary to render the same true and correct;

That having made such changes thereon, I hereby subscribe my name to the deposition.

I declare under penalty of perjury that the foregoing is true and correct.

Executed this _____ day of _____, 20___, at _____.

_____

MONTY DIXON

_____

NOTARY PUBLIC

My Commission Expires: