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# virginia home food production



## FACT SHEET

DEPARTMENT OF HORTICULTURE

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BLACKSBURG, VIRGINIA

### SOIL PREPARATION

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Proper soil preparation provides the basis for good germination of seeds and subsequent growth of garden crops.

1. Check garden fertility and pH by soil testing. (Should be repeated every three years.)
2. Remove stones, sticks, trash and litter.
3. In new garden spots, remove sod with a spade and use it to patch your lawn or put it in a compost pile to decay.
4. Spread compost, rotted manure and/or dry fertilizer.
5. Plow, spade or rotary-till the soil. (8-10 inches in the fall, 4-6 inches in the spring.) Soil is alive! Work the soil only when moisture conditions are right. To test, pick up a handful of soil and squeeze it. If it stays in a mudball, it's too wet. Try again tomorrow. If it crumbles freely, go ahead and work.
6. Just prior to planting, break up large clods and rake level. Fine-seeded vegetables germinate best on smooth, fine-surfaced soil. But do not overwork your soil prior to planting. By overworking it, you destroy soil structure. This can promote crusting and erosion problems.

#### Equipment

The type of equipment used to prepare

your garden will depend on the size of your garden, your physical ability, time, and budget. Options include hand-digging with a spade or shovel, a rotary tiller, a small garden tractor, or a full-sized farm tractor.

#### Spring or Fall Plowing

Fall plowing offers the advantage of allowing for earlier spring planting but limits the amount of cover crop that can be grown. Heavy soils benefit from fall plowing by exposure to freezing and thawing. Fall is also a good time to plow in large applications of organic matter. The organic matter then has time to decompose by spring.

Spread organic matter at the rate of 30 to 50 pounds per 100 square feet of garden area and work it into the soil. Some sources are manure, straw, ground corncobs, and leaf mold.

Organic matter loosens and improves the drainage and aeration of heavy clay soils while increasing the moisture-holding ability of light, sandy soils.

Fall plowing is not recommended for hillside or steep plots. Serious erosion can occur where unplanted soils are left exposed to the elements of rain and wind.

Caution: Fresh manure with high nitrogen content should not be applied in the spring, and rabbit, chicken and sheep manure should be applied in the fall or composted before it is used on the garden.

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