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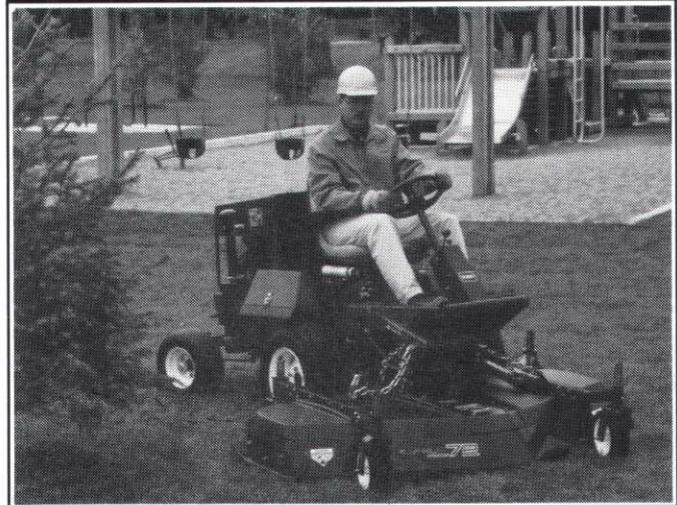
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FROM YOUR PRESIDENT'S DESK

MGCSA Budget Picture Favorable



Thanks to Mark Fossum and the staff at Headwaters C.C. for hosting the June meeting. Even though I didn't make it, a lot of compliments made their way back to the Twin Cities.

* * * *

MGCSA 1995's fiscal year (June 1, 1995—May 31, 1996) showed a profit of \$6,600 to a budget of (\$-815.00). This year's fiscal committee reorganized and streamlined the P & L. Definitions of line items were more refined and grouped to give us a better picture of actual costs of membership services (e.g. job opening mailings), office expenses, administrative and *Hole Notes* expenses. This will also be a consistent framework for future year-to-year comparisons and analysis. The Board-approved budget for June 96—May 97 is close to a break even number. A copy of the 1997 MGCSA budget is in this issue of *Hole Notes*.

* * * *

I received many calls about last month's *Hole Notes*, with the majority of comments revolving around *Editor's Corner* and *One Guy's Opinion*. From a presidential perspective, I congratulate Tom Parent, whom I appointed as editor, for the time and effort he obviously puts into this position. While Tom has every right to convey *his* opinions, and I applaud him for that, he must also be respectful of his comments when representing the MGCSA membership as a whole.

* * * *

Happy to see we have a full complement of teams for the Garske Scramble in July at Izaty's Golf & Yacht Club.

— James D. Gardner, CGCS
MGCSA President



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Spring Bulbs And Color

By Susie Fobes
Horticultural Consultant
Environmental Re-Creations, Inc.

The winter of 1995-96 will be remembered as the harsh winter that lingered until June. In May our internal clock told us that spring had arrived but the soil temperatures and phenology records told a different story. Essentially, we were robbed of spring.

But the strange spring did not suppress appetites for recreation and color. So as the golfing warriors become more and more restless, the spring maintenance to open facilities became more condensed and frantic.

The late, frenzied efforts to uncover greens, pick up debris, fix irrigation, and more, resulted in postponing some tasks. Bedding plants and landscaping projects had to be delayed. This spring the landscaping timetable looked much different. Instead of concluding projects by Memorial Day weekend, the projects were just beginning.

Fall plantings of bulbs could have lessened this spring crunch dilemma and quenched the thirst for color. A multitude of different and unique bulbs is available but concentrate your initial efforts with tulips, daffodils and hyacinths. They produce vivid color splashes with no spring effort. They are the new year's gift.

Steps to Creating a Successful Spring Bulb Display

1. Design a flower bed. Identify one or two key locations and create a mass display. When using tulips or hyacinths, a formal display is recommended. Avoid experimenting with small quantities of numerous cultivars all in one bed. The result will look like a "test plot." Select one cultivar for the mass planting. To achieve a dramatic display, the bed size should be a minimum of 100 square feet. Daffodils are best used in an informal or "naturalized style" of landscaping. Delineate irregularly shaped beds in the existing landscape. Combine three to four similar cultivars of daffodils to extend the bloom period.

