

# Winter Plot Preparation



## Preparing Your Garden Plot for Winter

A Hillsboro Community Garden Program  
Guidance Document



# Managing Winter Weeds is Important



## Spring Plot Prep Starts in the Fall

Many sturdy plant species, a.k.a. weeds, grow exuberantly in our mild, wet winters. Garden plots left idle in wintertime are perfect places for these winter-hardy weeds to thrive and many go to seed early in spring, well before many gardeners get out to start planting. Some are extremely invasive, and many can be a lot of work to remove at planting time.

Controlling weeds in winter is as important to our garden's health as any summer activity.

Garden plots left untended in winter without any winter weed control preparation, go green with a verdant wintertime weed cover! Check out the picture!

This document explains our community garden process for winter weed control.

# Winter Plot Prep is Required



Because winter weed management is so important, it is required in the community garden program. If you do not adequately prepare your plot for winter by the posted deadlines, you will lose the privilege to renew your plot for the next season.

There are two important steps in preparing your plot for winter:

- Clean-up: Remove all summer vegetation and do a thorough weeding.
- Mulching or cover-cropping: Once cleared, adequately mulch your plot with a heavy layer of appropriate mulching material or completely cover crop the area.

Winter gardening is allowed, but you must clean up summer debris, and mulch all unused areas and around winter plantings.

# Winter Plot Prep Deadlines (1 of 2)



## Two Fall Winterizing Deadlines

Winter plot prep begins in October. There are two deadlines, and the dates are set each year and posted to the community garden calendar. Reminders are sent out as the deadlines approach.

1. **Plot Clean-up Deadline**  
This is usually the date of the last fall work party. By this deadline, you must have all summer vegetation cleared out of your plot and have the plot well-weeded.
  - Clean-up inspections begin the day after the deadline.
  - If your plot is not cleared, you will not be eligible to renew.
  - You may certainly mulch or have your cover crop planted by this deadline as well.

# Winter Plot Prep Deadlines (2 of 2)



## Winterizing Deadlines - continued

### 2. Mulching Deadline

By this deadline, you must have your plot mulched or cover-cropped. To be sure all gardeners have access to good mulching material, each fall the City of Hillsboro delivers leaves to the gardens.

The leaves come from the City's fall leaf pick-up program. Availability depends on the timing of leaf fall each year, and the City's pick-up schedule.

- The mulching deadline depends on leaves being delivered, so it is generally later than the clean-up date.
- You are more than welcome to use your own leaves or another mulching material, provided it is consistent with garden guidelines.
- Mulching inspections begin the day after the deadline. To be eligible to renew, your plot must be either mulched or cover-cropped by the inspection.
- Winter gardening is allowed and encouraged, but all bare soil must be mulched.

# Winter Plot Prep: Summer Debris Clean-Up (1 of 2)



## Cleaning Up Summer Debris to Control Harmful Insects and Molds

Summer debris left untended to winter over is a good home for mold and mildew, breaks down erratically, provides a breeding space for harmful insects in early spring, and needs to be removed for planting.

Mild winter temperatures and constant damp foster many molds that love any dead or decaying debris you leave, and they are ready and willing to move onto living winter vegetables or early spring crops.

For winter gardening, cleanliness is especially important! You will want to be meticulously tidy and keep your winter veggies well pruned and free of dead and dying bits.

# Winter Plot Prep: Summer Debris Clean-Up (2 of 2)



## Clean-Up Guidelines

- Remove all summer vegetable debris.
- Do a complete fall weeding.  
If you have any bindweed, quack grass, field thistle, or mint, be sure to dig deeply into your plot to remove as much rooting matter as possible.
  - Using a sturdy hand digger or shovel to get at weed roots is very effective. Hand pulling is often useless as you barely disturb the roots.
  - If you fail to take steps to control your invasive weeds, they will flourish and over-run your plot during the winter.
  - Be sure to mark any areas where you have removed invasive weeds, so you can mulch them heavily. Using cardboard under your mulch will be much more effective for these areas.

# Winter Plot Prep: Covering the Soil



## Covering Soil: Mulches and Cover Crops

Covering your soil over the winter is extremely important to your plot's health and vital to winter weed management.

