



# Cover Cropping

Great plant growth and production starts with good soil. Cover cropping is one easy and economical practice to improve soil quality.

## WHAT IS A COVER CROP?

A quick growing crop which is planted primarily to keep the soil covered for a short period of time, and is then plowed under as “green manure” or composted.

## WHY PLANT A COVER CROP?

LARGE amounts of organic matter are added to the soil when the lush growth of green, mature crops are turned under. Organic matter improves soil texture as humus and stabilizes moisture content. The plant nutrients in these crops are returned to the soil, thus making the soil a storehouse for nutrients.

### Additional benefits:

- 👍 The leaves shelter the soil from pelting winter rains and help improve soil as they decompose
- 👍 The dense plant cover shades out weeds
- 👍 Stabilizes soil and prevents erosion
- 👍 Improves water, root, and air penetration of the soil
- 👍 Helps break up heavy soils
- 👍 Increases available nutrients
- 👍 Some crops attract beneficial insects
- 👍 Helps soil dry out quicker in the spring
- 👍 Aesthetically pleasing, green lush cover

## How do cover crops work?

In general, cover crops improve soil as the roots grow through the earth and loosen the soil, draw up nutrients, and add to the soil life and organic matter through the ever turning cycle of root hair growth and decay. The above ground leaf matter adds valuable material for soil microorganisms to break down into hummus.

## What crop to choose?


It is often best to plant a diversity of cover crop seed at one time to promote a wider array of soil organisms and release different nutrients in the soil. The Gardenway mix is great for vegetable beds. If you have heavy clay soil a mix of fava beans, oilseed radish and fall cereal rye will help break up the clay, fix nitrogen and add substantial organic matter. The needs of every garden and gardener will call for different cover crops. Here are a few things to consider when deciding what mix is best for you.

## Annual vs Perennial

Cool weather annual crops are perfect for building fertility in vegetable beds over the winter. These include: annual ryegrass, Austrian peas, common vetch, clovers, fava, cereal rye, and oil seed radish.

Summer annual crops are good for areas left fallow for a season, pulling toxins from the soil, or adding an extra crop to extremely poor soil. Buckwheat is an example of a summer annual cover crop.

Perennial cover crops such as Dutch white clover are excellent for orchards, “the back 40”, paths or a living mulch.

Cover Crop attributes 	Annual Ryegrass	Austrian Field Peas	Buckwheat	Common Vetch	Crimson Clover	Dutch White Clover	Fall Cereal Rye	Fava Bean	Gardenway Mix	Oil seed Radish
Fixes Nitrogen		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Tolerates poor drainage							<input checked="" type="checkbox"/>			
Germinates through December		<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>		some	
Loosens heavy clay soil								<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>
Summer annual			<input checked="" type="checkbox"/>							
Cool weather annual	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Perennial						<input checked="" type="checkbox"/>				
Attracts beneficial insects		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		
Helps control erosion	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
Shade tolerant					<input checked="" type="checkbox"/>					
Edible parts		shoots						flowers		
Easy to till into soil			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>

### A word about fava beans...

The fava beans sold as cover crop do not produce an edible bean. Favas that are grown for food production are sold in seed packets and sometimes called Broad beans. Edible favas can also be used as a cover crop, but they will not leave as much nitrogen in the soil because it will be siphoned into seeds.

Additional cover crops to consider include corn salad or mache, oats and barley.

## How to cover crop in fall

- Harvest the rest of your summer produce.
  - Remove and compost plant residue  
OR
  - Chop up plants and till into the soil where it will decompose to produce more hummus
- Till a ¼ to ½ “ layer of compost into the soil.

3. Spread your cover crop seed by hand or using a drop spreader or broadcast spreader. Make a second pass for even coverage.
4. Lightly rake ¼ “ of soil over the seed. The seed must be covered and in contact with the soil to ensure germination. This also deters birds from eating the seed.
5. If you seed before fall rains begin, water the area so it is kept lightly moist until the seeds germinate.

## In the spring you have two options:

First, about two to three weeks before you want to plant new crops slash the cover crops at ground level and till them into the soil so they decompose and create humus. Once the plant material is broken down plant your new crops. Be sure to cut the crops before they get woody (often during or after flowering), and do not till the soil deeply if it is too wet.

OR

Slash the cover crop at ground level and compost the greens in another location. Then lightly till the area 1–2” deep and plant your new crops. As the roots of the cover crops decompose they will open up the soil for the new crop roots.

Either way it is important to remember to cut your cover crop down before it goes to seed. Seeds lock up many of the nutrients that could be going into the soil and they may become a new weed in the garden.

## References

### Books

Gaia's Garden by Toby Hemenway

Growing Vegetables West of the Cascades by Steve Solomon

Pacific Northwest Guide to Home Gardening by Ray A. McNeilan and Micheline Ronnigen

The Maritime Garden Guide by Seattle Tilth

### Catalogues

Territorial Seed Company (Winter)

Peaceful Valley (Fall)