

my efforts to remove that universally accepted weed would be applauded.

I was still riding high the following fall when I applied my pre-emerge herbicide. I could still clearly envision all of those ugly white seedheads blowing in the breeze. Wow! I was going to make the place even better for the heavy winter play. As the year progressed and the holidays came and went, it became clear I had been successful. I had eliminated the vast majority of those obnoxious weed patches.

A funny thing happened to me on the way to the turfgrass Hall of Fame. At the end of December, I realized that the heavily shaded areas were getting a little thin. After another 8,000 rounds for the month of January, thin would have been very acceptable to me. A more accurate description would have been simply "dirt." It had sure been a quick change from riding high to laying low. The members were all quite concerned. There had never been a problem with grass in these areas. That new Greenskeeper had sure screwed it up.

Rest assured the next winter I did not cringe when I saw those white seedheads blowing in the breeze. I had learned an important lesson — a weed is not always a weed.

Mike Mongoven, CGCS  
Fort Myers C.C.  
Fort Myers, Fla.

## Mapping Pays Off!

Here at Lake Region we only use pre-emergents in two different applications. We primarily use them for our winter weed program mainly for control of *Poa annua*.

We will come in with Surflan at a full rate and will do the golf course wall to wall. We begin this application in the middle of October and try to have it done by the end of the month. We ring all tee and green surfaces first and then proceed to finish the rest of the golf course from there.

We will come back in February and March and begin post treatments from there for any secondary rye or *Poa*. We



*This goosegrass plant needs pulling — not spraying.*

are still trying to find the best product for that application but have tried many other avenues. I have used Sencor in some fairway areas at that time with some degree of success. Of course, I think everyone has their own ideas on post treatments. This basically is our strategy for the winter months.

As for the spring and into the summer we will map hot spots mainly for goosegrass and will spot treat these areas. This is a very limited application due to years of keeping up with the problem of goosegrass.

We seem to be able to keep goose down to a very minimal issue due to products like Illoxan that do such a good job with a post treatment. Also with some of the environmental issues about pre-emergents staying the soil longer we do try to keep their use down to the most extreme limits as possible.

Here at Lake Region if we can survive without them we definitely try to. We are very involved with the concerns of the environmental issues ahead of us and are a Registered Audubon Cooperative Sanctuary. We try to keep all our chemical uses to the most minimal use as possible.

Alan Puckett, CGCS  
Lake Region Y. & C.C.  
Winter Haven, Fla.

## Weed Control with a Real 'Hands On' Approach

At Collier's Reserve, nearly all of our weed control is done by hand and it has been that way since grow-in started. Occasionally, we spray yellow nut sedge that has emerged since grow-in. There are two situations that require manual weed control programs. First is grow-in; manual weed removal gives you control over the weed population from the beginning. The second situation is an established golf course with a substantial weed population.

### Weed Control During Grow-In

Prior to sprigging, at the Reserve, soil samples were taken to help us determine the proper fertility levels needed for grow-in. This was important to us because we needed all the necessary elements in our fertilizer blends to complete a healthy, rapid grow-in. One of the best natural weed control programs is a tight, healthy turf.

We waited three weeks after sprigging to begin our manual weed control program. We would have, as our Golf Course Manager Tim Hiers would call, "tiger hunts." A "tiger hunt" consists of up to four men, starting at the tee and working

toward the green, spread out, with five-gallon buckets and weed forks, and making sure they get the root and the top of the weed plants. Our "tiger hunts" went on throughout grow-in and for the first month of operation. Initially, the "tiger hunts" required at least a two to four man crew to hand pull the weeds.

However, once we established and maintained a schedule, we were able to cut to a two-man crew doing the manual weed control. If we occasionally got behind on a few holes, maintenance crew members who finished daily tasks early would give special attention to the weed areas, or we would spend some time on Saturdays doing manual weed control.

