

Organic farming in the track

Peter Bay

Vegetable farmer, Skiftekaer Oekologi, Denmark, peter@skiftekaer.dk



Peter Bay is a 57 year old organic potato and vegetable farmer growing 120 ha of organic land.

On an island in the south of Denmark, we are growing primarily organic potatoes, onions, beetroots, different cabbage types, and winter squash.

ABSTRACT: We are running a vegetable farm in Denmark on approx 120 ha. We grow mainly organic potatoes, onions, beetroots, different cabbages and winter squash.

We introduced CTF technology on the farm in 2011. There were many problems in the beginning, mainly concerning the communication of GPS correction signals through the mobile phone system. In 2012 we switched to radio communication, and now it works perfectly - with an accuracy of 2-3 cm.

We are growing all potatoes and vegetables in beds with 2.15 m between the wheel tracks. We use the Dutch made TWIN steering system from SBG. It steers both the tractor and the implement mounted. Implement steering is by use of steering wheels, steering discs or a hydraulic side-shift cylinder. It is all controlled by one computer. With the high accuracy we can use the steering system for precise injections of liquid animal manure and for mechanical weed control, so we are very efficient when weeding with these machines.

In 2013 we started a development and demonstration project in a 1 ha test field. Here we will grow our vegetable and potato crops in the beds and we will never drive in the growing beds. It means that we will no longer do mouldboard ploughing, where the soil is both moved and turned. All operations including cultivations and harvest will be done from the tracks. We will drive with small machines with about 80 hp for most operations.

Our 5 year rotation is:

- 1 Potatoes / winter vicia (vetch)
- 2 Cabbage or winter squash
- 3 Onions / clover
- 4 Clover as green manure
- 5 Beetroots

Our aim is to bring the garden into the fields. We expect a higher microbiological activity in the soil leading over time to more productive soils where loss of nutrients is minimized. We expect that in the future we can reduce the input of manure etc.

Similar CTF systems have for several years been practised in the Netherlands and are now used by approximately 40 farmers. The dominant track width is 3.20 m. A similar system is used by a few conventional vegetable farmers in Denmark as well. We have chosen a narrower track width of 2.15 m. One reason for this is that unlike most of the Dutch farmers we include harvest in our CTF system.

During my presentation I will show some of the machines we use in the system.