

GROWING ORGANIC PROCESS PEAS

Key points

- The major objective is to grow a high quality, evenly maturing crop. All operations – including cultivation, drilling, weed control and irrigation – should be conducted with this in mind.
- Paddocks should be of even soil type and have low weed pressure.
- Soil should have good fertility, structure and organic matter levels.
- Cultivation should be timed to allow for one or two false seedbeds to help control annual weeds.
- Tine weeding pre- and post- emergence is also good practice for weed control.
- Irrigate evenly and frequently to ensure the crop is never stressed.

Anthony White, agronomist for Heinz Wattie's, outlined the ideal conditions for growing organic process peas at the Canterbury Organic Growers demonstration day. He stressed that the major objective is to grow a high quality, evenly maturing crop. All operations – including cultivation, drilling, weed control and irrigation – should be conducted with this in mind.

Paddock selection

A paddock should be chosen that has not had peas grown in it for at least four years to minimise the risk of *Aphanomyces* root rot. The soil should preferably be an even type across the whole field, and the soil should have good structure and natural fertility. There should be low annual weed seed levels, and paddocks need to be fairly free of perennial weeds, such as Californian thistles and twitch.

Cultivation

Ploughing is usually necessary to bury organic material. (Organic material on the surface can be a nuisance when tine weeding.) The soil should be cultivated evenly to produce a friable tilth of even depth with a firm base. The surface needs to be very level because the harvesters operate close to the ground.

Drilling

Sow at a rate to produce 120 emerged plants per square metre to allow for some losses from post-emergence tine weeding. Even drilling is needed to get good even emergence. Avoid overlapping during drilling, where possible, as double drilled areas tend to mature faster.

Undersowing

Some farmers undersow their pea crops. This practice can save time compared to establishing a green feed crop after harvest, and minimises

cultivation when combined with tine weeding. However, some farmers find that the pea crop can be compromised by the undersown species. Further information on undersowing is available in Organic Update No. 19.

Weed control

Enough time should be allowed so that one or two false seedbeds can be made to control annual weeds (a false seedbed is the technique of preparing the seedbed, then letting it sit for a week or so until a flush of weeds has appeared, then recultivating shallowly to kill these weeds before drilling the crop). Further information on false seedbeds is available in Organic Update No. 15: Weed management.

Tine weeding the crop before and after emergence can also make a big difference to annual weeds. For maximum weed control tine weeding is best carried out when annual weeds are very small and on a hot day. Rolling after the last tine weeding is necessary to give a level surface for harvesting the crop, and is also best carried out on a hot day, to minimize damage to the crop.

Hand roguing of Californian thistle flower heads and nightshade berries may be necessary just before harvest. These weeds' seed heads and berries can contaminate a crop and cannot be cleaned out during processing due to their being a similar size and colour to peas.

Irrigation

It is crucial to apply irrigation evenly, and to ensure the crop is never stressed. Applying small amounts of irrigation frequently is the best strategy.

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