

EXHIBIT 23

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1/26/74
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NOTES OF MEETING WITH CHEVRON CHEMICAL COMPANY
RICHMOND ON WEDNESDAY, 27 FEBRUARY 1974

**PARAQUAT TOXICOLOGICAL PROBLEMS IN THE USA
AND PROPOSED LABEL CHANGE**

Those attending the meeting were -

Mr R D Cavalli (Toxicologist, Chevron Environmental
Health Centre)
Dr F X Kamienski (Registration Section)
Dr J N Ospenson (Manager, R & D)
Mr W Lewis (Market Development)
Dr A Calderbank (PPL)

Basis of concern

- (a) Increasing numbers of reports of toxicological effects of paraquat to applicators in the field.
- (b) General growing concern amongst California State Officials brought about by (a) together with fatal poisoning incidents (by swallowing) and drift damage.
- (c) It is believed that EPA are particularly influenced by California State Officials.
- (d) There is increasing pressure from labour groups and a mounting number of law suits in the United States largely based on negligence in labelling.
- (e) If incidents with paraquat continue, it is believed that officials may recommend Glyphosate when this is registered. Officials in California (especially Dr K Maddy) are considerably influenced by public pressure.
- (f) There have been two deaths from paraquat in the USA already this year - one suicide (woman) and one accident (17-year old boy in Hawaii drinking from a beverage bottle).

Action taken by Chevron

- (i) Immediate action to strengthen the label, as under :-
"DANGER: MAY CAUSE DEATH IF SWALLOWED. HARMFUL IF SPLASHED IN THE EYES OR IF SPILLED ON THE SKIN. SPRAY MIST MAY BE HARMFUL IF INHALED. DO NOT GET IN EYES, ON SKIN OR CLOTHING. DO NOT BREATHE SPRAY MIST. Wear face shield, rubber gloves and rubber apron when handling concentrate. When spraying, wear goggles and a respirator to avoid eye contact and nasal, throat and respiratory irritation. Terminate exposure immediately if irritation is observed in the nose or throat. When contacting sprayed vegetation wet with spray dew or rain, wear waterproof footwear and clothing. Prolonged skin contact will cause severe irritation. Repeated contact with skin may increase danger of absorption. Symptoms of injury may be delayed. Do not contaminate feed, foodstuffs or drinking water."

(ii) Review of cases now on file with Department of Health - Department of Agriculture. It has proved impossible to obtain original documents of the 20 alleged poisoning incidents of paraquat - as listed for 1973 by the Public Health Department (Berkeley) and forwarded to PPL by Carl Tanner. Generally Doctors have given a quick diagnosis without reference back to Chevron or other sources of information. Chevron are now taking steps to educate Doctors to go into more detail with all alleged poisoning incidents from pesticides (not only paraquat).

(iii) The telephone number of The Poison Control Center will now be put on all Chevron labels. The Poison Center at the Refinery Clinic will operate a 24-hour service.

(iv) Chevron have already distributed 20,000 copies of the Physician's Guide on paraquat to hospitals throughout the USA.

(v) Chevron have set up a Paraquat Co-ordinating Committee of three from Marketing (Warren Lewis), Registration (Don Dye) and Technical Co-ordination (Ben Quisenberry). This team, similar in composition, but without a PR member to that in PPL, has already produced "Facts about Paraquat Use" and a "Guide for Aerial Applicators" which are distributed to growers, dealers, distributors and academics at every opportunity. (See appended letter).

(vi) Chevron have a representative (Lemac Hopkins) whose main function is to liaise with officials in California, notably, Department of Health, (Dr Kahn), Department of Food and Agriculture (Staff Toxicologist - Dr K Maddy), County Agricultural Commissioners and State Experimental Stations. He learned in time of the proposal that farm employees should take a cardio-pulmonary medical exam. prior to using paraquat - which Chevron were subsequently able to hold off.

(vii) Chevron Public Relations Department located in San Francisco, Head of Department Mr C L Czufin, who reports directly to Mr Barlow, are involved in all decisions concerning reaction to newspaper reports, public hearings, etc. Chevron have already had confrontations with Mrs Ida Honoroff, both privately and in public hearings (concerning Monitor). It is impossible to reason with her, and Chevron have no wish to challenge her articles on paraquat and "Dig the Hole Deeper".

(viii) It was suggested that Chevron should initiate spraying equipment and operator exposure trials in California similar to those recently instituted in Ireland. This suggestion was well received and Mr Cavalli will look into the possibilities of arranging such a trial. He asked for details of the procedures used in Ireland to be forwarded. Nevertheless, Chevron did not regard this study as an alternative to the need to insert "wear goggles and respirator when spraying" on the label.

(ix) On drift control from aerial spraying Chevron have initiated
(a) The Metronics study on droplet size and drying of droplets. This work is progressing well and should be completed by April.

(b) The second draft of a comprehensive operator manual was handed over for PPL comments (by 11th March).

Proposed Label Changes

A copy of the proposed paraquat revised label is attached. The basis for these precautions was questioned, and the need to first evaluate the situation by carrying out equipment and operator trials in California as arranged recently in Ireland was suggested. However, Chevron are committed to the sentence on the label (edict from Mr Barlow). The reasons given that most of the alleged incidents referred to eye or respiratory complaints and since we warn against spray-mist, we should recommend precautions which would avoid any unnecessary exposure and resulting discomfort such as nose bleeds, etc. It was also pointed out that an operator may get some spray into his eyes if not protected when he is out in the field and unable to wash immediately with water.

I felt that this recommendation on the US paraquat label might have repercussions on our markets outside the US and promised to let Chevron have PPL and IHRL comments before 11 March. However, it seems unlikely that Chevron could be persuaded that this precaution is unnecessary - even if the only justification is political. Chevron believed that this added precaution would not inhibit sales in the US.

After discussion it was agreed that the sentence "Symptoms of injury may be delayed" referred mainly to the ingestion of concentrate and should be removed to another part of the label dealing with first-aid treatment.

It was also suggested that the sentence "When contacting sprayed vegetation wet with spray, dew or rain, wear waterproof footwear and clothing" should be modified. This sentence has relevance to worker re-entry times which is causing considerable concern in the US at the present time. The wording on the label gives no time limit and might imply that even though the sprayed vegetation is dry, desiccated or dead and subsequently rained upon or has morning dew, the precautions of wearing waterproof footwear or clothing still prevails. We would like to re-word this sentence to state "When contacting sprayed vegetation before spray has dried, wear waterproof footwear and clothing". This implies that it will be safe to enter a sprayed area at any subsequent time. Although the hazard would appear to be negligible, there is little data on which to base a revised recommendation. However, Mr Cavalli agreed to review a report on some work of the analysis of paraquat in dew and grass carried out by Chevron in 1964 (Report File No: 740.10), together with the animal dermal studies, and then recommend whether the desired change could be made or if further studies were necessary.

It is planned to submit label amendments to EPA about the middle of March hoping for acceptance about June. No new registrations (except tolerance petitions) will be submitted until the revised label is accepted.

A Calderbank
4 March 1974

AC/DMG

Circulation - see over

Circulation:

Dr J T Braunholtz
Dr A A B Swan
Dr K Fletcher
Mr A W Waitt
Mr T C Frears/Dr E Schumacher
Mr W G Jenkins
Mr K D Hughes
Dr G A Watson
Mr R S Elias/Dr G C Mees/Mr J M Winchester
Dr R J Hemingway/Mr J F Newman/Dr J R Hadfield