

A plant out of place

Would a weed known by any other name be just as unwanted?

Note: This article without by-line came in the mail but I don't know who wrote it. Nevertheless, it's worth reading. — Editor

If you look up the official definition of the word “weed” in *Webster's Dictionary*, you would find it defines this term as “a plant out of place.” This is to say that the multi-flowering rose bush which occupies space in the Azalea bed is a weed. For it seems that all of the plants we have on God's green earth have some redeeming value when used in their proper context and environment. I guess it just seems that we have an abundance of weeds in our golf course environment.

From goosegrass to broadleaves each year, we in the golf business spend vast sums of time and money to make our golf courses weed free. It is likened to a spring ritual we all embark on; our mission is to create the one ecological environment nature does not allow: a generic segregated monostand of turf, one species above all others. It is at best a quest for turf perfection for the pleasure of our members who have neither the golfing skills nor disposition to fully appreciate and understand.

It is particularly difficult in a subtropical climate like our state as we have hundreds of different weed species which germinate 12 months per year. The best weed-prevention program is, of course, a healthy, dense turf. Yet when we perform our cultural practices, our strong, dense turf is opened up like a stuck pig and the invasion is on. This requires good planning as managers to focus on preventive controls and attention to those species which are most likely to germinate during this time period. Thank God for broad spectrum pre-emergent herbicides.

At my golf course, we focus most of our weed-control money and energy to these special times during the year when our most troublesome species are likely to begin their life cycles. However this is just the starting point in our weed-control program, a constant vigilance for resurfacing plants is an ongoing concern. This program is a combination of efforts and represents a true Integrated Pest Management program.

Our program consists of four main objectives:

- A. Timely pre-emerge application
- B. Post-treatment of young plants
- C. Mechanical removal of large plants with seed stalks.
- D. Fulfilling nutritional requirements of the turf

For any program to be successful, it must be performed at all levels. To perform just one of the tasks will lend the program to failure.

I have found this IPM program will work for all types of weeds found on the golf course. It appeals to me because it is a yearlong program which yields results. I have been able to reduce through the years the amount of pre-emergent material

used because of the success of the other parts of the program. Since the pre-emergent materials are the costliest of herbicides, I have been able to reduce the funds allocated for this part of my chemical budget.

This is not to say that we don't spend a good deal of money on weed control. As a general rule, post-treatment programs are not as expensive as pre-treatment. This is due not from the cost of the chemicals but because of the amount of area treated. By reducing the amount treated, you will lower the cost. Depending on the amount of weeds to be treated, it will still adversely affect your chemical budget and require a good deal of manpower to apply them, thereby impacting your payroll budget.

There is also a consideration on those types of weeds that cannot be treated with pre-emergents and are only controlled by post treatment. Most of these types of weeds must have multiple applications of herbicides in order to be effective. The most critical aspect of controlling these types of weeds is the timing of the following applications. If they are not performed according to manufacturer's recommendation you will have lost all the time and money from the previous applications.

Timing is everything.

The most labor-intensive aspect of this weed program is the mechanical removal of the weeds. I find this has several advantages when dealing with mature plants. With the instant removal of the weed, the adage “out of sight out of mind” is very true here. Not only do you immediately get rid of the weed but you don't have the recurring irritation of viewing them for two to three weeks as they turn brown and die.

Another advantage is the reduction of future populations of the weed species. Due to the fact that mature weed plants are in the reproductive stage, by removing the plant you are also removing thousands of weed seeds which, if left on the ground after spraying, would be spread to other parts of the golf course.

One of the time periods we pay particular attention to is when we aerify. By opening holes in the turf and bringing up soil which is by no means sterilized, I believe we simply make the weed situation worse by spreading this soil which is full of weed seed all over the golf course. After the fairways are aerified, we will make a pre-emerge treatment to prevent the weeds from taking hold.

We go at the lightest rate possible of the chemical we are using which we feel will give us adequate weed suppression. I must say however that I do not apply any pre-emergents on the greens at any time, only post-treatment for these areas.

All of the herbicides in the world will be of little value if you don't have and utilize a proper fertility program. The dense, thick turf is likened to a steel plate which creates an impenetrable barrier to the encroachment of weeds. This barrier can

only be achieved by implementing a sound nutritional program. What type of program you implement does not matter, only that you develop a good program and stick with it. As one superintendent told me, "Program the work then work the program."

There are some nuisance weeds which are very troublesome and difficult to get rid of. One of these weeds is water sedge. What makes this weed so difficult are the conditions that make it so prevalent. Being in an area that receives over 60 inches of rainfall each year, we find ourselves in an ideal environment to reproduce this plant.

Another aspect to consider about this plant is the soil and drainage condition of your golf course. My soil conditions are basically peat and muck which pretty much tells you what the drainage conditions are. At times during the summer we

will not be able to mow large areas of our golf courses for weeks because of wet soils. This creates the perfect environment for the proliferation of water sedge. I have completely cleaned up fairways only to have them reinfested within three to four months. And I have tried everything on the market labeled for weed but nothing has been effective in preventing it from recurring.

I began this article about what a weed was and the pressures we face as turf managers to make our golf courses weed free. I think that 100% weed-free turf is not always obtainable. I think that the days of unlimited herbicide usage in attempting to attain this goal will soon be gone. I believe that the golfing members of our clubs must deal with reality and the conditions at their golf courses and adjust their attitudes on purity of turf.

I'm not suggesting we don't do what-

ever possible to attain superb playing conditions. I'm saying that superb playing conditions can be had with a degree of other turf species on the golf course. I believe that the only pure monostands of turf should be on the greens and there is a tolerable level which can be accepted on the rest of the golf course.

I say this because our use of chemicals is coming increasingly under criticism and scrutiny from the general public. And I firmly believe that certain weed species are perfectly acceptable on the fairways and roughs from a shotmaking perspective and has no adverse effect on the game. I feel that we have to get away from applying herbicides strictly for aesthetic purposes and to utilize them for their intended purpose, when they benefit the game of golf.

I believe there are far too few turf managers out there who utilize the IPM approach. Much greater usage of mechanical removal in the weed-control program should be in use. If we don't start taking some of these steps now, when the hammer falls on some of our mainstay herbicides we are going to be at a loss as to what to do and how we get our members to accept less pure turf.

That time will surely come and you and I will be around to see it.

From where I sit, I see golf courses being used more and more as recharge areas for the municipal water supplies. This will surely draw increased scrutiny from the environmentalists and general public on what types and amounts of chemicals we are using on these areas. Up until now we have fended off wholesale restrictions on our pesticide usage but the time will come and we need to prepare for it.

Studies by governmental regulatory bodies such as the one we are involved with now will become more common over the next 10 years. We need to continue our cooperative efforts with these agencies and show them we are taking the right and prudent steps in our application of chemicals. Trying to achieve 100% purity of turf is not one of those steps. Yet a movement of moderation and acceptance of less than perfect conditions will show our actions are going in the right direction.

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