

Maize under a white layer?

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Kollum – Perhaps you've seen this sometimes: Various fields in the North Eastern part of Friesland covered with a layer of film. This, among other roads, is the case along the Zevenhuisterweg, Goudberg and Dellenswei in Friesland.

This seems strange at first sight, but the film is a kind of greenhouse for the underlying maize plants. The greenhouse effect ensures the maize plants to germinate much earlier. This is not the only advantage, this way also leads to a higher yield, it is good for the environment and good for the soil. When the plants start growing, the film dissolves easily since this film is completely biodegradable.

Because of the higher temperature and high humidity under the film, the maize's grown 'finishes' earlier which means that the maize can be harvested earlier. Usually the harvest takes places in September/October but most of the time the soil is too soggy and the forage harvesters can subside.

The system with the film is invented in Ireland. In 2008 a few Dutch agricultural consultants discovered the working of the film by accident. Meanwhile, quite a few Friesian dairy farmers started to work with this system and since 2010, this method is supported by LTO Noord.

After sowing the maize seeds the film layer is applied. It is relatively warm underneath the film. This ensures that the maize plants germinate 2 to 3 weeks earlier. The risk of frost damage is little. There are very small holes in the film where the plants cut through as they grow. The holes also allow air to go through. If the maize can be harvested, the film already has been degraded.

The maize plants with a layer of film extract nutrients from the soil much better. Phosphate is a very important fertilizer for plants. Maize in ordinary fields are fertilized with ordinary manure but also with phosphate fertilizers. Plants under film do not need the phosphate fertilizer due to the heat underneath the film. The soil temperature beneath the film is higher so the nutrients are extracted better from the soil. There is usually also phosphate present in the soil itself, but this phosphate is more difficult to extract under colder conditions. The farmers can use less pesticides when they use the film. These farmers use pesticides only directly after sowing, whereupon the Samco film is applied and the weed has no chance anymore.

The maize is most commonly used as feed for dairy cows. With a forage harvester, the stalks and the cobs are chopped into small pieces and conserved under plastic to serve as winter feed for the cows. This way of maize cultivation is more expensive, since special equipment is necessary, but because of a higher maize yield, the farmer's investment pays back soon.