



ROTATIONS AND BREAK CROPS

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Irish Farmers Journal

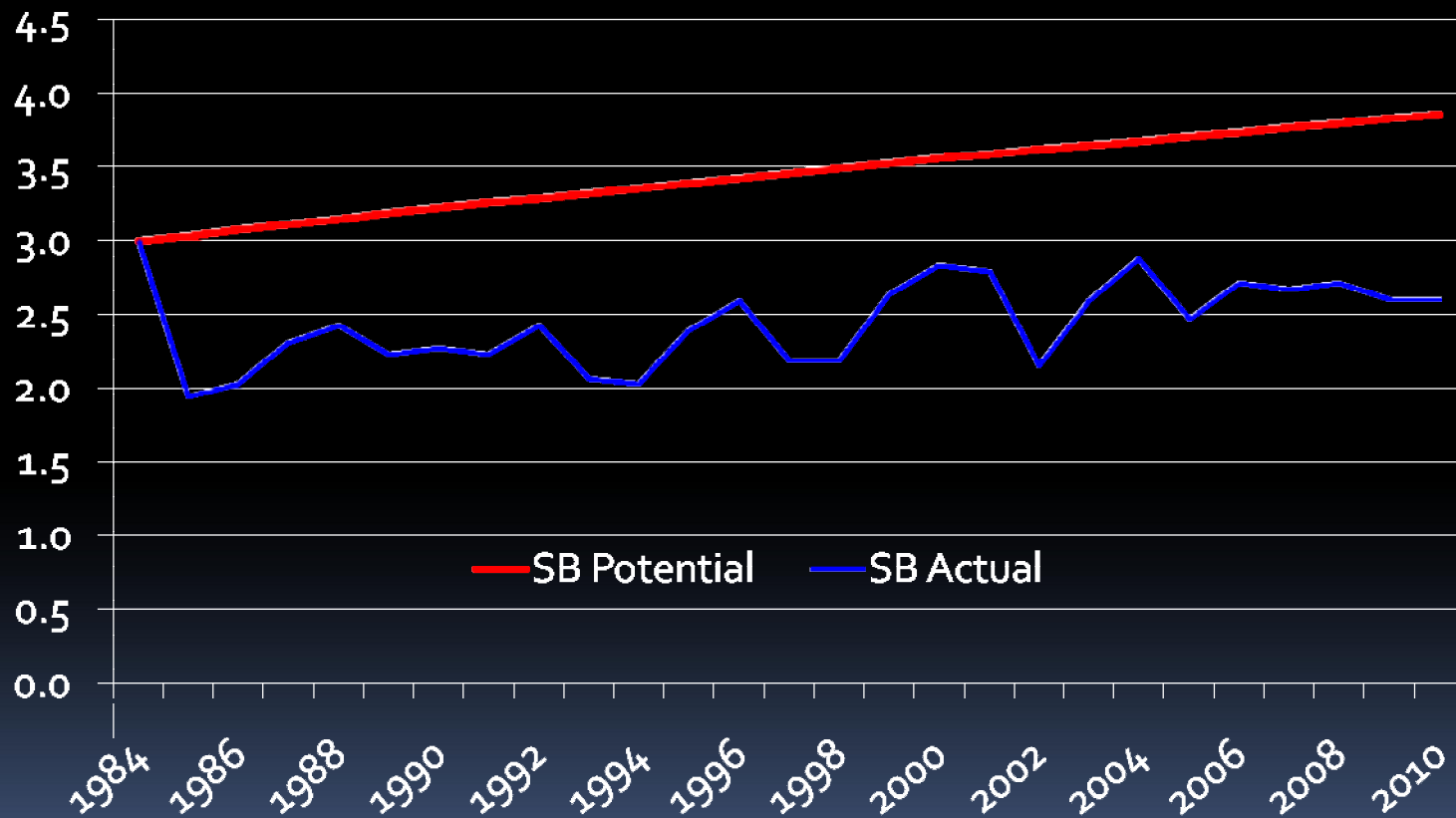
Rotations

- § Why rotation
- § What they do
- § Benefits and down sides
- § Crop options
- § Assessment

