



Case study 5

Keith Challen, Farmeco, Bingham, Nottinghamshire, UK

Member of CTF Europe for four years who is converting to a CTF system in 2009

Farm details

- 1300 ha amongst four landowners, managed as a joint venture
- Soils: 80% are clays plus some medium to light land. Also some organic clay over gypsum – extremely heavy with high moisture retention. Predominant soils are classified as clayey river alluvium and stagnogleyic argillic brown earths.
- Crops: Mainly oilseed rape and wheat
- Maximum tractor size 550 hp (410 kW)

Current cropping systems

- Crop establishment:
 - **Wheat.** Minimum tillage with 7.5 m cultivator with two rows of shallow tines and two rows of deep tines towing an 8 m press followed by a 6 m cultivator drill and rolls.
 - **Oilseed rape.** Minimum tillage as for wheat but with the seed metered in front of the 8 m press and followed by rolls.
 - Deep loosening as and when required with 4 m adjustable subsoiler.
- Harvesting
 - Tracked combine harvester with 9 m cutting table, straw chopped and spread
 - Grain trailers haul direct from harvester which unloads on the move
- Auto-steer
 - Satellite based correction providing ± 10 cm pass to pass accuracy within 15 minutes

Proposed cropping system with CTF

- Crop establishment
 - **Wheat and oilseed rape.** Direct sowing with 8 m tine drill
 - Remedial work with subsoiler on 20% of land, but little further use anticipated after that except on headlands
- Harvesting
 - Tracked combine harvester with 9 m cutting table used at 8 m, straw chopped and spread.
 - Grain trailers haul direct from harvester which unloads on the move
- Auto-steer
 - RTK correction from local tractor dealer providing ± 2 cm pass to pass accuracy and positioning with no time constraint

Background and basis of CTF system

- Change to CTF coincided with 5 year machinery replacement policy
 - decision on new tractors based on fuel use efficiency and residual value
- All equipment will be on standard wheel track settings and good quality but narrower tyres
 - tractors 1.93 m (76") on 650 tyres
 - combines 2.84 m (112") on tracks, slight alteration in length of unloading auger
 - trailers 2 m (78") also on RTK - commercial industrial type tyres
- Trailers take two fills from harvester and will turn across to next tramline if required
 - would consider a cross headland
- Not much sloping land - will go up and down where there is

Reasons for considering CTF

- Rising costs
 - anticipates up to 50% reduction in fuel use as a result of changing to CTF and no-till
- Considers no-till will not work without CTF
- Getting better crops
- Better weed control potential
 - inter-row cultivation
- Recognition of soil damage with existing systems
- Anticipated legislation
 - Water Framework Directive
- Environmental
 - likes environmental deliverables with CTF

Reality of CTF

- Maximum tractor size now 350 instead of 550 hp (260 compared with 410 kW)
- Has sold a lot of the machinery but has also bought new
 - three, more fuel-efficient tractors, all with auto-steer
 - all machines on standard track widths
- Only 1 m in 8 m will be tracked
- CTF not an expensive decision - a dramatic cut in fixed costs
- More risk with no-till than CTF
 - choice of drill the most difficult decision
- Reduction in overlaps
- Nice straight lines!
- Students take to it quickly and easily
- CTF a "no brainer" but not a religion!

See illustration below

Keith "I'm expecting all my OSR roots to look like this under CTF!"



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Farmeco conversion of 1300 ha to an OutTrac CTF system in 2009

