UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

JUN 3 1986

MEMORANDUM

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

SUBJECT: Parathion - Cheminova response to 3(c)(2)(B) letter of 1/28/86
[No Accession No., RCB No. 1014]

FROM: Susan V. Hummel, Chemist
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Susan V. Hummel

THRU: Edward Zager, Section Head
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TO: Ed Allen, PM#12
Insecticide Rodenticide Branch
Registration Division (TS-767)

Cheminova has responded to the Parathion Data Call-In letter dated January 28, 1986; in their letter dated May 5, 1986.

Product Chemistry

Cheminova agrees to submit the data on chemical identity (presumably Product Chemistry) before the due date of 7/28/86.

Plant Metabolism

Cheminova agrees to conduct the plant metabolism studies, and submit them before the due date.

Animal Metabolism

Cheminova agrees to conduct animal metabolism studies. They state that a protocol for the animal metabolism studies cannot be developed until the plant metabolism is known, since plant metabolites may need to be fed. This is incorrect. The feeding of plant metabolites is ordinarily not needed. Ordinarily, the parent compound (parathion) should be fed. Feeding of parathion is required since finite residues of

parathion have been found in animal feed items. Additional animal metabolism studies may be required if significant plant metabolites are not also found to be animal metabolites. Additional time will be granted to conduct animal metabolism studies of parathion plant metabolites, if needed. Animal metabolism studies of parathion, per se, can be conducted at the same time as the plant metabolism studies.

Magnitude of the Residue

Cheminova agrees to conduct residue studies on small grains, alfalfa, cotton, nuts and peaches. They state that no residue data will be developed for tobacco and pineapples. They have not committed to develop data on the other crops. Cheminova states that soil incorporation will be deleted and that dust and granular formulations will not be defended by field testing.

Cheminova states that they cannot develop protocols for the residue studies until the plant metabolism is known and until analytical methods are developed. Also, they state that the data required by the DCI reflect outdated agricultural practices, so protocols need to be developed reflecting today's practice. Cheminova proposes to develop test protocols while the plant metabolism studies are in progress. An unspecified extension of time is requested.

An extension of time for the residue studies is reasonable. No additional time should be needed to develop analytical methods. Existing analytical methods should be adaptable for analysis of parathion and all metabolites of toxicological concern. Additionally, the crop grouping scheme should ease the residue chemistry data requirements.

As part of the EPA Minor Use Policy, the crop grouping scheme (40 CFR 180.34(f)) for establishing crop group tolerances was implemented to ease the residue chemistry data requirements for minor crops (48 FR 29855, 6/29/83 and 51 FR 11341, 4/2/86). The crop grouping scheme enables the establishment of tolerances for a group of crops based on residue data for certain crops that are representative of the group. In most cases, acceptable residue data for the representative crops are adequate to support a crop group tolerance. Once a crop group tolerance is established, the tolerance level applies to all raw agricultural commodities in the group, unless a crop is specifically excluded from the crop group tolerance.

Assuming maximum parathion uses are similar and residues in representative crops do not vary by more than a factor of five, the crop grouping scheme should ease residue chemistry data requirements for the crops on which parathion

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is registered. An extension of deadlines for the residue chemistry data is appropriate to ensure that the plant metabolism is fully known, and to allow for a full regimen of parathion treatment on each crop. These revised deadlines are given below by crop group. The representative commodities are listed.

Crop Group	Revised Due Date
Root and Tuber Vegetables	9/87
Carrots	
Potatoes	
Radishes	
Sugar Beets	
Leaves of Root and Tuber Vegetables	9/87
Turnips	
Sugar Beets	
Bulb Vegetables	2/88
Green Onions	
Bulb Onions	
Garlic	
Leafy Vegetables(except Brassica)	
Celery	3/88
Leaf Lettuce	9/87
Head Lettuce	9/87
Spinach	9/87
Brassica Vegetables	
Cabbage	9/87
Broccoli	1/88
Kale (substituting for mustard greens)	9/87
Legume Vegetables	
soybeans	3/88
dry beans	9/87
peas (succulent and dry)	12/87
snap beans	3/88
Foliage of Legume Vegetables	
Bean vines and hay	
(dry beans)	9/87
(snap beans)	3/88
Pea vines and hay	12/87
Soybean forage and hay	3/88

Crop Group	Revised Due Date
Fruiting Vegetables (except curcurbits)	
peppers	1/88
tomatoes	9/87
Curcurbits	9/87
cucumbers	
melons	
summer squash	
Citrus Fruits	9/87
Grapefruit	
Oranges	
Lemons	
Pome Fruits	4/88
Apples	
Pears	
Stone Fruits	2/88
Apricots (substituting for Peaches)	
Plums (fresh prunes)	
Sweet and Sour Cherries	
Small Fruits	3/88
Cranberries	
Gooseberries (substituting for blueberries)	
Grapes	
Strawberries	
Cereal Grains	
Field Corn	9/87
Sweet Corn	9/87
Rice	3/88
Sorghum	9/87
Wheat	12/87
Forage, Fodder, and Straw of Cereal Grains	
Corn	9/87
Rice	3/88
Wheat	12/87
Grass Animal Feeds	12/87
Bermudagrass	
Bluegrass	
Bromegrass or Fescue	

Non-grass Animal Feeds		12/87
Clover		
Alfalfa		
Miscellaneous Commodities		
Artichokes		3/88
Avocadoes		3/88
Dates		5/88
Figs		2/88
Hops		3/88
Mangoes		3/88
Okra		9/87
Olives		4/88
Peanuts		3/88
Pineapples	(Cheminova won't defend)	
Rape		9/87
Sunflower		3/88
Tobacco	(Cheminova won't defend)	

Processing studies will be due six months after the above deadlines for the associated raw agricultural commodity.

We recommend that all crops for which Cheminova has not agreed to conduct studies be removed from the product labels.

cc: R.F., circu, parathion S.F., parathion S.R.F. (Hummel) parathion Reg Std F. (Boodee), S. Hummel, TOX, EAB, D. Giamporcaro (SRB), PMSD/ISB
RDI:EZ:6/03/86:RDS:6/03/86
TS-769:RCB:RM810:CM#2:SVH:svh:6/03/86

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