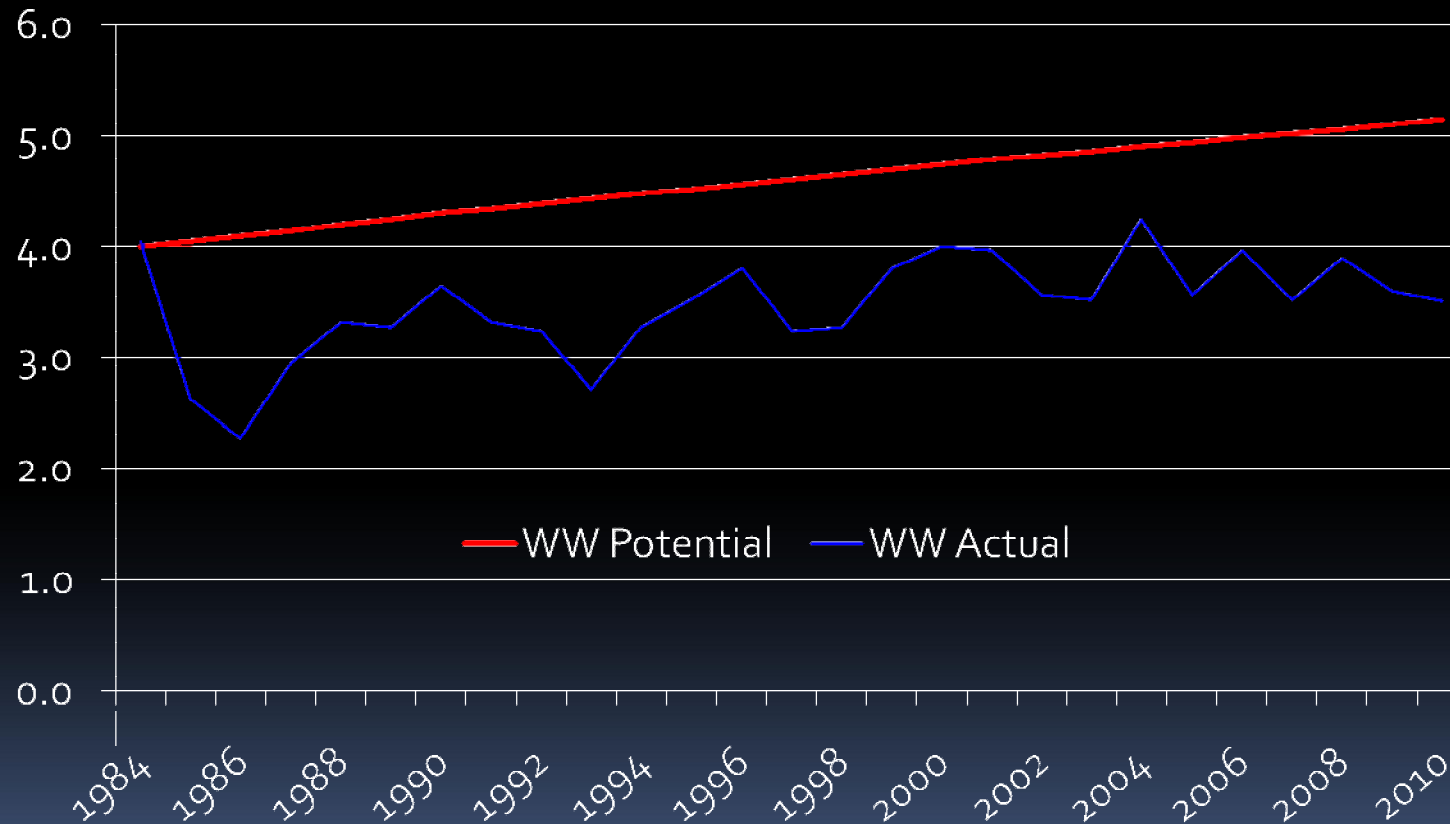
Why rotate

- § Tradition
- § Better for the soil
- § Higher yields – first wheats
- § Premium crops – certified seed
- § Time windows
- § Good farming

Spring barley yields 1984 – 2009 (t/ac)



Winter wheat yields 1984 – 2009 (t/ac)



What rotations do

§ Weed control

§ Spread cash flow

Range of harvest dates

§ Spread the work load

Winter / spring, combinable / root

§ Provide time windows for land maintenance

Drainage, stones

§ Allow alternative husbandry

Stubble cultivation



We use(d) rotations because...

§ Better for the soil

- Change of working times
- Change of root structures
- Residue returns
- Better for biology

§ Control pests and diseases

- Take-all, clubroot, eelworm, soil viruses

§ Weed control options

- Cultivation systems
- Mechanical weeding
- More chemistry avenues
- IPM



Rotations were / are good
farming

Benefits and down sides

§ Good for the soil, workload, cash flow, husbandry, time windows, etc.

