

Preparing the garden for winter

Successful garden management doesn't stop when the frost comes!

A little work after harvest prepares the garden to grow next year's healthy vegetables.

Clean up

Pull up all dead and unproductive plants and place this residue on top of the soil to be tilled under, or put it in the compost heap. Remove any diseased or insect-infested plant material from the garden - it may shelter overwintering stages of disease and insect pests. If this plant material is left in the garden, you are leaving an inoculum of diseases and insects that will begin to reproduce next spring and add to your pest problems.



Spent bean plants have been pulled up and laid on the soil surface. They will be dug into the soil to add nutrients and organic matter.
© Desiree Jans, Dalhousie.

Burning infested plant material will kill any diseases or insects that may be in the plant wastes, and you can spread the ashes on the garden to get the benefit of mineral nutrients. However, check laws in your area before burning anything, as you may need a permit. Alternatively, dispose of infested material in your green bin. Don't worry about contamination of municipal compost because temperatures reached during the composting process are high enough to kill the pathogens.

Prepare the soil

Fall is a good time to add organic matter to the soil. By spreading compost and other wastes on the soil you are adding nutrients for next year's crop. The beneficial insects and microorganisms in the compost will help integrate the compost with the soil, and the added humus will improve soil structure.

Don't overlook other excellent sources of organic material available during the fall. Leaves are abundant, and neighbors will usually be glad to give their leaves away. Put some on the garden right away, and store some for next year's mulch. Remember that leaves will mat if put on too thickly and will not decompose quickly. You can help leaves break down more easily by running a lawn mower back and forth over the pile. Put the shredded leaves directly onto the garden or compost them.



Fall leaves have been collected and used as mulch on this home garden.
© Tracy Kittilsen, Dalhousie.

If you wait until spring to add organic material to the garden, it may not have time to decompose and add its valuable nutrients to the soil by the time you are ready to plant. Hot (very fresh) manure can also burn young seedlings. By adding these materials in the fall, you give them plenty of time to decompose and blend into the soil before planting time. If you don't have enough organic material for the entire garden, try to cover those areas that you want especially rich for next summer's crop.



If the weather stays dry enough before the ground freezes, you can dig, plough or rotary till in the fall. Turning under vegetation in the fall allows earlier planting in the spring and is especially good for heavy soils, since they are exposed to the freezing and thawing that takes place during the winter. This helps to improve soil structure.



The clay soil in this garden has been dug over, burying spent plant materials. The next job is to spread straw/manure over the soil surface.
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If you have a rainy fall or if the garden is steep and subject to erosion, you may decide you'd rather plant a cover crop for winter garden protection. A cover crop decreases erosion of the soil during the winter, adds organic material when it is incorporated in the spring, improves soil tilth and porosity, and adds valuable nutrients. Winter cover crops can be planted as early as August 1, but should not be planted any later than September 15, as they should make some growth before hard frost kills them. If you have fall crops growing, you can sow cover crop seed between the rows a month or less before expected harvest. When the vegetable crop is harvested and plant residues removed to the compost pile, the cover crop will already have a good start.

Prepare the soil for cover crop seed by tilling under plant wastes from the summer. Broadcast the seed, preferably before a rain, and rake it evenly into the soil. In the spring, cover crops should be incorporated at least two weeks before planting. They should not be allowed to go to seed before incorporation or you will have a weed problem. Also, if you have crops that need to be planted very early, you may prefer to leave a section of the garden bare or covered with a stubble mulch.

When time or weather conditions prohibit either fall tilling or cover cropping, you may wish to let your garden lie under a mulch of compost, plant wastes, or leaves all winter to be ploughed or tilled under in the spring. However, if you want to plant early the next spring, a mulch of heavy materials, such as whole leaves, may keep the soil cold long enough to delay planting. In this case, chop them fine enough so they will break down over the winter.

Care for garden equipment

Clean-up of tools and equipment is another important practice related to the garden that should not be ignored in the fall. Proper clean-up of tools now will leave them in top shape and ready to use when spring comes. Clean, oil, and repair all hand tools, repaint handles or identification marks that have faded over the summer, sharpen all blades, and remove any rust. Power tools should be cleaned of all plant material and dirt. Replace worn spark plugs, oil all necessary parts, and sharpen blades. Store all tools in their proper place indoors - never outdoors where they will rust over the winter.



Activity

Discover cover crops.

Do some research to explore options for winter cover crops for your garden. A legume, such as clover, alfalfa, or vetch, is a good choice because it will cover and protect the soil and add nitrogen for future use. Mustard, oil radish, barley, or oats are other possibilities. Visit a farm supply or seed store and ask what they recommend as a cover crop for your area. Also ask at what rate (kg per 100 square metres or lb per 120 square yards) to plant it. Seed is often sold in bulk, so you can buy just the right amount for your garden needs.