- Unchecked, weeds will grow exuberantly, and bare soil will generate a verdant weed cover by early spring, no matter how well-weeded the previous fall.
- Weeds often can go to seed very early in spring and start a verdant new spring crop.

We have two options for blanketing the soil for winter:

- Mulching
- Cover Cropping



# Winter Plot Prep: Mulching (1 of 2)



## The Value of Mulching

**Mulch:** Organic material that has a high carbon content and very low nitrogen content, and which has not yet been broken down through microbial action.

- A thick layer of mulch, properly applied, does an excellent job of discouraging winter weed growth, adds organic matter, and feeds worms, soil bacteria, and other soil life.
- Mulch helps maintain a steady soil temperature, acting as an insulating blanket that provides a protective barrier between the soil and the air. This encourages the soil's biological processes by trapping warmth and encouraging faster decomposition. This blanketing also helps protect perennial roots.

# Winter Plot Prep: Mulching (2 of 2)



## How Mulch Controls Weeds

Mulch is delicious dining for bacteria. In a classic boom-bust scenario, bacteria get eating and the population explodes with the massive food source. Bacteria need nitrogen so the burgeoning population draws a lot of nitrogen out of the soil. Plants need nitrogen, too, so low nitrogen means plants have a tough time getting going. This is the weed-suppressing effect.

Nothing is lost, though, because as the bacteria gobble through the mulch, the food supply dwindles, and the population drops. As bacteria die off, they release nitrogen back into the soil. Using mulch with a very low nitrogen level, like fallen leaves, woodchips, or straw, encourages this. By spring, if the mulch is broken down, the bacteria population has settled and released nitrogen.

This is a natural cycle and a very efficient way to add organic matter, keep in soil moisture, and feed soil biology when your garden plot is inactive.

The loss of nitrogen to dining bacteria is called a “nitrogen drop.” If you mulch around your growing plants with fresh organic matter, you may see them turn yellow as dining bacteria absorb nitrogen away from the plants. Once the mulch is broken down, the plants perk up as dying bacteria release nitrogen. You can get the benefit of the mulch and avoid the drop by simply adding a little organic nitrogen fertilizer.

# Winter Plot Prep: Mulches



## Good Fall Mulching Materials

- Fall Leaves
- Woodchips
- Garden Waste and Debris
- Straw
- Woodchips/Leaves Over Cardboard
- Grass Clippings

# Winter Plot Prep: Fall Leaf Mulch (1 of 2)



Trees pull chlorophyll out of their leaves in fall before dropping them. Fall leaves, with a high carbon and very low nitrogen content, make an excellent mulching material.

- The bacterial activity in decomposing leaf mulch causes a nitrogen drop, which contributes to weed suppression.
- Leaf mulch can effectively block sunlight from reaching seeds in the soil beneath, depressing germination.
- Leaf mulch buffers soil temperatures. A thick layer of mulch keeps soil heat generated by soil bacterial activity in, just like a blanket does, and is feeding soil life as well.
- It improves soil fertility by adding organic matter as it decomposes.
- Adding organic matter helps retain soil moisture in summer, reducing the need for irrigation.
- Leaves ground up by a leaf blower or some similar mechanism make a terrific mulch for garden beds. It allows moisture and oxygen through, while blocking sun.
- Fall leaves, left to decompose for a year, are also excellent.

# Winter Plot Prep: An Un-Mulched Plot



# Winter Plot Prep: Fall Leaf Mulch (2 of 2)



## Leaves at the Community Garden

In early November, when leaves begin to fall, the City of Hillsboro street cleaning service begins collecting leaves from the City's streets for disposal.

Delivering leaves to the community gardens is a win-win situation. Leaves are invaluable as mulch in gardens year-round, and delivery is free. Otherwise, the City needs to pay local landscaping businesses to dispose of the leaves.

We do our best each fall to stockpile leaves for the coming season in all the gardens. Leaves are not only superb for garden mulching, they are excellent layering material in our community compost piles and for composting projects in our garden plots.

