



Evaluation Report for Category B, Subcategory 3.5 Application

Application Number: 2015-4840
Application: Changes to Product Labels - Plantback Interval
Product: Thimet 20-G
Registration Number: 29000
Active ingredient (a.i.): Phorate
PMRA Document Number: 2714491

Purpose of Application

The purpose of this application was to amend the product label of Thimet 20-G to reduce the plantback interval for legumes from 12 to 6 months.

Chemistry Assessment

A chemistry assessment was not required for this application.

Health Assessment

Toxicology and occupational exposure assessments were not required for this application.

Two field trials each per crop for phorate on wheat (small grain), lettuce (leafy vegetable), radish (root/tuber) and tomato (fruiting vegetable) as rotational crops were conducted in representative regions of the United States where Thimet 20-G is used on annual agronomic field crops such as potatoes. At each trial location, a single-in-furrow application of phorate (as Thimet 20-G) at 4 kg a.i./ha (1x the maximum registered rate on potatoes) was made to bare soil at planting of the primary crop potato. The primary crop was harvested at approximately 90 days after application. Wheat, tomatoes, lettuce, and radishes were planted into treated plots at plantback intervals (PBIs) of 180, 270 and 365 days, grown and maintained according to typical agricultural practices, and harvested at commercial maturity.

The results from these trials show that total residues of phorate (including the metabolites phorate oxon, phorate oxon sulfone, phorate oxon sulfoxide, phorate sulfone and phorate sulfoxide) in wheat forage, hay, grain and forage, tomato fruit, lettuce leaves, radish tops and radish roots were non-quantifiable (<0.05 ppm; phorate equivalents) at PBIs of 180 days and 270 days.

A plantback interval of 6 months for all crops, except potatoes, is sufficient to ensure that quantifiable residues of phorate-related residues will not occur in rotational crops following a total application of 4 kg a.i./ha to primary crops. There is no plantback restriction required for crops on the Thimet 20-G label (i.e., potatoes). Phorate residues in rotational crops as a result of this action will not pose an unacceptable risk to any segment of the population, including infants, children, adults and seniors.

Environmental Assessment

An environmental assessment was not required for this application.

Value Assessment

Three phytotoxicity studies were submitted to support a 6-month plantback interval for legumes. Results of the value information submitted demonstrated no phytotoxic effects to soybeans, dwarf and runner beans, cabbage, carrot, cucumber, lettuce, soybean, tomato, corn, oat, onion and perennial ryegrass when planted in soil treated with phorate. A 6-month plantback interval for legumes is supported from a value perspective based on the value information provided, similar to all other crops that can be planted 6 months after treatment with phorate (except for potatoes which has no plantback interval restrictions).

Conclusion

The Pest Management Regulatory Agency has completed an assessment of the information submitted, and has found the information sufficient to amend the product label of Thimet 20-G to reduce the plantback interval for legumes from 12 to 6 months.

References

PMRA Document Number	Reference
2564377	2015, Phorate Crop Rotational Study Following OPPTS Guideline 860.1900, DACO: 7.4.4
2589512	2015, Waiver Request for Value Data to Support 6-month Plant Back Interval for Phorate on Beans, DACO: 10.3
2589513	2015, Summary of Newly Submitted Adverse Effects (Phytotoxicity) Studies, DACO: 10.3.1
2589514	1974, Performance of Thimet 10G as a Planting Time Treatment for the Systemic Control of Foliar Insects on Soybeans, DACO: 10.3.3
2589515	1967, Trials with Thimet: Phorate for the Control of Black Bean Aphid (<i>Aphis fabae</i>) and Bean Seed Fly (<i>Delia cilicrura</i>) on Beans, DACO: 10.3.3

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