



# Merit 75 WP/WSP Mixing Tips

By DoMyOwn staff

## Root/soil drench

Merit can be applied as a root/soil drench. Insecticides applied to the soil are taken up by the roots and translocated throughout the tree or shrub. Root/soil drenches offer the advantage of requiring no special equipment to apply (other than a bucket or watering can). However, surface layers of organic matter, such as mulch or leaf litter, can bind the insecticide and reduce uptake. Before applying drenches, it is important to remove or pull back any mulch or dead leaves so the insecticide solution is poured directly on the mineral soil. It is also important to keep the soil around the tree or shrub moist for the next 7-10 days after applications to encourage uptake.

## TREES:

To calculate how much Merit you need to purchase, you will need to measure the diameter of the tree trunk. You will need 0.7-1.4 level teaspoons of Merit per inch of diameter. The highest rate should be used for all boring insects. The amount of water that is used will vary depending on soil conditions and volumes that are easy for applicators to use. The minimum amount of water that should be used is 1 pint per inch of tree diameter but you may use 1 quart -1 gallon of water per inch as well. Denser soils such as clay do not accept water as readily, so the lower volume of water is suggested. Since sandy soils can accept more water, using the higher volume of water is preferred.

**\*Example:** If a tree has Emerald Ash Borers the highest usage rate of Merit would need to be used (1.4 level teaspoons per inch of diameter).

If the tree's diameter is 11.5 inches you would need about 16 teaspoons (5.5 tablespoons) of Merit. If the tree were in sandy soil you could dilute the Merit with up to a gallon of water per inch of trunk diameter.

In this case you would dilute 16 teaspoons of Merit into about 11.5 gallons of water.

**Note:** Water simply acts as a carrier and it is important that even distribution of the product is achieved. Thus, more water may be used if the applicator feels runoff will not occur and proper penetration of the root zone is achieved.

## SHRUBS:

You will need to use 0.7-1.4 level teaspoons of Merit per foot of shrub height. The amount of water that is used will vary depending on soil conditions and volumes that are easy for applicators to use. The minimum amount of water that should be used is 1 pint per foot of shrub height but you may use 1 quart -1 gallon of water per foot of height as well. Denser soils such as clay do not accept water as readily, so the lower volume of water is suggested. Since sandy soils can accept more water, using the higher volume of water is preferred.

**\*Example:** If shrubs had white fly you would use the mid- usage rate of Merit (about 1.05 teaspoons per foot of shrub height)

If the shrub height is about 3 feet then you would need 3.15 teaspoons of Merit. If the shrub is located in dense clay you would use the lower volume of water, 1 pint per foot of shrub height.

In this case you would dilute 3.15 teaspoons of Merit in 3 pints of water.

**Note:** Water simply acts as a carrier and it is important that even distribution of the product is achieved. Thus, more water may be used if the applicator feels runoff will not occur and proper penetration of the root zone is achieved.

### Tip: How to find the DBH or Diameter at Breast Height of a tree

1. To find the diameter of the tree, measure the circumference of the tree four feet from the ground. Use your tape measure to get accurate measurements from the ground to the four-foot mark and around the tree.

The circumference of my tree is \_\_\_\_\_

(include units)

2. Calculate the diameter of your tree:

\_\_\_\_\_ ÷ pi (3.14) = \_\_\_\_\_

circumference

diameter (include units)

**Note:** For multi-stem trees, such as crape myrtle or birches, the rate should be determined on cumulative stem diameter for all stems in the clump.

### Tip: How to treat multiple shrubs

Cumulative feet of shrub height is the total height of all shrubs to be treated. This is determined by estimating the height of all individual shrubs in feet and totaling the sum. With this information, you can correctly mix the appropriate amount of Merit needed for the shrub or foliage plant application.

**Example:** If you have two shrubs that are 2 feet in height and one shrub that is 5 feet in height you would have 9 feet of cumulative feet of shrub height. Measure the Merit according to the instructions above and apply to the individual shrub according to its own height. For instance if you decided to use 1 gallon of water per foot of shrub height, the shrub that is 5 feet in height would receive 5 gallons of diluted Merit solution and the shrubs that were only 2 feet in height would receive 2 gallons each of the diluted Merit solution.