PROBLEM MANAGEMENT

by Balakrishna Rao, Ph.D.

Controlling spruce gall

Problem: How do you control gall problems on spruce? We have had problems in controlling the galls which form at the base of small branches. We have used Sevin in the past around late July through early August and haven't had good results. What can be used, and when is the best time to control this particular pest? (Pennsylvania)

Solution: Spruce plants get two different types of galls caused by adelgids, most commonly referred to as spruce gall aphids. To manage these problems it is important to identify the adelgids properly to provide chemical control at specific times.

The Cooley spruce gall adelgid produces pineapple-type galls at the tip of branches. To manage this gall problem, treatments should be done after galls open in late July or early August, or before buds start to break in the spring (approximately early April). The Sevin treatments you have been using will do a good job in managing this problem when applied at the proper time.

The other kind of galls are called the Eastern spruce gall adelgids which have a slightly different activity period. This may explain why you are having control problems. To manage these galls, treat the plants after galls open in middle to late September or before buds start to break in the spring.

For both gall problems, several products-mal-

athion, Thiodan, Sevin, Systox or Dursban—can be used in the spring. Make sure to apply the treatments at the proper time when galls open. Timing is probably the most important factor in many pest management approaches. Read and follow label specifications for best results.

Managing maples

Problem: A number of maples in our area are suffering from some problems. The problems are seen on red, silver, Norway and sugar maples. Most trees have a starved look with yellow leaves and some green veins. The problems appear to be related to some sort of nutrient deficiency. In your opinion, what seems to be the problem and what can be done? (New York)

Solution: Based on your field observation of symptom pattern, the problems you are experiencing appear to be related to nutrient deficiency. Maples, in general, suffer from manganese deficiency. When maple trees do not absorb sufficient manganese, the foliage becomes yellow between the veins which remain green. If the problems are severe, the tissues between the veins turn brown, especially on the younger, outermost foliage with some defoliation. Manganese deficiency has been observed on different species of maples, such as red, silver, Norway and sugar.

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The name and logo HOECHST are registered trademarks of Hoechst AG. The name and logo ROUSSEL are registered trademarks of Roussel Uciaf S.A. SH8703017 Copyright 1987 Solution: Symptoms of manganese deficiency on maple would be similar to iron deficiency on pin oak. Therefore, ideally the plants showing yellow foliage should be tested for nutrient deficiency. Both a soil test and foliar analysis would be necessary to provide corrective measures.

Contact your county extension service for further information concerning deficiency tests. It is important to get the tests done prior to treating. Reports indicate that if maples are treated with iron rather than manganese, the symptoms become more severe because iron can further suppress manganese uptake due to an iron/manganese antagonism. In most cases, manganese deficiency is associated with alkaline soils.

Lowering the soil pH with applications of sulfur may release the manganese in the soil, although results vary and may not be satisfactory. The trunks of manganese-deficient maples can be injected with manganese sulfate or implanted with capsules of the same material. Treatments should be done just prior to the spring flush of growth for best results.

Following Roundup applications

Problem: We are interested in using our lawn care tanks and spray units for spraving Roundup after cleaning. After Roundup application and cleaning, we would like to use the spray equipment for normal production. Is this possible? If yes, would you comment on the proper way to safely clean the tank? We are concerned with the potential of Roundup residue causing injury. (New York)

Solution: Yes, it is possible that you can use the lawn care spray units for spraying Roundup. I believe you will be using a 1 percent solution of Roundup to manage the weeds. After using Roundup, it is important to drain the system and flush it with water to clear the entire spray system. Generally, cleaning with water alone is sufficient to rinse the residue from 1 percent solution. Make sure to clean the bottom and sides of the tanks to get rid of any residues. After cleaning, the tanks can be reused for regular lawn care spraying. Always read and follow label specifications and manufacturers' guidelines about the safety and material handling and disposal of pesticides.



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