2. Use premium, high quality grade bulbs. . . the larger the bulb, the better. Depending on the location, a "landscape grade" bulb may suffice, but the premium grade is always preferred. Particularly with daffodils, the highest grade bulbs can be the most economical choice. The large central bulb often has one or two side "bulblets" that will flower also.

3. Prepare the planting area. Rototill the area to a



A late spring dusting of snow does not freeze the Daffodil foliage or flower.

depth a few inches deeper than the planting depth of the bulb. Since bulbs require good drainage, amend existing soils with compost or peat and raise the bed to help eliminate excess water. When drainage is poor, diseases and rotting organisms will prevail.

4. Plant the bulbs at correct depths and spacing. Heavier soils will necessitate planting an inch or two shallower than these recommended dimensions. Note that the depth indicates the positioning of the bottom of the bulb, not the top.

- Daffodils 7" deep and

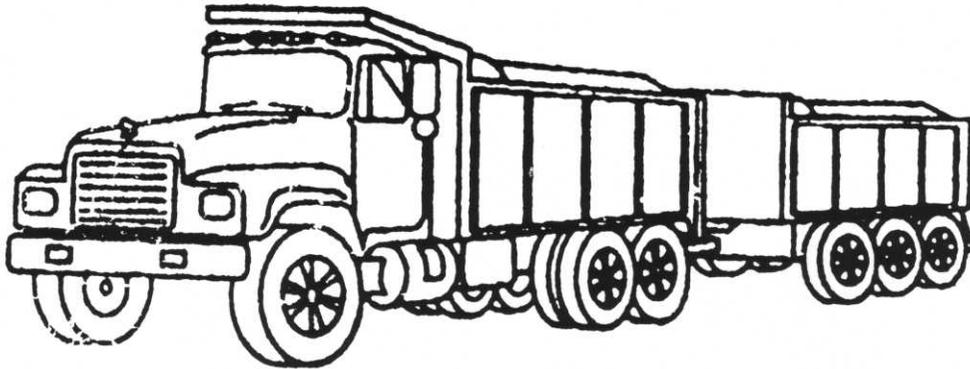
spaced 5-7" apart.

- Tulips 5" deep and spaced 6-8" apart.
- Hyacinth 6" deep and spaced 6-8" apart.

The bulbs require planting in early to mid-fall season. The time in the ground prior to hard frosts is needed for the bulb to root. If shoot growth should emerge in the fall, little if any winter injury occurs. Avoid late, last minute efforts to throw bulbs in the ground before the hard frosts. The results are less than optimum. To enhance rooting, sprinkle bone meal or bulb booster (complete fertilizer, i.e. 8-8-8) on the soil beneath the bulb.

5. Care after flowering. After the spring flower display, the decision must be made. Should the bulbs be treated as an annual or perennial? Tulips and hyacinths perform at their highest level the initial year of planting. Since quality decreases each season, the results in the third year are disappointing. For this reason, tulips and hyacinths are often treated as an annual and replaced each fall in high traffic areas. The other option is to dig the bulb clumps up in the fall, divide the bulbs and replant. This task can be very time-consuming. Daffodils, in contrast, continue to increase in quality year after year. The initial cost of daffodils is higher than tulips but their continual increase in quality make them a better long term investment. After flowering, the foliage must be left to dry and wither as the nutrients drain down and replenish the bulb. A criticism of daffodils is the unsightly stage of "dead looking foliage." Consider interplanting daffodils within ground covers such as daylilies to mask the withering foliage.

Bulbs can be a rewarding addition to the golf course. The early spring timing of the color make the labor and expense well worth the effort. Any questions, call (612) 933-6465 or E-mail address: flowers29@skypoint.com



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Cleanup Clues

Be Prepared For Post-Application Cleanup Before You Begin Applying Pesticides

By Dr. Robert Bellinger
American Nurseryman

After you've finished applying pesticides on your golf course, it's time to think about disposing of the containers, right?

Well, yes and no. Yes, pesticide containers do need to be disposed of promptly after application. But the time to think about container disposal is before application. In fact, you should think about it even before you buy the pesticide.

Container disposal can be a problem, but the earlier you start to manage the situation, the less of a problem it will be. The easiest containers to dispose of are those you have not yet purchased. Your future purchases give you the most container-management options.

