

# Ulster Arable Conference

# My farming

- Third generation – family partnership
- 410ha - mostly rented
- Arable – wheat, barley for seed, oilseed rape, freezing peas, potatoes, forage maize
- Six course rotation – no second cereals
- Livestock – 400 head beef cattle – suckler animals
- Permanent grasses – environmental schemes

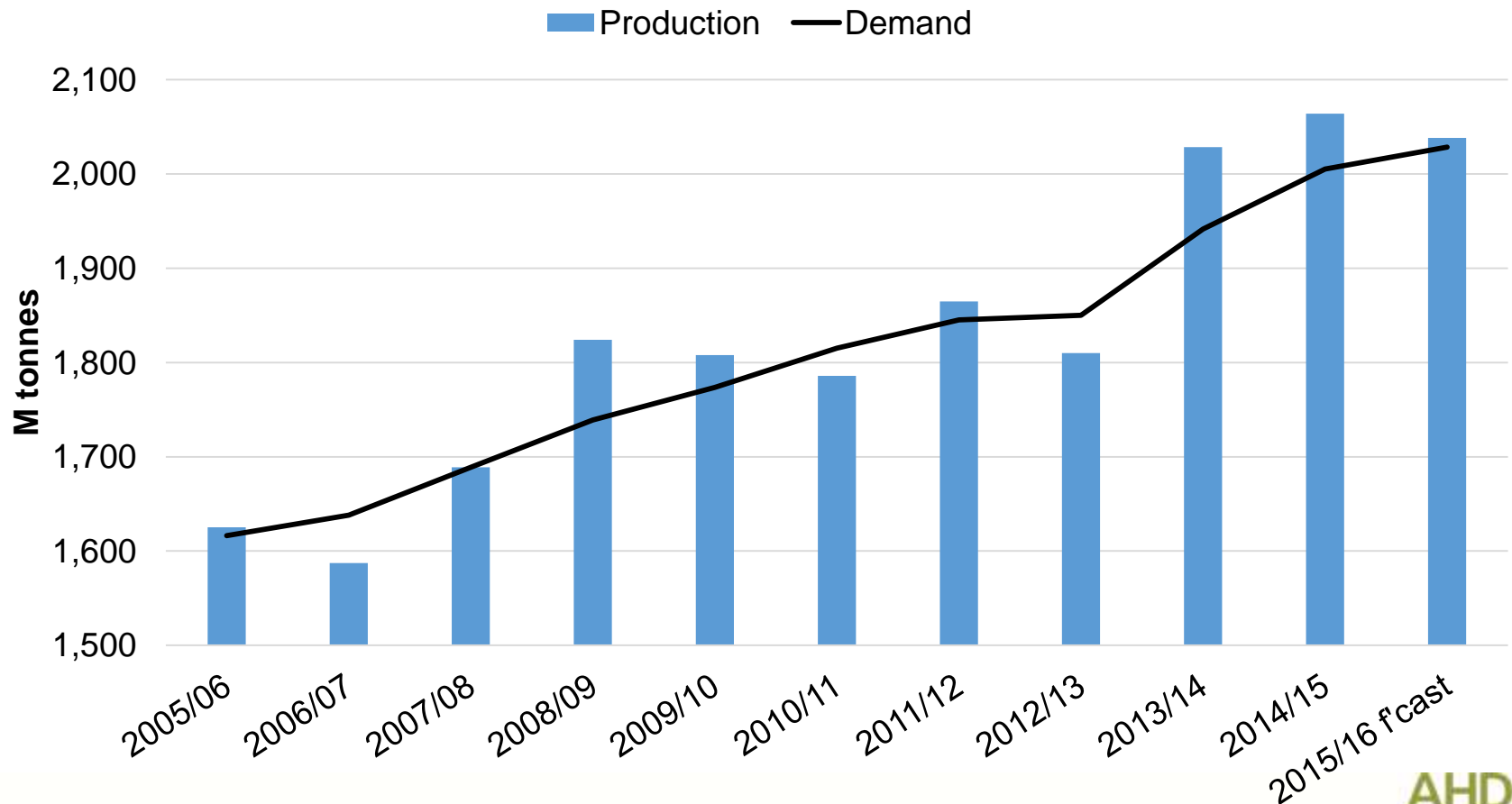
# Man made environment producing food



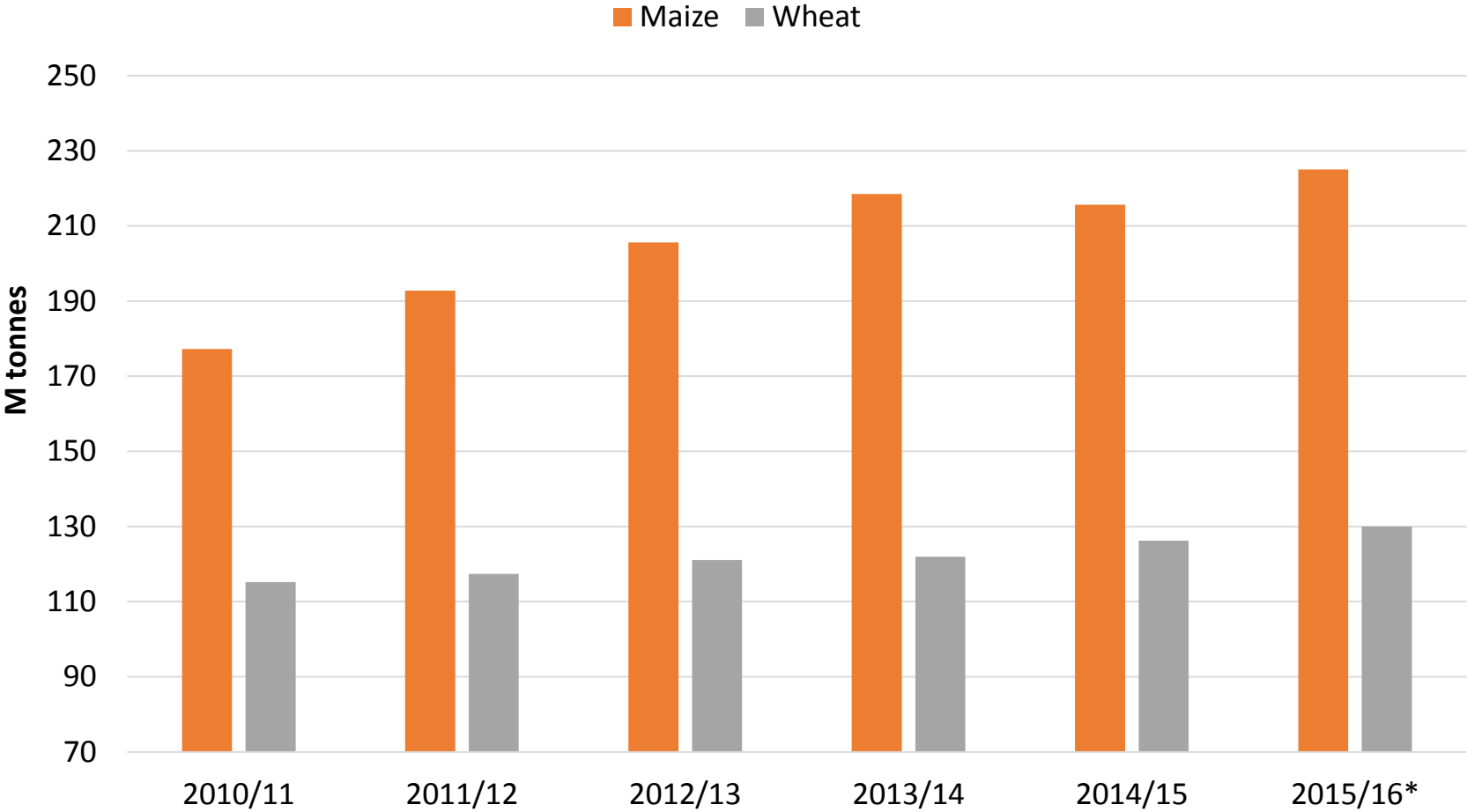
