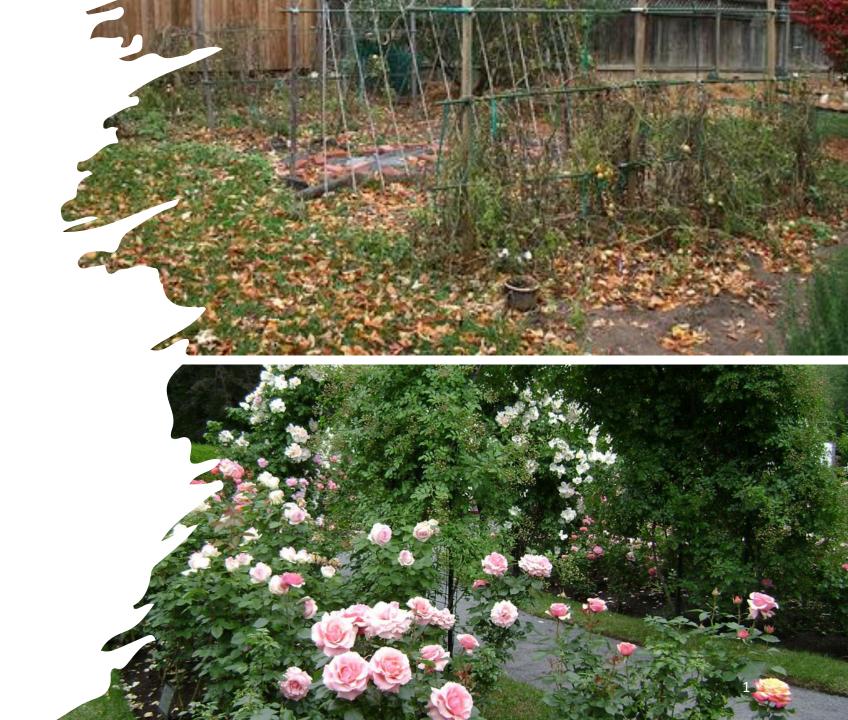
Putting our Gardens to Bed

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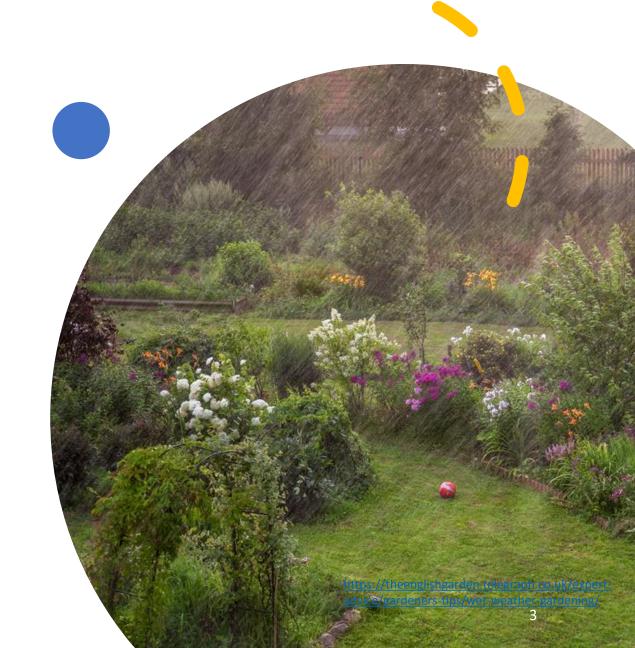


What to do before the snow

- Things to do before winter: cut back certain plants, clean up some debris, plant species/bulbs that need to be in the ground in fall, protect plants from winter weather, and prep for the spring.
- But not too much there is life below ground that you have to consider

First steps

- Clean your garden during dry, sunny days in the late morning or afternoon hours. While this is not always possible, it does make for a healthier garden.
- Pulling plants during rainy days or early morning hours can help spread disease spores in your garden, and walking on wet soil can ruin your garden soil structure.