Look at it this way: How do you select a pesticide? Your first consideration is probably the product's ability to effectively control a particular pest. Of course, the intended-use crop must be listed on the product's label. Other considerations include formulation, cost, re-entry interval, applicator safety and potential for contaminating surface water and groundwater.

However, you should also consider container disposal when choosing a pesticide. Plan a container-management strategy with the same care you give to your Pestmanagement strategies. By carefully planning your pesticide-application needs, and buying only the amount of pesticide you need, you can reduce the number of containers you'll have to dispose of. Buying only what you need will also help you avoid having to store pesticides.

You can even go one step further. Consider the kind of container you're buying. Ask yourself some questions about the containers your pesticides come in, and then go out and get the answers. For instance, can the container be recycled in your area?

Ask your dealer, supplier, chemical sales representative or cooperative extension service about the availability of products that can reduce or even eliminate the need for pesticide-container disposal. And keep up with the trade journals for tips and success stories from others in your industry.

For many golf courses, the total elimination of containers may not be possible. When containers are still a fact of life, proper cleaning — with triple or pressure rinsing — is necessary before disposal. Properly washed, empty pesticide containers are considered solid — not hazardous — waste.

Clean pesticide containers as soon as they are emptied. Don't wait until you are done with your application! Rinse the container over the spray tank to collect the rinsate for re-use; the rinsate then becomes part of the make-up water for the application. After you've cleaned the

containers, crush or puncture them to prevent reuse by others.

One option for emptying and cleaning containers is to use a closed system. These systems have advantages and disadvantages; it's best to investigate the possibilities carefully to see if there is a system to fit your particular needs.

Assume you've cleaned your containers immediately after emptying them. What's next? Get your containers to the appropriate solid-waste disposal facility as soon as it is practical to do so. If you can't get them to a disposal site right away, put them in a secure location — for instance, in the same place you store your pesticides.

Never leave any container — empty or not — unattended at the application site.

Pesticide labels usually give very general treatment to the subject of container disposal. This is necessary because specific requirements for container disposal vary from state to state, county to county, and community to community.

You may need prior approval to dispose of pesticide containers at your local landfill; check with the landfill operator. If you have a contract waste hauler who picks up your cleaned empty pesticide containers with your other solid waste, be sure he knows what he is hauling. Clean containers may not carry any pesticide residue, but they often carry a stigma.

While container disposal is important, it's not the only cleanup that needs to be done. Your personal protective equipment must also be properly cleaned and stored. Wash rubber gloves, rubber aprons and protective eyewear as soon as possible with hot water and a heavy-duty detergent. Respirator manufacturers usually supply instructions on how to clean and disinfect their products.

Here are some pointers for laundering protective clothing that isn't chemical-resistant:

- Before laundering, store pesticide-contaminated clothing in a separate, covered container. A commonly recommended, easy and inexpensive method is to use a cardboard box lined with a disposable plastic bag. This will prevent transferring pesticides to other clothing.

- Rinse the articles, either in a washing machine or by hand.

- Wash pesticide-contaminated protective clothing separately from other clothing.

- Launder the protective clothing with a heavy-duty detergent and plenty of hot water; don't pack the machine. Moderately to heavily contaminated articles should be laundered twice, separately. (Unfortunately, while rinsate from containers can be reused, nobody has come up with

(Continued on Page 9)



