

Re-sowing guidelines

If I need to re-sow, what is the process?

After you have decided on the paddocks to re-sow, you then need to prepare them for renovation.

Removing trash

When the flood water leaves the paddocks, they may be covered in trash and debris. The trash may be made up of what was washed onto your paddocks, or it may be the remnants of the crop or pasture.

Over time this trash will break down and provide valuable organic matter and nutrients to your soil, but in the short term it can make the sowing operation and pasture/crop establishment a headache. For this reason the trash may need to be removed or reduced prior to sowing.

Residual trash can cause considerable trouble during cultivation and sowing operations as it can block up the implements and drag along with tines causing it to build up into large piles of trash.

If left the trash can cause issues during establishment if it interferes with seed to soil contact. If the seed ends up resting against the trash and not the soil particles, then it will have a poor establishment rate. The trash can smother seedlings however this is rare as the tines normally open up the areas around the seed.

The removal of the trash can be challenging. It requires a touch of imagination and is often limited by machinery availability. Due to the variable nature of trash and debris and the range of soil types involved, different methods can be used.

Some of the more common ways to remove trash are:

- Use offset discs to cut up the trash and mix it into the soil.
- Cut, rake and bale (this can be hard on equipment if the trash is damp or dirty).
- Burn it. It will be hard to burn if it is covered in silt or is still moist. If it is dry enough harrows can be used. Tow them through the trash until they block and then ignite this trash and tow the harrows around spreading the fire. Burning permits may be required. Check local CFA and Shire regulations.
- Using an implement (like harrows, scarifier or seed drill) to drive around the paddock until it blocks up. These blockages can then be dragged into larger piles on a sacrifice area.

Weeds

The flood water is likely to bring new weeds onto those paddocks that have been inundated. The change in soil conditions may also favour different weeds than those that have grown in the past.

In addition, a period without competition from a pasture or crop and plenty of moisture will enable weeds to get established. Therefore, it will be advisable to get a good chemical knockdown of the weeds prior to sowing the pasture or crop.

The effectiveness of chemicals will be reduced if the paddock has trash, debris or silt still on it. It is important the chemical can make good contact with the target plants.



Preparing a seedbed

Successful pasture/crop establishment is dependent on good seed to soil contact. It is also desirable to have a friable soil (easy for the roots and shoot of the plant to move through). Depending on soil type, structure and available equipment, this may be achieved via direct drilling with an appropriate drill. For others that won't have friable soil or a good seed soil contact, paddocks may require pre cultivating.

In some cases soil structure/chemistry issues (e.g. Sodic soils, salt affected soils) will need to be addressed prior to cultivation to minimise further damage and make the most of any recommended treatments.

Key points:

- **Trash can cause issues during establishment if it interferes with seed to soil contact.**
- **New and old weeds can be a significant problem following flooding; remain vigilant.**
- **Pastures covered in sediment and organic matter can inactivate some chemical products; contact your local chemical advisors.**
- **Soil structural issues will need to be addressed prior to cultivation to minimise further damage.**

Choosing the right crop

What is the best pasture or crop to sow?

There are a range of different species appropriate for regenerating flood affected land. This may be an opportunity to reassess the forage supply in your dairy farm system. If you are considering any major changes to your forage base, please discuss your options with a skilled advisor to ensure the potential impacts to your whole farm system and exposure to risk are taken into account.

The list below outlines considerations in choosing the right species, depending on the range of paddock conditions on your farm:

- End purpose of the species e.g. lots of high quality grazing; summer feed; large bulk of feed to conserve.
- Water availability.
- Soil type/paddock layout e.g. free draining, good irrigation layout.
- Fertility of paddock.
- How the paddock fits into a whole forage system e.g. already have heaps of cereal sown; too far away from dairy to graze with milking cows; close to wheel and easy to water.
- Season outlook e.g. likely to have wet/dry autumn/winter/spring.

The more common options that will suit most farmers are:

- Perennial ryegrass.
- Annual ryegrass (with or without annual clovers).
- Italian ryegrass (with or without 'Shaftal' or other annual clovers).
- Cereals - wheat, barley, triticale and oats.
- Sub clover.
- 'Shaftal' (Maral, Persian clover).
- Lucerne.

To help decide which options might best suit you this autumn an overview on these species has been put together including pro's and con's and the situations they are best suited to.

Ryegrass

Ryegrass has been the main stay of Victorian dairy pastures for a long time now. This is because it offers many advantages.

- It can produce high yields of good quality feed.
- Depending on the farm system a large proportion of the

feed can be direct grazed, saving both time and money.

- It is suited to a large range of soil types and climatic conditions.
- It is relatively easy to establish and manage.
- It can be flexible depending on variety chosen.
- It has good resistance to pests and disease.

There is a range of ryegrass species used in pastures. The most important difference between them is their lifespan.

Perennial ryegrass such as Vic, Impact, Banquet, Avalon and Fitzroy. It will survive for more than two years with greater persistence and grazing tolerance. The major benefit of perennial ryegrass is if you have enough irrigation water they produce relatively high quality feed year round. They don't need to be sown each year and depending on forage system and cow numbers, most of it can be directly grazed. It is relatively easy to manage. When water is available at a relatively low price it provides a high quality cheap feed source.

Italian ryegrass such as Crusader and Feast II. A biennial that will normally grow for two years. The first year is the most productive as it generally thins out by the second year in the hotter, harsher environments. It can add more flexibility than a westerwold ryegrass due to its ability to keep growing into the early summer if adequate moisture is present.

Annual Westerwold ryegrass such as Tetila and Winter Star. Strictly an annual as there is almost no growth in the second year unless there is some seedling regeneration from seeds set in year one. This means they will need to be re-sown each year. The biggest difference in this group is flowering dates. Later flowering dates generally lead to a longer growing season.

Cereals

Cereals include wheat, barley, triticale, oats and to a lesser extent rye corn. Most northern Victorian dairy farmers have used these over the drought years to manage their risk. Cereals are relatively drought tolerant and generally yield better than ryegrass when moisture is limited.

During the vegetative stage their grazed quality is comparable to ryegrass. However the more mature a cereal gets the more its quality declines.

Cereals are fairly cheap (depending on variety and methods used) and simple to establish. Once understood, their management is quite simple. They are suited to a range of soil types, fertility levels and climatic conditions.

Cereals will generally suffer badly from water logging and pugging. While cereals are suitable for grazing, under most situations grazing will reduce the total yields. Cereals can only be grazed up until the time they switch over to reproductive mode (average grazing window of four to eight weeks), or large yield penalties will apply.

Continued on the next page...