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То

Date

Monday February 7, 2011

#### QUÉBEC NURSERY SHORT COURSE IQDHO Journée des producteurs en pépinière Trachietton Sinultanée Drummondville, 27 janvier 2011 8 h 00 Accueil et inscription Compaction des sols : Que faire? Louis Robert, agr., conseiller, MAPAQ Chaudières-Appalaches 9 h 00 Tournée en Oregon et que retenir du Far West Show 2010 Isabelle Fortin, M. Sc., conseillère en pépinière, IQDHO 10 h 00 💉 Pause santé et visite des kiosques 10 h 20 La gestion efficace de l'eau en pépinière Thomas H. Yeager, Ph. D., spécialiste en gestion de l'eau, University of Florida 10 h 35 🧾 La gestion de l'eau chez Québec Multiplants : Témolgnage d'un producteur Marc Laganière, M. Sc., agr., gérant de production, Québec Multiplants et Les Pelouses Richer Boulet 11 h 35 🦲 11 h 55 Diner et visite des kiosques Conservation de l'eau en pépinière aujourd'hui et pour demain Thomas H. Yeager, Ph. D. spécialiste en irrigation et lessivage, University of Florida 13 h 15 🛒 La production de cèdres au Québec : maladies, insectes, problèmes culturaux Mario Comtois, agr., B. Sc. (biol.), conseiller en pépinière, IQDHO 14 h 15 Pause santé et visite des kiosques 15 h 00 Des nouvelles fraiches de l'AQPP Mélanie Waldhart, agent de communication et liaison, AQPP, FIHOQ 15 h 35 🧾 Où en sommes-nous en lutte intégrée en pépinière au Canada Mario Lanthier, consultant, CropHealth Advising & Research, Colombie-Britannique 15 h 50 16 h 30 Mot de la fin et cocktail Kiosques de fournisseurs sur place Commanditaires Platine Commanditaires Or TERIS biobe/T HORTICULTURE ET JARDINAGE COPPERT

# 2 pages from Mario Lanthier

This annual event is organized by IQDHO, a semiprivate organization of nursery consultants in Québec (Institut québécois du développement de l'horticulture ornementale).

It was well attended with over 100 persons present. The first day was about biocontrol of insect pests in greenhouse production. The second day was about nursery production.

On note, many suppliers were offering "potting mixes approved for organic production". Apparently, the fastest growing segment of the industry is container-grown herbs and vegetables, with many stores asking for "organic" plants.

# IPM at Jeffery's Greenhouses (St. Catherines, Ontario)

This large operation supplies mostly "big-box stores". Orders change every year, making automation and planning difficult. The need for strong fiscal discipline led to extensive in-house propagation and use of biocontrol (95% reduction in pesticide use).

Biocontrol is done to reduce spraying, help with worker re-entry times, and add value for the customer (but it has no impact on plant prices).

*"With biocontrol, we must re-invent insect pest management".* A good program must be simple, cost-effective, deliver results, but the industry cannot afford failures.

# **IRRIGATION OF NURSERY CROPS**

By Dr. Thomas Yeager, University of Florida (<u>http://hort.ifas.ufl.edu/people/yeager.shtml</u>)

Dr. Yeager may be the best researcher in North America for irrigation of nursery crops. His website (<u>http://lyra.ifas.ufl.edu/LIB?act=view&oid=5667756&lng=1</u>) offers a large number of publications, either scientific or written for growers (see <a href="http://edis.ifas.ufl.edu/pdffiles/AE/AE19400.pdf">http://edis.ifas.ufl.edu/pdffiles/AE/AE19400.pdf</a> and <a href="http://edis.ifas.ufl.edu/pdffiles/AE/AE19300.pdf">http://edis.ifas.ufl.edu/pdffiles/AE/AE19400.pdf</a> and <a href="http://edis.ifas.ufl.edu/pdffiles/AE/AE19300.pdf">http://edis.ifas.ufl.edu/pdffiles/AE/AE19400.pdf</a> and <a href="http://edis.ifas.ufl.edu/pdffiles/AE/AE19300.pdf">http://edis.ifas.ufl.edu/pdffiles/AE/AE19300.pdf</a>).

He is co-author of "Best Management Practices: Guide for Producing Nursery Crops", 2007. Order from Kentucky Nursery Landscape Association (<u>knla@mis.net</u>).

This presentation offered no "new" materials but was an excellent review of all aspects of nursery irrigation. See an excellent map of drought conditions across North America at <u>http://www1.ncdc.noaa.gov/pub/data/cmb/drought/nadm/nadm-201012.pdf</u>.

"Container weight is one of the best method to determine if the plant needs irrigation."

The following is a checklist of important actions for nursery irrigation.

### Maintenance of equipment

- Once per year, all overhead and microjet sprinklers should be verified for uniformity.
- Use a drill bit of the appropriate size to verify wear of sprinkler heads.
- In pot-in-pot, ensure the water is applied inside the container, not on the ground.

# Delivery of irrigation water

- Ensure potting mix porosity has the correct balance of water retention and air space.
- Use cyclic irrigation (least water loss when water is applied over 3 irrigations / day).
- Aim for 10 to 15% leaching (water out of container bottom vs water applied on top).
- Place containers in an offset pattern (better use of soil space than a square pattern).
- Place containers so plant canopy is touching (foliage will funnel water into the pot).

### Plant water demand

- Group plants by expected water use – low water demand (junipers), normal water demand (most deciduous), high water demand (broadleaf evergreens including rhodos).

- Use weather stations to determine ET (EvapoTranspiration), then adjust irrigation.

# Alternative water sources

- Recycle water runoff (with catch basins or recirculation pools).
- If available, consider using reclaimed water (from municipal sewage processing).

# OREGON NURSERIES

Report on tour of Oregon nurseries: sales down 17% from 2007 to 2008 (\$988 million to \$820 million), similar drop 2008 to 2009, even more 2009 to 2010 (up to 50% lower).