# Managing Weeds: Fall Leaf Mulch (1 of 4)



## Selecting Your Leaf Mulch

- Leaves shredded by a leaf blower are excellent mulch. The City uses a leaf collector which chops leaves as it vacuums them up from the streets, making the leaves perfect for mulch. Not all leaves are collected this way, so some come still intact. When selecting your mulch, look for the chopped texture in leaf piles.
- Year-old, partially decomposed leaves from the previous fall make excellent mulch and you can get started with fall mulching before new fall leaves arrive.
- Damp, moist leaves are best because they don't blow around much. Watering your leaves right after you put them down can help keep them from blowing away. If the water is off in the garden for winter, mulching when rain is expected is a great idea.
- Pile leaves 4" to 6" deep on your garden beds. Deeper is better both for weed suppression, adding organic matter, and keeping them from blowing.

# Managing Weeds: Fall Leaf Mulch (2 of 4)



## Leaves Blowing Away....

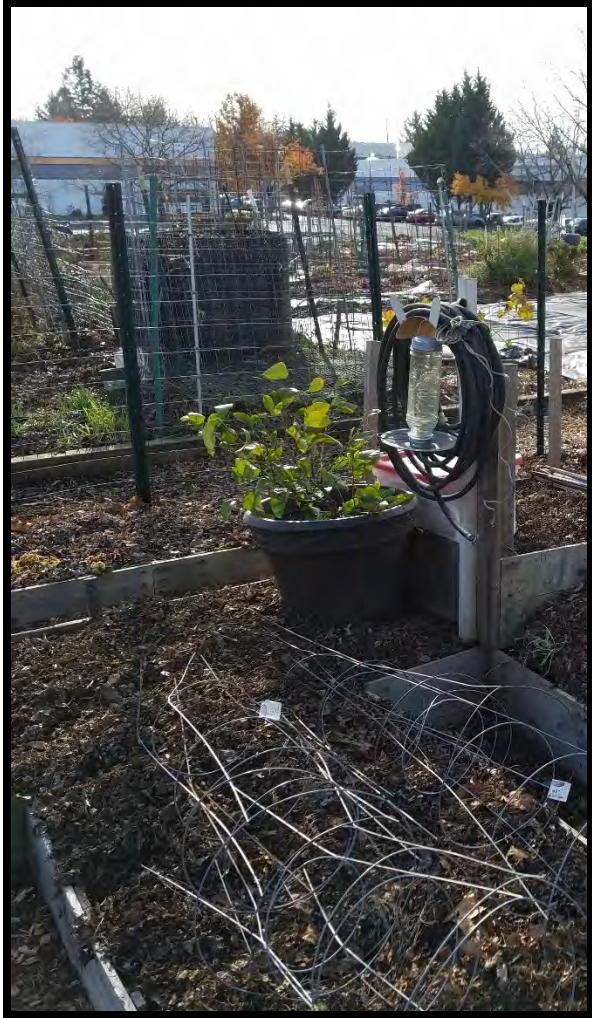
Leaves, especially dry, whole leaves, can get blown off your plot, leaving it bare for winter weeds and defeating the entire purpose of the project.

Ways to keep your leaves in place:

- Use finely ground leaves or partially decomposed leaves as much as possible.
- Mix fluffy new leaves with chopped or decomposed leaves to make them heavier and retain water more readily.
- Layer straw over leaves.
- Layer coffee grounds or coffee chaff over leaves.
- Cover with pine boughs (with needles).
- Criss-cross with sunflower stalks: use larger, heavier stalks, and strip off leaves and flowers. In spring, chop stalks, and layer in compost piles. Sunflower stalks are free and abundant in the gardens!



# Managing Weeds: Fall Leaf Mulch (3 of 4)



## Leaves Blowing Away...Continued

- Layer decomposed woodchips over leaves. Woodchip piles, which have been onsite for a year or more, will have excellent compost in the lower layers. This compost will retain water, decompose readily, and hold leaves down.
- Lay down tomato cages or trellising material that needs storage, on top of leaves.
- Fresh woodchips over leaves can work well, but decompose slowly, so you will most likely need to rake some off in spring.

