



## **IRRIGATION OF NURSERY CROPS**

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

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

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

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 <http://www1.ncdc.noaa.gov/pub/data/cmb/drought/nadm/nadm-201012.pdf>.

*"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).