# Global grain perspective

# Three consecutive years of grain surplus

Global wheat and coarse grain supply and demand



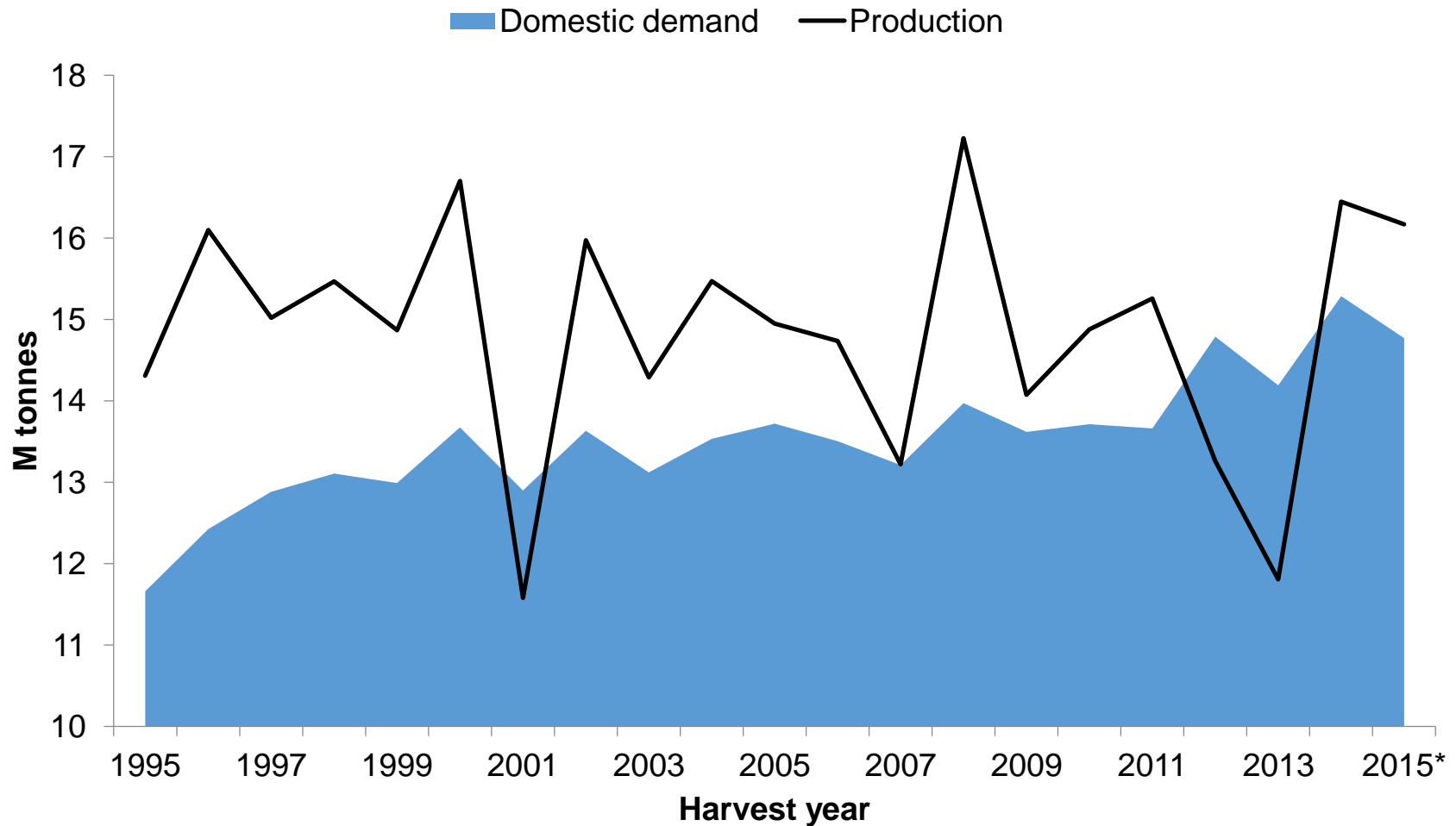
# Chinese grain production



Source: USDA

# UK perspective

# UK wheat production