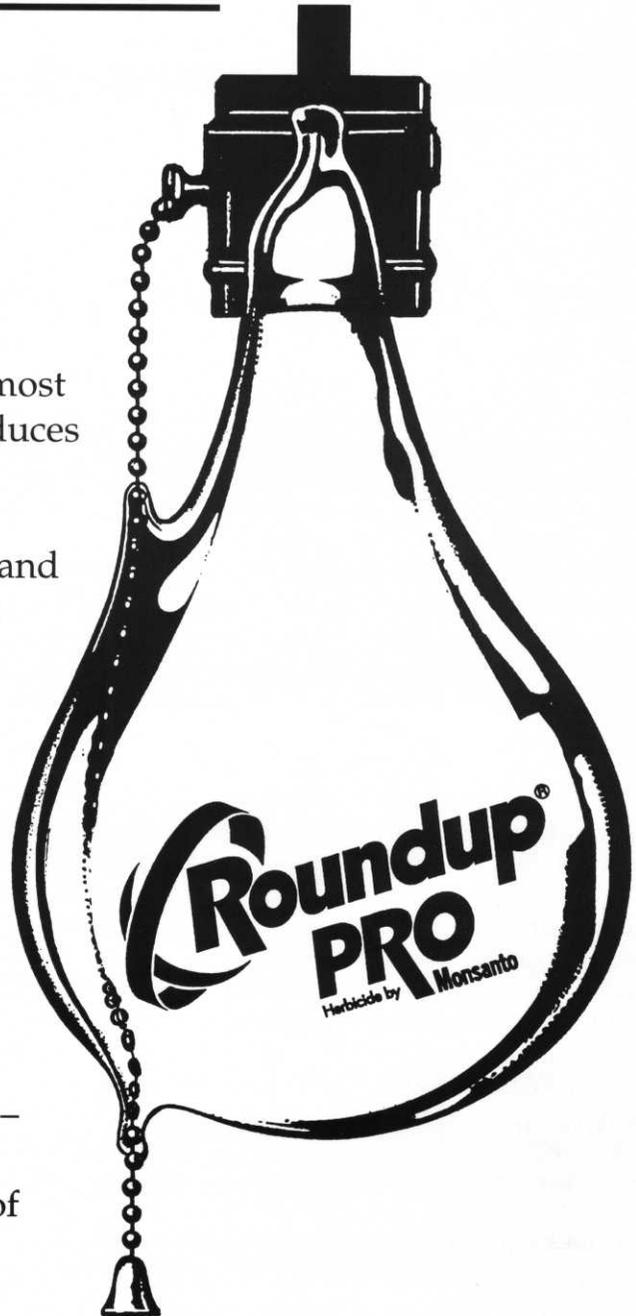
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Cleanup Clues—

(Continued from Page 7)

a good solution for what to do with the water from washing contaminated clothing.)

- Rinse twice with warm or hot water, if possible.
- After laundering your protective clothing, run the machine, unloaded, through a complete wash cycle with hot water and detergent.
- Line-dry your protective clothing, preferably outdoors. Using a dryer may eventually leave pesticide residue in the machine.

Now, here are some “don’ts” to keep in mind when cleaning contaminated clothing:

- If you spill a fairly large amount of concentrated pesticide — especially an emulsifiable concentrate — on an article of clothing that is not resistant to chemicals, don’t wash it. Remove the article immediately, place it in a plastic bag, and dispose of it according to the pesticide label directions.

- Don’t use a laundromat or a commercial laundry service to wash contaminated protective clothing.

- If possible, don’t allow contaminated clothing to dry before your pre-wash rinsing.

The Environmental Protection Agency’s Worker Protection Standard, which affects all farms, nurseries, greenhouses and forestry operations, contains specific minimum provisions for cleaning protective clothing and for informing those laundering your protective clothing of the potential hazards of pesticide residues (WPS, 40 CFR Part 170,240, Personal Protective Equipment).

The Worker Protection Standard sets the following specific guidelines:

- Any employer of pesticide handlers (the term “handlers” includes applicators) must ensure that all personal protective equipment is cleaned according to the manufacturer’s instructions or pesticide labeling instructions before each day of use. If there are no instructions, the equipment must be washed with hot water and detergent.

- Equipment that can’t be cleaned, or clothing drenched or heavily contaminated with undilute pesticide that carries the word “Danger” or “Warning,” may not be reused and must be disposed of properly.

- Employers must ensure that contaminate protective clothing and equipment are stored and cleaned separately from other articles.

- Employers must ensure that clean personal protective equipment is dried thoroughly before it is put away, that the articles are kept separate from other personal clothing and that they are not stored in a pesticide-contaminated area.

- Employers must inform anyone who cleans or launders protective equipment and clothing that the articles may be contaminated with pesticides, and must inform them of the harmful effects of exposure to pesticides.

- Employers must instruct employees doing the cleaning or laundering in the proper procedures, including how to protect themselves when handling contaminated articles.

- Employers must provide a clean place to store personal clothing, and to put on and remove protective clothing and equipment.

- Employers may not allow or tell any pesticide handler to wear home or take home any personal protective equipment or clothing contaminated with pesticides.

After you’ve made a pesticide application, pay close attention to properly cleaning and disposing of pesticide containers and cleaning and laundering personal protective equipment and clothing. By following careful procedures, you will help make your golf operation safe — and legal — for yourself and your employees.

