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OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

MEMORANDUM

SUBJECT: Iprodione (EPA Reg. No. 264-453). Application for amended registration. CBRS No. 7947. DP Barcode D163917.

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TO: James Stone, PM-21
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Rhone-Poulenc AG Company proposes to amend the registration of its ROVRAL 50WP Fungicide (EPA Reg. No. 264-453). The label revisions are as follows:

1. Added precautions for post-harvest or pre-plant dip applications.
2. Added control of Shot Hole and Scab to stone fruit use directions.
3. Added control of Pod Rot to bean use directions.
4. Added PHI to beans use directions.
5. Added control of Black Rot to carrots use directions (We note that the number of applications was reduced from 8 to 4 on the proposed amended label without being noted by Rhone-Poulenc).

CBRS has been asked to review data on the introduction of a bean PHI. The previously approved bean use directions contained no PHI in days but rather is stated as a stage of growth. Rhone-Poulenc is now proposing that a 9-day PHI be imposed.

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Tolerances are established (40 CFR 180.399) for the combined residues of the fungicide iprodione, 3-(3,5-dichlorophenyl)-N-(1-methylethyl)-2,4-dioxo-1-imidazolidinecarboxamide (also designated RP-26019), its isomer 3-(1-methylethyl)-2,4-dioxo-1-imidazolidinecarboxamide (RP-30228), and its metabolite 3-(3,5-dichlorophenyl)-2,4-dioxo-1-imidazolidinecarboxamide (RP-32490) in or on several raw agricultural commodities including dry bean hay at 90.0 ppm, dry beans at 2.0 ppm, bean forage at 90.0 ppm, and succulent beans at 2.0 ppm.

Iprodione is a FIFRA 88 List B chemical. Phase 4 review was completed by Chris Olinger on March 15, 1991.

The nature of the residue

The metabolism of iprodione is adequately understood. The residue of concern is the parent iprodione [3-(3,5-dichlorophenyl)-N-(1-methylethyl)-2,4-dioxo-1-imidazolidinecarboxamide (also designated RP-26019), its isomer 3-(1-methylethyl)-2,4-dioxo-1-imidazolidinecarboxamide (RP-30228), and its metabolite 3-(3,5-dichlorophenyl)-2,4-dioxo-1-imidazolidinecarboxamide (RP-32490).

Magnitude of the Residue

No new residue data were submitted with this application; however, the petitioner wishes to support this amended registration with previously submitted residue data (MRID No. 00126577, 00144291, and 00147226). The FIFRA 88 Phase 3 Summary of this residue data was assigned MRID Number 92083036.

Residue data presented reflect two treatments at an application rate of 0.75 to 1.0 lb ai/acre/application. The 1X rate is 1.0 lb ai/A. Both ground and aerial applications were made; however, the label specifies application using ground equipment and chemigation only. The first treatment was applied at early bloom and the second applied at peak bloom. The timing between applications ranged from 2 to 12 days. Residue data presented on succulent beans and bean forage reflect PHI's ranging from 3 to 33 days. Field trials were conducted in New York, Michigan, Wisconsin, Florida, Oregon and Delaware. These states represent 76% of the succulent bean production in the United States (Agricultural Statistics). Field trials were conducted on dry bean and bean hay, reflecting PHI's of 45 to 72 days in New York, California, Nebraska, and Idaho which represent 37% of the US production. Supportive data are presented in the following tables.

SUCCULENT BEANS

Tolerance = 2.0 ppm

Location	PHI	PPM Parent RP 26019	PPM Metab. RP 30228	PPM Metab. RP 32490	PPM Total
New York	18	0.59	ND	ND	0.59
New York	18	0.51	ND	ND	0.51
New York*	9	0.10	ND	ND	0.10
Michigan	21	0.13	ND	ND	0.13
Michigan	19	0.08	ND	ND	0.08
Wisconsin	33	ND	ND	ND	ND
Wisconsin	15	0.33	ND	ND	0.33
Wisconsin*	15	0.06	ND	ND	0.06
Florida	3	0.84	0.06	ND	0.90
Oregon	9	0.32	0.08	ND	0.40
Oregon*	10	0.07	ND	ND	0.07
Delaware	21	0.08	ND	ND	