and demand

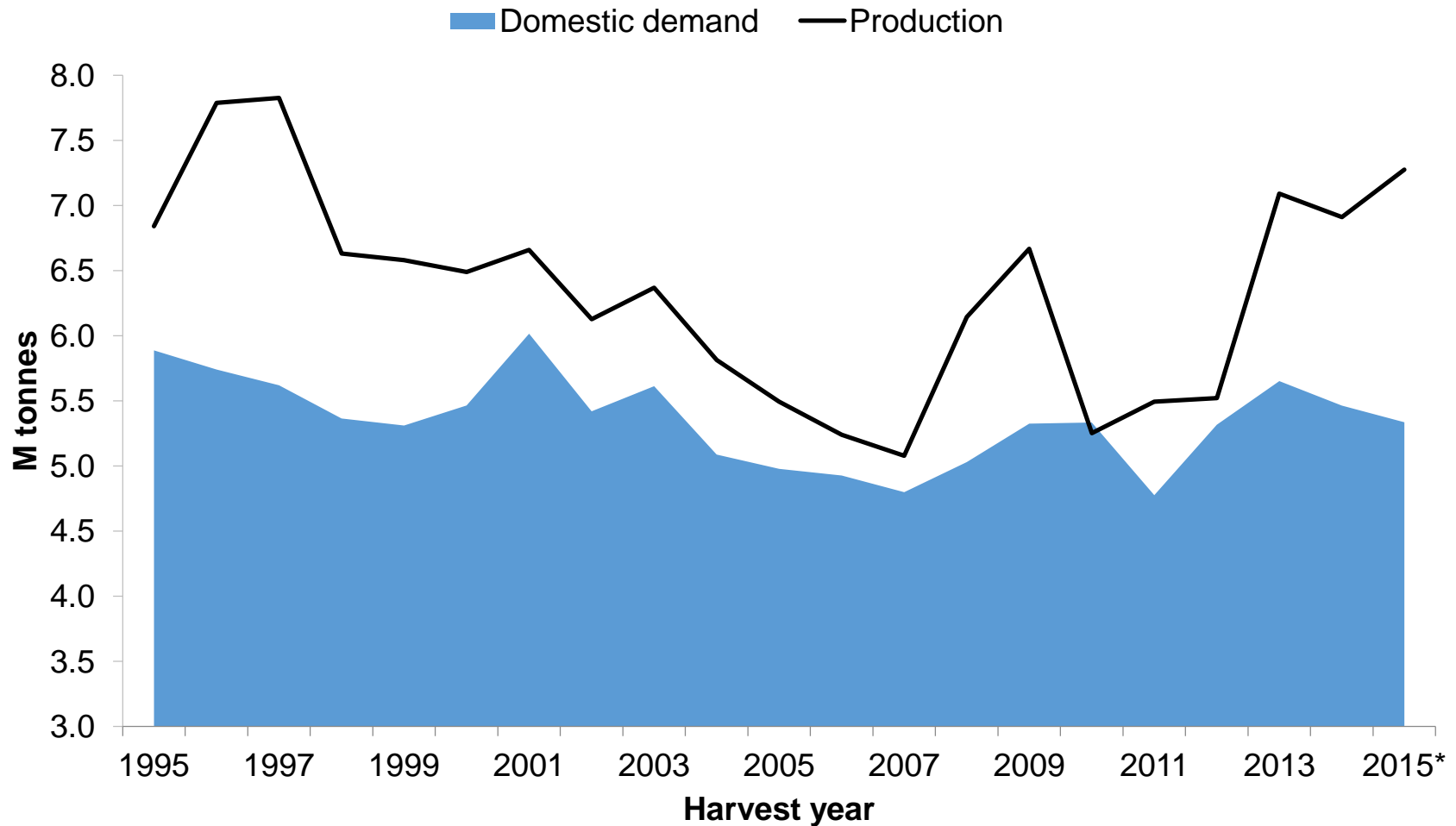


*\*Provisional production, forecast demand*

Source: Defra



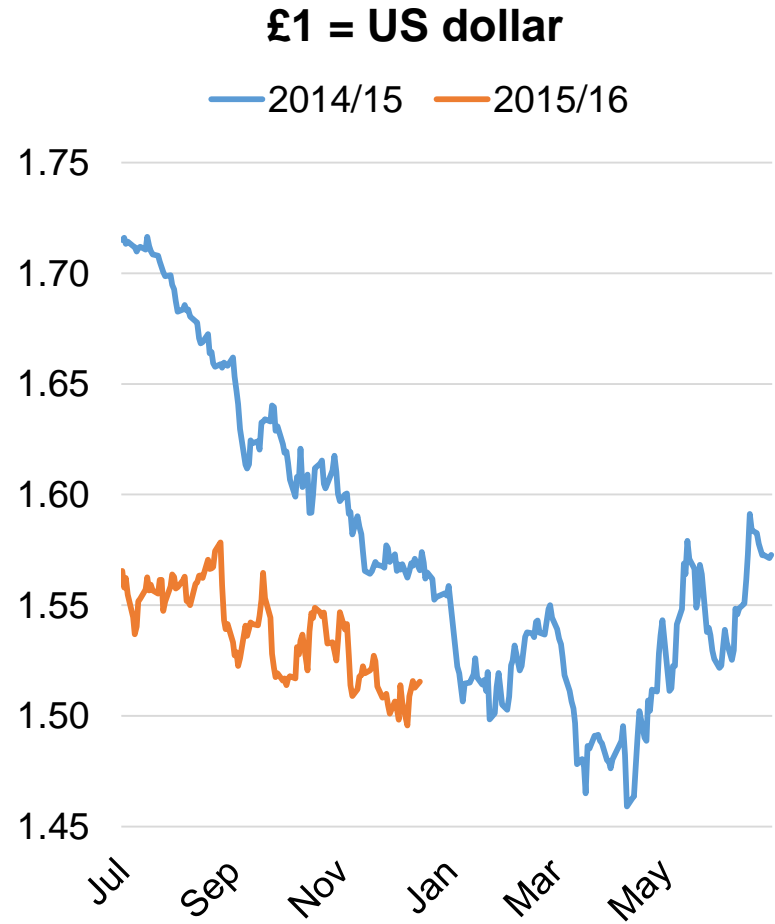
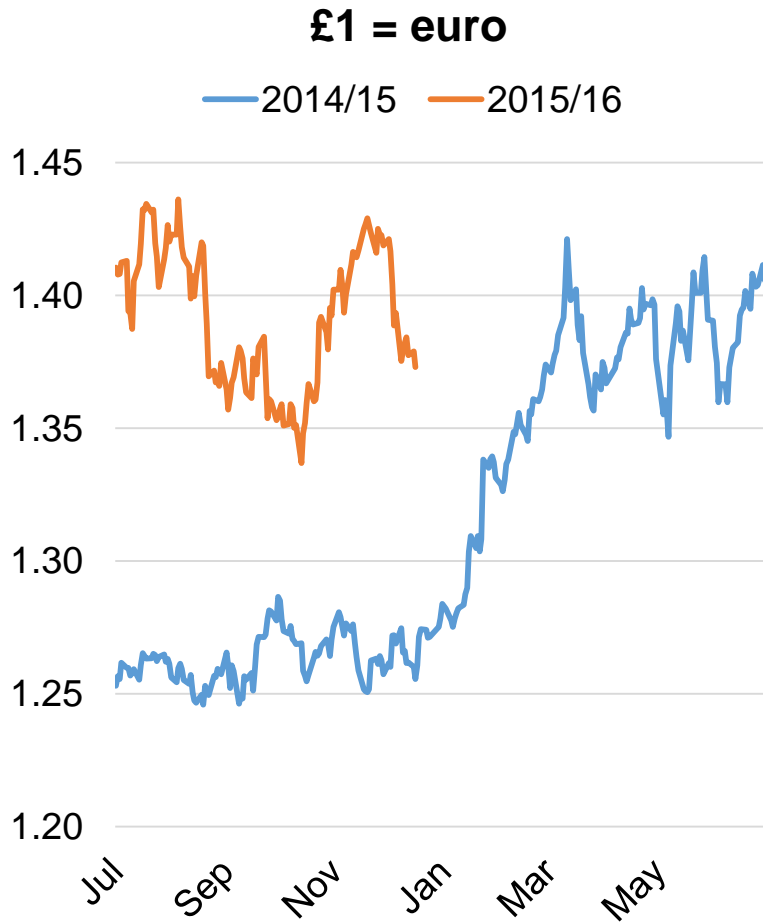
# UK barley production and demand



