



Technical leaflet

Ley production strategy in a dry area



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1 Description of the innovation

Lucerne, quick sowing, less soil compaction and drainage control as a drought strategy

When establishing ley, it is crucial to retain soil moisture. On this farm, the goal is to have no more than half a day from tillage start on ploughed ground until sowing is finished. The solution is a harrow fitted with a mounted small seeder. This special seeder has been in use for six years. It was designed for this farm, to achieve quicker ley establishment and avoid drying out the soil.

After harrowing, Åke Johansson, Lilla Hult, uses a centrifugal fertiliser spreader for sowing barley. Then he harrows to 3 cm depth and rolls in one pass, and after this sows the ley using the same machinery. This allows a quick job, 6 hectares in four hours.

Lucerne is an important part of the farm's drought strategy. In the past lucerne was used in pure stand, but now it is mixed with the grass to control weeds. When well established, the ley often ends up as more or less a pure stand of lucerne.

Drainage control is beneficial. "A ley must not dry out before 30 April." Åke minimises unnecessary drainage by soil dams in open ditches. Harvesting strategy is also important. When drought is severe, immediate harvest saves the plants from damage. The drainage level is controlled using soil dams every 300–500 m in open ditches. These can be removed in heavy rain-fall or before a winter crop.



Advantages

- Maintaining moisture is crucial for good establishment of the small seedlings of grass and legume.
- Lucerne and grass mixture is resistant to drought.
- Drainage level is easily controlled by a temporary bucket of subsoil.



Disadvantages

- Special designed seeder for the farm.
- Need to buy unmixed grass and lucerne for making a proper lucerne inoculation.



2 Recommendations to farmers

Åke's drought strategy can work everywhere in this area where soil types are prone to drought. Maintaining moisture is crucial for good establishment of the small seedlings of grass and legume. Every effort to retain soil moisture is important. Inoculation is important for a secure lucerne establishment. The lucerne seed must be inoculated first and then mixed with the other components of the seed mixture. Åke uses a concrete mixer for inoculation of the lucerne seed and mixes the rest on the ground on a plastic sheet.



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