

A rocky bed for landscape shrubs

Will replacing bark mulch with 1/4-inch stone in shrub beds cause any long-term problems with the growth and development of the shrubs? Plantings are made up of mostly pines, yews, junipers, azaleas and rhododendrons.

—NEW YORK

A review of information relevant to your question indicates that there isn't a simple "yes" or "no" answer. I've seen stones, pebbles, gravel and other inorganic materials used as mulch, but I'm more familiar with the organic mulches like wood and bark chips.

Here are some problems with rock mulches:

1) When rock mulch is used, there is usually a sheet of plastic film beneath it. The plastic, usually black, is for weed control and it may cause problems for woody plants. Often, this will result in poor aeration and too little or too much moisture in the underlying soil. Poorly-aerated, wet soil plus the root and collar organisms commonly found under such conditions can cause root loss, reduced growth, and/or death of the entire plant.

2) When the rock mulch has been in place for several years, it is—in my opinion—not very attractive because weeds grow in or on the litter that accumulates among the stones.

3) It is more difficult to remove leaves and decomposing plant material from large beds of rock mulch. With most of

the organic mulches, such debris simply blends in.

4) The appearance of bark-mulched beds can be easily improved by a topdressing of fresh material. Renovation of rock-mulched beds, however, means removing the existing layer of rocks, putting down new plastic, and spreading around new or clean stones.

5) Where black plastic isn't used, weeds are a problem. Herbicides often become the only means by which to keep the beds free of these unwanted plants. And repeated contact with herbicides through drift and/or root uptake can injure or kill the desirable plants.

6) When the bed gets a lot of sunlight, the rocks store heat, and high temperatures can kill or injure roots and emerging or thin-barked plants. If the rock, stone or pebbles are of calcareous origin (for example, limestone), the mulch may increase soil pH to the point that pines, junipers, azaleas, rhododendrons and even the yews suffer from micro-nutrient deficiencies.

The main reason people use stones is because they think that once rock mulch is installed, no further maintenance is required. This isn't necessarily so, as we've shown.

It is true that bark mulches have to be topdressed periodically, and that occasional weed control is necessary. However, in the long run, you will probably have fewer plant and appearance problems with bark mulch.

Whitefly control: flip a coin, any coin

We are having a severe problem with whiteflies on ash trees. We are thinking of using products such as Merit, Talstar and Astro. What is your opinion about these, as far as whitefly control?

—CALIFORNIA

Insecticides such as Merit, Talstar and Astro are labeled for whitefly control on ornamentals. However, I am not quite sure how well they will perform.

Based on my discussions with entomologists, I believe that either Talstar or Astro should perform well. However, I do not personally have much experience with these products.

Merit can be used either as a foliar treatment, soil injection and/or drench. I believe most information on whiteflies is obtained on greenhouse crops. I am not familiar with any outdoor use of Merit for whiteflies. However, I do believe that it should work well. Try on a small scale and become familiar with its performance.

Read and follow label specifications for better results.

(Ed. Note: Bayer Corp. literature indicates that Merit can be used for whitefly control on ornamentals.) **LM**



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