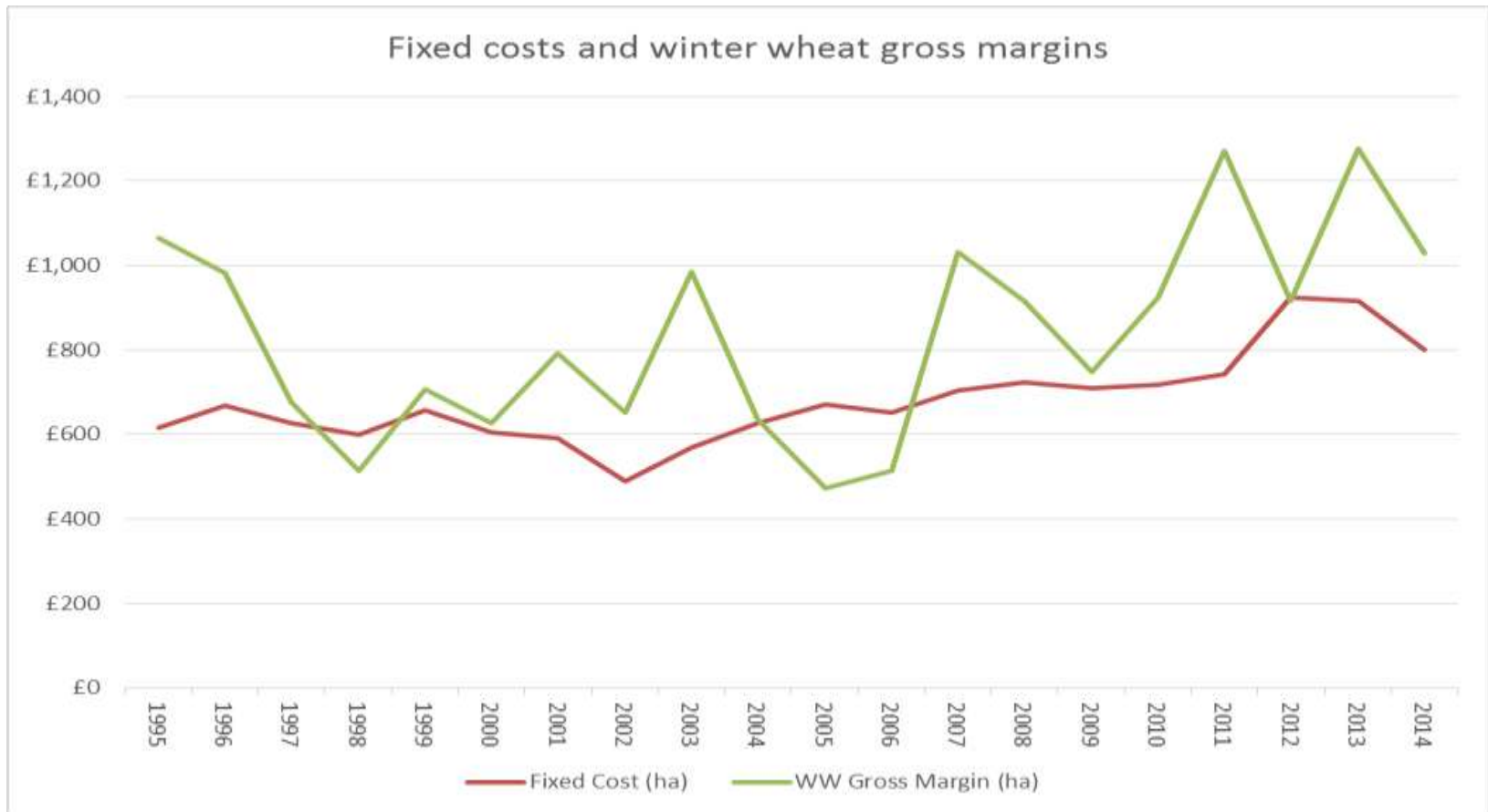
*\*Provisional production, forecast demand*

Source: Defra

# Currency movements



# 20 years – WW gross margin vs fixed costs - example



# Farming under pressure – managing risk

In order to manage risks, you first have to **identify** what they are...

- Production – mostly the weather!
- Legal, e.g. environmental regulations
- Market, e.g. price volatility
- Human, e.g. succession
- Financial, e.g. exchange rates

# Evaluating financial risk on the Stowmarket Monitor Farm

- Exchange rate for 585 hectare BPS payment
- Nov 15 futures price for 3328 tonnes of wheat
- Price for 62,700 litres of farm diesel
- Price for 375 tonnes of nitrogen fertiliser
- OSR in the rotation

***Many small improvements have a big impact on profitability***

# Evaluating financial risk

Risk	Value (£)
Change in £ : € rate of 23 cents on BPS	19,890
Shift in wheat futures price of £55 / tonne	183,040
Change in diesel price of 19 pence / litre	11,913
Shift in fertiliser price of £60 / tonne	22,500
Total value of four decisions	237,343

# Evaluating risk: Gross Margin vs Net Margin

	Winter Feed Wheat		Winter Oilseed Rape	
	£/hectare	£/tonne	£/hectare	£/tonne
Output	1125	125	936	260
Variable costs	477	53	459	127
Gross Margin	648	72	477	133
Fixed costs	565	63	565	157
Net Margin	83	9	-88	-24

Figures from ABC, Nov 15, before rent & finance and excluding BPS

**Use CropBench+ to calculate and assess your own figures**

# Some conclusions so far...

- Fixed costs are more variable
- More scope to reduce without impact

## **Key choices:**

1. Keep cropping, but reduce fixed costs
2. Change cropping to reduce fixed costs
3. Both...?
4. New ways of working – sharing, joint ventures



# Key choices: Examples from the Monitor Farm Programme

Some priorities for the future:

