

Regenerative Ag

Spring and summer sowing strategies: Learnings from the CVRF



Australian Government

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Program



Written by Jade Killoran: “Healthy Farming Systems”

The Central Victorian Regenerative Farmers group (CVRF) has been trialling and demonstrating autumn, spring and summer sown multispecies cover crops during 2019/2020. The trials are supported by the North Central (CMA) with funding from the Australian Government’s National Landcare Program.

The CVRF group encompasses a diverse range of farming businesses across varied climatic and soil zones, and their experiences have generated a wealth of knowledge and enthusiasm multispecies cover cropping. The consulting agronomist, Jade Killoran, details her sowing suggestions below, drawn primarily from the CVRF trials and demonstrations.



Farmer Ross Davey standing in his multi-species cover crop.

Summary of results:

- Early spring sowing gives best dryland results: September/October, with soil moisture.
- Summer sowing is opportunistic- needs a summer storm and careful species selection.
- Competition can wreck establishment of covers- pick paddocks wisely.
- Cover crop establishment is the goal- spray or cultivate if necessary, to ensure success.

Detailed results:

Early spring sowing

Autumn active species work best- think: oats (20kg): barley (20kg): tillage radish (3kg): leafy turnip (1kg): vetch (10 kg): linseed (2kg). Millet can be sown in October and perhaps sunflowers. Chicory can be added too but it is expensive. These rates are guidelines only, and can be higher or lower if desired, depending on climate, soil type etc.

- If the paddock isn’t fallowed, competition from existing plants will be an issue, especially if the paddock has been conventionally managed to date, and soil health and biological activity are low in the ‘regenerative’ sense. Do what is required to make your cover crop establishment a success- think of it as a crop or new pasture and treat it accordingly. Rubbish weeds and strongly established perennials are the strongest competitors- these do need to be dealt with, and hard grazing is rarely successful on its own. Some level of cultivation or chemical is usually necessary for the first few cover crops.
- Check your hard pan: a shallow hard pan can really affect the vigour of young plants- more so than a deeper one (>20cm hardpan). Consider cultivation if you have a very tough hardpan equal or less than 15cm depth.



- Sow into moisture as soon as you can after frosts are no longer frequent. Following paddocks could help to reserve moisture for the cover crop in low rainfall zones. Decrease this practice once you are cover cropping regularly.
- The autumn sown crop could be chosen with a spring plant in mind: short season oats or tetila ryegrass can be culled early without losing much biomass production.



Multi-species cover crop growing higher than the tractor.

Summer sowing:

- November and December sowings are tricky, especially if the paddock has an existing pasture. Rainfall could be just enough to keep the existing plants alive and competitive, without allowing the cover crop to become established.
- Late December/January and even February sowings are usually more successful than Nov/December sowings, if there is sufficient rainfall. This is because autumn active pastures/crops have reached maturity and become dormant. Sow into these inactive pastures, or into a fallow paddock if you feel it is necessary, either just before or after a summer rain. Have seed ready to go to maximise your chances.
- Reduce diversity: summer sowings have a lower chance of success and are very tough on young plants. Use max diversity in autumn and spring but rein it in for summer sowing. Pick tried and tested summer active species to sow- all or any of sunflowers, millet, tillage radish, buckwheat and fodder rape would be my preferred picks. All are sown at low rates, are relatively inexpensive/ha and have the best chance of surviving dry and hot spells once they are established.

- Sowing rate: Millet @ 4 kg/ha; tillage radish @ 2 kg/ha; buckwheat @ 2 kg/ha; fodder rape @ 2 kg/ha; sunflowers @ 2 kg/ha. These rates are guidelines only, and can be higher or lower if desired, depending on climate, soil type etc.



Summer grown multi-species cover crop.

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