

## Evaluation Report for Category B, Subcategory 3.3, 3.5, 3.6, 3.7, 3.12 Application

**Application Number:** 2014-1825

**Application:**

New or Changes to Product Labels-New Site or Host

New or Changes to Product Labels-Application Number or Frequency

New or Changes to Product Labels-Rotational Crops\Plantback Intrvl

New or Changes to Product Labels-Pre- Harvest/Slaughte|With-Holding

New or Changes to Product Labels-Pre-Grazing Interval

**Product:** Propulse Fungicide

**Registration Number:** 30511

**Active ingredients (a.i.):** Fluopyram, Prothioconazole

**PMRA Document Number :** 2576139

### Purpose of Application

The purpose of this application was to expand the registration and to increase the maximum number of applications of Propulse Fungicide.

### Chemistry Assessment

No chemistry review was required for this product.

### Health Assessments

Propulse Fungicide for use on dry shelled peas and beans to control various diseases fits within the registered use pattern for fluopyram and prothioconazole for chemical handlers. The potential exposure for mixers, loaders, and applicators is not expected to exceed the current exposure to registered products. Postapplication risk was assessed and is not expected to result in risks of concern provided that all label restrictions, precautions and instructions are followed.

Residue data for fluopyram from field trials conducted in the United States, including Canadian representative growing regions, were submitted to support the domestic use of Propulse Fungicide on dried shelled peas and beans. Previously reviewed residue data from field trials conducted in/on dry beans and dry peas were reassessed in the framework of this petition.

No new residue data for prothioconazole were submitted to support the registration of Propulse Fungicide containing this active ingredient. Prothioconazole is currently registered for use on dry peas, chickpeas and lentils with similar rates and restrictions as proposed. Previously reviewed residue data from field trials conducted on dried peas and dried beans with prothioconazole were also reassessed in the framework of this petition. No increase in dietary exposure to

prothioconazole is expected. The resulting residues of prothioconazole, including the desthio metabolite, will be covered under the established maximum residue limits (MRLs) of 0.9 ppm in/on Crop Subgroup 6C (Dried Shelled Pea and Bean, except soybean). Residues will not pose an unacceptable health risk to any segment of the population, including infants, children, adults and seniors.

### Maximum Residue Limits

The recommendation for MRLs for fluopyram was based upon the submitted field trial data, and the guidance provided in the [OECD MRL Calculator](#). MRLs to cover residues of fluopyram in/on crops and processed commodities are proposed as shown in Table 1. Residues in processed commodities not listed in Table 1 are covered under the proposed MRLs for the raw agricultural commodities (RACs).

Commodity	Application Method/ Total Application Rate (g ai/ha)	PHI (days)	Fluopyram Residues (ppm)		Experimental Processing Factor	Currently Established MRL (ppm)	Recommended MRL (ppm)
			LAFT	HAFT			
Dry bean seed	Foliar spray/ 494-514	13-14	<0.01	0.068	Not required	0.4 (Dry chickpeas, dry lentils); 0.09 (Dry beans)	<b>0.7</b> (CSG 6C: Dried shelled pea and bean, except soybean)
Dry pea seed	Foliar spray/ 494-509	14	0.03	0.350	Not required		

LAFT = Lowest Average Field Trial; HAFT = Highest Average Field Trial

Based on the dietary burden and residue data, MRLs of 10 ppm in meat by-products of cattle, goats, horses and sheep, 2 ppm in milk, 1.5 ppm in fat and meat of cattle, goats, horses and sheep, 0.15 ppm in meat byproducts of poultry, 0.06 ppm in meat byproducts of hogs, and 0.05 ppm in fat of poultry to cover residues of fluopyram including the metabolite fluopyram-benzamide (expressed as parent equivalent) are also proposed.

Following the review of all available data, MRLs as proposed in Table 1 are recommended to cover residues of fluopyram. Residues in these crop/livestock commodities at the proposed MRLs will not pose an unacceptable risk to any segment of the population, including infants, children, adults and seniors.

### Environmental Assessment

Propulse Fungicide is a broad spectrum fungicide with two technical actives, Fluopyram and Prothioconazole. It is currently registered for use on dry beans, chickpeas and lentils for the control of fungal diseases by ground applications. The end use products currently registered with fluopyram and prothioconazole are also currently registered for use on a variety of field crops by ground applications. The use expansion to include dried shelled peas is not expected to pose

additional environmental concerns.

