Top Dressing — A Superintendent's Perception

Peat-humus has frequently been used as a soil amendment in topdresing and soil mixtures. The legislation to protect the wetlands of the United States has made peat-humus more difficult to obtain. As peat-humus becomes increasingly more difficult to obtain and more expensive to purchase, a natural tendency may be to substitute alternative soil amendments such as mushroom soil or sewerage sludge.

Some golf course superintendents believe that the soil amendments in use are of a peat or peat-humus product. This is not always the case. If the soil amendment is in question, superintendents may consider asking a topdressing or soil mixture supplier the source of the soil amendment. The superintendent may also want to send the topdressing to a recognized laboratory to determine the physical and chemical characteristics, but more importantly, to determine factors such as pH and soluble salt quantities.

With the ever-increasing demands of higher quality turf and faster greens, the golf course superintendents have made use of a number of techniques. One of these techniques may be more frequent topdressing of golf course greens. In order to facilitate the application of topdressing to golf course greens, another technique may be to request a topdressing product with a very low moisture content. But, a superintendent also needs to consider the pH, the soluble salts and the growability of seeds and plants in the soil mixture. Remember, plants, including turfgrass grow in a soil media and reach their highest level of quality in the most optimum growing media. Are we putting too much emphasis on spreadability dryness of topdressing products and too little attention on the agronomic qualities of topdressing? Water does not leave a product until the temperature of a product, including topdressing, is heated to 160 degrees or higher. Also, the undesirable bacteria and seeds are destroyed in a soil at 160 to 170 degrees Fahrenheit; whereas, the desirable bacteria and other characteristics needed for seed germination are destroyed when temperatures reach and exceed 200 degrees Fahrenheit. Based on the above, it is obvious that the dryness of the topdressing and growability may not be compatible.

The superintendent's perception may be that the drier the topdressing, the better, but in the final analysis, other parameters may be equally or more important over the long term.

The answers to the above questions will become available with field observations and laboratory testing for physical and chemical characteristics. Will what we perceive as being the best today, really be the best for tomorrow?

The following universities and laboratories state that peat is the preferred soil amendment:

a) Penn State University

- b) Rutgers University
- c) Cornell University
- d) Texas A & M University
- e) Agri-Systems of Texas, Inc.

SOIL AMENDMENT TYPES

PEAT HUMUS

Advantages

a) stated above universities and laboratires recommend and prefer peat humus

(cont'd. page 15)



(Topdressing continued)

- b) excellent cation exchange capacity (CEC)
- c) excellent buffering material
- d) excellent soil amendment for plants
- e) has high water retention capacity
- f) has capacity to tie up metals in soil (i.e. EPA Superfund
- project)
 - g) is a natural product
 - h) has low pH (typical range 4.8 to 5.6)
 - i) has low soluble salts

Disadvantages

- a) harvested in the wetlands and, therefore, is regulated
- b) costly to remove
- c) difficult to remove during a wet season

MUSHROOM SOIL

Advantages

- a) available at the present time
- b) inexpensive to obtain/cheap

Disadvantages

- a) typically high in silt and clay
- b) may have a high pH
- c) may have high soluble salts
- d) is a by-product

SEWAGE SLUDGE

Advantages

- a) inexpensive to obtain/cheap
- b) available at the present time

Disadvantages

a) content unpredictable

b) DER, Penn State Univ., Cornell Univ., Rutgers Univ., Texas A & M Univ., and Agri-Systems of Texas do not recommend sewage sludge for a green house soil amendment or as a soil amendment for high traffic areas

c) is a by-product

SAWDUST

Advantages

a) normally available

b) inexpensive to obtain/cheap

Disadvantages

a) varies according to wood type (i.e. oak sawdust removes available nitrogen from the soil)

- b) poor cation exchange capacity (CEC)
- c) poor buffering material
- d) poor soil amendment for plants
- e) not recommended by universities or laboratories

Credit — "The Greener Side", Vol. 13 #2

- . -- . -- . --

The bidding process for new golf course projects has just been made easier. The American Society of Golf Course Architects has recently created a Request for Proposal form for new golf course projects. The RFP is a 12-page document detailing project specifics for the golf course architect. The ASGCA says that the brevity of the proposal simplifies the bidding procedure and encourages more course designers to respond to proposals. Copies of the RFP can be obtained by writing to: The American Society of Golf Course Architects, 221 N. La Salle St., Chicago, IL 60601.



David Phillips (616) 837-9596 Or call toll free 1-800-833-4UAP

