DSD Shares

Contribution Information Sheet

Functional Area: Soil Composting

Title of Article or Material: **Sheet Composting** **AWARD OF MERIT ARTICLE 2009**

Type of material: ☐ Word File ■ PDF ☐ PowerPoint ☐ Spreadsheet ☐ Web hot link ☐ Other

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Date Submitted : May 2010 Date Posted: August 2010 Date Last Updated:

Information Source(s): Dan's Experiences

Target Audience for this information: All Rosarians

Abstract: This article was first published in the Marion County Rose Society's newsletter "The Rose Rambler" edited by Carol Green. We thank Carol for making the article available to the DSD Audience. This was published in the December 2009 issue.

Sheet Composting is a method of adding organic matter directly to the bed where it is needed. This short article talks about the process of creating the compost and how it saves time and effort over conventional composting efforts. As with most of Dan's articles there is a good step by step process outlined. Dan completes the article with some thoughts on timing of the project to help eliminate weed growth in the new compost.

Sheet Composting For Roses

Dan Mills, Fairfield, FL

Sites for new or existing rose beds often have soil that is deficient in organic matter. Soil with this deficiency lacks optimum water and nutrient retention capacity.

Sheet composting is a relatively simple way to add organic matter directly to the bed where it is needed.

It saves a lot of labor compared to traditional composting which typically involves (1) hauling various materials to a pile or bin site, then (2) stacking the materials in layers, one on top of another, to a depth of several feet, (3) turning the whole mass of material several times over a period of weeks to keep it well aerated and moist, and (4) hauling the finished product to where it is going to be used or stored.

Sheet composting, on the other hand, starts by having the materials placed exactly where the finished product (compost) is desired to be. It is a great way to start building up soil organic matter (SOM) in an entire bed prior to planting. It is also an effective way to build and/or maintain SOM around individual rose bushes after they have been planted.

Before starting to sheet compost a new rose bed, check the soil pH and be prepared to apply sufficient lime in the composting process to bring the pH to about 6.5. All existing weeds and grasses should be killed with Round*up* if aggressive grasses like Bahia or Bermuda are present. Root remnants of either could prove to be pesky later on. If none of these grasses are present, the weeds (green material) could be mowed down and the remnants left in place to serve as the first thin layer (sheet) of material for composting. All materials for subsequent layers should be applied within a few days so that the decomposition process can proceed efficiently. Individual layers of material should average 2-3 inches or less in thickness, with a total material thickness of 6-8 inches.

This will allow for adequate penetration of air to support the decay organisms without the material having to be "turned" as in a traditional compost pile.

Each layer should be moistened as it is applied, and the finished thickness (6-8 inches) watered lightly each week that it does not rain. After at least three months, holes can be dug right through the compost, roses planted, and then the whole bed mulched thickly (3-4 inches) with coarse material such as pine bark or pine straw. This thick layer of mulch should be maintained indefinitely to prevent weeds from growing in the bed and, through its own slow decay, contribute organic matter to the soil.

Obviously, careful consideration must be given ahead of time to the types and quantities of materials needed to complete the sheet composting project. A wide variety of suitable materials are usually available in most areas. Just be sure to select them so that a good *mix* of both nitrogen-rich materials and carbon-rich materials are among them.

What follows is one suggestion of a combination of materials that works for treating the whole bed *prior* to planting and one that works as an annual treatment around individual bushes *after* they have been planted.

After the grasses and weeds in a new bed are killed or mowed down, a layer of straw and fresh manure 2-3 inches in thickness is spread evenly over the bed. On top of that is spread a very thin but uniform layer of cottonseed meal, alfalfa meal, or fish meal (or a combination of them).

If the ratio of straw to manure in the first layer is high, or if the straw-manure mix is aged, a little blood meal (very high nitrogen) might be mixed in with the other meals to assure a good rate of decomposition. A little bit of dried chicken manure will do the same thing if you are lucky enough to have it. This is a good point to apply lime if necessary to correct pH. On top of the meal layer is spread another 2-3 inch layer of straw and manure (or peanut hulls, or mushroom compost, or partially rotted leaves, or a combination of them or similar materials). Finally the bed is topped off with another thin, uniform layer of meals. A little kelp meal might be included for extra minor elements as well as a little Sul-Po-Mag (same as K-Mag) for extra sulfur, potassium and magnesium.

As mentioned before, each layer should be moistened as it is applied. After at least three months roses may be planted.

Every year following the planting of a bed, at least one "organic" treatment should be applied around each rose bush to help build and maintain SOM. This might be thought of as a limited version of the original sheet compost treatment because it applies only to the portion of the bed immediately around each bush. December or January is a good time to do it so that much of the material has time to break down before roses start growing in the spring. Begin by pulling back the mulch to at least three feet from the trunk of the rose bush so the soil is fully exposed.

Apply a 2-3 inch layer of bulk material such as straw and manure, or peanut hulls and manure, mushroom compost and manure, or finished compost. On top of that spread evenly about one pint of any seed meal or fish meal. Then finish the treatment by raking the mulch back to completely cover the treatment materials and water well.

Remember, the combinations of ingredients suggested above are just some of many that would work equally well.

The most important consideration is to always use a good combination of nitrogen-rich and carbon-rich materials.

The process should then proceed efficiently to help build and maintain SOM exactly where it is needed with minimal effort.

One final consideration: what about weed growth in a sheet-composted bed that might occur during the three month period (or longer) between "sheeting" and planting rose bushes? Here in Florida there will be a minimum of potential weed growth in the bed if the process is begun in late October or early November and roses planted in February or early march. Any weeds that do sprout could be pulled up or trimmed off with a weed-eater. During other periods of the year when weed pressure might be greater, weeds could be sprayed periodically with Round*up* or trimmed with a weed-eater. Some people *prevent weed sprouting by immediately covering a newly sheeted bed with newspaper or cardboard a*nd keep it moistened until it mats in place. Others tie the paper or cardboard in place with a combination of strings and ground cover nails.