For more information:

[Maritime Gardening YouTube Video](#)

# Managing Weeds: Fall Leaf Mulch (4 of 4)



# Managing Weeds: Mulching for Bad Weeds



## Controlling Bindweed and Thistles

If part of your plot has a stubborn infestation of quack grass, bindweed, or field thistle, our three most invasive weeds, you can treat the area with cardboard and woodchips, just as we do with our garden pathways year-round. This will contribute greatly to eradicating the problem.

For controlling other weeds, putting down cardboard and covering with a thick layer of leaves provides great weed control and the leaves and cardboard will decompose more quickly than woodchips.

For detailed information on this process, please see our guidance document [Cardboard for Weed Control](#).

# Managing Weeds: Woodchips for Paths



## Woodchips Best on Pathways

If you have permanent pathways in your garden plot, fresh woodchips are best for year-round weed control.

You will get the best weed control in your garden pathways by following the procedures for our community pathways. Fall is a great time to refurbish pathways. You can use decomposed woodchips you dig out of your pathways as an excellent mulch layer on top of your leaves.

For more information, please see our community garden program guidance document [Cardboard for Weed Control](#).

# Managing Weeds: Garden Waste as Mulch (1 of 4)



## Winter Composting for Weed Control

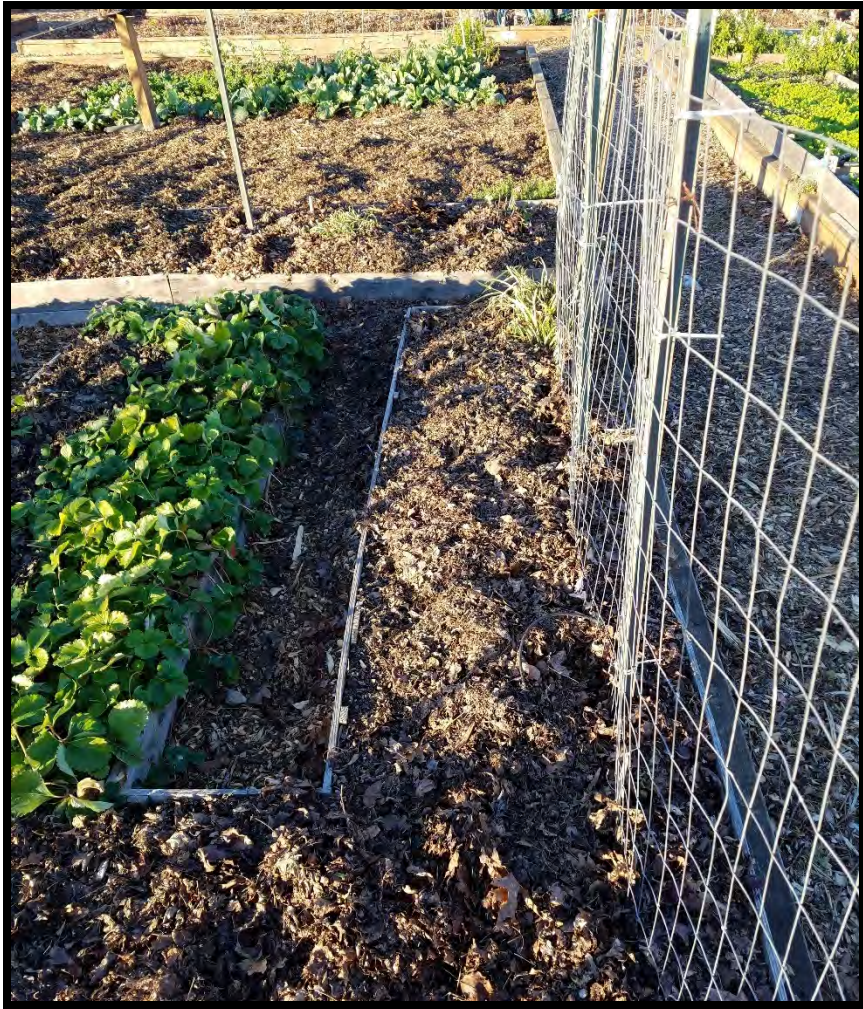
The garden waste you clean up in fall makes an excellent mulch. Layering your garden waste on your beds is simply another form of composting in your plot.

