

MAGCS Directors Column

Problem Solving Techniques

by Jim Evans, Supt.

Turnberry Country Club, Crystal Lake, IL

The GCSAA and MAGCS recently held two regional seminars at Pheasant Run Resort in St. Charles, IL. This is the fourth consecutive year that I have attended, and each year I am more impressed with the quality of course material and instructors. Pete Leuzinger, Betsy Evans and everyone else involved, especially Dr. Steven Hazel who presented the communications seminar should be commended on a job well done. Also, the entertainment after Mondays' session was a nice touch, I know it will keep me coming back.

Continuing education programs are important to us as superintendents. But the pertinent information learned at a seminar or conference may eventually be forgotten unless it is incorporated into some facet of our management program. In this article, I will outline a problem solving technique that was presented in the Business Communications and Assertiveness Techniques Seminar. Utilizing this seven step method, I will present a problem common to many of us in golf course management and then try to solve the problem in a logical manner. Hopefully, this technique can be useful to you in solving problems in your business.

1. **Define the Problem** — State exactly what the problem is. Example: Excessive thatch and mat accumulation on putting greens.

2. **Generate Solutions** — List as many solutions as possible.

Solution 1: don't do anything

Solution 2: implement cultural practices to gradually reduce thatch

Solution 3: remove sod and thatch with sod cutter and replant

3. **Evaluate Solutions** — Think of the results of each solution.

Solution 1: Don't do anything

Good results: less work for you and employees, doesn't disturb the membership, doesn't cost anything

Bad results: continued poor turfgrass quality, continued poor putting qualities, continued thatch buildup

Solution 2: Implement cultural practices to gradually reduce thatch

Good results: reduced thatch quantities, improved turfgrass health and quality, firmer putting surface, better putting qualities

Bad results: increase in maintenance budget expenditures, temporary poor putting surface

Solution 3: Remove sod and thatch with sod cutter and replant

Good results: achieved objective of removing thatch, installation of better plant variety, firm, high quality putting surface

Bad results: greens will be temporarily closed, poor putting surface for extended period of time, big increase in expenditures (initially)

4. **Choose Desired Results** — The best results would be:

— firm, high quality putting surface

— improved turfgrass health and quality because of a reduced thatch level

— minimum disturbance to the golfing membership

— the least amount of time, money, and effort expended

5. **Choose Solution(s) That Lead to Desired Results** — There may be one clear-cut solution, or there could be a combination of two or three solutions. In this case, I will choose only solution 2: Implement cultural practices to gradually reduce thatch.

6. **Choose Steps That Achieve This Solution** —

Step 1: Measure thatch depth on each green and record (avg. 20 samples per green)

Step 2: Test thatch layer for pH, essential elements, total exchange capacity, % base saturation, etc.

Step 3: Test underlying soil for same as Step 2.

Step 4: Evaluate soil and thatch tests and implement a fertility program to correct toxicities or deficiencies.

Step 5: Select cultural practices that will cause a reduction in thatch quantity.

Step 6: Determine proper time schedule for implementation.

Step 7: Implement vertical mowing two directions on each green at two week intervals throughout the growing season to control grain and remove stems, tufts, and coarse leaves.

Step 8: Implement vertigrooving heavily in spring and fall to remove plants and thatch.

Step 9: Implement core aeration in spring and fall.

Option 1: remove plugs and discard

Option 2: grind plugs and drag back into aeration holes

Option 3: remove plugs and stockpile for later use, let the plugs compost, then shred plugs, add fertilizer, soil amendments, etc., mechanically mix, and use for top dressing over newly aerified greens.

This process may have some advantages:

1. by using the same material for top dressing that the greens were constructed with, you will provide good uniformity throughout the soil profile.

2. won't allow the introduction of a foreign soil topdressing material which could create layering.

3. no need for purchasing topdressing mixes or sand

4. allows for the physical removal of thatch.