- Prioritise soil health
- Reduce fixed costs to enable flexible rotations
- Change of approach to establishment
- Benchmarking

# Tom Bradshaw, Colchester Monitor Farmer



Soil structure with cover  
crops



# Losses in different tillage practice: 1994-2012

	Conventional tillage	Mulchseed	Direct drilling
Soil loss t/ha	10.0	2.3	1.2
Reduction		77%	88%
Corg-loss kg/ha	105	33	17
Reduction		67%	82%
N-loss kg/ha	14	6.9	3.8
Reduction		51%	73%
P-loss kg/ha	7	1.9	0.9
Reduction		73%	87%
Runoff (mm)	25.0	21.3	17.6
Herbicide loss % sprayed	2.2%	1.0%	0.6%
Reduction		55%	74%
Herbicide loss in runoff	1.73%	0.87%	0.17%
Reduction		50%	90%
Herbicide loss in sediment	3.09%	1.16%	1.99%
Reduction		62%	36%

# Rob Fox, Leamington Spa Monitor Farmer

## Benefits of Benchmarking

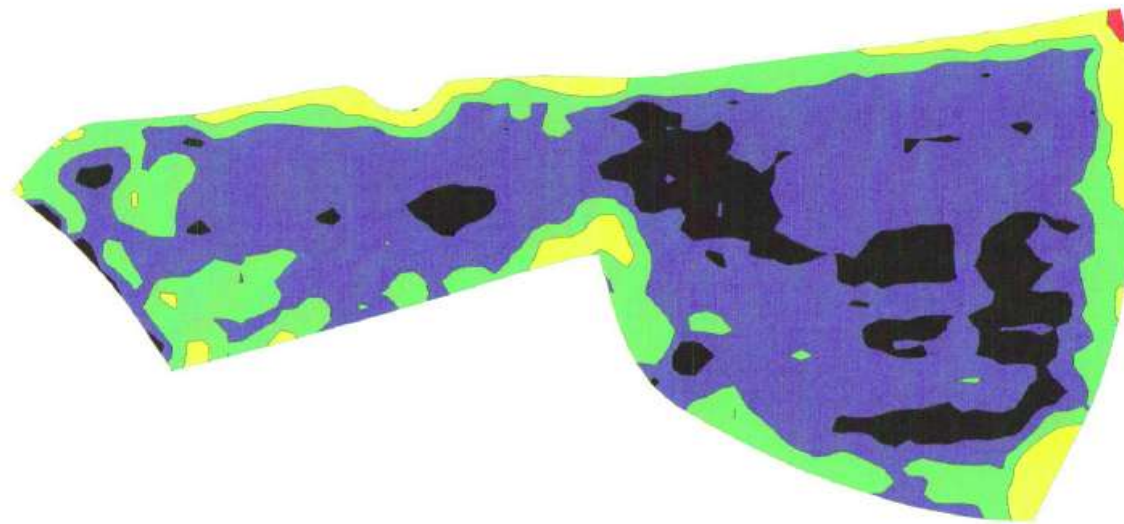
- Clear thinking
- All working from the same formula
- Cost of Production – influencing grain marketing decisions
- Cost of Production – 3 different ways on my desk all year!
- Progression of Joint Venture
- Get out what you put in! Spend the time on the figures and you will be rewarded

# Mark Wood, Hereford Monitor Farmer: making use of maps

Winter Wheat



200 m



# Identifying constraints

- Headland management
- Establishment techniques
- Cultivation techniques
- Soil condition - organic matter levels
- Varietal choice
- P & K nutrition and availability
- Seed rates
- Drainage
- Fertiliser spreading

