



Horticulture

Industry Network

Vegetable IDO Update



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Soil Health – Green Manure Crops

Green manure crops are usually grown to add organic matter and nutrients to land that would otherwise be left vacant.

They are often established in autumn and then slashed and worked into the soil in spring, to benefit summer vegetable crops.

There are many different green manure crops including **Cereals**, **Legumes** and **Brassicas**. They will all produce healthier soils for growers.

Why you should grow a green manure crop

- **Increase** soil organic matter, which improves the soils water and nutrient holding capacity.
- **Increase** activity of beneficial soil microbes and predatory nematodes and mites.
- **Aerate** the subsoil, allowing following crops to develop deeper root systems.
- **Scavenge** nutrients that would otherwise be leached deep below the vegetable root zone.
- **Reduce** wind erosion and soil crusting.
- **Reduce** weeds growing on bare ground.
- **Suppress** plant diseases. **Brassica** crops are known to produce compounds which work as fumigants in the soil.

Caroline Donald from DPI Victoria says that a rotation of **Indian mustard**, can significantly reduce the incidence of soil-borne plant diseases such as *Sclerotinia*, *Fusarium*, *Pythium* and *Rhizoctonia*.



Biofumigant green manure crop being worked into the soil

Fodder rapes such as **Canola**, are also known to release these natural fumigants even deeper in the soil as their root systems decompose.

Tips for using Green Manure crops

- **Choose** a green manure crop that suits for your soil type, climate and season.
- **Work** the green crop into the top 15cm of soil where it will do the most good.
- Some Brassica Biofumigant crops can encourage **clubroot** and shouldn't be used if clubroot disease is a problem on your land.
- Brassica biofumigant crops provide better **weed suppression** than Cereals or Grasses.

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