

SOWING A COVER CROP

Planting cover crops benefits your garden soil in several ways. Cover crops help with soil erosion over winter, as well as ensuring that important nutrients are not leached out. In addition, the humus a cover crop creates as it decays will greatly improve the soil structure and help with moisture retention. This is great for vegetable gardens in particular because both organic matter and humus are consistently depleted as we cultivate and harvest your produce. Planting cover crops is an excellent way to revive the soil, and they can be sown from spring through fall. They have huge root systems that bring up nutrients that are buried deep. Legumes, like vetches, beans, and clovers add extra nitrogen because of how they react with Rhizobium bacteria. The bacteria take nitrogen from the air and then

'fix' it in the nodules of the legume's roots. Then the nitrogen is released into the soil as the plants decompose. On the other hand, grass and cereal crops produce lots of organic matter. To get the benefits of both types of covers crops, you can plant a combination of both!

You'll want to sow cover crops early enough to give the plants 4-6 weeks to become established. Quick-growing, hardy grains like winter rye and winter wheat are great choices for short-season northern gardens; combine with hairy vetch for some nitrogen. In a warmer, southern garden you can also sow oats and several other vetch varieties, Austrian winter peas, annual clovers, or fava beans.

1 prepare

Cover crops will germinate and grow best in an area that has been well-prepared. Clean out or till in weeds, then rake the soil surface smooth. Fertilizer isn't usually necessary, but if you're starting new bed or if you have poor soil, you may think about having your soil tested and then you will know what type of fertilizer/amendment your soil needs. If you are planting a grain crop is poor soil, you might want to first broadcast blood meal or some other high-nitrogen fertilizer (about 3-5 lbs./100sq. ft.). Legumes won't require extra nitrogen in poor soil, but they will do better with extra phosphorus and calcium (bone meal applied at the same rate).

2 sow

If planting legumes, treat the seed with an inoculant powder first so that the Rhizobium bacteria that is needed to fix nitrogen in the soil will be present. Inoculant is sold in small packets where the cover crop seed is soil. Moisten the seeds and roll them in inoculant, or sprinkle the powder on the soil prior to sowing. You can broadcast the seeds, but will get a better stand if you plant them in furrows. Using a hoe, make furrows several inches apart. For every 100 sq. ft. sow about 1/2 pound of winter rye, wheat; 1/4 pound of vetches, clovers, fava beans or Austrian winter peas. Rake soil over the seeds, firmly covering the smaller grains and clover seeds with 1/2 in. of soil and the larger seeds with an inch or two.

3 care

Water regularly until the seed germinate and are growing well. Keep up on weed control in the first few weeks. Usually only one weeding is necessary because the crops grow quickly, shading out most weeds. If birds are a problem, cover the entire area with bird netting, supporting the netting several inches above the soil surface with wood stakes or a framework of some sort. Remove the cover once the seedling are a few inches tall.



4 harvest

Mow or cut down your cover crop into small pieces before it gets tough and woody, usually just before it sets seed. Turn it into the soil, by hand or with a tiller. If the crop is too thick, harvest the leaves and stems for the compost pile, and turn in the stubble and roots. A large mass of green manure working into the soil can take several weeks to break down. This happens because soil microbes temporarily tie up a lot of the nitrogen already present in the soil while they are busy working through the cover-crop remains. As the process completes, the nitrogen returns to the soil. Legumes break down quicker because they contribute nitrogen themselves, which helps speed decomposition. Your improved garden soil will be ready for planting when a good majority of the leaves and stems of the cover crop are unrecognizable, having become a part of the soil.

