

# Commercial Sod Industry



## Homeowner Sod Problems— Fusarium Blight

By CHARLES L. COOPER\*

HOMEOWNER PROBLEMS with sod have changed over the past eight years that I have been working in the Jackson, Mich., area. My area of responsibility now includes Jackson, Calhoun, Branch and Hillsdale counties. The two major centers of population are Jackson and Battle Creek, Mich. The sod grown in this area is Merion, Fylking and other bluegrass blends on organic soils.

During the first few years I worked in this area, the major homeowner sod problems were lack of fertilization, watering, thatch and powdery mildew. However, during the past three to four years, fusarium blight has become the most serious problem.

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When the disease first began to show up, it was afflicting sod that had been established for four to five years. It then progressed to two or three years, and now we are finding it just one year after establishment, and in a few cases, even the same year.

This last instance may well involve sod that has been grown in the field for two years. You can drive through some subdivisions and the disease is very prevalent. Many of the people who have affected lawns have automatic watering systems or take the time to water properly.

As you know, benomyl (Benlate) is the only material registered for homeowner use. But there are very strong homeowner reactions when the cost of this treatment program is realized.

In 1973, one homeowner made three benlate applications at the rate

*(continued)*

Fusarium blight is sometimes called frog-eye spot because of the characteristic round circles that appear as early symptoms (shown above). Cool, wet weather favors the development of the fungus disease.



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of ½ pound per 1,000 square feet, as recommended. The grass recovered in 1973. On his 8,000 square feet of lawn, he had spent \$150. This did not bother him too much until 1974, when the disease recurred just as bad as in 1973. If it was only a one-shot deal, it would not be as objectionable. But as an annual cost, homeowners rebel. Some ask, "What can I oversee with?" Others say, "I would have been better off seeding."

This kind of image given to the sod industry is not a good one. Negative reactions spread very rapidly by word of mouth when a friend asks the homeowner how the lawn is. This area is a small part of the total market area when one-half of all Michigan sod goes out of state. However, because of the nearness to the producing area, there is also a higher percentage of home lawns sodded here.

The problem is affecting our landscapers too as the customer blames them for so-called poor sod. There are major landscapers in the area who discourage the use of sod except on slopes. They say, "We have a lot less trouble and more satisfied customers with seeded lawns."

As advisers to people on which method to obtain grass, we extension agents point out the advantages and disadvantages of both methods. With recent problems with sodded lawns and the reactions from owners, you begin to question the advisability of sodding.

In 1972 and 1973, Dr. Charles Laughlin, nematologist at Michigan State University, discovered a relationship between fusarium blight and the stunt nematodes

(*Tylenchorhynchus*). During the summer of 1974, Dr. George Bird, also a nematologist at Michigan State, and I sampled nine problem lawns — all had stunt nematodes with the fusarium blight.

To demonstrate the effectiveness of nematocides, these plots were established on homeowner lawns. The treatments were benomyl, DBCP (nemagon), nemacur and a combination of benomyl with DBCP and nemacur. They all gave effective control.

At present, benlate is the only material registered for homeowner use. Last year, the purchase price ran from \$10 to \$15 per pound. Nemagon 8.6 EC, nemagon 12.1 EC and fumazone 86 E are all registered for homeowner use by commercial applicators. These are applied by the drench method. However, at present time, few commercial applicators are doing homeowner work. The previously mentioned materials plus nemacur are all registered for use by the sod grower.

The cost of the nemagon and fumazone treatments are considerably less than benlate and, if it can be obtained, perhaps under \$50 per 8,000 square feet of lawn — this would be less objectionable to the homeowner on an annual basis.

The lawns infected with fusarium blight have come from at least five of six different sod farms in the Jackson and Lansing, Mich., area. One landscaper who is very concerned with the problem has brought samples of turf that he has just put down on a new lawn, and two samples had stunt nematodes present.

One grower indicated it was not

his problem as long as no symptoms were showing on the turf. Another grower has cooperated with Dr. Bird and has set out a test area treated with nematocides.

What can the sod grower do to reduce the possibility of selling sod infected with stunt nematodes? There are three possibilities:

● **New varieties** — When Merion bluegrass began to show susceptibility, Fylking was found to be more resistant. Now it turns out to be more susceptible to fusarium. There are some new varieties on the market that look promising, but have they been on the market long enough to be sure of resistance?

● **Crop rotation** — Certain crops could be rotated with sod that reduce the stunt nematode levels in the soil. However, most of the crops are either not suitable to the organic soils or, like onions, potatoes and lettuce, require a completely different line of machinery, storage and marketing system. Also, at present prices, they are in worse economic condition than the sod industry.

● **Fumigation** — Costs of materials for the nemacur, fumazone and nemagon treatments would run about \$70 per acre. On 4,000 square yards to an acre, this would mean a cost of two to 2½ cents per square yard. Most home lawns are 8,000 square feet or less, thus fumigation would cost only about \$25.

I'm recommending the third alternative. The landscaper *could* fumigate the site, but because of the lot size, he is limited in equipment and it will increase the cost to about \$50 per lot.

I believe the increased cost of fumigation by the sod grower could be passed on to the homeowner because it will be a better buy for him if the sod were sold on a nematode-free basis. It would be the best approach for the total industry as well.

In summary, the fusarium/stunt nematode relationship is a serious problem and will be even more serious in the future. Now is the time to take action where it costs the least and will have the least effect to the customer in cost and bad feelings at the farm. □

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