



## *Cover Crops*

Cover crops are any living plant grown mostly if not entirely to benefit the soil. Growing cover crops is a low cost way to help improve the soil and prevent weeds. Covering bare soil with a living plant helps insulate the soil from temperature fluctuations, helps to crowd out potential weeds, and helps to prevent erosion. The aboveground portion of the cover crop acts as a living mulch, shading the soil and preventing weeds from taking hold. Meanwhile, their roots open up the soil to allow water to penetrate more easily, while bringing up nutrients from deep in the soil as well. And, once tilled in, they add organic matter to the soil.

Cover crops can be planted in bare areas around existing crops as well, such as in vegetable gardens and around fruit trees. If you are using the cover crop as a living mulch around vegetables, wait until the vegetables are established, about 6" - 8" tall, before sowing the cover crop.

If it is feasible to till in the cover crop, it becomes known as "green manure," improving the tilth of the soil and adding organic matter as well as nutrients to it. For all cover crops, wait at least two weeks after tilling, and preferably three or four, before you plant anything else in that area. This gives the organic matter a chance to decompose. Watering the area will help in the decomposition process, as will adding molasses and/or our aerobically brewed compost tea. And be sure to till it before the cover crop goes to seed or you may have it sprouting back up at inopportune moments and in inopportune places later.

Cover crops in the legume family can fertilize the soil with extra nitrogen that they capture right out of the air. With the help of a Rhizobium bacterium, leguminous plants such as clover, peas, vetch, alfalfa, or other members of the Bean Family, "fix" nitrogen from the air in the soil, releasing it into the soil after they are tilled in and rotted. When planting any of these legumes, including beans and peas in your vegetable garden, be sure to purchase the correct Rhizobium inoculant for the crop. This powdered inoculant is simply dusted onto slightly moistened seeds before they are planted. When they are finished growing, don't remove the roots – till the whole thing in.

Warm season cover crops, planted in April through July, are buckwheat and cowpeas (black-eyed peas and their cousins). These can be tilled in at any time, but it's best done before they go to seed – 30 to 45 days in the case of buckwheat and about 60 days for the peas. Buckwheat prefers cool weather, but isn't frost tolerant. Cowpeas don't mind the heat and are fairly drought tolerant once established. Cowpeas benefit from an inoculant while buckwheat doesn't. For buckwheat, use 1 lb. per 800 sq. ft. or 50 lbs. per acre. Cowpeas, 1 lb. per 500 sq. ft. or 90 lbs. per acre.

Cool season cover crops to plant in the fall (September through October) are clover, hairy vetch, elbon rye (aka cereal rye - can assist in controlling the root-knot nematode in the soil), and annual rye. Till these in next spring or anytime before they flower. The exception is elbon rye, which should be tilled in before it reaches a foot tall or it will be too tough to till. Vetch and clover can be cut down and left on the soil to act as a mulch. They will cover the soil to prevent weeds from germinating, conserve soil moisture, and slowly break down, adding organic matter to the soil.