

GREEN MANURE CROPS

By John Woodfield

Much mention is made from time to time of the planting and use of green manure or green crops. While these crops are often associated with vegetable gardens, they are a great way of adding nutrients and organic matter to any area of soil that can be left fallow for a short time. They can add more nutrients and improve the soil structure more readily than a lot of other soil additives such as compost, animal and farmyard manures. They are also given credit to helping rid the soil of some diseases and unwanted organisms in the soil.

Green crops are often grown in winter when some gardens are devoid of plants but they can be used at any time when there are spare areas in the garden. The best results in our area have resulted after being sown in late autumn.

The primary concern is to grow a crop reasonably quickly and not allow it to dry out completely after sowing. Any unwanted plant material and weeds should be removed before sowing the crop in lightly cultivated soil.

A number of different seeds are available to form the basis of a good green manure crop. Most green crop seed will come already mixed or you may be able to select your own mixture from a garden centre or rural supply store. Rural supply stores often have a good range of such crops if you want to be more selective while in a lot of garden centres they are generally offered as a mixture. Availability is sometimes a problem for some seeds, but there will usually be a substitute you can use.

Some growers have favourites, but a balanced mixture will work very well in providing different elements. Among those crops generally available are tick beans (a rough quick growing broad bean), field peas and lucerne for nitrogen, rye, oats, barley and rye corn for a source of organic material. Lupins particularly the NZ blue lupin and vetch will give nitrogen, phosphorus and deeper soil penetration, while mustard, particularly the white cultivars, are good for rapid growth and breakdown. Clovers help as a weed suppressant and provide nitrogen and organic material. Most are reasonably priced, though white mustard and blue lupins are sometimes harder to find and more expensive. Do not be put off by this as in our soils they have given outstanding results.

Crops should be sown at a rate of around a hand full per square metre, to give a reasonable spread over the whole area. They should be covered or raked lightly into the soil and kept damp. The crop should be kept growing by not allowing it to dry out, and an addition of a light dressing of blood and bone after most of the crop has germinated will help keep it moving. Before the crop has fully matured and seedpods starting to fill out, it should be chopped down roughly with a spade or hoe. It can then be dug into the top 150 – 200mm of soil with a shovel or better still, a motorised cultivator if available, to further break up the green material as it is buried. This material will break down very quickly providing a readily available supply of plant nutrients and your next crop can be planted three to five weeks afterwards depending on the soil temperature. Make sure you keep some moisture in the soil if there's no rain, it will assist with decomposition.