## Value Assessment

Information pertaining to the value of Propulse Fungicide for control of white mold (*Sclerotinia sclerotiorum*), ascochyta blight (*Ascochyta* spp.) and Mycosphaerella blight (*Mycosphaerella pinodes*) in dry bean was evaluated previously; see Evaluation Report “ERC2014-02 Fluopyram”. Propulse Fungicide applied as labelled can also be expected to control these same diseases in dried shelled pea crops, including pigeon pea, as well as in guar, also known as cluster bean. As Asian soybean rust (*Phakopsora pachyrhizi*) was already labelled as a controlled disease in pulse crops following a review of information previously submitted, and as this disease infects many bean and pea crops, a claim of control of Asian soybean rust in pea, including pigeon pea, and in guar is supported. A maximum of three applications of Propulse Fungicide per season for a crop season cumulative maximum of 2.25 L/ha (900 g a.i./ha) may extend the window of protection under conditions of heavy and prolonged disease pressure in labelled dried shelled pea and bean legume vegetable crops.

Propulse Fungicide can be integrated into a disease management program to mitigate the development of resistance to fungicides that have a similar mode of action. Integrated pest management (IPM) promotes the integration of cultural, biological, mechanical and chemical control strategies. The practice of IPM is intended to reduce pesticide use while maintaining economic returns through effective pest control and maximum crop production. The use of Propulse Fungicide in the supported crops will complement other disease management strategies available in those crops.

Propulse Fungicide includes two active ingredients, fluopyram and prothioconazole, which are respectively classified as group 7 and group 3 fungicides according to the Fungicides Resistance Action Committee. As Propulse combines two different modes of action, the risk of resistance development is reduced in targeted pathogens that are sensitive to both active ingredients. As fluopyram constitutes a new mode of action for control of the supported diseases in pea, including pigeon pea, and in guar, it is expected that the longevity of other fungicide products with different modes of action will be increased.

## Conclusion

The Pest Management Regulatory Agency has completed an assessment of the information provided in support of the product, Propulse Fungicide, and has found the information sufficient to expand the registration and to increase the maximum number of applications on the product label.

## References

1599582	2008, AE C656948 500 SC - Magnitude of the residue in/on fruiting vegetables (crop group 8 ), DACO: 7.2.1,7.2.4,7.4.1,7.4.2,7.4.6,IIA 4.3,IIA 6.3.3
1599583	2008, AE C656948 500 SC - Magnitude of the residue in/on tomato processed commodities, DACO: 7.4.5,IIA 6.5.3

1599672	2008, Determination of the residues of AE C656948 in/on tomato fruit and the processed fractions (raw juice; washings; fruit, washed; juice; peel; ...) after spraying of AE C656948 (500 SC) in the field in Portugal, Italy and Southern France, DACO: 7.4.5,IIA 6.5.3
1599673	2008, Determination of the residues of AE C656948 in/on tomato fruit and the processed fractions (raw juice; washings; fruit, washed; juice; peel; preserve; fruit, peeled; peeling water; puree; raw puree; strain rest) after spraying of AE C656948 (500 SC) in the field in Italy, DACO: 7.4.5,IIA 6.5.3
1654362	2008, AE C656948 500 SC - Magnitude of the residue in/on root vegetables except sugar beet (crop subgroup 1B), DACO: IIA 6.3.6,IIA 6.3.7
1661265	2008, AE C656948 500 SC - Magnitude of the residue in/on root vegetables except sugar beet (crop subgroup 1B), DACO: IIA 6.3.6,IIA 6.3.7
1654377	2008, AE C656948 500 SC - Magnitude of the residue in/on orange processed commodities, DACO: 7.4.5,IIA 6.5.3
1661284	2008, AE C656948 500 SC - Magnitude of the residue in/on orange processed commodities, DACO: 7.4.5,IIA 6.5.3
1654381	2008, AE C656948 500 SC - Magnitude of the residue on sunflower processed commodities, DACO: 7.4.5,IIA 6.5.3
1661289	2008, AE C656948 500 SC - Magnitude of the residue on sunflower processed commodities, DACO: 7.4.5,IIA 6.5.3
1654382	2008, AE C656948 500 SC - Magnitude of the residue on plum processed commodities, DACO: 7.4.5,IIA 6.5.3
1661290	2008, AE C656948 500 SC - Magnitude of the residue on plum processed commodities, DACO: 7.4.5,IIA 6.5.3
1654389	2008, Determination of the residues of AE C656948 and tebuconazole in/on round cabbage head and the processed fractions (washings; cooking water; head, cooked; head, washed) after spraying of AE C656948 & HWG 1608 (400 SC) in the field in Souther, DACO: 7.4.5,IIA 6.5.3
1661292	2008, Determination of the residues of AE C656948 and tebuconazole in/on round cabbage head and the processed fractions (washings; cooking water; head, cooked; head, washed) after spraying of AE C656948 & HWG 1608 (400 SC) in the field in Souther, DACO: 7.4.5,IIA 6.5.3
1654397	2007, Determination of the residues of AE C656948 and tebuconazole in/on round cabbage head and the processed fractions (washings; cooking water; head, cooked; head, washed) after spraying of AE C656948 & HWG 1608 (400 SC) in the field in Norther, DACO: 7.4.5,IIA 6.5.3
1661297	2007, Determination of the residues of AE C656948 and tebuconazole in/on round cabbage head and the processed fractions (washings; cooking water; head, cooked; head, washed) after spraying of AE C656948 & HWG 1608 (400 SC) in the field in Norther, DACO: 7.4.5,IIA 6.5.3
1661147	2008, AE C656948 500 SC + trifloxystrobin 500 SC - Magnitude of the residue in/on globe artichoke, DACO: 7.4.1,7.4.2,7.4.6,IIA 6.3.1
1661154	2008, AE C656948 500 SC - Magnitude of the residue in/on dry bulb onions, DACO: 7.4.1,7.4.2,7.4.6,IIA 6.3.1