First steps

- Many of the steps should be taken after killing frosts
- Plants vary in their ability to tolerate frosts.
- If pruning is done before the plant enters dormancy, there can be regrowth and then a loss of plant energy needed for winter survival.
- Wait to prune until frost has caused the plants to die back.
- When cutting back, wait until the ground has frozen hard and the foliage has died. Leave about 3 inches of stem and mulch them with a thick layer of leaves or straw.
- Do not prune woody plants, trees, and shrubs until they are dormant possibly in the late winter.

Vegetables

- Remove all diseased annuals and vegetables including as much of the roots as you can get.
- Certain plants are more likely to harbor diseases, therefore it's recommended to remove all vegetation from them. These include tomatoes, potatoes, squashes, raspberry canes and any plants with evidence of powdery mildew.

What to compost

- Plants that are diseased or have a pest problem – do not compost that material but dispose of that debris.
- Most fungal pathogens overwinter in the plant debris, it is best throw away severely infested tomato, potato, and pumpkin plant materials.
- The rest of the garden plants can be piled for composting.



Hardy vegetables



Brussels sprouts,
Kale and collards become sweeter in the fall and
winter after a frost



Root crops (like carrots, turnips, beets, rutabagas, and parsnips) can remain in the garden after a frost but must be removed before the ground freezes.





Dahlias and other tender bulbs

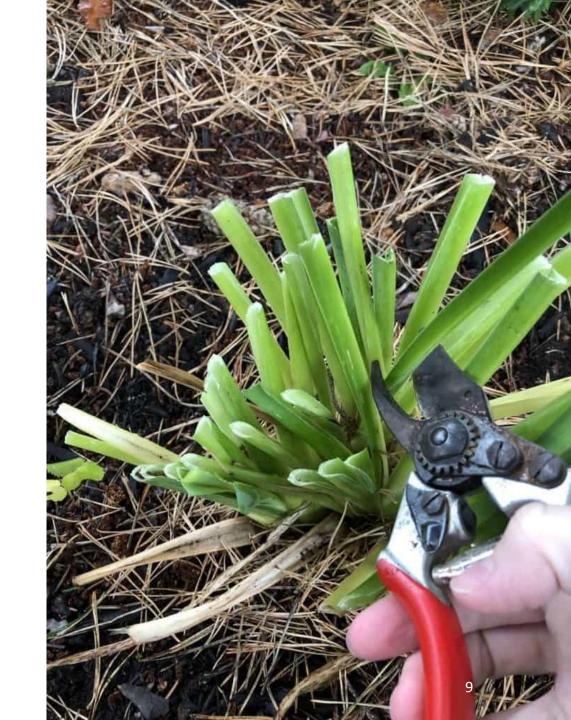
- Remove tender summer-flowering bulbs such as dahlias and cannas and store them properly for planting next season.
- When a frost blackens the leaves of dahlias, gladioli, and cannas, dig them up and let them dry indoors on newspaper for a few days. Do not wash. Then pack them in vermiculite or dry peat moss, and store in a dark, cool place until spring.
- Water a few times through the winter so the tubers do not dry out.





Pruning of certain plants

- Perennials to prune in fall include irises, begonias, clematis, and daylilies.
- Lavender: Prune right after the first flowering and again in late August after the last flush of growth has stopped
 - Cut off about 2/3 of the plant's height or to just above the bottom two sets of leaves on each stem.
 - Take care not to cut into the woody part of the plant which can cause damage.
- But in some cases, if you don't prune back your plants to the ground, their stalks will hold new spring growth straighter.



Pruning

- Cutting everything to the ground might give the garden a tidy look, it is not beneficial to wildlife species that can make use of some plants in the winter.
- Leaving perennial seed heads provides seeds and fruits for native wildlife. In the winter months when food is scarce, gardens full of withered fruit and dried seed heads can provide birds with a reliable food source.
- When cleaning up the garden, prioritize removing and discarding diseased top growth, but leave healthy seed heads standing. The plants can provide visual interest for the winter landscape.



