



# A55 Growing green manures



Green manures are plants grown to improve soil. They are sown in spare soil before and after edible crops to stop nutrients leaching, as well as improve soil structure and build nutrients, depending on your choice of green manure. This activity explains how best to sow and then incorporate green manures, using both digging and no-dig methods.

## Resources

- Green manure seeds
- Rake, fork, spade, shears

## Activity

- 1 Using your growing plans for crop rotation (A34) and harvesting each term (A35), identify spaces and times where you could grow green manures, such as the following.
  - a Before and after crops are in the ground, especially overwinter.
  - b Between tall growing and widely spaced crops.
  - c On bare areas of soil left resting without crops.
- 2 Choose your green manure based on the sowing month, preferred soil type, length of growing period, and to fit your crop rotation. See Top tip.
- 3 Follow instructions on the next page for sowing and incorporating your green manure.

### Top tip



### Choosing green manure

See the Food Growing Instruction Cards for top six green manures, including sowing rates and attributes of each.

See also Garden Organic's Step by Step Guide to Green Manures with full range.



## Extended activity

Find out how green manures are used in agriculture and commercial horticulture.

<b>Health &amp; Safety</b>	Wash hands after handling seeds and soil. Take regular breaks if digging. <i>See also Health and Safety Guidelines (Section SG1.2)</i>
<b>Further information</b>	A26 Digging A34 Developing a crop rotation plan A35 Creating a term time harvest plan G4.4 Using green manures Step by step: green manure <a href="http://www.gardenorganic.org.uk/publications/guides.php">www.gardenorganic.org.uk/publications/guides.php</a>



## Instructions for growing green manure

- 1 Prepare a seed bed by raking soil to create a fine surface ready for sowing. Smaller green manure seeds can be scattered on the soil surface and raked/tamped down, eg clover. Larger seeds can be sown in rows, eg field beans.
- 2 Water seedlings in prolonged dry weather. Green manures should establish and grow quickly to cover soil and suppress weeds. Clover pictured.
- 3 Cut down, hoe off or mow green manure four weeks before the soil is needed and/or before plants flower (whichever is sooner).  
**Note:** In no-dig systems, hoe foliage of short term green manures, like mustard, and leave as a mulch on soil surface. Alternatively, remove foliage for composting and rake to make seed bed. Cover foliage of long term green manures, like clover, with light excluding mulch to kill off, eg cardboard weighed down for six weeks.
- 4 Dig in whole plants, using a sharp spade to chop up lumps and turning over soil to bury plants 15-20cm deep. If plants are tough, leave to wilt after cutting, dig roughly, and then dig again a couple of weeks later.  
**Note:** If plants are too woody/fibrous, eg if left too long by accident, remove foliage for composting and dig over just roots or cover with light excluding mulch.
- 5 Young green manures, dug in summer, will decompose quickly and new crops can be planted within a few days. Tougher plants need four to six weeks before crops are planted, especially in spring when decomposition is slower.  
**Note:** Trials have shown that decomposition of grazing rye and winter tares inhibits germination of seeds.

