# CHICAGO BOTANIC GARDEN

## PLANT INFORMATION FACT SHEET

# INSECTICIDAL SOAP

Because of the growing concern about the impact of chemicals on the environment, insecticidal soaps are being used more frequently to control insect pests on houseplants, vegetables, and ornamental plants.

Proper care of house or garden plants begins with knowing their botanical names and particular needs. Understanding and meeting plants' particular cultural requirements will greatly reduce their susceptibility to insect and disease problems.

#### What is insecticidal soap?

Insecticidal soaps are sodium or potassium salt formulations combined with oil. These particular soaps are different from regular household soaps because they are formulated specifically for use against insects. They work by dissolving an insect's exterior protective coating and disrupting internal functions.

### Advantages of using insecticidal soap

- Biodegradable safer for the environment than other products
- No residual activity once the soap dries, it will not appreciably affect beneficial insects.
- Essentially non-toxic to people, birds, and mammals
- Marketed for use on food plants up to the day of harvest and non-food plants

#### Limitations to using insecticidal soap

- Requires direct contact with an insect in order to be effective
- Effective only on soft-bodied insects such as adelgids, whitefly, leafhoppers, scale crawlers, mealybugs, aphids, plant bugs, leafhoppers, spider mites, boxelder bugs, moths, flies, thrips, and beetle larvae
- Multiple applications are usually necessary to control large insect populations.
- Some plants exhibit sensitivity (phytotoxicity). (Read label directions.)
- Toxic to fish and aquatic organisms; do not use near water.

#### Application

- Plants must be completely hardened off (acclimated to outdoor temperatures) before application.
- Spray small area of plant to test for sensitivity.
- Spray leaves and stems, thoroughly coating top and bottom of leaf surfaces, as well as soil surface.
- Should not be applied during high temperatures, high humidity or in full sun
- Do not apply to plants that are stressed due to lack of moisture, especially conifers.
- Reapply according to label directions.

#### Plants that may show sensitivity:

Alyssum, Sweet (Lobularia) Azalea (Rhododendron) Bleeding Heart (Dicentra) Broccoli (Brassica - some varieties) Cherry (Prunus - some varieties) Conifers (some varieties, especially blue, waxy) Cornflower (*Centaurea*) Crown-of-Thorns (Euphorbia milii) Dracaena Easter Lily (Lilium longiflorum) Ferns Fuchsia (Fuchsia) Blanket Flower (Gaillardia) Gardenia (Gardenia jasminoides) Geranium (Pelargonium - some varieties) Hawthorn (*Crataegus*) Horse Chestnut (Aesculus hippocastanum) Impatiens Ivy (Hedera) Jade (Crassula)

Japanese Maple (Acer palmatum) Lantana Lemon Balm (Aloysia triphylla) Marjoram Moss Rose (Portulaca) Mountain Ash (Sorbus) Nasturtium (Tropaeolum) Oregano (Origanum majorana) Palms (some) Pea (*Pisum sativum*) Peperomia Poinsettia (Euphorbia pulcherrima) Succulents (some varieties) Sweet Pea (Lathyrus odoratus) Tomato (Lycopersicon lycopersicum – some varieties) Verbena Violet (Viola) Zinnia

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