Seed-eating songbirds such as finches, sparrows, chickadees, juncos, and jays will make use of many common garden plants.



https://cornerpollinatorgarden.net/2019/11/21/american-goldfinch-seed-buffet-why-i-no-

longer-deadhead-flowers/



Mulching

- Never to leave bare soil. One of the simplest techniques for making sure soil is protected and enriched is using mulch.
- Leaving garden soil bare in the winter can be damaging.
 Since soil fertility is directly determined by soil health,
 long-term success in the garden depends on your soil's
 well-being. Soils are complex ecosystems full of living
 organisms. When soils are left bare for the winter,
 beneficial habitat is damaged, and the structure of the
 soil breaks down.
- Sometimes too much mulch can prevent the ground from freezing and killing off any disease or pests it might be harboring. Wait until it freezes to add natural mulch like shredded leaves or a layer of clean straw. Whole leaves can prevent the soil from breathing (though I use them without many problems)



When to add compost

- Add compost in late fall (after freezing) to allow the compost to slowly decompose over the winter. Add a couple inches of compost e on top of your beds any time before the ground freezes. Then, add a light layer of straw or mulch to prevent soil erosion, nutrient leaching, and weed development. Another option is to sow cover crops, such as winter rye, to improve your soil.
- Bare soil is at risk of being stripped of moisture by strong winds, washing out in heavy rains, and becoming overladen with weeds. Without organic matter on the surface to consume, beneficial populations of fungi, bacteria, and insects will drop. Additionally, the lack of insulation at the surface contributes to wide temperature fluctuations.



Leaves as mulch

- Mulch the leaves in place with a lawn mower. This returns nutrients (Calcium, potassium and magnesium) to the soil as the chipped leaves decompose. Mulching leaves into the lawn works if it is done several times throughout the season.
- Save the leaves to use as mulch. Leaves can make a wonderful mulch for annual, perennial, and vegetable gardens if they are chipped into small pieces.
- Leaves can be effective at suppressing weeds and conserving soil moisture as bark mulch, and they usually break down within a season and build soil organic matter. Leaves also stimulate earthworms.
- Bark mulch works for perennial plants which do not need a large amount of nitrogen early in the spring
- · Bark mulch does not work for annuals

