

# Homemade botany bottle hastens disease growth and identification

Continued from page 17

determine what turfgrass disease is causing problems.

Sitting on my desk under my lamp, the bottle's temperature and humidity are just right for the rapid growth of the pathogen, making identification much easier and faster. It also gives me a constant reminder during the day of how much I enjoyed my day as "teacher."

Here's teacher Mrs. Pickins and her class's procedure for

transforming a two-liter soft drink bottle into a botany bottle, or miniature biosphere:

1) Obtain the kind of bottle with its base glued to the bottom, which enables it to stand up.

2) Fill the bottle with hot water and let it stand for 10 minutes. This will soften the glue, allowing the base to be separated from the bottle. If the base will not come loose, refill the bottle with hot water and

soak it in a sink filled with hot water. If all else fails, place the empty bottle in a microwave for 20 to 30 seconds. (Careful, just a little too long and the shape of the bottle will be distorted.)

3) With the base removed, you should now have a bottle with the filler neck on one end and a hemisphere dome on the other. Use a sharp knife to remove the filler neck. Different height botany bottles can be created by changing where you

make this cut. I have found a good height is to cut about 1/8 inch above the point where the bottle starts to taper in toward the neck. I have found this makes it easier to get the bottle back into the base, since the outside diameter of the bottle (at the point of the cut) is slightly smaller than the inside diameter of the base.

4) Using a hole cutter, remove a plug from the area of the green (or other turf area)

where you suspect disease activity. Square off the bottom of the plug, so it will sit flat in the base, and leave the plug about three inches long.

5) Place the plug in the base and carefully push the dome back into the base.

6) Place the completed botany bottle beneath a light or grow lamp.

You will notice that within a few hours moisture will begin to accumulate on the inside of the dome. This combination of heat (from the light) and moisture will promote rapid disease development, helping you to more accurately identify the pathogen.

The botany bottle can also be used to check seed germination, force a dormant turf to begin growth, and aid in identifying various types of grass. Turf can be maintained for months beneath the dome with only a rare watering and occasional "mowing" with scissors.

...

One more point. During my talk with my son Travis' classmates, we were discussing how scientists of the future would probably have to learn to grow more food and take care of plants of all types with a lot less pesticides than we must use today.

One little girl raised her hand and asked why scientists don't just put something in the plants that insects would not like the taste of. Here was a 9-year-old, all on her own, voicing one of the "cutting edges" of today's plant breeding efforts — the use of endophytes to combat insect damage.

Next time a fourth-grader wants to give you an idea about anything, it would be worth taking the time to listen.

## Semler elected head of Wisconsin GCSA

Mike Semler of Bishops Bay Country Club in Madison has been elected president of the Wisconsin Golf Course Superintendents Association.

Semler, who succeeded Bruce Worzella of West Bend Country Club, heads a slate of officers that includes Vice President Mark Kienert of Bull's Eye Country Club in Wisconsin Rapid; Secretary Tom Schwab of Monroe Country Club; and Treasurer Patrick Norton of Cedar Creek Golf Course in Onalaska.

Joe Kuta of Hartford Country Club was newly elected to the board of directors, joining re-elected Directors Scott Schaller of South Hills Golf and Country Club in Fond Du Lac, Bill Knight of Ozaukee County Park Commission in Port Washington and Mike Handrich of Racine Country Club.



**MILORGANITE**

SINCE 1926...

TRUST. CONFIDENCE.

RELIABILITY. NO GIMMICKS, EXAGGERATED CLAIMS, OR UNKEPT PROMISES.

SUPERINTENDENTS AT TOP NORTH AMERICAN GOLF COURSES DEPEND ON MILORGANITE TO DELIVER PROVEN RESULTS.

- ◆ NATURAL ORGANIC
- ◆ SLOW RELEASE
- ◆ NO BURN
- ◆ MICRONUTRIENTS
- ◆ VERSATILE

CONTACT YOUR MILORGANITE DISTRIBUTOR OR OUR STAFF AGRONOMISTS FOR FURTHER INFORMATION.

**PROVEN RESULTS**



MILORGANITE DIVISION - MMSD  
1101 NORTH MARKET STREET • MILWAUKEE, WI 53202  
414-225-3333

**SOLID AGRONOMY**