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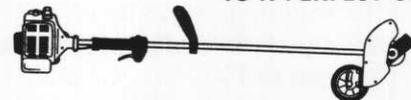
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Low Input

If They're Right... ...Have We Been Doing It Wrong?

By Tom Parent
River Oaks Golf Course

In an earlier *Hole Notes* I wrote that I had received numerous calls from superintendents around the country after my article was published in *Golf Course Management Magazine*. These superintendents follow a method of maintaining high quality turf that flies in the face of everything we learned in college.

They all subscribe to a method of turf culture known by several names: eco-agriculture, base-saturation method, Carry Reams method. They all get the "Journal of Eco-Agriculture" known as "Acres Magazine." They discuss ideas and products in that magazine that put the snakiest of snake oils we see at our trade shows to shame.

I consider myself a liberal and open-minded thinker, yet the books recommended to me by the chemical free superintendents leave me incredulous. I sometimes need to force myself to read on, because the material I'm reading is beyond bizarre. I read one book entitled "Enlivened Rock Powders." If you want to have your mind put through a space warp, read that one.

I have also read a book written in 1893 entitled "Bread From Stones." This book was fascinating. It was written as a rebuttal to "chemical manures" or salt fertilizers. The thrust of the book was that plants need a lot more than NP&K. In essence, the author advocated a simple, and by the testimonials given in the book, effective strategy for crop production.

He asked the question: Where did fertile soil come from originally? The answer, as everyone knows, is rocks. His reasoning then was: If soil came from rocks and your soil was depleted, the logical conclusion was add more rocks or in this case rock powder. After reading this book, I could make more sense of "Enlivened Rock Powders."

The proponents of this type of plant care call our methods "toxic rescue chemistry." They call the use of pesticides "dipping into the devil's pantry." Enlivened rock powders and some of the other ideas purported by the authors I've read leave me gasping for air. However, their logic and theories on maintaining plant health aside from the voodoo aspect is so sensible and realistic that it deserves more investigation by us.

Again, I must remind you I was introduced to these ideas by superintendents who have dared all to save our industry from the stigma of the "Greenkeeper in a Drum" image. These superintendents and the authors of the books whose philosophy these people follow state: If you have weeds, insects or disease, you have a nutritional problem.

They contend that insects and disease are nature's clean-up crew. In other words: If it's not fit to eat, it gets taken out of the system. Reading the chapters on this subject in a dozen books makes you think twice about our food supply. One book in particular, "Life and Energy in Agriculture" by Arden Anderson rang so true to what I had personally experienced that I became so irate that I had to put the book down and go do some more packing. This was a good thing as my wife had taken the children up north for the weekend so I could pack uninterrupted.

Each one of these books I have read has had a chapter that stretches what we have learned in school so far out of whack, that it's, as if they are saying "If you are not ready to believe this or at least accept your ignorance of this subject, don't read further."

As I said before, because of the testimonial of our fellow professionals, of which some were quite impassioned, I felt compelled to read on. The more I read, the more I began to distrust the core of knowledge I held dearly.

If you read my *Editor's Corner* last month, you will have read me describing a discussion with an ardent environmentalist. I must admit that after a month's worth of additional reading and further conversations with the true heroes of our business, I will be a loathe to use pesticides as the woman I had the conversation with, although for different reasons.

Almost all pesticides affect either the soil microorganisms or the plants or both. In doing so, we disrupt the natural balance in the soil that should provide all the nutrition that the plants need. A healthy soil should have the proper microbes to provide the amount of NP&K, etc. the plants need every day, provided they are present in the proper ratio in the soil.

Again, all the authors stress that plants need more than NP&K. In particular they hammer home again and again, chapter after chapter, that calcium is a plant nutrient. We were taught this in our bio-chemistry and plant physiology course. Yet, when we reach the real world, calcium is just something you use to balance PH.

Only one fertilizer salesperson I've known in my years as a superintendent has recommended lime or gypsum to me as a nutritional factor. All the rest have been NPK, NPK, NPK. Or I should state N&K ad nauseum, P being a dirty letter in our business. Go find your old bio-chemistry book or go to the library if you don't have one. Try to find a

(Continued on Page 12)