1661159	2008, AE C656948 500 SC - Magnitude of the residue in/on green onions, DACO: 7.4.1,7.4.2,7.4.6,IIA 6.3.1
1661174	2008, AE C656948 500 SC and trifloxystrobin 500 SC - Magnitude of the residue in/on leafy vegetables (crop subgroup 4), DACO: 7.4.1,7.4.2,7.4.6,IIA 6.3.1
1669960	2008, AE C656948 500 SC and trifloxystrobin 500 SC - Magnitude of the residue in/on leafy vegetables (crop subgroup 4), DACO: 7.4.1,7.4.2,7.4.6,IIA 8.3.2
1983751	2010, AE C656948 500 SC and trifloxystrobin 500 SC - Magnitude of the residue in/on leafy vegetables (crop subgroup 4), DACO: 7.4.1,7.4.2,7.4.6,IIA 6.3.1
1661180	2008, AE C656948 500 SC and trifloxystrobin 500 SC - Magnitude of the residue in/on head and stem brassica (crop subgroup 5A), DACO: 7.4.1,7.4.2,7.4.6,IIA 6.3.1
1669962	2008, AE C656948 500 SC and trifloxystrobin 500 SC - Magnitude of the residue in/on head and stem brassica (crop subgroup 5A), DACO: 7.4.1,7.4.2,7.4.6,IIA 8.3.3
1661199	2008, AE C656948 500 SC - Magnitude of the residue in/on leafy brassica greens (crop subgroup 5B), DACO: 7.4.1,7.4.2,7.4.6,IIA 6.3.1
1661209	2008, AE C656948 500 SC - Magnitude of the residue in/on succulent shelled pea and bean (crop subgroup 6B), DACO: 7.4.1,7.4.2,7.4.6,IIA 6.3.1
1661210	2008, AE C656948 500 SC - Magnitude of the residue in/on edible-podded legume vegetables (crop subgroup 6A ), DACO: 7.4.1,7.4.2,7.4.6,IIA 6.3.1
1661221	2008, AE C656948 500 SC - Magnitude of the residue on citrus (crop group 10), DACO: 7.4.1,7.4.2,7.4.6,IIA 6.3.1
1661236	2008, AE C656948 500 SC + pyrimethanil 600 SC - Magnitude of the residue in/on caneberry, DACO: 7.4.1,7.4.2,7.4.6,IIA 6.3.1
1661237	2008, AE C656948 500 SC + pyrimethanil 600 SC - Magnitude of the residue in/on bushberry (crop subgroup 13B), DACO: 7.4.1,7.4.2,7.4.6,IIA 6.3.1
1661249	2008, AE C656948 500 SC - Magnitude of the residue in/on grass forage, fodder, and hay (crop group 17) and grass for seed, DACO: 7.4.1,7.4.2,7.4.6,IIA 6.3.1
1661250	2008, AE C656948 500 SC + trifloxystrobin 500 SC - Magnitude of the residue in/on globe herbs (crop subgroup 19A), DACO: 7.4.1,7.4.2,7.4.6,IIA 6.3.1
1661251	2008, AE C656948 500 SC + trifloxystrobin 500 SC - Magnitude of the residue in/on spices, except black pepper (crop subgroup 19B), DACO: 7.4.1,7.4.2,7.4.6,IIA 6.3.1
1661252	2008, AE C656948 500 SC - Magnitude of the residue in/on peanuts, DACO: 7.4.1,7.4.2,7.4.6,IIA 6.3.1
1661258	2008, AE C656948 500 SC: Magnitude of the residue on hops, DACO: 7.4.1,7.4.2,7.4.6,IIA 6.3.1
1661259	2008, AE C656948 500 SC - Magnitude of the residue in/on sunflower, DACO: 7.4.1,7.4.2,7.4.6,IIA 6.3.1
2427018	2013, Fluopyram 500 SC and fluopyram 400 SC - Magnitude of the residue in/on potato, DACO: 7.4.1,7.4.2,7.4.6,IIA 6.3.1