As grow-in ended, we developed guidelines for weed control to assure we would remain weed-free. We began by creating a healthy turf and we keep it that way. We adhere to a strict Integrated Plant Management (IPM) Program that reinforces the healthy turf program. We have frequent soil and turf tissue testing to monitor proper fertility levels.

Our irrigation water is on a scheduled test program to monitor bicarbonate and sodium levels, and those levels are adjusted to evapotranspiration (ET) rates and are monitored by an on-site weather station to assure proper soil moisture level is maintained. Mowing our turf on a proper frequency schedule, at correct height and with sharp, properly adjusted reels helps maintain a tight, healthy turf that means better weed control.

The weed control guidelines also include a program for manual weed control (except yellow nut sedge). We have a daily weed quota system for some of the golf course maintenance crew. The IPM specialist has a quota of 25 weeds per day (if he can find that many), the irrigation specialist has a six per day quota, as well as the set-up person. Each crew member has a specific area to concentrate on.

The set-up person takes care of the greens, tee banks and tee tops; the IPM specialist covers the fairways and roughs; and the irrigation specialist maintains the areas around the irrigation controllers.

Even the equipment manager is asked to pull at least two weeds per day when he

goes into the field

If "hot spots" develop anywhere on the golf course, crew members who finish daily assignments early go work on them.

When the golf course is weed-free, we turn our attention to pulling weeds from the native grass areas such as tee slopes or in the natural area beds.

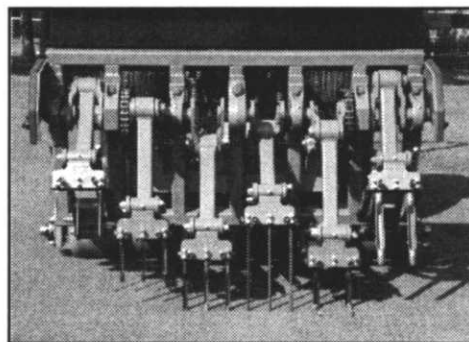
## Weed Control for an Established Golf Course

In the second situation, manual weed control is also required for a golf course that is well established but has a weed population problem. The tactics used to bring it to a weed-free status are not much different than during a grow-in. Using the "tiger hunt" method, sound

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## Manual Weed Control versus Spraying (when appropriate)

Here are some of the advantages of manual weed control versus spraying: herbicides cost money, you reduce the amount of pesticides used (again saving money), and most of all, it makes good, common sense. For example: figure the time and materials cost for a spray technician to spot spray goosegrass plants; spend that amount for manual removal of them, and it would not take as long, or cost as much, to rid the fairways of the goosegrass. When you spot spray, you can certainly count on several repeat ap-

plications to kill the goosegrass, not to mention possible interference from rain. The seed head remains viable even when the goosegrass is dead.

You also chance severely damaging or, at the least, yellowing the surrounding turf for several days. The advantage to manual removal... the goosegrass is gone... no root, no seed head, no need for repeated herbicide applications... no more goosegrass!

## Summary of Weed Control Practices

Through good cultural practices, using the components of IPM, and a disciplined approach to limit the amount of herbicides used on the golf course, we have become almost weed free. It may take more time if the weed problem is severe, but it can be accomplished. Irrigation timing and frequency, controlling pests and disease, using proper fertility levels and frequencies, and proper mowing practices, all contribute to a healthy turf, which contributes to good weed

control. As a student, preparing for a career in turf management, I remember an old saying that still holds today: "Weeds are not the cause of unhealthy turf, they are the result of it."

*Matt Taylor*  
Collier's Reserve  
Naples, Fla.

## Split Applications for Sedge

Our number one weed problem this year has been purple and yellow nutsedge. The reason it was such a problem was that the rainy summer made our control efforts less effective. We also have some crabgrass and goosegrass to contend with on a small scale.

We found that a split application of Image at 3/4 ounce per 1,000 square feet followed up with 1/2 ounce per 1,000 square feet gave us satisfactory control of purple nutsedge when conditions were favorable. The 1.0 ounce rate of Image seemed to shut down our bermuda so we



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