

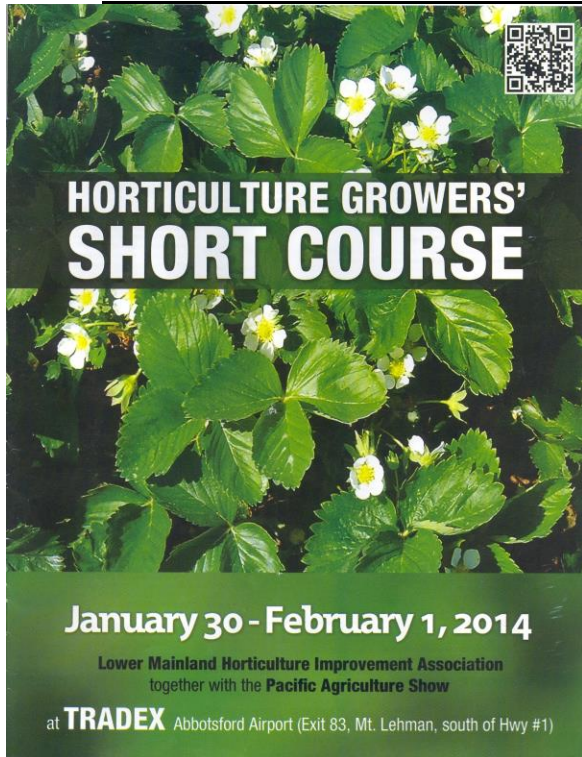
To:

Date:

Tuesday February 4, 2014

2 pages from Mario Lanthier

BC NURSERY GROWER SHORT COURSE



This annual event was moved for the first time to the Tradex Center as part of the Pacific Agriculture Show (<http://www.agricultureshow.net/>).

Nursery growers can access all presentations for greenhouses, berries and vegetables, as well as the large trade show with farm equipment, farm products and financial institutions.

However, attendance at the nursery event was low as the change of venue was poorly advertised. About 40 persons attended, mostly growers of other commodities and teachers of agriculture programs.

DOWNY MILDEW (Mary Hausbeck, Michigan State University)

This disease is annoying because of the difficulty to control and the rapid spread. "The fungi reproduces like a busy rabbit". Best management:

- Grow less of the susceptible cultivars and obtain cuttings from a reliable propagator;
- "A Team" fungicides (most effective) are Acrobat, Presidio and Subdue MAXX.

P. RAMORUM UPDATE (David Woodske, BC Ministry of Agriculture)

In 2013, the annual survey by CFIA confirmed 6 finds in British Columbia.

Looking at data from 2012 across the United States:

- 89% of finds are still in Oregon, California and Washington State;
- 85% of finds are the plants Rhododendron, Camellia and Viburnum.

PRECISION IRRIGATION IN CONTAINER NURSERIES

by Marc van Iersel, University of Georgia

Dr. van Iersel presented on wireless sensor network. The system uses soil moisture sensors that provide accurate information on water content in the container and allow the grower to determine when to irrigate and for how long. The system also allows automated decision to open and close the irrigation system at precise settings.

Dr. van Iersel has worked for many years to improve irrigation scheduling in nurseries. Most of the efforts have been in container production, a better candidate for this research because of the small root space and typically high water use.

System components

The system provides readings on water content. The grower determines at which point the irrigation should start (it is common to allow drying down to 25 or 30%).

- Soil moisture sensors (brand SM200 from Dynamax Texas, 10HS for larger pots or 5EC for smaller pots, <ftp://ftp.dynamax.com/DynamaxPDF/Irrigation-Controls/SM200.pdf>)

- Nodes to relay the information to a computer (brand nR5 from Decagon Devices, Pullman WA, <http://www.decagon.com/products/soils/volumetric-water-content-sensors/>)

- Software to operate the system (SensorWweb, <http://www.smartfarms.net/>).

The software can be used within an existing Argus system.

Cost is \$1500 for the base system + \$1000 for each sensor / node combination.

Commercial use

In 2010, the system was tested at McCorkle Nurseries in Georgia (<http://www.mccorklenurseries.com/>). It was first used in a 2-acre covered house for production of container rhododendrons. Results indicated a 83% reduction in water use and approximately 40% reduction in fertilizer lost through leaching.

In 2012, the system was tested at a pot-in-pot nursery in Tennessee. Average daily water applied was 0.92 gallon per tree by the grower compared to 0.34 gallon per tree with the system. There was no measured difference in tree caliper or quality.

The system will be tested in 2014 at Oregon nurseries.

For more information

A series of 10 technical articles were published in December 2013 in the scientific journal HortTechnology, at <http://horttech.ashspublications.org/content/23/6.toc?etoc>.

Report for containers: <http://horttech.ashspublications.org/content/23/6/747.full.pdf>

Report for pot-in-pot: <http://horttech.ashspublications.org/content/23/6/760.full.pdf>