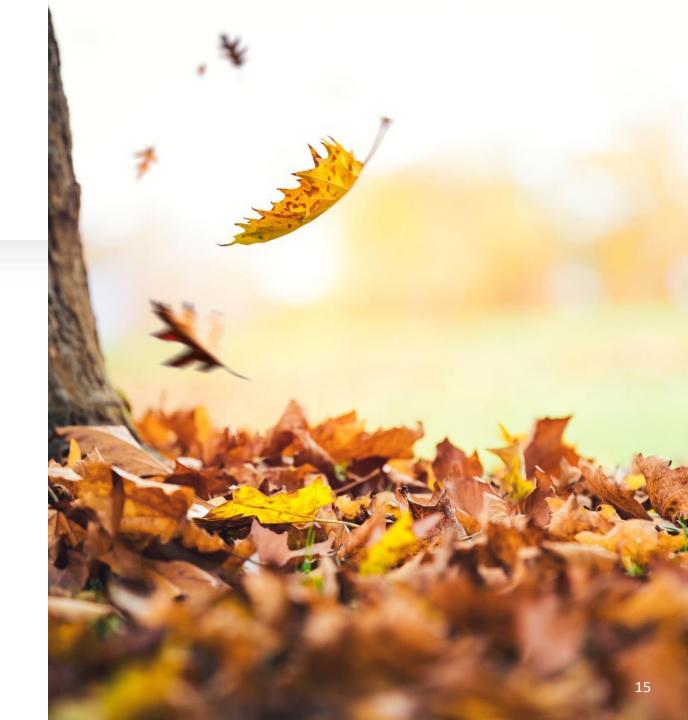
Mulching Leaves

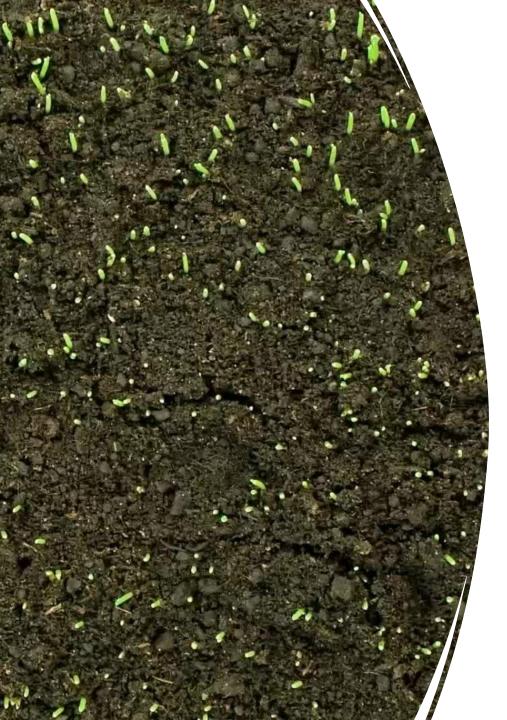
Whole Leaves

 Whole leaves can be soaked to keep them from blowing off in windy areas. Rake any undecomposed leaves off your beds into your paths in spring.

Mulched Leaves

- Mulching reduces decomposition time. Gardens with earthworms will have little leaf mulch in the spring. East for transplants or seeds.
- Straw is one of the cheapest, easiest ways to keep your beds covered in winter. For raised beds that are 4-feet wide by 8-feet long, you only need about a half a bale of straw per bed. If you use bagged compost, it could take 4 bags per bed for winter protection.
- Straw like burlap, it is breathable, insulating, and very useful to overwintering insects and animals.





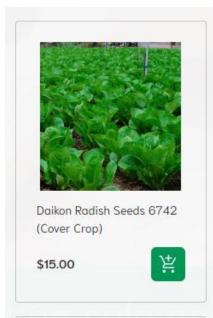
Cover crops are a possible choice

- Planting cover crops at the end of the growing season is becoming more popular, even in small gardens. Cover crops can be any species, that grows fast and preferably dies over the winter. They do the hard work of holding nutrients (prevent leaching loss) in the soil and improving soil condition over the winter before spring planting.
- A cover crop is a fast-growing plant planted in late summer or fall into empty or fallow garden beds. Through their roots they add organic matter to the soil which improves soil structure and builds soil fertility. The legumes also "fix" the nitrogen in the soil. This "green manure" provides a living mulch that protects soils from winter erosion.
- Cover crops: winter rye, hairy vetch, red clover, oats, buckwheat, forage rye, Italian rye grass (sown by October), field beans, and forage pea (sown by November). Cover crops literally make a living "cover" to sustain soil life until spring planting.

Benefits of cover crops

- Stopping erosion; keeping soil from blowing or washing away. When you remove plants, you remove nature's way of protecting the landscape and its fertility.
- Increasing organic matter and nutrients
- Increasing activity of earthworms and beneficial microorganisms
- Decreasing compaction and improving water, root, and air penetration of soil
- Providing habitat and food (nectar, pollen) for beneficial insects and late-season pollinators
- In most regions, it's best to plant right after you make your last harvest. The cover crops need at least 4 weeks before a fall frost to get established. Buckwheat can be planted earlier in areas that have already been harvested. Most cover crops die over the winter and have limited vegetation on the surface.

Cover crops



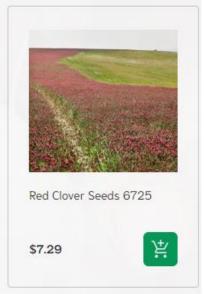


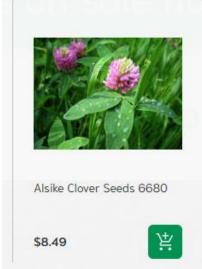
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https://www.johnnyseeds.com/search/?q=cover+crops&searchbutton=&lang=en US

Can mix forage peas and oats together



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Planting cover crops

- Just scatter the seed over the area to be covered at a depth corresponding to the size of the seed. Large seeds should be covered with one-fourth to one-half inch of soil or compost. Small seeds can be left on the surface and lightly raked in. Apply a thin layer of loose straw to protect the area from wind and runoff from heavy rains. Even large seeds can be raked in with a hard rake.
- For larger areas, sow a cover crop like <u>oats or oats & peas</u> at the end of the growing season. The oats will grow quickly and stabilize the soil to prevent it from washing out in heavy rain or being stripped of moisture from the wind. Oats will also help moderate temperature fluctuations, provide essential nutrients to the soil, and habitat for overwintering animals. Oats will not survive winter and are easy to turn into the soil come spring.
- Oats are fast-growing, cool-season crops with fibrous roots that loosens tight soil.