- Chop and crush your discarded vegetables a little.
- Pile on your garden beds.
- Mix in ground or semi-decomposed leaves, composted woodchips, or garden compost.
- Cover with same.

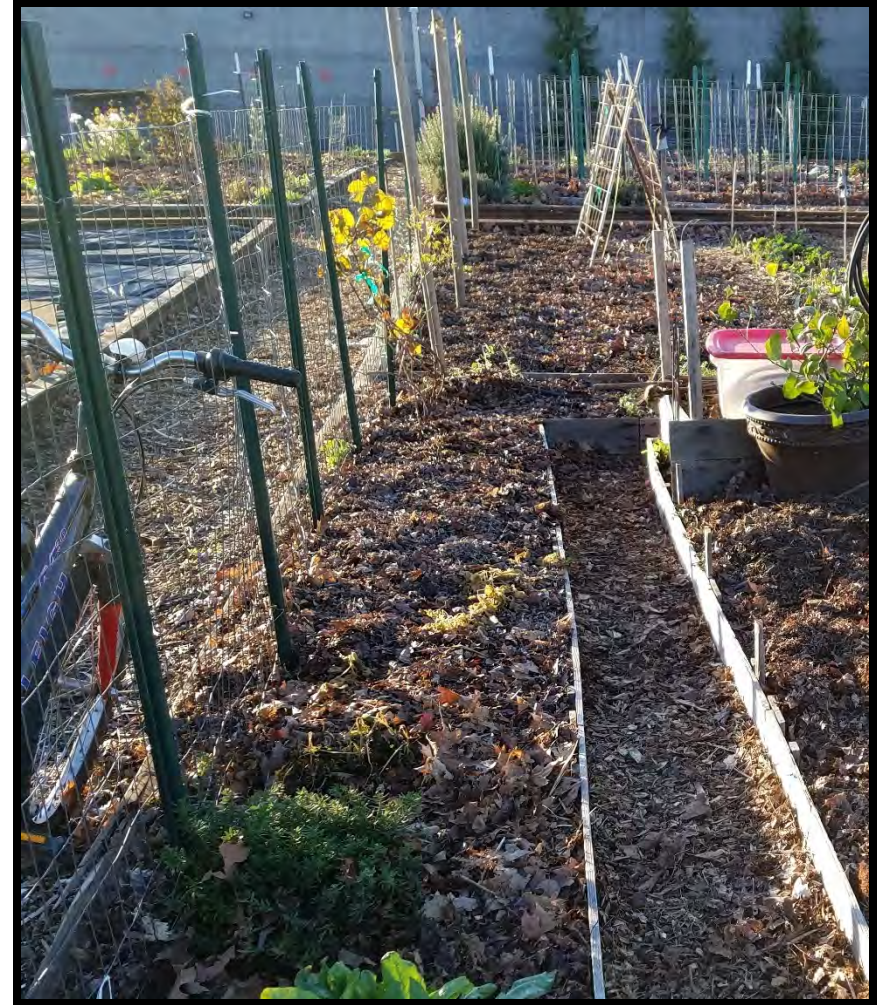
# Managing Weeds: Garden Waste as Mulch (2 of 4)