Option 4: remove plugs and add amendments, i.e. sand, soil, peat, calcined clay, etc.

Step 10: Implement topdressing throughout the growing season with properly selected materials that will avoid the production of layering.

Step 11: Select proper greens mowing equipment, mowing speed, reel speed, and mower weight necessary to provide the desired cutting results. These factors may have a significant effect on bentgrass thatch production and graininess.

Step 12: Avoid application of materials that have been found to reduce earthworm populations, soil bacteria, the soil macro and micro fauna that are responsible for the breakdown of thatch and organic debris.

7. **Evaluate Outcome of Solution** — Each year in the fall when you are core aerifying the greens, measure the thatch from 20 plugs on each green and get an average thatch depth for each of the greens. Record this information and compare the measurements from year to year. Determine if the above recommended program has helped decrease thatch levels over a five to ten year period, while improving turfgrass quality and playability. Your golfing membership will also be a good indication of the success or failure of your program.

Conclusions — This method of problem solving could be used quite effectively to aid in solving many problems that

(cont'd. on page 4)

(Problem Solving cont'd.)

superintendents confront. This procedure, if done correctly and thoroughly, could turn a tough, complicated decision into a relatively easy one.

Advantages: Provides a clear picture of all the options you have and clearly points out the best solution. Once you have a solution you can list all the detailed steps necessary to achieve the solution. Placing everything in writing will help you to determine if the list is complete and in order. This plan will clarify the facts for greens chairmen, board members, golf pros, golfing memberships, etc., when trying to convince them of a program change. It aids the superintendent and assistant superintendent in the scheduling and coordinating of maintenance practices throughout the golf season.

Ripen Winter Tomatoes at Home

Why do home grown tomatoes taste so much better than those from the local supermarket?

The main reason may be that we rarely pick home grown tomatoes before they are fully red or we pick them and ripen them before use.

Why, then, do we spend a buck a pound for winter tomatoes and complain about them when the solution is so obvious?

According to James A. Fizzell, University of Illinois Horticulturist in Cook County, no one should be disappointed by the pale-pink hard tomatoes appearing in the supermarket now. While winter tomatoes are shipped before they are ripe, they will ripen if given a chance.

Winter tomatoes are picked at the mature green stage when the full-sized fruit has turned from dark to light green.

At this stage the plant has done all it can for the fruit. In fact the tomatoes picked at this stage are higher in vitamin C than they would be if vine ripened.

The mature green tomatoes are only partially ripened before shipment because fully ripened fruit would arrive at market as tomato paste. Most of the tomatoes on the market now are from Mexico and Texas.

Fizzell says ripening can be done at home easily if you buy tomatoes a few days before you need them.

Tomatoes ripen best at between 65° and 70°F. Below 65°, the fruit will usually go soft without ripening so don't put upripe tomatoes in your refrigerator. Humidity of about 90% is ideal.

The easiest way to ripen up tomatoes is to put them in a colander or perforated plastic bag in a warm bright place. Direct sunlight isn't necessary for proper color development. Sort through the tomatoes daily and use or refrigerate those that have ripened.

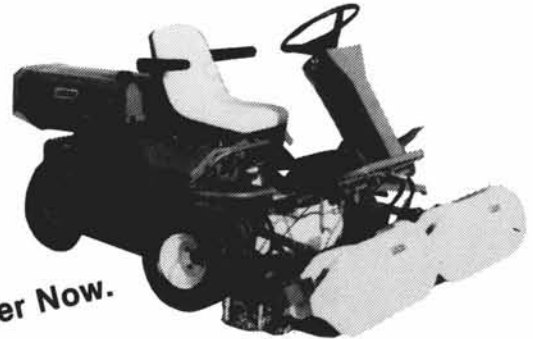
If you keep a few tomatoes on hand to ripen you will always have one of those bright red beauties when you need one. Winter tomatoes are expensive. They are worth the trouble it takes to get the most satisfaction from them.



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