



News Release

FOR MORE INFORMATION:

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FOR IMMEDIATE RELEASE:

IMPROVE YOUR SOIL THIS FALL

No matter how poor your soil seems to be, it can always be improved with additions of organic matter. Most people think about improving soil in the spring, but that is not the best time of year. Additions of organic matter are best made in the fall because they have a chance to decompose further and begin releasing nutrients after planting your garden or landscape.

Simply put, *organic matter* is any material originating from living material, including peat moss, manure, crop residues, compost or cover crops. It is also sometimes called a *soil amendment*, which is any organic material that is applied to the surface and incorporated into the soil through tillage. *Mulching* is the application of organic matter to the soil surface but not incorporated.

How does an amendment help soils?

Our soils range from very sandy to very clayey. Sandy soils do not hold moisture well and can leach nutrients. Water moves through sandy soils very quickly, so it is difficult to keep plants watered in the heat of summer. Organic matter is a source of nutrients for plants and will help soils retain moisture.

Clay soils hold lots of moisture, but air pockets are very small, resulting in stunted plants and potential harmful root diseases. Addition of organic matter will “open up” clay soils and incorporate more air into them so roots will grow more extensively into the soil. Organic matter breaks up clay clods and improves aeration.

With all soils, addition of organic matter improves soil moisture retention, with more of that moisture being available to plants. Addition of organic matter allows less water to be used to grow gardens and landscapes. Organic matter also increases the number of beneficial microorganisms and prevents establishment of diseases in the soil.

With vegetable gardens and other annual areas, organic matter can be added each year. With areas that are going to be planted to perennial plants, such as turf, shrubs, perennial groundcovers or trees, you have one chance to really improve the soil.

Organic matter sources

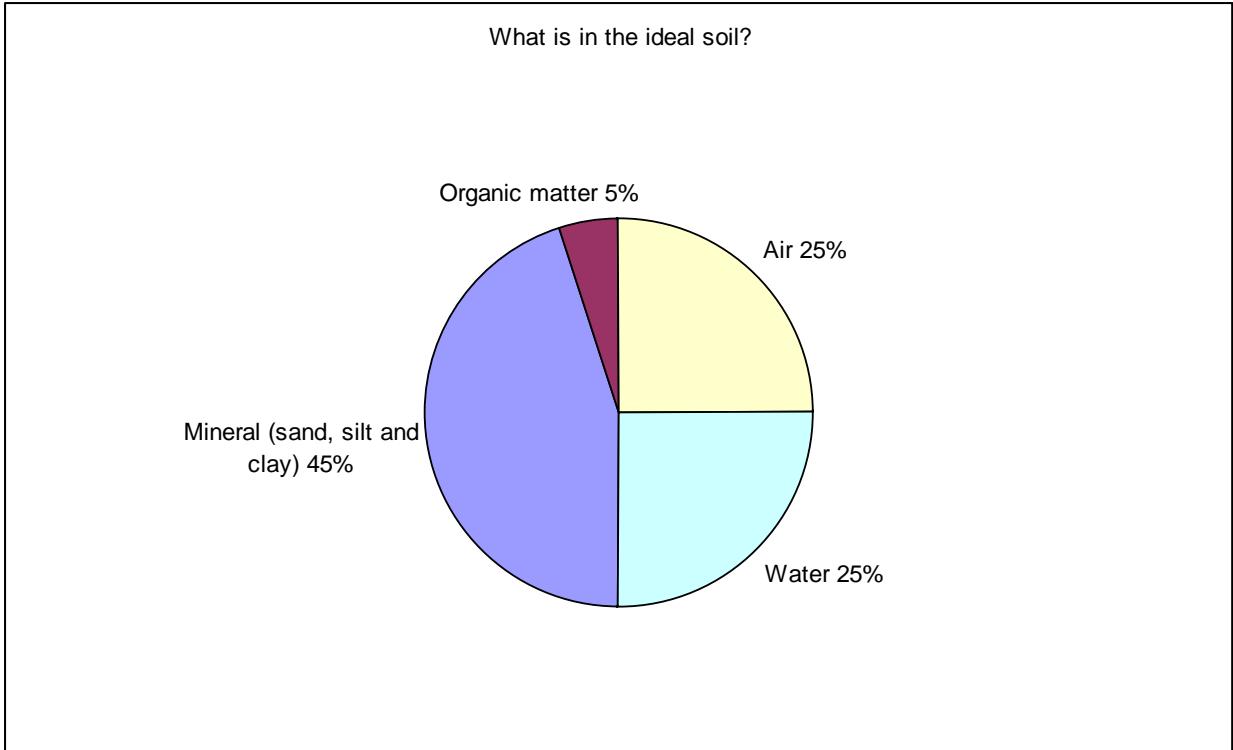
Choices of organic matter are limited by availability. Area farms may have reasonably composted manure, but it could be high in salts, residues or weed seeds if you don't know the source very well. Peat moss, composted manure and other materials can be purchased in bags from nurseries and garden centers but is usually more expensive than bulk. If you use sawdust, bark or other fine woody materials, be sure to add nitrogen to speed decomposition and avoid nitrogen deficiency. Be sure to follow recommendations regarding the amount to apply to your situation because use of too much organic matter can be detrimental. A good rule of thumb when incorporating compost as a soil amendment is 25% of the planned tillage depth, i.e., 2 inches of organic matter tilled to a depth of 8 inches.

Green manure and cover crops

One option is to grow a cover crop in the summer or fall before planting. There are many to choose from, including buckwheat for a summer cover crop and winter rye and winter field peas for winter cover crops. Buckwheat has many root hairs in its root system that quickly turn to valuable organic matter upon incorporation into the soil. Winter rye and winter field peas grow actively at temperatures above 40° F and are hardy to -40° F. Generally, cover crops are seeded at a rate of 3-5 pounds per thousand square feet. When the cover crop just begins flowering, or when the soil can be worked in the spring, till it in as deeply as possible. Wait at least two weeks after incorporation before planting into that area. Do not allow these crops to go to seed - you may have some unwelcome plant visitors in the future.

Mulching

Once your plants are established and warm weather ensues, mulching can be very beneficial. Mulching reduces soil moisture evaporation, suppresses weeds, moderates soil temperatures and helps prevent soil compaction. In addition, mulches decompose slowly adding organic matter over a longer period, providing an excellent way to continually add organic matter. Use bark in perennial beds if possible, since it decomposes more slowly. Grass clippings (which are free of herbicides) are an excellent material for vegetable gardens.



Michael Bauer is the Extension Horticulture/Small Farms Educator for Bonner, Boundary, Kootenai and Benewah counties. Mike works with nursery, small farms, green industry and coordinates the Bonner County Master Gardener Program, in which trained volunteers provide gardening information to local residents.

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