

Wall-to-Wall is a Term

When it comes to spraying chemicals, the

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Anyone managing a golf course in today's world should have a pretty sound foundation in the rules, regulations, safety, application methods and products involved.

Don't be too surprised if you don't find the silver bullet to solve all your problems in the following pages. What you will find is the shift to more environmental awareness in terms of how pest problems are solved and chemicals applied.

The message is loud and clear. Less is better and wall to wall is mostly a term used only in carpet sales.

1 Describe changes made to your overall spraying program to maximize Integrated Plant Management (IPM) principles and minimize the use of chemical products.

Due to the amount of time and repeat chemical applications necessary for effective goosegrass control, 90 percent of our goosegrass is hand-pulled using weed "poppers" or weed forks. For maximum efficiency we use the specified spray tips for the compound being applied, i.e. flat fan tips for fungicides; flood jet for insecticides.

Scott Whorrall

On both Bonnet Creek courses we have increased the use of our 15-gal. electric sprayers whenever possible. Using a spot treatment approach rather than a broad band spray boom application reduces the amount of chemicals used and puts the product only on the actual target.

Last year we used less than half the amount of Orthene from the previous year due to our fairway application of Chipco Choice for mole cricket control. The fairways are still free of mole cricket damage. This seems to be a great IPM tool due to the low amount of active ingredient per acre if you can afford it. We are looking at expanding the treatment into some of the rough areas this year.

Doug Higgins

I have been doing a lot of spot spraying lately with a 3-gallon pump-up sprayer. I am using 3 oz of Illoxan with some spreader sticker and dye to treat crabgrass and goosegrass. It takes about two weeks to kill the weed, so be patient.

I have heard you can use Sencor to do the same. You use 1 oz of Sencor in four gallons of water and spray only the center of the plant. It also takes one to two weeks to die.

We just bought a 14-gallon electric sprayer to make our spot spraying more efficient. We put it in the back of a golf cart and run the sprayer off the cart batteries. The pump only needs 12 volts so the cart doesn't run down.

Jim Goins

2 Describe chemical storage, housekeeping, record keeping procedures, safety, mix and load site management procedures.

All our chemicals are stored in a rain-tight room which is part of the metal main maintenance building. It has spark-proof electric exhaust vents on the roof to minimize fumes.

The concrete floor is sloped to a spill containment area that can be pumped out. All chemical containers are labeled and stored on metal shelves with dry powder materials above liquid materials. Large and heavy bags and barrels are stored on pallets.

Whenever chemicals are applied, records including date, location, product name, rate, total area treated, total amount of product used, method of application, and applicator's name.

Personal safety equipment requirements are followed per label instructions. Mixing and loading and wash down are done in multiple remote field locations in the roughs as much as possible since the turf is a great filter.

Doug Higgins

3 Discuss make, model, size, capacity of all spray equipment you use. Do you use a walking boom for the greens?

We use a Toro Multi-Pro 5500 with

n for Carpet Salesmen!

message is loud and clear: 'LESS IS BETTER'

a 300-gallon tank for all our boom applications and a Spray Hawk (walking boom) on our winter overseeding. We have a Lesco 100-gallon tank mounted on a utility vehicle for our aquatic maintenance. We also use a Lesco 15-gallon electric sprayer for spot treatments and a 1-gallon hand sprayer for even smaller jobs in tight areas.

Scott Whorrall

For about the first year, we used walking boom sprayers on the greens until the surfaces firmed up. We currently use a 150-gallon Hahn sprayer and a Raven controller.

When spraying greens we normally only use 75 gallons of water per tank to keep the weight down to minimize tire marks usually resulting at greater weights. Insecticides and fungicides are the only products used in this sprayer. For herbicides and other miscellaneous spraying we have a 200-gallon tank mounted on a Toro Workman also with a Raven controller.

Doug Higgins

4 Discuss the type of nozzles you use and how you manage drift control.

We use Driftguard Flat fan nozzles to apply systemic fungicides and herbicides, Delvan Raintips for less drift and we add Windcheck drift-control product as needed.

Scott Whorrall

Both of our boom sprayers are equipped with Delavan #15 cone nozzles. These deliver a nice coarse spray for "windy" conditions. With the Raven controllers, rates can be changed with the push of a button. This is especially good when weight, wind or water volume per acre is a concern.

Doug Higgins

5 Discuss some of the successful tank mixes you have used. Give the problem target and product, rates, and frequency and timing of applications.

We have been using a broad spectrum preventive program on our bentgrass overseeding that has given us excellent 21-day control at reduced product rates over longer periods. Our tank mix is Chipco 26019 at 2.0 oz/M or 2 gal/A plus Cleary's 3336 at 1.2 oz/M or 1.25 gal/A plus Daconil 2787 at 4 oz/M or 4 gal/A. (M = 1,000 sq.ft.. A = acre.)

We also rotate standard label applications of Alliette, Subdue, and Banol every 21 days for pythium control.

Scott Whorrall

Tank mixes that have been successful for us include MSMA plus Lesco Threeway when we have enough broadleaf and grassy weeds present together. I've found that 2

pints of Basagran per acre plus 4 to 8 oz of Image per acre works well on purple nutsedge in Tifway 419. Two applications may be necessary. At those rates, keep it off of Tifdwarf.

We have had great success on mole cricket hot spots with Orthene at 3.5 pounds per acre plus M-Pede at 1 quart per acre.

Doug Higgins

6 Discuss your most successful methods for dealing with hydraulic fluid leaks on turf.

Sod!!

Scott Whorrall

We flush hydraulic fluid leak trails with a soap solution to move it out of the root zone to aid in recovery, but the damage is usually already done. The quickest most successful way to remedy large visible damaged areas is to re-sod.

Doug Higgins

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