

## **Integrated Pest Management with Richard Heady**

Wednesday March 27<sup>th</sup> – 18:30



# The positive impact of using IPM on my farm

@headysfarm

# Who am I?

- ▶ No IPM expert, just a mixed farmer from Buckinghamshire
- ▶ Transitioning to a conservation agriculture approach
- ▶ I use social media to explain what we are doing and why
- ▶ A Voluntary Initiative Champion



# Why do we have the Voluntary Initiative (VI)?

- ▶ To maintain the current high levels of training amongst pesticide users
- ▶ To maintain the current high levels of regular testing of key types of pesticide application equipment
- ▶ To ensure that pesticide pollution of water does not result in the UK failing to meet its objectives under the Water Framework Directive
- ▶ To encourage the uptake of Integrated Pest Management (IPM)

# What is IPM?

- ▶ IPM is the holistic use of all available plant protection methods and subsequent integration of appropriate measures to discourage the development of weed, pest and disease populations and keep the use of pesticide and other interventions to levels that are economically and ecologically justified and minimise risks to human health and the environment
- ▶ (based on the FAO and Sustainable Use Directive definition)

# Why is IPM important to me?

- ▶ To keep the current range of chemical tools we currently have
- ▶ To show that farmers are using chemicals with care, attention and due diligence
- ▶ To evidence environmental consideration for the public image of farming
- ▶ To reduce input costs and become more financially sustainable
- ▶ To improve my soils and farmed environment



to comfort her. "He always does. Now come along, everyone. We must get moving again." The animals hopped along through the endless rows of cabbages. Suddenly, a butterfly flitted past



spraying poison." "Run away! Run away!" squealed Weasel, sprinting off in a panic. "Come back, Weasel!" said Fox. "We must stick together. We can't all run fast enough to beat the tractor. Our only hope is to go back



Father Rabbit's nose. He sniffed at it, then sniffed longingly at a cabbage too. "These cabbages smell all right to me," he said. "Thiss butterfly iss sscrumpiousss," said Adder, snapping it up.

Father Rabbit opened his mouth to eat. "We must leave here, quickly!" said Fox, running up. "Oh Fox, you're safe!" said Vixen, and she nuzzled him happily. "Listen everyone," said Fox urgently. "There's a tractor coming, and it's



to the parts of the field that have been poisoned already. The tractor won't go there again."



"Go back through those silent fields?" wailed Father Rabbit. "Kee! Quick! Be quick!" called Kestrel. "Follow me! Now!" shouted Fox. The tractor was very close now, and the



poisonous mist was rapidly covering the field. A butterfly got caught in the spray and fell dead at once.



The animals ran as fast as they could, but Father Rabbit tripped. The tractor roared up beside him. He couldn't run away in time.

"I've been sprayed! I've been sprayed!" he squealed, staggering after the others. He reached them and collapsed. "Don't panic!" whimpered Mother Rabbit. "My poor husband..."

"He'll soon be fine, unless he dies of fright!" said Fox. "One spray of poison isn't strong enough to hurt a rabbit, but it will cause harm if you eat the crops."



Fox and Badger looked at each other over the heads of the other weary animals. "What now, Fox?" said Badger quietly. "We can't go all the way back through those awful fields," said Mother Rabbit.

"I'd never sssurvive," said Adder. "Ha ha! Good thing if you didn't!" laughed Weasel. Kestrel hovered overhead. "Kee! I've seen White Deer Park!" she called. "It's just beyond the town!" "Then we'll just have to go through the town," said Fox. "But it's d-dangerous!" stammered Mole. "There's no other way," said Fox. "Lead on, Toad. Our journey's nearly over."