* Indicates aerial application

BEAN FORAGE

Tolerance = 90.0 ppm

Location	PHI	PPM Parent RP 26019	PPM Metab. RP 30228	PPM Metab. RP 32490	PPM Total
New York	18	14.90	0.08	ND	14.98
New York	18	23.89	0.83	ND	24.72
New York*	9	1.36	0.21	0.22	1.79
Michigan	21	6.69	0.43	ND	7.12
Michigan	19	11.13	0.78	ND	11.91
Wisconsin	33	1.33	0.18	ND	1.51
Wisconsin*	15	10.56	0.23	0.59	11.38
Wisconsin	15	2.87	0.11	ND	2.98
Florida	3	11.12	0.29	0.15	11.56
Oregon	9	12.77	0.52	ND	13.29
Oregon*	10	2.94	0.28	0.14	3.36
Delaware	21	0.89	0.37	0.35	1.61

* indicates aerial application

DRY BEANS

Tolerance = 2.0 ppm

Location	PHI	PPM	PPM	PPM	PPM Total
		Parent RP 26019	Metab. RP 30228	Metab. RP 32490	
New York	49	ND	ND	ND	ND
New York	49	ND	ND	ND	ND
California	55	1.16	ND	ND	1.16
California	66	0.97	ND	ND	0.97
California	72	0.11	0.13	ND	0.24
Nebraska	45	ND	0.10	ND	0.10
Idaho	45	ND	0.10	ND	0.10

BEAN HAY

Tolerance = 90.0 ppm

Location	PHI	PPM	PPM	PPM	PPM Total
		Parent RP 26019	Metab. RP 30228	Metab. RP 32490	
New York	49	4.22	0.24	0.38	4.84
New York	49	7.10	0.10	ND	7.20
California	55	85.38	0.44	0.27	86.09
California	66	23.17	0.34	ND	23.51
California	72	12.55	0.42	ND	12.97
Nebraska	45	15.51	3.26	0.31	19.08
Idaho	45	6.92	1.53	0.82	9.27

Data Gaps

The registrant has not provided enough data to support a 9-day PHI. Field experiments must reflect the proposed use with respect to the rate, mode, number and timing of applications and formulations proposed. The locations of the field experiments should reflect all of the principal growing regions of the crop as indicated in Agricultural Statistics.

The number of samples should be sufficient to give assurance that the tolerance will not be exceeded at the proposed 9-day PHI. As a result, the registrant should conduct new residue field studies which incorporate a 9-day PHI. ROVRAL 50WP Fungicide should be applied at the maximum rate of 1.0 lb ai/acre/application by ground application. In the case of snap beans and forage, two treatments are to be applied, the first at early bloom and the second at peak bloom. To reflect the proposed pod rot use, separate trials must involve treatments at early pod set and 10-14 days later since this could result in treatment of larger pods and a larger percentage of harvestable beans (i.e., later in the season). The pod rot use pattern should be applied to snap beans and dry beans; forage and dry bean hay also must be analyzed, as applicable. An adequate amount of samples per trial should be analyzed to sufficiently support a 9-day PHI. In addition, field trials should be conducted in the principal growing regions of the United States (Agricultural Statistics) including the following states:

Snap Beans: New Jersey or New York
 Tennessee, North Carolina or Virginia
 California
 Michigan
 Florida
 Wisconsin
 Oregon

Dry Beans: California
 Idaho
 Michigan
 Colorado
 Nebraska
 North Dakota

Conclusions

1. The nature of the residue for iprodione in plants is adequately understood. The residue of concern is iprodione (RP-26019), its isomer (RP-30228), and its metabolite (RP-32490).
2. An analytical method is available for enforcement purposes (PAM II)
3. An analytical standard is available at the Pesticides and Industrial Chemicals Repository.
4. The locations of the field experiments do not reflect adequately all of the principal growing regions of dry beans grown in the United States (Agricultural Statistics). Data supplied reflects only 37% of the growing region.

5. Residue field trials conducted on dry beans and bean hay do not reflect the proposed pod rot control. Field trials reflecting the early pod set and 10-14 days later proposed use should be conducted.

6. Succulent bean data do not adequately support a 9-day PHI. Only two samples were reported in which the field trials were conducted at the proposed PHI. Since a 14-day PGI (pregrazing interval) is imposed on bean forage, forage must be harvested at a 14-day PHI because sufficient data are not available at this interval. No new data were generated to reflect the proposed pod rot control i.e., treatment at early pod set and 10-14 days later.

7. No Craven Laboratory data were reviewed in support of this application.

Recommendations

CBRS recommends against this amended registration at this time because of the reasons stated above (Conclusions 4, 5, and 6). Additional residue data should be submitted (see specific Data Gaps starting on p. 4) reflecting a lowered PHI and a larger percentage of the principal growing regions in the United States.

cc: Reviewer(F. Fort), C. Furlow(PIB/FOD), RF, SF, Circ.
RDI: WJHazel:7/8/91:EZager:7/10/91
H7509C:CBRS:CM#2:Rm800-E:FAFort/FF:5/17/91