



CULTIVATION GUIDE

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A guide to improve the chance of success of sowing a multispecies pasture		Rating	Your Score
1. Time of Sowing			
Autumn Sowing		2	
Spring Sowing		4	
2. Previous Paddock Preparation (within 12 months)			
Low or no cultivation/no chemical control		8	
Power Harrow		5	
Offset Disc		4	
Mouldboard plough		2	
Pre sowing herbicide (reduces need for cultivation)		0	
3. Previous pasture or crop (within last 6 months)			
Successful Annual Crop		0	
Successful Annual Multispecies		2	
Weedy annual crop/pasture		4	
Competitive perennial pasture base		6	
4. Soil Type			
Light Soil		2	
Medium Soil		4	
Heavy Soil		6	
Total Score			

Recommended Cultivation Level	Examples	Score	
Aggressive/heavy cultivation	eg. Powerharrow, offset disc, rotor strip till*	16 +	
Medium level cultivation	eg. Speed discs, tyne drill	10-16	
Minimal cultivation	eg. Disc drill, SoilKee*	1-10	

The Cultivation Guide was designed for southern Victorian climatic conditions and is intended as a guide to improve the likelihood of successfully establishing a multispecies pasture by providing guidance on the level of cultivation that could be needed at or before sowing.

*A note on strip till machines: strip till machines such as the SoilKee or Oekosem rotor strip till do not sow 100% of the paddock. As the name suggests, these machines sow in strips across the paddock and as such, they are not suitable machines to use when the base pasture has been completely sprayed out or cultivated, as they will not provide full plant coverage over the whole paddock. They are best used to add species to an existing base pasture mix.

How To Use The Tool:

Four major factors were determined to affect establishment success, from the analysis of on-farm project results conducted by Heytesbury District Landcare Network from 2020-2022.

These factors are numbered 1-4 and their rating values are fixed.

From each of the four categories, select one rating value from the listed options which best reflects your situation and put it into the 'your score' column.

You should generate 4 values in the 'your score' column, which are then added up to form the total score. This total score is then used to select the likely level of cultivation which may be needed from the 'Recommended Cultivation Level.'

1. Time of Sowing

Time of Sowing affects establishment- early autumn sowing, particularly before the autumn break, in March-April often allows successful establishment of multispecies. Spring sowing or over-sowing is much more difficult, due to the competitiveness of the pasture, which is why the score for spring sowing is higher than for autumn sowing.

2. Paddock Preparation

Paddock Preparation was also deemed a significant factor for establishment success. If the paddock has been cultivated or chemically controlled in the previous 12 months, the seed bed is prepared and competitiveness of the base pasture is usually diminished. If the pasture has not been controlled in any way, particularly if it is a perennial pasture, the score given is very high as it is very difficult to establish a multispecies pasture into an active competitive pasture base via direct drilling or other non-intrusive methods. You will note that the correct use of chemical control pre-sowing (successful termination) is scored a 0, as it usually dramatically improves the chance of establishment success, especially while in the first transition years of establishing multispecies pastures.

3. The previous pasture or crop

Previous pasture or crop also plays a role in determining the success of establishment. A successful annual crop or pasture reflects an appropriate preparation strategy and means that the condition of the seed bed is usually appropriate for re-sowing, and control of the original pasture base was successful. This improves the chances of success of the proposed multispecies crop. In comparison, a perennial pasture paddock which has not been renovated presents a very difficult environment for the multispecies to establish in, reflected by its high score.

4. Soil Type

The final factor which was considered crucial for establishment success was the soil type of the paddock. A light soil type which forms a good tilth with cultivation and allows easy root penetration is a much more welcoming environment for the germinating seedling than a heavy clay soil. A clay soil may require significant cultivation or a mix of cultivation and chemical control before it forms an appropriate seed bed, while a lighter soil such as a loam or sandy soil may need only light cultivation. It is important to note that light soil types are less forgiving of intensive cultivation than heavy soil types, so caution should be taken when cultivating paddocks with light soil.