§ There are also challenges:

Profitability

Scale

Labour

Mechanisation

Systems



Problems

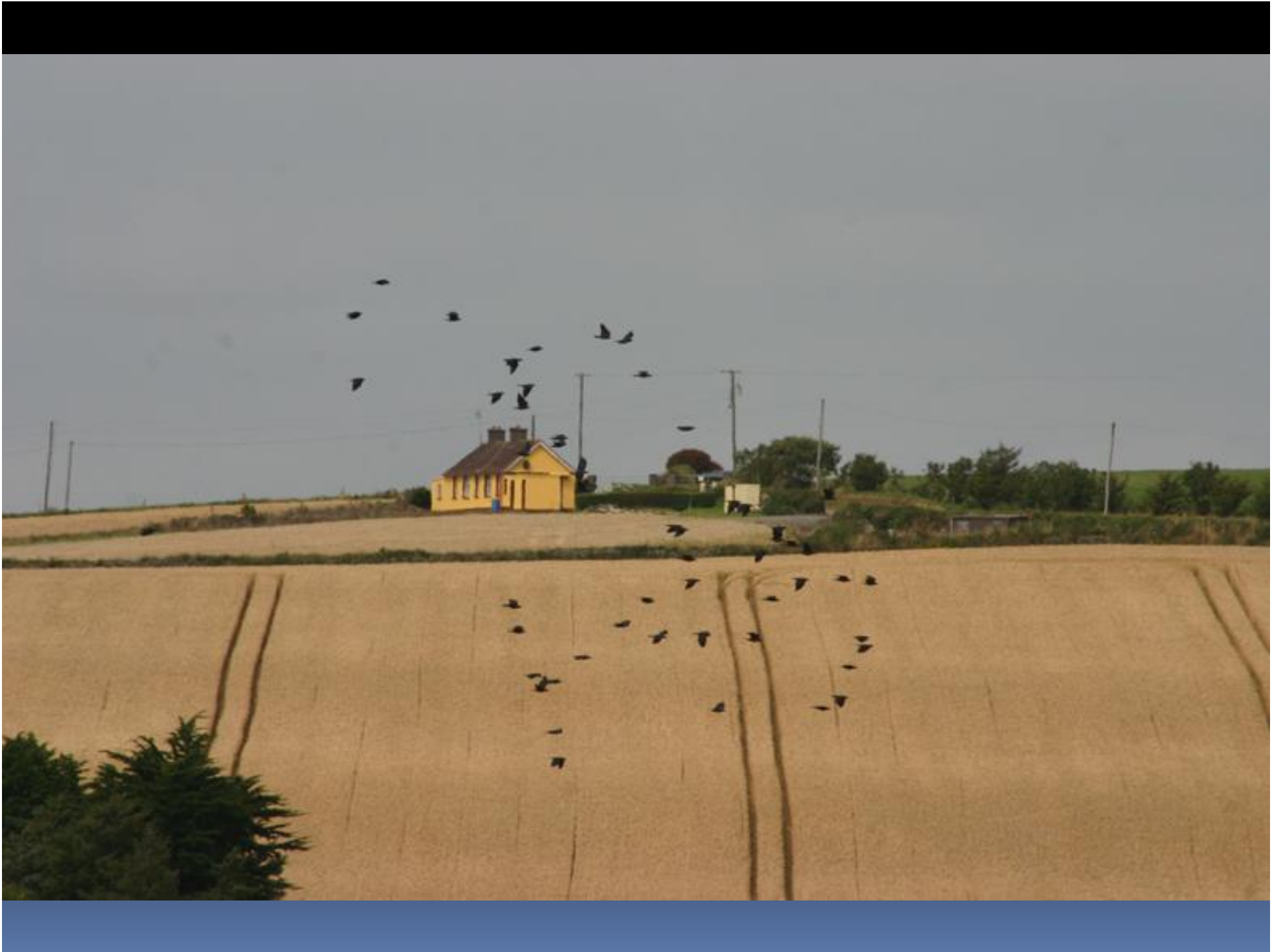
- § Weather challenges
- § Soil damage
- § Residual weeds
 - Volunteer rape
 - Potatoes
 - Weed beet
 - Charlock
- § Poor weed control tools
- § Completing the rotation

