



SGLN's Enhancing Soil Biology Project Growing Multispecies Pastures

Multispecies pastures are a great way to improve your soil health while also providing high quality feed for stock.

Benefits of multispecies pastures

Different root structures help break up soil compaction and aerate the soil, improving drainage and biological activity. Varied rooting systems also harvest minerals from different layers in the soil.

The diverse diet also improves stock health, with some plant species helping reduce the need for worming. Multispecies can provide additional fodder during feed gaps as well.

If you have not grown multispecies before, it can be hard to know where to start. Here are some things to consider:

Choosing a paddock

It is a good idea to get a soil test done, and do a Visual Soil Assessment and check for compaction. This can help you decide whether interventions are needed prior to sowing, e.g. aeration. When you first trial multispecies it is recommended to start with a good paddock, as choosing a poor paddock may lead to poor results.

When and what to sow?

This will depend on the purpose of the crop. Common times are autumn, spring and summer. An annual multispecies mix should last 8-12 months with appropriate grazing management.

Seed mixes are available from local merchants or from specialists who focus on multispecies mixes. The mix will depend on the time of year it is being sown. All species emerge at different times, so it's important to match the species with the time of year.

Seeds are often coated with fungicides. It's important to ask for uncoated seeds to reduce any impact on your soil microbes.

Typical mixes include a diverse range of plants, between 5-15 species. These may include brassicas, broadleaves, legumes, cereals and grasses, and annuals and perennials.

Summer mixes often include sunflowers, brassicas (e.g. tillage radish, fodder rape, leafy turnip), millet, maize/corn, buckwheat, chicory and red clover. Autumn/spring mixes could include brassicas, legumes (e.g. vetch, clover, peas, faba beans), cereals (e.g. oats, barley, ryecorn), ryegrass, linseed, and chicory.

Sowing Multispecies Pastures

Paddock preparation

It is important to prepare the paddock for success. Competition by existing pasture species can prevent a multispecies crop from getting started.

The amount of paddock preparation needed will depend on the existing pasture, how vigorous and thick it is, and whether there is a root mat.

Some options for paddock preparation include cultivation (e.g. with a power harrow), or a light spray with herbicide. If the paddock is compacted aeration with a Yeomans Plough (or similar) may help.

Some farmers have had success direct drilling the multispecies into paddock without cultivation or sprays, however this is more likely to be successful if there isn't strong competition from existing pasture grass.

When a paddock is first converted to multispecies more intervention may be needed. Over time as the health of the soil improves, less intervention may be required.

Fertiliser use

Many farmers are looking at reducing use of conventional fertilisers and transitioning to alternative options.

It may be worth considering a transition process, and gradually decreasing fertiliser levels over time rather than going cold turkey. This can help maintain production and give time for the system to adjust.



Multispecies pasture at Waratah Bay

Monitoring

There are a number of ways to monitor the success of a multispecies pasture. These include: soil tests (biology and chemistry) before and after, counting the species present, taking photos, dry matter and forage quality tests, recording grazing days or impact on production. You can also use Visual Soil Assessment and penetrometers, along with brix meters to measure quality of the pasture.

More information

This fact sheet was informed by two online sessions delivered by Jade Killoran from Healthy Farming Systems, for SGLN.

Videos of these sessions, and others are available at www.sgln.net.au.

This includes information and videos on soil biology, regenerative grazing, multispecies pastures, and carbon farming.