# Managing Weeds: Garden Waste as Mulch (3 of 4)

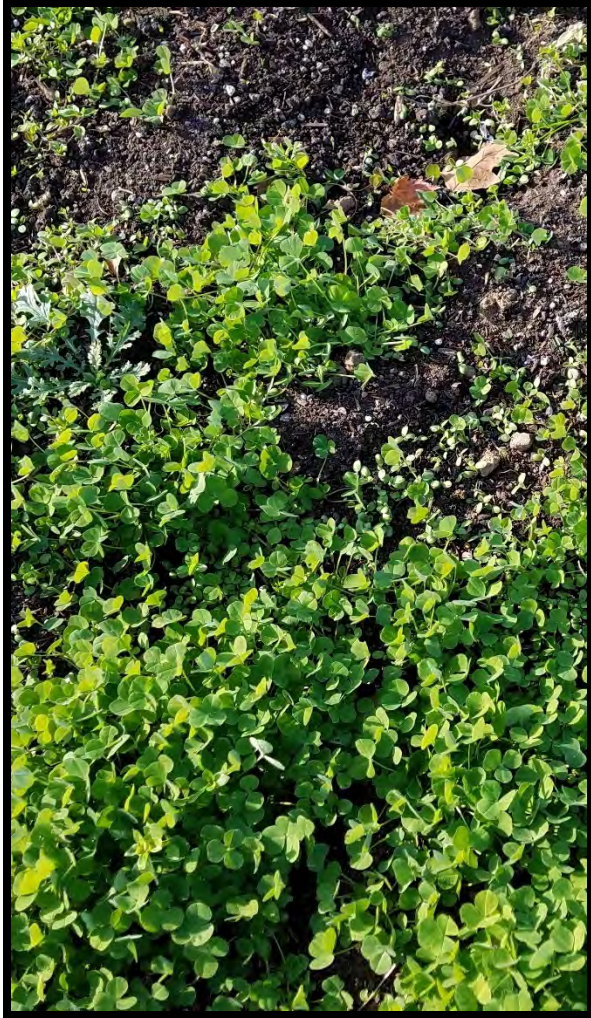


# Managing Weeds: Garden Waste as Mulch (4 of 4)





# Winter Plot Prep: Cover Cropping (1 of 2)



## Cover Cropping for Winter Weed Control

In the community garden, cover cropping is another good choice for winter weed control. Cover cropping is the practice of planting a particular species or species mix between growing seasons, when the garden is not in production, to protect and benefit the soil, or for winter weed control, rather than for harvest.

Besides competing with unwanted weeds, cover crops offer many benefits including adding and retaining nutrients, resisting erosion, increasing water infiltration, adding organic matter, feeding soil biology, and even attracting beneficial insects. Cover crops can be used in rotation with growing edibles in any season.

# Winter Plot Prep: Cover Cropping (2 of 2)



## Cover Cropping Continued...

For a cover crop species to successfully outcompete winter weeds, it must be winter hardy.

“Winter-hardy” means it can either grow through winter or may go dormant for a period when temperatures and/or daylight reach a certain threshold, then renew growth in late winter. This is very important in order to offer competition for wild winter-hardy weeds.

# Winter Plot Prep: Cover Crops (1 of 7)



## Selecting Your Winter Cover Crop

Consider the following when selecting your cover crop:

- Pick a cover crop that will provide weed control.
- Select a species that is winter hardy in our USDA zone 8b (Hillsboro, OR).
- The crop must be easy to remove or dig into the soil in spring.
- Plant early enough to get some growth and healthy rooting. Late September to early October is good. Our common weeds are aggressive and easily overwhelm a poorly started crop.



# Winter Plot Prep: Cover Crops (3 of 7)



## Good Cover Crops for the Garden

Since many vegetables are heavy nitrogen feeders, legumes, members of the Bean family (Fabaceae) of nitrogen fixing plants, are very popular for adding nitrogen back into the soil:

- Crimson Clover (*Trifolium incarnatum*)
- Red Clover (*Trifolium pratense*)
- White Dutch Clover (*Trifolium repens*)
- Hairy Vetch (*Vicia villosa*)
- Fava Beans (*Vicia faba*)
- Austrian Winter Peas (*Pisum sativum*)

# Winter Plot Prep: Cover Crops (4 of 7)



## Vegetable Cover Crops for the Garden

We have mild winters in our corner (USDA Zone 8b) of the Pacific Northwest. Many of our tasty common vegetables manage well in winter, and when broadcast thickly over an area will take over, offering both weed control and an early and tasty harvest.

You must sow dense patches and cover the area, just as with any other cover crop, to get weed control.

