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## **COVER CROPPING**

The covering of bare soil with living mulch is a millennia-old practice used all over the world to keep agricultural land healthy and productive. The concept is genius; utilize the function of certain plants to achieve a desired effect in your garden. Simply said, put plants to work for you. Whether you want to suppress weeds, fix your erosion problem, build healthy soil or just about any other gardening task, cover crops provide a near-no-work solution and often complete the chore better than human hands ever could. Soil wants to be covered by green, growing things and strives to achieve this whenever possible; we should too! Nothing contributes to soil life more than living plants and roots. So how does one get started cover cropping?

## Step 1: Determine what you want to achieve

Many cover crops fulfill several different functions, but it is important to consider which ones would be best suited to your needs to get the best effect. Does your site have hard clay soil that needs to be loosened or is your soil too loose and prone to drying out quickly? Low in phosphorus or nitrogen? Do you want to establish a new garden bed? What was previously grown there and what do you want to grow next? There are certain cover crops that are specifically used to arrive at the desired result. Get a good sense of what's going on with your site and where you would like it to be. The more observations you make, the easier choosing the proper cover crop will be.

## **Step 2: Planting and Care**

Planting time, location, and method of seeding are dependent on the type of cover crop being used. Know how long it takes for your crop of choice to become established and when to cut it down. Seeding rates will vary with each type of crop, but all will need good soil- to-seed contact to get a good start. Use a metal rake to work the seed into the surface. If seeding onto a large area, a broadcast or drop spreader may be a better option. Like any new planting, watering is important in early growth stages. Otherwise, cover crops don't need much care. Some of the longer-term crops, such as white clover, will benefit from a regular mowing.

## Step 3: Cut it down

For the most part, it is essential to cut down your cover crops when they begin to flower. The goal is to kill them before they set seed and consequently produce a second generation of unwanted plants. After you cut them down you can leave them where they lie as mulch for your next crop of veggies, or you can let them dry out in the sun for a couple weeks and use as straw or turn it into the soil for all of your microbes and worms to munch on. Again, the time frame you will need to cut down the crop will vary for each type, but this step is the most important part so take care to terminate your crop effectively to halt the next generation from getting a foothold on your precious veggie growing room.

**Buckwheat:** Buckwheat is a fantastic cover crop for suppressing weeds and adding organic matter to the soil. It only takes 35 days from sowing to flowering, meaning buckwheat makes a great short-term cover for fall planting after a main crop or in between spring and fall vegetable crops. A particularly good phosphorus and calcium miner, its dense leafy growth does a great job at crowding out weeds and its fibrous root system is superb for erosion prone sites. Scatter seed over the soil so that there's about an inch between each seed and then rake in with a metal rake so the soil just covers the seed. Keep moist until growth starts. When white flowers appear (which attract beneficial insects) it's time to cut it down. Cut it down, and then wait a

week or two for it to dry or decompose before planting your next crop of veggies. If using for a fall cover crop, plant seeds in late August or early September.

<u>Hairy Vetch:</u> A legume, hairy vetch is the ideal cover crop for fixing nitrogen from the air into the soil through a relationship with rhizobium bacteria that attaches to its roots. Cut down in mid to late spring immediately after flowering. You can also sow in late summer and leave it in place all winter long. Vigorous and cold hardy, hairy vetch will continue growth in the spring if it puts on enough growth in the fall. Sow evenly onto soil surface and rake in. Keep moist until growth starts. Cut it down the following spring after flowering. Using hairy vetch as a fall cover crop means you will protect your soil from erosion during the winter.

<u>Crimson Clover</u> is not the same as the pink clover you may find growing in your gardens. Its scientific name is Trifolium incarnatum, it has a much deeper crimson pointed flower, and it is a nitrogen fixing machine. Sow in spring or late summer for fall as it does best in cooler weather. It grows fast. Mow or cut back before flowers ripen and seeds set. As a fall cover crop, it can remain in the ground over the winter and turned in the next spring. Crimson clover will thrive in sun or partial shade. It is often used as an annual cover crop between rows of vegetables and mowed. The flowers are a magnet for pollinators beneficial insects and can also be used in herbal tea.

White Clover: A great perennial ground cover for many situations. Like hairy vetch, clover fixes nitrogen from the air into the soil. Well suited to dry areas due to its deep root system and forms a dense mat over the years, providing a superb and attractive erosion control solution. Clover is a constant, sustainable fertilizing crop in both the lawn and garden. It is a little slow to get established and has a low germination rate so several successive sowings are recommended. Sow on to loose soil and gently rake in or press into the surface. Keep moist until growth starts. Once you notice growth, sow again. Continue this process as needed. White clover responds well to mowing and makes a great alternative to dry mulch in the vegetable garden. The clover may also act as a trap crop from munching critters. Simply make a hole in the clover where you are planting. \*note: clover flowers attract many types of bees

<u>Peas and Oats</u> This is a wonderful soil builder. Each package combines two types of cover crop seeds in one package. The field peas add nitrogen to the soil and the oats hold the nitrogen, provide organic matter, and suppress weeds. As a fall cover crop, cut it in late fall and leave the roots to hold the soil over the winter. The clippings will lay on top of the ground as winter mulch. Then turn it all in the following spring. A great mix to use when preparing new planting beds in the fall for spring planting.

Winter Rye: Winter rye is an ideal cover for fall planting as it produces a quick ground cover and extensive root system even in just above freezing temperatures. It can even be sown as late as the first frost and still grow to an effective winter cover for your garden. Its deep reaching root system is ideal for loosening compacted soil; this makes it great at scavenging nitrogen and inhibiting weed seed germination. Growth will resume in the spring and flowering will be induced when 14 hours of daylight is reached. Let it grow like this for some time and then cut it down before it goes to seed. Sow like you would any grass seed and keep moist until growth starts. A good companion to hairy vetch.

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