



# C & C Peat Co., Inc.

## Newsletter

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To our friends and colleagues:

Welcome to the latest edition of our newsletter series. It is our hope that through these newsletters we can assist you in your growing endeavors. To that end, this newsletter largely covers technical information for your use. If you have any suggestions for technical subjects you would like to see discussed, please let us know. We're always looking for the latest information to get out to the industry. Remember that FNATS is right around the corner, so we hope to see each of you soon!

This newsletter installment will cover the following topics:

- A) Importance of Porosity Testing**
- B) Testing Apparatus Directions**
- C) FNATS Information**

### **IMPORTANCE OF POROSITY TESTING:**

As we find ourselves transitioning from an abnormally dry Spring to the traditional rainy Summer season, it is time to consider the irrigation needs of your container potting media. A watering setting that was appropriate in April will not necessarily be ideal for July, August or September. To determine the irrigation needs of your container crop, it is absolutely essential to understand potting media porosity and the ability to test your soil for water and air pore space. Although the subject of porosity is complex and multi-faceted, for in-house porosity testing, you only need to be concerned with Macropores and Mesopores: air and water pore space, respectively.

The 2006 Florida Container BMP guide sets standard ranges for nurseries to seek out for optimum growing efficiency. In a container media, the total porosity of the mix should be between 50-85%, with a Macropore range of 10-30% and Mesopore range of 45-65%. Any Macropore percentage over 30% is considered excessively drained and has poor water holding capacity. Additionally, if your Macropore percentage falls below 16-18%, you may have problems with proper root development.

In order for your nursery to work as cost effectively as possible, it is necessary to test your container soil media for proper levels of porosity. This can either be done by sending a soil sample to an agricultural lab or by contacting your local Agricultural Center. If you would rather test your porosity yourself, you can do so by assembling your own testing apparatus that can be constructed and used through the following four step process. Doing in-house testing is much more cost effective and testing can be conducted with more frequency.

## TESTING APARATUS DIRECTIONS:

Dianne Dilger (formerly with the Lake County Extension Service) and Robert Beeson (University of Florida) have developed the following directions:

1. Glue a cap to a 6" long section of 3" PVC pipe and determine the total volume with water. Flatten the end of the cap slightly (coarse sandpaper can be used for this) so that the assembly will stand upright. Drill four 1/4" holes in the bottom of the cap where they can easily be covered with fingers. Loosely fit a 3" PVC coupler on top and fill the assembly with a moist soil sample of the substrate to be tested. Drop the tube from a height of 3" twice to pack the sample. Refill each time after dropping.
2. Place the tube in water that covers to the top of the coupler. After three hours remove the tube and drain for five minutes. Carefully remove the coupler and level the top of the substrate to that of the pipe.
3. Cover the top of the pipe with a thin cloth held in place with a rubber band. Submerge the assembly again underwater for 10 minutes, then lift, drain and re-submerge.
4. Half an hour later, lift the tube with fingers covering the holes in the cap. Then place the tube in a pan elevated above the bottom and allow it to drain for 10 minutes. A cake rack works fine as a collection device. The drainage volume is the air space volume of the substrate. When you divide drainage volume by the total volume of the capped tube, you can calculate the percent aeration.



Once you have your porosity figures in hand, you can determine if any changes need to be made in your nursery. Determining soil porosity has many cost-effective advantages – for example, you can determine whether or not water holding capacity is causing root rot and adjust your irrigation accordingly. Of course, a properly designed mix will take into account a multitude of factors including your location, the growing season, plant crop, age of plants being grown, and other factors to maximize the efficient balance between aeration and water retention. At C&C Peat, we regularly test our base products and amendments, as well as sampling of container mixes, in order to ensure that we are providing you the highest quality potting media possible. For example, after a study of our Enviro-Peat we determined that our basic formulation for the product fell perfectly into the optimal porosity range as established by the 2006 Florida Container Nursery BMP Guide. However, the added benefit of using our Enviro-Peat is that we can adjust the Class AA Compost or Florida Peat components in order to meet the porosity needs of each individual nursery.

If you would like assistance with testing your soil, or would like to read more on our products and processes, please call our office at 800-330-4866 or visit us online at [www.ccpeat.com](http://www.ccpeat.com).

## FNATS 2008!!!



FNATS is almost upon us. Once again held at the Orange County Convention Center, this year's FNATS "The Landscape Show" begins on Thursday, September 25 and concludes Saturday, September 27. Exhibitor move-in times are from Monday through Wednesday of that week, depending on the size of your booth and booth number. Thursday and Friday the show is open from 9am to 5pm and Saturday from 9am to 2pm. For additional information, please call the Florida Nursery, Growers and Landscape Association at 800-375-3642 or online at [www.fngla.org](http://www.fngla.org). Please stop by our booth #1913 to pick up some of our comprehensive literature and perhaps a nice give-away such as a badge holder.