Common vegetables to try:

- Lettuce (many varieties)
- Radishes (many varieties)
- Turnips (many varieties)
- Parsnips (many varieties)
- Spinach (many varieties)
- Kale (many varieties)
- Swiss chard (many varieties)
- Mustard (many varieties)
- Cabbages (many varieties)
- Bok Choy
- Peas (many varieties)
- Asparagus
- Radishes (many varieties)
- Carrots

# Winter Plot Prep: Cover Crops (5 of 7)



## Cover Crop Mixes

There are many good cover crop mixes available. When choosing one, be sure it will do well in our USDA 8b zone.

Examples of Mixes for Our Zone:

- 30% cereal rye, 27% Austrian peas, 29% triticale, 5% common vetch, 5% annual rye grass, 2% crimson clover.
- 30% hyoctane triticale, 30% wheat, 28% Austrian field pea, 5% common vetch, 2% crimson clover, and 5% annual rye.
- winter pea, crimson clover, cereal rye.

Mixes like these are readily available at nurseries and online.

# Winter Plot Prep: Cover Crops (6 of 7)



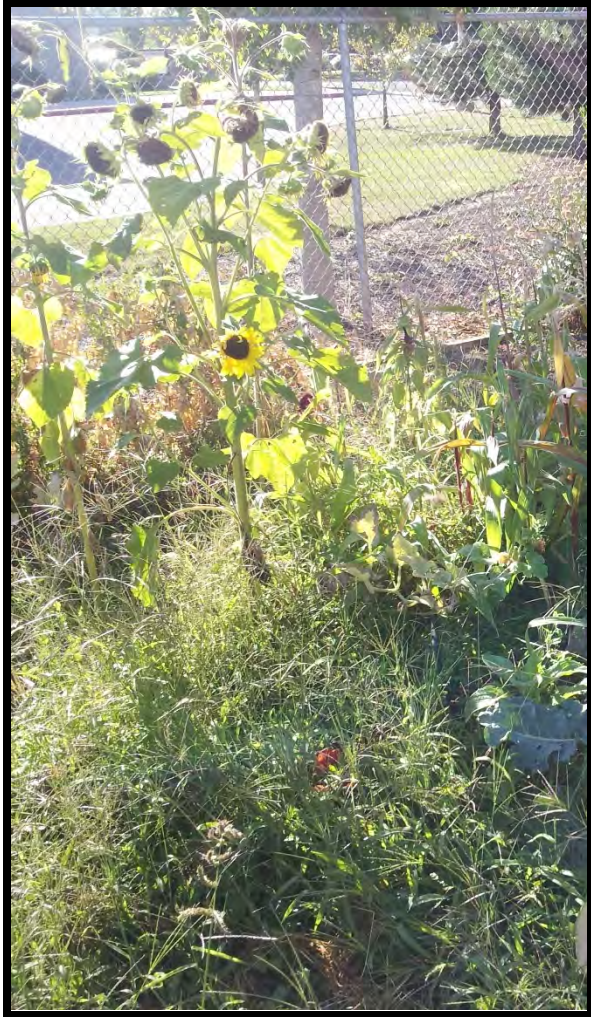
## Cover Crop Mixes

Many mixes include cereal grasses, like wheat and cereal rye, and common lawn grasses like annual rye. Grasses produce a fibrous root system and compete well with other weeds. The roots add organic matter and break up soil and can perform well in a garden plot as part of a mix.

With grasses, take care to dig plants in deeply, very early in spring. This allows the organic matter to break down before you plant.



# Winter Plot Prep: Cover Crops (7 of 7)



## Grasses and Cereals as Cover Crops

We discourage using grasses as a single species cover crop. We had a serious weed problem caused by a grass cover crop left to grow into the spring and summer. It quickly established itself and spread to adjacent plots, becoming a nuisance weed.

A mix of grasses, some very aggressive, joined the original grass crop. The gardener could not distinguish between the various grasses, and, thinking it was fine as a summer cover crop, let it go.

It created a serious weed issue everywhere it spread and interfered with using the plots that got invaded. It took several years of serious management to obliterate.

While you can most certainly use grasses in mixes, to avoid serious problems always:

- Dig plants into the soil deeply, very early in spring.
- Do not use mixes with grasses for summer cover cropping.

# Winter Plot Prep: Happy Gardening!

