! ! ! ATTENTION CLASS B AND ASSOCIATE MEMBERS ! ! !

If you are eligible now or in the next few months for a classification upgrade to class A or B and you are worried about the dreaded "TEST" this is for you.

On October 28th the semi-annual study session to help prepare you for the upgrade exam will be held at the Meadow Club golf course by your membership chairman, David Sexton.

If you have met all the requirements the actual test for your classification will be available, or a practice exam can be taken to help you prepare for a future testing date.

In order to qualify for class A you must have completed 3 years as a Golf Course Superintendent. To qualify for class B you must have completed 1 year as a Golf Course Superintendent.

In addition you must submit an application for reclassification to the Board of Directors by the October 10th meeting at Bodega Harbour. The application does not need to be attested for reclassification and they are available from the Association office or by contacting David Sexton.

Depending upon the weather and aerification schedules the Meadow Club may be available for complimentary golf after the morning study session which will start at 8:30 am.

Any questions, please call David Sexton, (415) 457-2050 between 8:30-9:30 am Monday-Friday.

A LOOK AHEAD

October 10
Bodega Harbour GC, Joint Meeting with Sierra Nevada Chapter

November 6,7,8
Superintendent's Insitute, Santa Rosa

November 21,22
GCSAA-GCSANC Seminar
Integrated Pest Management

December 6
Christmas Party

FUNGICIDES

How you apply it can be at least as important as which one you use, says famed researcher

Do nozzle type, dilution rates, spray patterns, pH and pressure make a difference when applying fungicides?

"You bet'cha," says Dr. Houston Couch, Professor of plant pathology at Virginia Polytechnic Institute and State University. Couch, well known for his book, Diseases of Turfgrass, was the speaker at the Fourth Annual South Florida Workshop and Exposition in Fort Lauderdale April 17.

For two hours, he discussed a checklist of items necessary for the correct application of fungicides. This checklist is important, he said, because of golf course superintendents need to improve the effectiveness of the fungicides they are applying to the nation's golf courses.

"With the IQ of Zippo the chimp, a crescent wrench and a screwdriver, you can double the effectiveness of your fungicide application," Couch said.

Superintendents must optimize the applications of their fungicides because they are faced with increasing expectations.

"The Stimpmeter is the worst thing that happened to golf," he said.

"They roll the golf ball and tell the guy on the spot what they want. To get the number right, the superintendent will roll the green to harden it up, back up on the watering and lower the cutting height. But biologically, under these conditions, the grass has a real a problem. Along comes a fungus that really sort of likes this world, and all it's got to do is snarl and this grass dies."

The problem is even worse because of South Florida's climatic conditions, he added. "A lot of you are growing grass in a part of the world where the Lord did not mean for that grass to grow. You know that. This is where he created fungus to kill the grass."

In order to fight the fungus problems, Couch recommends several procedures.

GRANULAR FUNGICIDES

Although he spent a majority of his time discussing spray fungicides, he did delineate his findings on granular fungicides: mow and irrigate the day before application to have the longest possible interval between application and mowing or watering; and apply the fungicide in the morning while the grass is still wet.

"Granular formulations of non-systemic fungicides require two to three times the active ingredient level of spray formulations to produce the same degree of disease control."

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The type of carrier makes a tremendous difference in effectiveness. Get test data on the carrier as well as the active ingredient.

Granular formulation should never be used on home lawns or park applications.

NOZZLE TYPES

Couch is emphatic about not using flood jet nozzles in fungicide applications.

"The flood jet has the worst of all possible worlds, " he said, "with big droplet size and lots of aerosol. The material comes through the nozzle, hits the baffle and goes splat. That's equivalent to putting your thumb over a hose. The only good thing you can do with a flood jet nozzle is to take it to a kiln, have it melted down and make it into a doorstop for your office."

He recommends either the flat fan 8002 or the raindrop type nozzles, RA 10 to RA 15 for fungicide applications. He also says fungicides should be applied with 100 percent to overlap and the angle of the nozzle on the floating boom should be set at 45 degrees.

"The Chempro floating boom is the hottest thing you'll ever see. It has two manifolds for putting out the same pressure at each nozzle and will give you uniform application. The boom is in a class by itself.

In Couch's research, nozzle pressure made a significant difference in the effectiveness of the fungicides.

"We used the 8002 nozzles with the right dilution rate of Chipco 26019 to control dollar spot," Couch said. "When we used 10 pounds per square inch, we got 55 percent control. But when we switched to 30-60 pounds, with the same amount of material in the same amount of water, we just about doubled the effectiveness of the fungicide. With Dyrene, the same thing occurred. There was 45 percent control at 10 pounds and nearly 100 percent control at 30-60 pounds."