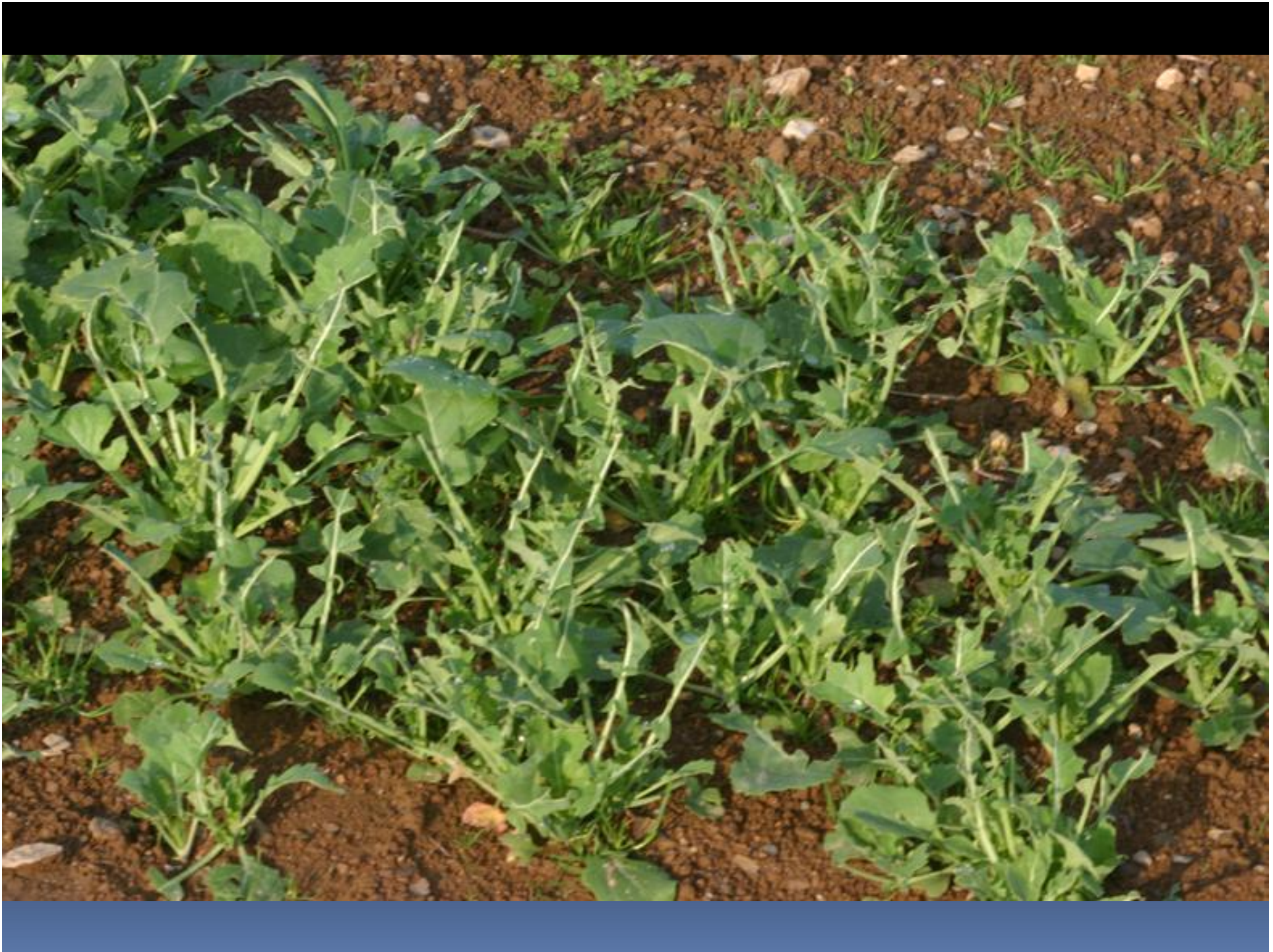












Crop options

Combinable

- § Oats
- § Oilseed rape
- § Beans
- § Peas
- § Linseed

'Root' crops

- § Potatoes
- § Fodder beet
- § Maize
- § Kale / Swedes

Grass



The system

§ Rotation

Continuous cereals

Higher yield first crops at lower cost

Must have profit in every crop

Use it wisely to get rid of problems for other crops

Residue return

Fertilizer requirement?

§ What break crops?

Oilseed rape / oats / potatoes / grass / maize? / proteins?

§ What combination?

Total management

Assessing rotations

- § Crop profitability
- § Benefit to workload
- § Knock-on benefit – First wheat or seed crop
- § Fertility benefit
- § Soil condition
- § Controlling difficult weeds
- § Mechanisation costs – down and up

To conclude

- § Rotations are a better way of farming but you must get a system that works
- § Know why you are rotating and what each crop brings
- § Use rotation to lower machinery costs
- § Have a 'Plan A' and 'Plan B' before you cease continuous wheat
- § Continue to assess change