

Green Manures for organic soil improvement.

If you have never grown green manures in your garden why not consider the following. Here are some very good reasons to show why growing these plants makes good sense.

To feed the soil: Green manures hold onto soil nutrients. By absorbing fertility in this way the roots prevent it being washed away through the soil. Once green manures are turned in and decompose this fertility is released and returned to the soil ready to be used by the next crop. Green manures in the legume family such as clover, tares, absorb nitrogen from the air and fix it to via nodules on their roots. This added nitrogen is then released into the soil when the crop is dug in ready for use by your next crop.

To protect and improve soil structure: Heavy rain can destroy the surface structure and saturate soils filling up air spaces, causing water logging. Green manures form a protective cover over the soil preventing damage.

To stimulate soil micro organisms: A healthy soil contains lots of micro organisms. The greater the number and activity the healthy the soil green manures when dug in stimulate these microscopic creatures and provide a source of food. A healthy soil encourages vigorous plants.

To prevent weed invasion: As soon as your crops are removed weeds will try and move in. Green manures germinate quickly and grow rapidly. A cover of green manures will efficiently smother young weed seedlings and eliminate constant hoeing to keep soil weed free.

To control pests: Predators find green manures offer a habitat. Slug predators such as frogs and beetles enjoy cool damp conditions under a green manure cover. Some flying pests can be confused by the outlines of their food plant is disguised by green manures interplanted between rows. For example under planting brassica plants with trefoil disguises the outline of the crop and seems to confuse cabbage root fly.

In the vegetable garden use green manures as a catch crop, wherever you have a bare patch of ground as you lift and use crops sow a green manure. After lifting potatoes, early or main crop don't leave the soil bare sow a green manure. Grazing rye or winter tares can be sown quite late and will keep the soil covered over winter.

Sow green manures on areas where you plan to plant tender crops such as courgettes or runner beans. While you wait for the weather to improve and warm up you will keep the soil weed free. Once dug in the manure foliage and roots will be a good source of rich organic matter for greedy moisture crops. Sow between tall growing crops such as sweet corn to reduce weed problems. Trefoil for example will keep the ground covered. The trefoil can be allowed to continue growing over the winter once the sweet corn has been harvested.

In the fruit garden: Blackcurrants will benefit from a leguminous green manure crop. Tares grown over winter under the bushes will fix nitrogen on the root nodules, ready for release during the growing season. Hoe the tares in spring leaving the foliage to decompose on the soil surface. Sow winter hardy manure on bare soil under fruit trees in autumn. This will keep down the weeds. Cut growth down in spring allowing the foliage to decompose on the soil.

Growing clover around a tree will keep the weeds at bay and provide a good habitat for pest eating predators.

Phacelia Tanacetifolia: This is a bushy plant with bright blue flowers which bees love. It is a hardy annual for sowing between March and September. It gives good ground cover and establishes quickly. Dig in at or before flowering to prevent self seeding. If sown in patches around the garden, the flowers are an excellent attractant to beneficial insects and bees.

Tares: This is sown between March and September to produce a large bulk of green matter as well as fixing nitrogen. Tares will improve the fertility and texture of the soil and suppresses weeds. Turn-in in spring before growing a leafy crop with high nitrogen requirement. Sow in drills, spacing 5cm apart with 15cm between rows, or broadcast. A spring sowing can provide a good supply of nitrogen for your winter brassicas, dug in before they are planted out.

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Hungarian grazing rye: One of the best green manures for winter use. Sow in Aug/Sept or even as late as October in the South. It is a good cover crop to prevent nutrient leaching. Dig rye in during the spring before it becomes too fibrous and woody. Grazing rye is an excellent soil improver.

Fengreek: A quick growing green manure for summer use. This plant is ideal for filling in between crops. It will produce a large quantity of foliage.

Buckwheat: Grows extremely fast, choking out weeds and producing large amounts of organic matter. A good source of calcium and its long roots extract nutrients from deep in the soil. When left to flower it attracts hoverflies, whose larvae feed on aphids. Try sowing clusters of Buckwheat around the garden.

Crimson clover: A vigorous quick growing clover with wonderful red flowers which bees love. Not normally winter hardy.

The next steps, once a green manure has grown you will need to incorporate it, so the ground can be used again. Start this process three to four weeks before you want to use the ground or when the manure is close to maturity. Dig plants back into the soil chop tough lumps as you go aim to bury plants no more than 15cm deep on heavy soils, 18cm on lights soils. Grazing rye can be tough to dig in, it maybe easier to cut the foliage first and leave to wilt. It may be necessary to rough dig the area once and repeat the process after a week to create a planting bed. Some manures will be killed by the cold just leave the foliage in place to protect the soil.