Water loss during the winter

- Broad leafed evergreens, such as rhododendrons, and other marginally hardy deciduous shrubs are especially susceptible to drying out in the winter months.
- Even in cold weather, buds, leaves, and needles lose water in a process called <u>transpiration</u>. Water loss is greatest during periods of strong winds, and mild sunny weather.
- When the ground is frozen, water is largely unavailable to roots, and plants are unable to make up the water they've lost. When water is transpired faster than it is taken up, the leaves begin to desiccate and turn brown.
- Water your perennial flowers and flowering shrubs in the fall



Herb Care

- Sage is a perennial in some areas, and generally does not need special treatment for the winter. But I have lost my sage- don't know why.
- Rosemary is a tender evergreen perennial and brought inside (Zone 5 and colder) for the winter. Prefers dry soil conditions – overwatering kills it
- Thyme is a perennial, it will go dormant in the fall, then revive by itself in the spring.
- **Parsley**, a biennial does not always survive the winter here. It has a long taproot and does not transplant well, so better to start a new plant come spring.
- Chives are hardy perennials.
- Basil is a tender annual that won't survive winter. Dig up small plants and bring them inside to extend their season.
- Oregano is a perennial that is somewhat hardy but will appreciate some winter protection in the form of a layer of straw mulch.



Roses

- Water roses regularly through the fall; refrain from fertilizing starting 6 weeks before the usual date of the first fall frost. Fertilizing encourages growth, slows dormancy before winter
- Remove any dead or diseased canes.
- After the first frost, mulch plants with compost or leaves to just above the swollen point where the stem joins the rootstock.
- In areas where winter temperatures are severe, enclose low-growing roses with a sturdy cylinder of chicken wire or mesh and fill enclosure with chopped leaves, compost, mulch, dry wood chips, or pine needles.
- Cut back hybrid tea, floribunda and grandiflora roses to about 18" (20 cm) to avoid wind damage. After the ground has frozen, hill up the soil to cover the crown where the graft is located. Once the soil is frozen cover with more soil, damp sawdust, leaves or straw. Chicken wire or plastic collars can be used to hold the mulch in place and provide further insulation.
- All shrub roses including David Austin roses can be cut back to about 2 or 3 feet (60-90 cm). For climbing roses, secure or remove branches to avoid possible wind damage. Most miniature roses are hardy, but consider hilling up with soil
- By stopping deadheading, rose hips form, which will trigger dormancy and add winter interest and food for the birds



Roses

- Anything zone four or under does not have to be protected for the winter. If you grow only rugosa or explorer roses, these are hardy and don't need protection.
- Fall is not the time to cut back rugosa or explorer roses, — wait until spring, unless they are tender roses like tea roses labelled zone five or higher. For those, cut them to about a foot tall, making the cut right above a node, then surround them with chicken wire and fill the tube with dead leaves.



https://www.jcbakker.com/product/rosaalexander-mackenzie/

Create shelters by flipping old tomato cages and wrapping them in burlap

Winter garden attractions

- Seed pods and ornamental grasses can look beautiful covered with frost. Leave grasses standing until they look bad
- Your cleanup date for grasses could be as late as February or as early as December, depending on the severity of a season's storms.
- You may want to make room for the new growth
- BUT I leave my ornamental grasses don't cut until April and they are fine



Imitate Nature

- Think about the way Mother Nature winterizes her gardens: Fallen leaves blanket the ground (insulation). Ground covers plants break down to feed the soil (nutrients). Native grasses and shrubs provide food and habitat for overwintering animals (ecosystem support).
- Nature hates neatness. The diversity of an ecosystem is its strength.
- Try to imitate nature as best you can in your gardens. Don't cut back your native grasses, leave your fallen leaves, and plant gardens that help beneficial insects and animals year-round.



https://www.oscseeds.com/blog/why-and-how-to-protect-your-garden-this-winter/