

Revegetation Direct Seeding

Limestone Coast Landscape Board

Direct seeding most closely mimics nature. Plants germinate where they will grow undisturbed. Roots grow unimpeded and unconfined by a tube. They source moisture deep in the soil profile before growing leaves.

Most soil types are suitable for direct seeding, except heavy clay and very rocky ground.

Typically, direct seeding is performed via a vehicle towed machine, but small areas can be seeded by hand and very large areas by aeroplane.

Advantages

Large areas (>2 ha) are revegetated faster and more cheaply than by tubestock alone. Germination rarely fails. Seeding rates are adjustable to best meet your requirements.

Disadvantages

Plant choice is limited, usually to common plants. Direct seeded plants are very susceptible to red-legged earth mites (RLEM) and snails. Plants start life very small and therefore effective weed control is essential.

The biggest disadvantage is our own impatience and unreasonable expectations. Plants take 12 – 18 months before they reach the size of nursery bought tubestock plants.

Timing

Timing will vary with each season, soil temperature and moisture. July to August is the normal time for direct seeding but in wet years or locations, seeding may be done up to October. Most germination takes place once soil reaches 14°C.

Preparation

Start talking to your direct seeding contractor as soon as possible - 12 months before is ideal to ensure you get the best preparation in for your site. Contractors need time to collect the seed and can help with valuable advice gained from many years' experience.



Tiny direct seeded seedling 3 months old

Weeds

Weeds make life tough for seedlings. Weeds reduce deeper water infiltration, which limits seedling survival over summer.

In narrow areas (up to 20m wide) blanket spraying may be acceptable, but avoid it for large block areas. Follow up weed control is very difficult in large blocks once seedlings are there. Strip spraying lines for direct seeding is recommended instead.

Do not blanket spray sandy soil, it will blow away. Narrow strips can be sprayed instead.

Be prepared for follow up weed control.

Perennial pasture grasses

Large perennial pasture grasses like Phalaris require 12 - 18 months of control before seeding. They are tenacious and not easy to kill. They will destroy direct seeding if left untreated. If grasses are tall and rank, slash first and spray regrowth after two to four weeks. Their large crowns readily resprout and new plants soon emerge after first control. Lots of follow up control will be needed. Check every six weeks after rain, including summer. Also control any thistles that appear (before flowering).

Some contractors will not seed if these grasses are left uncontrolled.

Annual pastures

Annual pastures can be sprayed one month before seeding. A follow up spray can be done up to two weeks after seeding. Germination takes two to three weeks. Spraying using a shielded spray unit will be required after germination to protect the seedlings from spray drift.

Strip sprayed direct seeding lines





Direct seeding machine/ute

Summer weeds

Don't forget summer weeds. Check after summer rain or heavy dew. Control as soon as they appear! Many summer weeds are extremely aggressive growers and will soon choke out your reveg.

Herbicide

Broad spectrum knockdown herbicides will control most weeds. Residual, grass specific or broadleaf herbicides can be used, but be very cautious because they could kill your seedlings too. Some target specific herbicides damage or retard plants they are not meant to. Seek advice from revegetation contractor.

Invertebrates

Red-legged earth mites (RLEM)

Destroyers of countless revegetation projects, they are tiny creatures that suck the life out of direct seeding. Typically, damage first appears on clovers and medics soon after break of season. Look for pale, silvery patches on the leaves. RLEM look like tiny black spots with red legs and will fall off the leaf at the slightest disturbance.

RLEM can only be controlled by spraying a miticide. Seek professional advice (revegetation contractor or agronomist).

Start control the spring before revegetating, before summer dormant eggs are laid.

Spray again at the following break of season with the first hatching of summer eggs. You'll have three weeks before the next lot of eggs are laid. **Be vigilant and monitor weekly in the first few months after seeding.** Follow up spraying throughout the year and again after 12 months may be required. Monitor regularly.

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Snails

Bait for snails straight after direct seeding. Use iron EDTA Complex based snail bait because it won't kill birds and lizards. Keep looking for snails after rain and bait again if necessary. Snails will rapidly decimate direct seeding. Baiting may be required the following year.

After germination

Maintain contact with your contractor, especially if worried about the success.

Plants will remain very small for at least 12 months. They put energy into growing roots before leaves.

Keep up with weed and pest control.

Patches of excessive germination can be thinned after one year, especially trees. Lots of trees close together will end up looking like a blue gum plantation.

Direct seeding can be watered if spring is dry, but remember the best guard against dryness is weed control before seeding

Other considerations

Tubestock can be combined with direct seeding to get more diversity of plants.

To ensure good tree separation, trees can be tubestocked and smaller plants direct seeded.

Wattles are treated before sowing to break seed dormancy. Only treating half of the wattles lets you hedge your bets, allowing for germination in following years - an insurance against failure.



Older direct seeding

More information

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