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# Scientific Plant Service



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Since 1957

**WINTER NEWSLETTER**

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**FEBRUARY 2006**

If you are reading this, you should have received our FIRST Newsletter! Along with it was your program for 2006. If you didn't, call our office NOW! Any changes to your services must be called in NOW!

As long as the weather co-operates, our anticipated date to start services this Spring is February 20<sup>th</sup>. At that time we will start our Shrub Bed Fertilization treatments (BF) followed by Dormant Oil sprays on Shade Trees, Fruit Trees and Ornamentals.

Lawn Care customers,... you won't see us out there until Mid-March! Even if you see those other companies out there, they're too early!

Our previous Newsletter ended abruptly. Our customers who actually read it and called in for the end got \$5.00 credit on their account, or a donation to the HUMANE SOCIETY of THE UNITED STATES. See it pays to read ALL of our Newsletters. Thanks for reading us!



Bayer CropScience

## *A (not new) treatment you should consider!*

Compiled by: *George Piasecki and Damian Varga*

Fifty years ago when Scientific Plant Service, Inc., was founded our name reflected our philosophy to keep on the edge of our science and provide advanced, safe and effective techniques for pest control in our landscape. We have discussed it in the past and because we firmly believe in the technique we wish to review again, **MERIT SOIL INJECTIONS**.



Merit Insecticide, developed by Bayer CropScience and brought to market in 1995 provides extended control of a broad spectrum of pests in our landscape. It provides two modes of killing action. Conventional contact control is achieved when the product is sprayed on the surface of leaves or bark making physical contact with the target insects along with being present to be fed on. The other mode of action is systemic. Merit is designed to be absorbed by foliage, distributed through the plant providing control from a spray application over a thirty (plus) day period. Injecting pesticides into plant material is not a new concept! We have been doing it for decades. It originated with Elms in the 70's for Dutch Elm Disease using various styles of pressurized canisters. We later got the Wedgle Injector for inserting concentrated insecticides into tree trunks. Now we have Merit that can be *root absorbed*.

**Nothing is perfect!** With the systemic mode, repeated treatments are required when targeted insect populations persist. Additionally, we have found that some insects like scale and internal feeders such as miners and borers become very difficult to penetrate. Because of its chemistry, MERIT when applied properly can provide peace of mind and control persistent and difficult to control insects. This proper application is NOT our traditional spray treatment, it's a **Soil Injection**. Much like our Wedgle Injection Gun application that we use to inject Merit directly into the trunks of trees, soil injections make Merit available to be absorbed by the plant to



work internally in the same fashion. We have found the Wedgle Injection system very efficient and cost effective, however, there are certain trees with tight, smooth bark that are difficult to treat, plus, we can't use the Wedgle Injector on shrubs! Now, to supplement our Wedgle Injector and conventional sprays, we are integrating Merit Soil Injection into our IPM program.

**Nothing is 100%! We have found Merit Injection rounds out our control programs.** There are certain scale insects and borers that have not been effectively controlled with topical applications. When Merit is injected in the soil at the prescribed rates, it attaches itself to the soil particles and then is available for root absorption. The plants vascular system trans-locates the Merit throughout the entire plant. *Here's the catch!* Timing.....it takes 3-4 weeks for the Merit to move into the plant, therefore, diagnosis of a problem must be made in advance of the insect season. *Here's the clincher* ..... this one soil injection remains effective for the entire growing season and most likely may replace up to three foliar applications! This treatment is versatile as well as effective! Because of Merit's chemistry, soil injections can be made either in the Fall or Spring and remain effective all season.



These soil treatments are made with our regular spray trucks. The actual tool used to get the product into the soil is a stainless steel probe which was developed and designed by *Scientific Plant Service, Inc.* The critical area is to accurately inject the prescribed amount of insecticide for the size tree/plant being treated. Digital meters mounted on our probes make this possible. In fact, it's the same probe we use for our Root Feeding program. Unlike root feeding when we pump two gallons of solution per inch of diameter, Merit Soil Injection is a high concentration mix and is injected at the rate of one quart per inch of diameter! Obviously, this concentration makes it an expensive mix, but, when you consider its effectiveness and longevity replacing up to three sprays, we feel it is well worth it.

You may want to consider Merit to control Japanese Beetles!!! Field trials (by us and others) have shown preventive soil injections with Merit will control Japanese Beetle damage at least 50% better than 3-4 topical spray applications. A small amount of damage will be sustained as the beetle must first feed on the Merit injected foliage before dying. By the way, Merit is the product we use for GRUB control in our Lawn programs. Plant material that we recommend this treatment on is:

- |                   |  |                  |
|-------------------|--|------------------|
| WHITE BIRCH ..... | Bronze Birch Borer, Leaf Miner, Lace Bug, Aphids |                  |
| HEMLOCK .....     | Woolly Adelgid, Scale                            | EUONYMUS .....   |
| ELM .....         | Leaf Beetle, Aphids                              | PINES .....      |
| AZALEAS .....     | Lace Bug, Scale, Black Vine Weevil               | EVERYTHING ..... |
|                   |  | Japanese Beetles |

*Unaffected by the weather.....Replaces up to 3 treatments.....No aerial spraying.....Season long control..... Proven track record.....Accurate application.....Safe for ground water and soil.....Controls when sprays don't*

These are all reasons why you should consider integrating **MERIT SOIL INJECTIONS** into your plant health care program! A call to George or Damian can help you decide if your landscape will benefit from **Merit Injection!**



*Celebrating our 50<sup>th</sup> Season of  
commitment to Plant Health Care !*