

Extract of *Reynoutria sachalinensis* (Giant Knotweed) (055809) Fact Sheet

Summary

When sprayed on plants, extract of *Reynoutria sachalinensis* (giant knotweed) causes the plants to activate an internal defense system that prevents growth of certain fungi, especially powdery mildew and gray mold. The extract is approved for use on ornamental plants grown in greenhouses. No adverse effects to humans or the environment are expected from use of the extract. Furthermore, products containing this active ingredient may help reduce human and environmental risks by decreasing the use of more toxic fungicides.

I. Description of the Active Ingredient

Extract of *Reynoutria sachalinensis* (giant knotweed) is prepared by mixing the dried and ground plant material with ethanol. The ethanol extract consists of a mixture of many substances, including the substance(s) that induces resistance to certain fungi. Giant knotweed is a member of the buckweed family of plants. During the 19th century, it was introduced into Europe and North America from its native East Asia for use as cattle fodder.

II. Use Sites, Target Pests, and Application Methods

- **Use Sites:** Ornamental plants in greenhouses
- **Target pest:** Various fungal diseases, especially powdery mildew and gray mold.
- **Application Methods:** The ethanol extract is diluted with water and sprayed on plants early in their development to prevent development of fungal diseases. Applications can be repeated.

III. Assessing Risks to Human Health

Based on required toxicity studies, no risks to human health are expected from pesticide products containing extract of giant knotweed. Exposure of the general population will be very low because products are used only in greenhouses on non-food plants. Applicators are required to wear eye protection to prevent potential eye irritation. Workers cannot re-enter a treated area until the product has dried and the area has been ventilated. Giant knotweed has been used as food and medicine in certain countries, with no reported adverse effects.

IV. Assessing Risks to the Environment

No environmental harm is expected from use of extract of giant knotweed because it is used only in enclosed areas, which minimizes the chance that non-target animals or plants will be exposed

V. Regulatory Information

Extract of *Reynoutria sachalinensis* (giant knotweed) was registered in the United States as a pesticide active ingredient in September 2000. As of that date, there was one end-use product.

VI. Producer Information

Marrone Organic Innovations, Inc.

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VII. Additional Contact Information

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