2427239	2013, Fluopyram 500 SC and fluopyram 400 SC - Magnitude of the residue in/on potato, DACO: 7.4.1,7.4.2,7.4.6,IIA 6.3.1
2427021	2013, Fluopyram 500 SC and fluopyram 400 SC - Magnitude of the residue in cotton (Amended) - (i-MRL), DACO: 7.4.1,7.4.2,7.4.6,IIA 6.3.2
2427022	2014, Fluopyram 500 SC and fluopyram 400 SC - Magnitude of the residue in/on citrus - Fluopyram 500 SC (short code - 129306) - Fluopyram 400 SC (short code - 151196) (i-MRL), DACO: 7.4.1,7.4.2,7.4.6,IIA 6.3.2
2427023	2013, Fluopyram 500 SC and Fluopyram 400 SC - Magnitude of the residue in/on peanut (i-MRL), DACO: 7.4.1,7.4.2,7.4.6,IIA 6.3.2
2427035	2012, BYI 02960, fenamidone, fluopyram, and spiromesifen - Magnitude of the residue in sugarcane processed commodities in Florida (rotational crop regional tolerance) - (Amended) (i-MRL), DACO: 7.4.5,IIA 6.5.3
2427043	2013, Fluopyram 500 SC and fluopyram 400 SC - Magnitude of the residue in/on cotton processed commodities (i-MRL), DACO: 7.4.5,IIA 6.5.3
2427044	2012, BYI 02960, fenamidone, fluopyram, and spiromesifen - Magnitude of the residue in sugarcane in Florida (rotational crop regional tolerance) (Amended) (i-MRL), DACO: 7.4.4,IIA 6.6.3
2535486	2015, Fluopyram- Proposal to Modify Petition for tolerances-version#4 (final), DACO: 7.1,7.8,IIA 6.7.2
2572513	2015, Waiver request: AE C656948 500 SC - Magnitude of the residue in/on barley (as part of crop groups 15 and 16, except rice): Bayer CropScience response to the PMRA deficiency note for fluopyram on barley, DACO: 7.4.1,7.4.2,7.4.6,IIA 6.3.1
2572514	2015, Waiver request: AE C656948 500 SC - Magnitude of the residue in/on canola (crop group 20A): Bayer CropScience response to the PMRA deficiency note for fluopyram on canola, DACO: 7.4.1,7.4.2,7.4.6,IIA 6.3.1
2572515	2015, Waiver Request: AE C656948 500 SC - Magnitude of the residue in/on wheat (as part of crop groups 15 and 16, except rice): Bayer CropScience response to the PMRA deficiency note for fluopyram on wheat, DACO: 7.4.1,7.4.2,7.4.6,IIA 6.3.1
2572518	2015, Waiver request: AE C656948 500 SC - Magnitude of the residue in/on small-sized tomatoes (as part of crop groups 8-09A): Bayer CropScience response to the PMRA deficiency note for fluopyram on tomatoes, DACO: 7.4.1,7.4.2,7.4.6,IIA 6.3.1
2577848	2015, Fluopyram - Projected Percent Crop Treated - Canada, DACO: 7.1,7.8,IIA 6.7.2

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