

## Discussion Group: Practical Integrated Pest Management

**Facilitator: Robin Rosetta**

Department of Horticulture, Oregon State University, NWREC 97002

**Approximately 65 members were involved in the two discussion sections. Many of the participants stayed through both sections. Topics of interest were solicited from the participants at the beginning of the first section and discussed according to the order below.**

### TOPICS:

- Mites and “softer” control methods.
- Symphylans.
- Powdery mildew prevention and control.
- General discussion on IPM.
- Leafroller control.
- Fire ant control and quarantine issues.

### MITES

**Situation:** Grower was concerned about mite outbreaks and wanted to know if there were “softer” ways to control mites than some of the harsher chemicals available.

An inquiry was made to the room regarding any successes concerning mite management in greenhouses. Various responses were forthcoming including the use of moisture (spraying plants with water alone), use of predatory mites (several in the room had some experience and success using predatory mites), cutting off affected foliage, use of insecticidal soap (Safer’s), keeping air flow and humidity up, scouting weekly to catch early mite populations, and use of abamectin (Avid).

**Question:** Is there a specific time of year when mites appear?

**Response:** Depended on geographic location and also amount of protection or heating of plants. Another factor to consider was which species of spider mites was a problem as their life cycles varied.

**Question:** What is the best way to get rid of mites on plants coming in?

**Response:** Quarantine and scout daily. Entire cutting is dipped.

**Question:** Can you use predatory mites to get control in a bedding plant operation (before shipping)?

**Response:** It was thought that the plant turnover time might be too short to achieve the desired effect. It was stated that it was critical to find out how the problem began and that could be achieved by a good scouting program, allowing for early detection and intervention as needed.

## SYMPHYLANS

**Situation:** In field-grown shrubs, a grower suspected but was not sure if he really had symphylans and wanted some suggestions for control.

Many in the room were unfamiliar with symphylans or "symphs". A brief description of the minute centipede-like animal and discussion of the problem ensued. There was some variation as to whether symphylans were actually a problem, but several growers thought they had an effect and were best controlled. Methods of control discussed ranged from chemical control (fumigation, and drenches), to trap crops and solarization.

**Question:** What is solarization? Would solarization destroy beneficial microorganisms in the soil?

**Response:** Solarization was described (using the heat from the sun trapped by use of plastic covering to kill pest organisms, including insects, diseases, weeds, nematodes). Limitations of solarization were discussed: depth and range of organisms controlled, need to fallow, disposal of plastic. It was thought that nontarget organisms would be affected as well, similar to fumigants.

## MILDEW

**Situation:** Grower wondered if anyone had ideas for control of powdery mildew.

Participants were asked to share their successes in mildew management. Responses were that several had success with application of water (water kills spores), increased air movement, baking soda and oil (this prompted a discussion of "homemade" sprays versus EPA-registered materials and compliance with the law), and using narrow-range oils (Sunspray). Only one grower had tried AQ10 (a biological control product that is a mycoparasite of powdery mildew).

**Situation:** A grower asked about mildew on rhododendrons. He described the symptoms (predominantly that the leaves turned yellow) and felt he'd seen evidence that it was wind blown. There was limited experience of this mildew by others in the room.

**Question:** Has anyone used oil on sedum?

**Response:** There was limited experience of this mildew by others in the room.

**Question:** Are there any people with ideas on soil nutrients affecting mildew?

**Response:** No direct response to this, but there was a brief discussion of the nature of a parasitic fungus like powdery mildew, the need for a host and how this might affect management of the disease.

## GENERAL DISCUSSION ON IPM

**Situation:** Four or five are using the Internet for info on IPM. Concerns that it is very time consuming to research IPM. One grower expressed his opinion that Mid-Atlantic states have very poor county-based info available. Several growers feel like there is good support from chemical manufacturers in terms of information and support.

**Situation:** Several people mentioned that customer intolerance for any insects on the plants they purchase make it very difficult for nursery people to implement IPM programs.

**Question:** Does anyone have good information on IPM of mealybugs and aphids?

**Response:** Participants described success using IGRs (insect growth regulators) in the winter, at least once a month for aphid and thrips control, and using repellents, especially neem. Again, scouting was brought up due to the propensity of these insects to increase rapidly.

## LEAFROLLERS

**Question:** Are there any good books on identification of leafrollers?

**Response:** Suggestions to check Idaho Master Gardener information. Check entomology information on the web. Don't be afraid to go internationally. There is a great French website for identification.

## FIRE ANTS

**Question:** Do native ants kill fire ants?

**Response:** There was limited experience in the room regarding IPM and control of fire ants. It was mentioned that the exotic fire ant did seem to successfully displace the native fire ants.

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## Discussion Group: Seeds and Seedlings

### Facilitator: David Woodske

British Columbia Ministry of Agriculture & Food, 1767 Angus Campbell Road,  
Abbotsford, BC, Canada, V3G 2M3

**During the two discussion groups on seeds and seedlings a diverse range of topics were discussed. The major topics discussed are presented below.**

### 1) How to Control Liverwort, Moss, and Algae in Containers.

The majority of the discussion referred specifically to liverwort. A wide range of methods were suggested, including several cultural approaches, such as applying a thin layer (¼ inch) of pumice or chicken grit (#2 or #8 size) on the surface of the medium, managing irrigation frequency, and copper-infused weed discs. However, the majority of control approaches mentioned were chemical. Chemical methods included 50% vinegar solution applied on a sunny day, liquid iron sulfate (caution: can be phytotoxic, especially with *Erica vagans* 'Mrs. D.F. Maxwell') or granular iron, Zeritol (preventive), Moss Out, Dawn Ultra dishwashing detergent at 1 oz per 32 oz of water when applied on a sunny day and not washed off, constant injection of 3 ppm of copper chelate into the irrigation system inhibits growth, and