

When to sow

Mid-summer flooding has meant it is too late to get much benefit out of sowing summer crops; by the time they establish, productivity will be short lived due to cold weather.

Normally in February, it is too hot to reliably establish successful winter crops and pastures. This means there is a window of opportunity to plan and prepare your paddocks for re-establishing crops and pastures in autumn as normal.

When deciding the best time to sow or irrigate up pasture and crops, several key factors need to be considered:

- Temperature - Will the pasture/crop successfully germinate and what will the growth be like?
- Moisture – How much irrigation water do I have? When will it rain? What is the risk of a false break? Is the irrigation infrastructure able to irrigate the paddock?
- Species chosen – What temperature requirements does it have? What is its growth habit?
- When is the feed needed?
- Is the irrigation infrastructure ready to be used?
- Will the infrastructure needed for access and pasture allocation control be ready in time?

If you have some paddocks that have been more adversely impacted from floods than others, it may be best to focus on getting the paddocks that are right to go up and going first to enable some earlier feed, before focusing on the more troublesome areas.

Effects of temperature on germination

High temperatures limit the germination of many crops and pastures even if soil water is available.

Clovers

For annual clovers such as subterranean, balansa and berseem, the proportion of seeds that will germinate is greatly reduced at soil surface temperatures above 25°C.

However, the Persian clover cultivar 'Maral' (also known as Shaftal clover) is able to successfully germinate at soil surface temperatures up to 35°C.

The germination of other Persian clover cultivars at high temperatures is between that of subterranean and "Maral" Persian clover.

Ryegrass

The germination of ryegrass is reduced at soil surface temperatures over 25°C. This limits the likelihood of successful ryegrass establishment from early starts.

Cereals

Germination of cereals is normally satisfactory within a surface soil temperature range of 10°C to 25°C. Some varieties can germinate at higher soil surface temperatures, but no varieties will germinate at 35°C.

If soil temperatures are above 20°C the coleoptile (first shoot) will normally be shorter. If adequate soil moisture is present it is best to sow cereals shallower than four to five centimetres to allow them to establish successfully. However, the seed still needs to be sown deep enough to ensure it has access to enough moisture.

An indication of maximum daily soil temperature can be determined by placing a thermometer at the planting depth from mid to late afternoon.

Starting up pastures in autumn is a matter of balancing up the risk of poor establishment and/or high water use verses the reward of getting early feed and greater production. A worthy strategy is to stagger your start times by only starting up a percentage of your farm at a time.

This allows you to spread the risk of a hot spell and/or high water use and also avoids a large bulk of feed ready to graze all at the same time.

