

depends on your point of view. You will never be totally rid of goosegrass so don't throw away your knife and Illoxan. This is when our second application of pre-emergent comes in.

With our second application 75-80 days later, we didn't use the drop spreaders. We just boom-sprayed everything. This application is intended to suppress the growth of winter broadleaf weeds and any volunteer ryegrass. Depending on your region in Florida, it's also going to help suppress germination of goosegrass and crabgrass.

Our third application of pre-emergent will occur 65-80 days after the second application. We will monitor soil temperatures on a weekly basis. By taking soil temperatures at a 4-inch depth we closely monitor and time our spring application when soil temperatures reach 55-60 degrees.

For this application we've chosen Pendimethalin at the rate of 3 pounds active ingredient per acre. The chemical

is impregnated on fertilizer and spread by a subcontractor. We feel this saves us time and money. We chose Pendimethalin because crabgrass is the weed that provides us the greatest challenge. If goosegrass is your problem, you might want to spend the extra money and go with Ronstar.

In summary we start our pre-emergent program just prior to overseeding in mid-October. Our second application is 75-80 days after in order to catch any volunteer ryegrass from previous overseeding and suppress winter broadleaves, and our third application is scheduled 65 - 85 days later, depending on our soil temperatures: 55-60 degrees for crabgrass and 65-72 degrees for goosegrass. By mapping and monitoring our high traffic and wet areas hopefully we can stay one step of the weeds and the golfers.

CARTER THOMPSON  
Chemical Technician  
LPGA International Golf Course

**Editor's note:** LPGA International's superintendent, John Lammrsh is a past contributor to the *The Florida Green*. For this Hands On topic Lammrsh challenged his pest control technician to write an article. Good idea for increasing grass roots participation in your magazine.

## Weed Control Programs for Y2K Reduce Chemical Use

### Pre-emergent Programs

To control both broadleaf and grassy weeds before germination including: volunteer ryegrass, crabgrass, goosegrass, bull paspalum, sedges and many types of broadleaf weeds.

1. Ronstar G: Applied late February or early March at 200 lbs. per acre. Normally mixed on a fertilizer. Applied in late evening over the overseeded turf.

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Must be watered off the leaf surface of the turf.

2. Pendulum WDG: Applied late April or early May at 2.5 pounds per acre and followed by 2.0 lbs. per acre applied in June or July as a split application to extend weed control.

3. Barricade 65 WG: Applied in October to all non-overseeded areas to control winter annuals and tracked-out ryegrass. Applied at 2 pounds. per acre.

#### Post-emergent Programs

No pre-emergent program will provide 100% control. We treat emergent weeds with the following materials.

1. Yellow nutsedge: Basagran T/O at 3 pints per acre.

2. Purple nutsedge: Manage at 1 oz per acre.

3. Bull paspalum: Tank mix of 2 qt/acre MSMA with Sencor 75 Turf at 2 tsp./acre with a good spreader/sticker. Mix and spray every 7-10 days until control is reached.

4. Goosegrass: Illoxan 3 EC at 1.0 oz/1000 sq. ft.

5. Broadleaves (winter annuals): Lesco Three-Way (2,4, -D, Mecoprop and Dicamba) at 1.2 to 1.5 oz/1000 sq. ft.

#### Mechanical/hand pulling of weeds

We hand-pull all weeds in the putting surfaces (except the nutsedges. See above). All weeds in flower beds are also hand pulled.

#### Wall-to-wall vs. Spot Spraying

Most all of our pre-emerge programs are treated on a wall-to-wall basis, except the fall application, which is used to treat only the non-overseeded areas.

All of our post-emergent programs are applied as spot treatments to only treat the actual weed infested areas to minimize chemical use and environmental impact.

#### Summary

After the last several years with properly applied pre-emergent programs we have reduced our chemical weed control to now less than 10% of our total turf acres. This effort is assisted by increasing our renovation activities and fertility programs to grow the healthiest turf-

grass possible, which minimizes weed growth.

Our major weed problems now seem to be purple nutsedge and bull paspalum. Their waxy leaf surfaces tend to resist the penetration by the herbicides, and our summer rains make it hard to keep an active product on the plant. Unfortunately, it seems our pre-emergent programs have a minimal effect on these weeds.

CARY N. LEWIS, CGCS  
Renaissance Vinoy Resort

## Weed Control for 2 Municipal Courses in Fort Myers

Working with superintendents Ed Stalnos at the Ft. Myers CC and Jim Hahn at the Eastwood GC, this is the program we came up with for the two municipal courses for this year.

#### Pre-emergent Program

We apply a 13-6-18 fairway fertilizer sparged with Barricade at the rate of 350 pounds per acre. This provides .75 pounds active ingredient of Barricade per acre. This is put down during the first week of November.

We follow up with either another 1.5 pounds per acre of Barricade or 1.5 quarts per acre of Surlan 75 to 90 days after the initial treatment. Our primary weed targets with this application is suppression of goosegrass and crabgrass germination. We also hope to slow down some of the Poa annua. If we get volunteer ryegrass coming up in non-seeded areas we spot treat with Kerb as a post emergent application.

#### Post Emergent Program

For goosegrass and crabgrass infestations we use Sencor at 3 oz per acre with MSMA at 43 fluid ounces per acre as a tank mix with good results. Illoxan at a rate of 1 quart per acre has been used on Tifdwarf putting surfaces for goosegrass control. The greens are only sprayed if hand-picking cannot control the goosegrass.

Broadleaf weeds are controlled using Trimec Classic at a ½ quart per acre rate.

We have been very successful con-

trolling purple nutsedge by applying Manage at 1.3 ounces per acre.

We have also had good results using the new herbicide Drive making two applications at the label rate.

Our most difficult weeds are goosegrass and a broadleaf weed called southern sida. If anyone has any ideas on control of the latter, please give me a call.

MIKE MONGOVEN, CGCS  
City of Fort Myers

#### WEED NEWS OFF THE NET

#### New Product

Dow AgroSciences has recently received registration for Lontrel Turf & Ornamental herbicide in the state of Florida. Lontrel is a non-phenoxy, selective post-emergence herbicide that contains the active ingredient clopyralid. It is labeled for use on both warm and cool season turf and sod farms. Clover, thistles, and nightshade groundsel are among the weeds that are on the label with the expectation to expand it in the coming year. There is excellent turf safety with both St. Augustinegrass and bermudagrass. Lontrel may be applied as a broadcast or spot treatment.

#### DR. PHIL BUSEY'S TURFTALK DIGEST

#### Questionable spot treatment

Often I see herbicidal spot treatment of goosegrass causing considerable damage to fairways, more than a properly calibrated broadcast application of traditional selective products. I described this in an article in the September 1999 Golf Course Management, and some examples are illustrated at

<http://www.floridaturf.com/weeds/eleusine.html>

I am interested in collecting comparative data on costs, both in materials and labor, of booming vs. spot treating. I am also interested in what threshold of goosegrass infestation is used to decide between the two approaches. Please share any experiences.

#### Tropical Signalgrass

I've struggled for over a year talking about "that weed everyone's got" so now