

AN EXPERT SPEAKS:

A Talk With A Horticulture Extension Agent

By: Cheryl Jones

Thomas Teets, a Horticulture Extension Agent with the Palm Beach County Extension Office of the University of Florida graciously gave up some time during his busy, busy day to talk about some of the problems faced by area golf course superintendents, and what is being done to try to solve them.

Q. What are the worst problems facing area golf courses?

A. Pine Tree Decline is probably the most serious problem we have on golf courses right now. It's caused by a couple of different things. One is now construction areas. What happens is heavy equipment runs over the roots of the pine trees. It compacts the soil badly. Pine trees have a very weak root system. If you do any compacting to the roots, you damage them badly, and the pine trees will either decline slowly, or the Pine Bark Beetles will attack it and it will die quite rapidly. We'll get back to Pine Bark Beetles.



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The other area where we see pine tree decline is the more classic areas on golf courses, where they irrigate a lot. Most of the water has a fairly high pH (8 or 8.5). Constant irrigation with this type of water causes the soil to become more alkaline. Pine trees normally grow in a low pH soil (acidic), and this reduces the efficiency of the trees. Then we see a lot of other deficiencies, particularly iron and manganese, which will cause the tree to yellow and slowly die. Sometimes in this situation the Pine Bark Beetle will attack and sometimes you don't see any Pine Bark Beetles - it will just slowly decline and die.

Q. Does a golf course encourage shallow rooting?

A. Excessive watering definitely causes shallow rooting because there's no real need for the tree to have really deep roots, because they have all that water constantly being put-on. High fertilization, particularly high nitrogen fertilizer, also is detrimental to the root system. It's a hard situation when the grass needs one thing and the tree needs something totally different.

Q. Is there any way around it?

A. What we're recommending is if you have a tree that's just starting to yellow, and it hasn't progressed too far, to apply sulphur around it every two or three months and stop watering the area. Concentrate the water on the fairways, tees, and greens, and in the rough where the pine trees are — just don't water it. Let the pine needles fall off and decompose on their own. Some golf courses have even gotten to the point where they just kill off those areas. They spray Round-Up to kill the grass and let the area go back to a natural state. The best thing you can do for a pine tree is NOTHING — don't water it don't fertilize it — maybe apply a little sulphur to it.

Q. Driving out towards Indiantown, we saw pine trees yellowing no where near golf courses and T.L.C. Why?

A. In those situations it's probably Pine Bark Beetles. The only thing you can really use if you catch a tree that's just about to get it is Lindane; it MIGHT help. You have to be very careful to spray up and down the entire tree and all the branches. It's a hit-and-miss proposition, and very expensive. But if it's a tree you've got to save — a backdrop to a green, for instance — you've almost got to do that.

Q. How long has this problem been around?

A. It's been going on for at least five or six years. But some golf courses are just getting old enough to notice it because it's a slow process. It usually shows up around the edges of the fairways first and progresses outward.

Q. What's another problem golf courses are faced with?

A. Lethal yellowing is a problem that we've had for years. The majority of palms that have been really

(continued on page 16)

(continued from page 14)

susceptible to it have been wiped out. There's still some around that haven't gotten it yet. The most susceptible were the Jamaican Tall Coconuts, and they're pretty well wiped out. What we recommend now is if golf courses do put coconut trees in, to use the Malayan Dwarfs, preferably the green variety. A new hybrid called Maypan is a cross between a Malayan Dwarf and a Panama Tall. It's a good tree — a more robust tree with good hybrid vigor. It's a little higher in stature than the Malayan Dwarf.

Another tree that's susceptible to lethal yellowing, and is still being planted is the Christmas Palm. It's fairly subtle when it dies — not a bright yellow like the Jamaican Tall; it just loses lower fronds until all you've got left is one spear sticking up. What we recommend that people replace these with is a Solitaire Palm. It grows a little bit taller, but is basically the same stature.

Q. Can you give me any background on lethal yellowing?

A. What they've found about lethal yellowing is it's a micro-plasmal-like organism. It is not categorized as a virus or bacteria or fungi. It's closer to a virus, and is transmitted by a Leaf Hopper. They are fairly common in South Florida, and there's no way you can wipe out all the Leaf Hoppers.

Q. Is there any way for trees to develop a resistance to Lethal Yellowing?

A. A tree is either naturally resistant or it's not. There are some levels of resistance — certain trees like the Queen Palm is never reported as getting Lethal Yellowing. However, there are trees like the Jamaican Tall Coconuts that are extremely sensitive to it. Even the Canary Island Date Palm, commonly used on golf courses, is susceptible to Lethal Yellowing. If a golf course still has the Jamaican Tall, and they're still in fairly good shape, it is possible to inoculate those trees with an antibiotic. This will keep the symptoms from showing. The trees may have Lethal Yellowing, but as long as you use an antibiotic on a yearly basis it will forestall any symptoms from showing.

Another area where we're having problems is where people are planting Canary Island Date Palms. There are a lot of problems with Palm Weevils on the newly planted trees. What you need to do is, where you get the tree, inspect it carefully and make sure that it has been properly tied so the bud is not injured. Treat the tree with Lindane and copper when they're first planted, then periodically, once a month, for four to six months. It's important to thoroughly drench the bud of the tree. If the bud has been damaged at all the Palm Weevil will really attack it. Studies are currently being done by Robin Giblin-Davis in Fort Lauderdale to determine the efficacy of Oindane, Cygon, and Dursban against these weevils.

Q. A lot of worm damage was seen in Palm Beach County in '86. Why?

A. Worms were extraordinarily bad this past year . . . Loopers, Army Worms, Web Worms . . . any kind of caterpillar was bad this year. The reason they were so bad was it was warm and wet for such a long period of time, creating perfect conditions for them to reproduce. If golf courses sprayed, it rained and the spray got washed off. It was almost a losing proposition to try to control them. About the best thing to spray for them is BACILLUS THURINGIENSIS, contained in DIPEL and THURICIDE. It's a biological insecticide just for worms. Birds are about the only natural predator worms have, and this year they just couldn't come close to controlling them.

Q. How accessible is the Extension Agent to the golf course superintendent?

A. Very accessible — all they have to do is call the office. Our service is free. Aside from the 150 or so golf courses in Palm Beach County, we also field questions from homeowners. I also do the Master Gardener Training, a 50 hour horticultural course equivalent to a college horticulture class. The Parks Department falls within my responsibilities, from trees to ballfields, inspections and advice. There's one other urban horticulturist in the Extension Office (at the time of this interview) with a third hired to start working soon (by publication). The Palm Beach County office is open from 8:30 AM until 5:00 PM, five days a week, for any one in need of our services. ■

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