In order to calibrate the correct pressure, Couch recommends gauges on both the tank and the nozzle ends. "You should be using the Spraycheck method to check your pressure when you apply fungicides. This may not seem important unless it's your prize putting green, it's five days before the big tournament, the nights are in the 90's and the humidity is 150 percent, and one part of the boom is killing all the fungus and the other part is killing just some of the fungus. That's when you think about moving up North."

Couch recommends 40-pound pressure for both the flat fan nozzles and the raindrop nozzles.

DILUTION RATES

Forget the old rule, primarily based on the use of mercury fungicides, of 5-10 gallons per 1,000 square feet.

Couch recommends Daconil 2787 at one gallon per 1,000 square feet; Bayleton at 2 gallons; Chipco 26019 at 0.5 to 4 gallons and Banner at 2 gallons.

"Chipco is hard to mess up," he says. "It's not dilution dependent, so if you went from a half gallon to four gallons, per 1,000 square feet, you got some control."

"Bayleton shouldn't be put in at one or three gallons, but at its optimum rate of two gallons. If you change from the optimum dilution rate with Bayleton, you get less control over the fungus and it doesn't last as long."

IRRIGATION AND RAINFALL

Irrigation or rainfall shortly after application will affect the fungicide, and usually not for the better.

In his research, Couch used Dyrene, Rubigan, Bayleton and Daconil. He applied the materials to the leaves while they were wet, allowed the leaves to dry, then irrigated. After three days, he irrigated again.

As a result, Couch said, "with dollar spot control, rainfall before the spray dries, significantly reduces the effectiveness of the contact type fungicides. With Rubigan, if the leaves are washed before the spray dries, it's goodbye Rubigan. With Bayleton, leaf washing before the spray dries does not significantly reduce the effectiveness."

He also concluded that the basic effectiveness of turfgrass fungicide is established by the initial amount of water used in its spray application.

If the treated area gets more water before the spray dries on the leaf, the effectiveness of non-systemic fungicides will drop significantly.

If the fungicide formulation contains a sticking agent, rainfall or irrigation immediately after the spray dries on the leaves will not appreciably reduce its effectiveness.

pH AND IN-TANK STABILITY

Superintendents need to know the stability of the active ingredient of the fungicide (which usually is supplied by the manufacturer); they need to test for the pH of the water in the area.

"The lesson here is that if the active ingredient of the product is unstable in alkaline ranges, it will be formulated with a buffer that will skew it if the water you are using will offset what was going on in the first place."

"Dyrene is alkaline sensitive. It loses disease control effectiveness rapidly at 9.5 in the alkaline range. However, if it is used immediately in the acid range it doesn't lose effectiveness."

He recommends using a simple pen-type pH meter to avoid mistakes. The ideal pH for a fungicide formulation is 6.5.

But pH is not the only significant factor. The length of time a fungicide mixture is stored can affect it, even to the point of rendering it useless.

During Couch's tests, the fungicide formulations were adjusted and tested immediately. Then they were stored for 24 hours at 71 degrees, and tested again.

"If Dyrene is allowed to stand for 24 hours, regardless of pH, there is a significant drop in the effectiveness of the fungicide. the same holds true of Daconil 2787. Although it's stable initially from 3.5 to 9.5, if its allowed to stand for 24 hours, there is a clumping together of the particles and a loss of effectiveness."

Rubigan is stable from 3.5 to 9.5 initially and remains stable from 6.5 to 9.6 after 24 hours. "But" , he said, "at 3.5, the material breaks down significantly. It's acid unstable."

SYNERGISM

A lot of research still must be done on synergism, a positive reaction that occurs when fungicides are combined to improve their baselines,. But some products have already proven to exhibit that characteristic.

For instance, Fore and Subdue or Fore and Banol can be used at half the dilution rates and improve their effectiveness through synergistic action.

For dollar spot control, Couch recommends Banner and Dyrene, Banner and Chipco 26019 or Banner And Bayleton at a quarter of the normal rate.

"Not everything (combination of fungicides) works, but when they do, it can increase the effectiveness of the products," Couch said.

"Good golf course superintendents need more training in pesticides and agricultural chemicals because we are more dependent on chemicals than ever before," said Couch in an interview after his lecture.

"In order to stay alive in their profession, superintendents need to attend the local and national educational sessions. the information they receive in these sessions is current. by the time it hits the magazines, it's months old and by the time the material is in a book it is about two years old."

Couch feels superintendents also need education in personal relations.

"One of the reasons they need this training is because of a trend I see as bad; the trend toward having golf course managers or having corporations involved with the golf course."

"This takes away the superintendent's ability to make spot decisions. In some cases, a superintendent may need a product to take care of a problem, but he can't get the money released, or can't get it released in time to apply the material. And as a result, there's a problem on the course."

"Who gets blamed?" Couch asked rhetorically. "The golf course superintendent, and yet it wasn't his fault."

Credit: Article was taken from the June Issue of "THE FLORIDA GREEN."