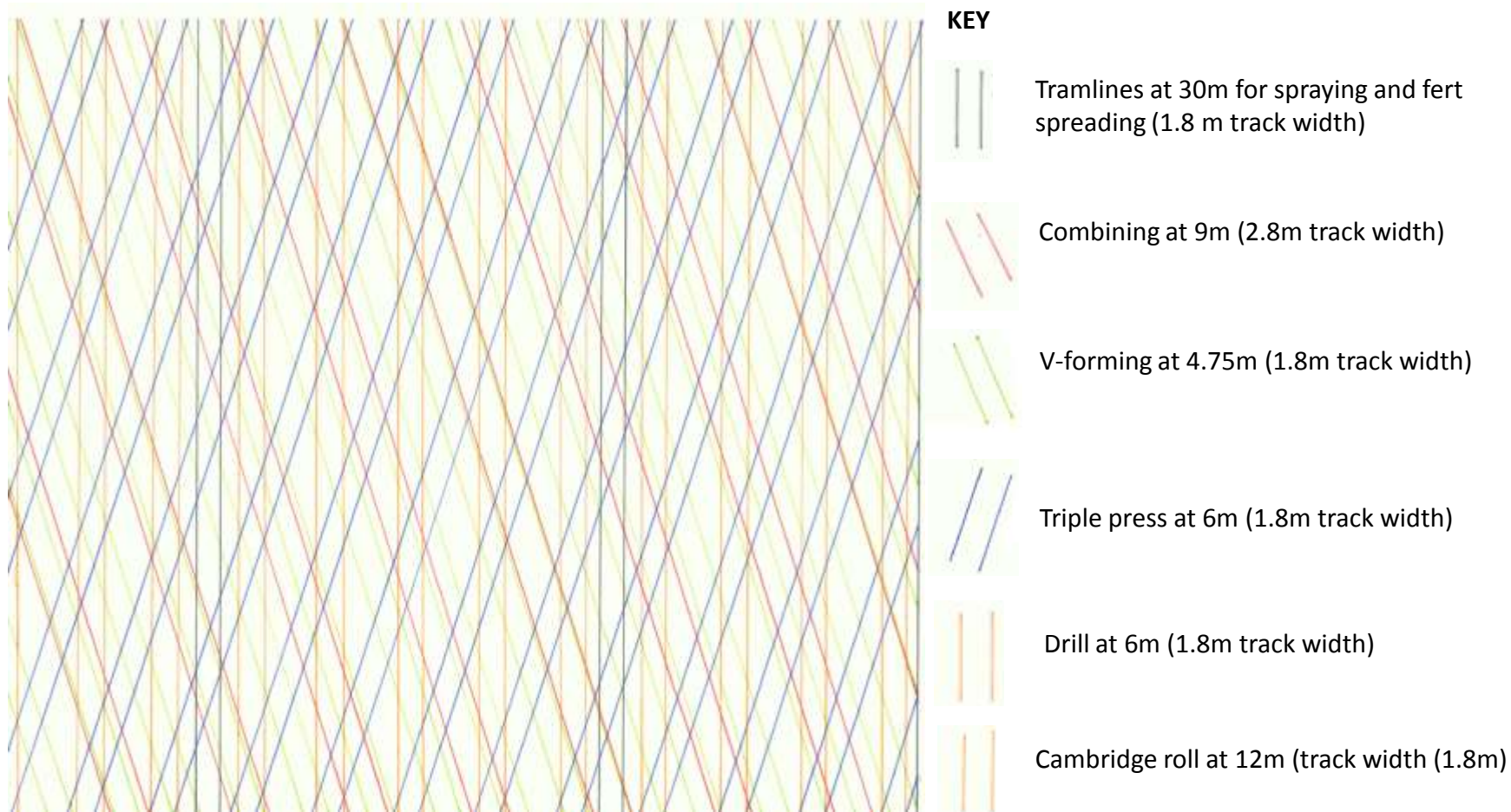


# Julian Gold, Wantage Monitor Farmer

Sustainable soil management and Controlled Traffic Farming



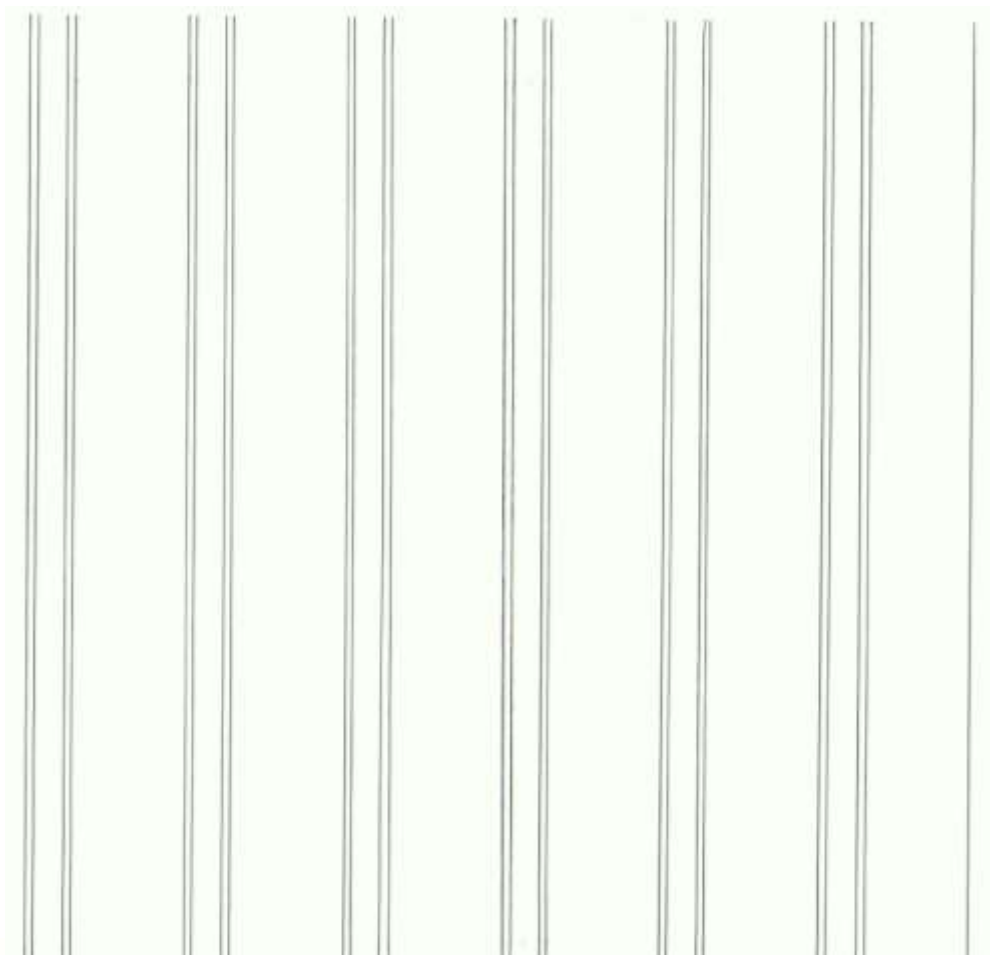
# Random Traffic



Previous system (grain carting not shown) trafficking approx 80% of the soil surface?



