



# News

July 2010

## Calendar

### 15 July

New Concepts for the Future of Agricultural Engineering.  
Cranfield University, UK

### 18-21 July

Precision Agriculture.  
Denver, US

### 17-18 August 2010

Coordination of CTF Research and Conservation tillage.  
Tänikon, Switzerland

### November 2010

GPS and auto steering seminar.  
Denmark

More info:  
[www.ctfeurope.eu](http://www.ctfeurope.eu)

Newsletters are available in English, Danish, German and Slovak.

Layout: **AgroTech**  Denmark

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## European CTF Farm Visits

*Tim Chamen, UK*

CTF adoption is well on the way across Europe. We foresee no difficulties in finding hosts for interesting farm visits in the years to come. On 27 May, the first CTF Europe farm workshop was held in Sweden. On 22 June dairy farmer Bjarne Andersen, Varde Denmark has invited us to visit. In the UK several farms have also hosted visits by CTF Europe members. We plan to increase our activities in other countries. Let us know your plans and you may be the next to host a visit from innovative colleagues and companies!

## Forage grass leading CTF adoption in Denmark

*Hans Henrik Pedersen, DK*

Silage grass is the main crop for CTF in Denmark. Recent trials show yield increases in the range 10-20%, gained by avoiding physical damage from driving wheels. Working width for grass harvest and slurry injection is mostly 12 m. At a seminar on 22 June farmers will exchange experiences and discuss challenges, a major one being the lack of mowers with 12 m effective working width.

Host of the seminar is Varde Maskinstation. They have invested in eight auto steering systems to make CTF work efficiently but also to fertilise and mechanically weed maize with high precision. Maize may be the next major CTF crop in Denmark. Working widths will be either 6 or 9 m. Programme for the seminar is available at the CTF Europe website.



At Varde Maskinstation forage grass is now cut with a Krone Big M 500 mower.

## Need for much less pulling force

*Per-Anders Algerbo, Swedish Rural Economy and Agricultural Societies*

In May Jan Jönsson manager of Lydinge Jordbruk in southern Sweden hosted a CTF seminar with 100 participants. Jan implemented 8 m CTF on 650 ha of mainly heavy clay in 2006.

Jan was amazed by the effect of CTF on draft requirements. After the first year it felt like 100 hp less was needed for primary tillage. In the following years draft requirements kept decreasing. So the Challenger tractor no longer has problems pulling his tillage equipment. Before using CTF Lydinge Jordbruk experienced increasing difficulties with managing their heavy soils and also a tendency to decreasing yields. CTF has "bucked this trend" and better yields are now being harvested.

Many of the participating Swedish farmers have CTF plans, so we hope we can soon organize another CTF Europe seminar in Sweden.



Jan Jönsson in front of his Challenger tractor that has been set to max standard track width to suit his CTF system

## Introducing CTF to Scotland

Tim Chamen, UK

Last month I had the pleasure in Eastern Scotland to give keynote talks at a number of grower meetings organised by Soil Essentials (a precision farming company). In eastern Scotland soils range from clays to sands, some with many stones. Ploughing is considered essential for peas and potatoes. Manganese deficiency is often a problem which requires these soils to be firmed rather than loosened. When dry however, they can set very hard - a typical feature of traffic and tillage? Who is going to be the first CTF champion in Scotland?



Robert Ramsay of Soil Essentials examines the cause of poor crop growth on this sandy knoll, a common feature on his 700 ha family farm near Arbroath.

## Tasmanian CTF soils keep improving.

John McPhee, Tasmanian Institute of Agricultural Research, AU

We have now completed onion harvest in a field that has been fully integrated into CTF for two years. Assessments based on field samples indicate a yield increase of 13%. Because of the bonuses paid for specific size grades, a 16% increase in gross return per ha for the CTF crop is expected. The soils are more suitable for crop growing than they used to be. Soil porosity, particularly at 15 cm depth, is significantly improved compared to trafficked plots. A small reduction in irrigation water use in the CTF area was indicated by rain gauge monitoring. An extended story with soil porosity results is available at the CTF Europe website.



A potato harvester, modified for 2 m track width, being used to harvest onions. Photo: John McPhee

## First Canadian CTF tracks

Tim Neale, PrecisionAgriculture.com.au.

CTF has so far attracted little attention in North America but there is now growing interest. We have helped Steve Laroque of Alberta, to establish CTF on his farm. Steve is most likely the first Canadian CTF farmer. Few modifications to existing machinery were needed to create a 30ft (9m) CTF system. Smaller changes were made to the air-seeder cart, seeder, crop sprayer and the harvester. All machines are now based on 3 m wheel centres, and seeding has been completed for the 2010 season.

This season we will start quantifying the benefits of CTF for Canadian farmers. There are many unanswered questions including effect of ground freeze on compaction, farm layout/water drainage, most suitable operating widths, and examining the risks of converting 4-wheel drive tractors to 3 m.



By significant strengthening of the inner rims, the tractor was modified to 3 m (120 inches). Photo: Steve Laroque

## Test of broadcasting methods for RTK signals

Hans Henrik Pedersen, DK

Mikael Gilbertson and Hugo Westlin, from JTI in Sweden have tested RTK correction signals on four farms. The test was made with Trimble Ag332 and 432 receivers. The receivers got correction signals either through a radio link from a farm base station or through the internet using GPRS or 3 G connections (mobile phones). Close to the base station, use of a radio link was always best. In a field 4.5 km from the base station use of internet connection was better. No tests were made at larger distances. Selection of GPS for auto steering is complex. Lack of compatibility between makes is another matter to consider. I will be happy to help all members to avoid pitfalls. Give me a call before you invest.

## Partners in CTF Europe

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- CTF research, soil properties, precision farming,

All partners are helpful in basic CTF agronomy and technology.