# Controlled Traffic



## KEY



Combining at 10m (2.8m track width)



Cultivating + drilling + rolling + subsoiling tramlines all at 10m (1.8m track width)

Spraying + fert at 30m (1.8m track width)

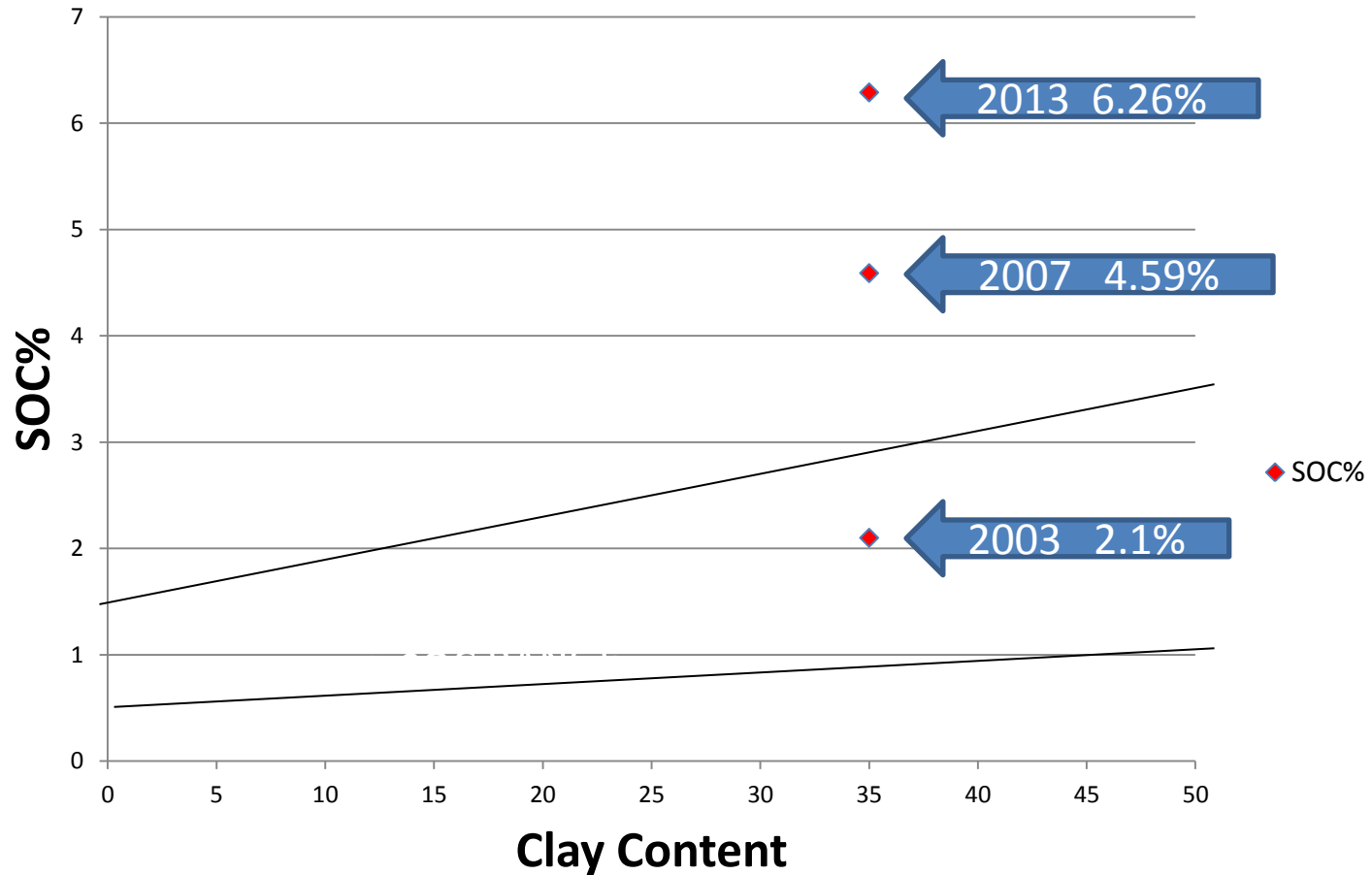
All machines operating at 10m width (combine on 2.6m track centres, all other machines on 2m track centres) Approx 20% of soil surface trafficked

Old system			CTF system		
V-Form	0.36	15	Subsoil CTF lanes	0.22	5
Triple press	0.25	9.38	10m cult	0.15	6.8
Camb roll	0.17	2	Camb roll	0.17	2
6m drill	0.26	9.74	10m drill	0.17	7.48
Camb roll	0.17	2	Camb roll	0.17	2
	<b>1.21 hrs/ha</b>	<b>38.12 l/ha</b>		<b>0.86 hrs/ha</b>	<b>23.28 l/ha</b>

**Savings** → 14.84 l/ha at 70p p/l = £10.39/ha (approx £10,390 over 1000 ha)  
0.33 hrs/ha (approx 333 hours over 1000 ha)

Costings based on subsoiling all CTF lanes every 10m in first year.  
Now system is up and running wheelway conditioning is only done when necessary.

# Soil Organic Carbon



# Thank you