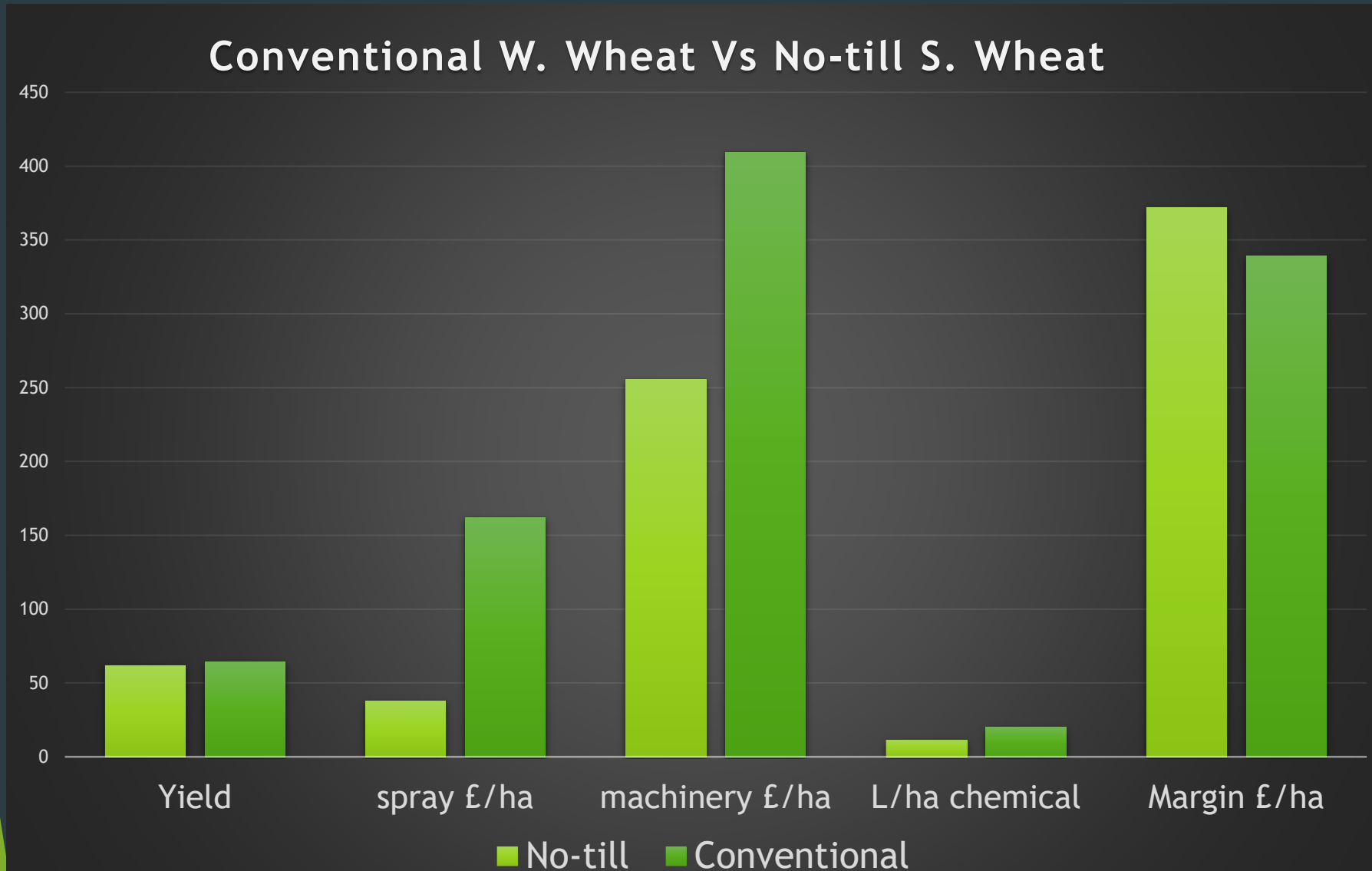
# What we are up against

“there’s a tractor coming, and it’s spraying poison”

“the poisonous mist was rapidly covering the field. A butterfly was caught in the spray and fell dead at once”

# IPM in practice

- ▶ Moving to no-till and more spring cropping





# So what IPM came into this?

- ▶ Spring cropping - less weed, pest and disease pressure
- ▶ Direct drilling
  - less weed seeds germinated - herbicide only used on headland
  - more beneficial weed growth i.e. oxeye daisy, field pansy encouraging beneficial insects
  - more interaction with mycorrhizal fungi?
  - moisture retention in dry spring
- ▶ Cover crop
  - drilling through cover = less compaction
  - improved soil structure and soil life
  - nutrient release
  - moisture retention in OM



# Farming Equipment and Technology Fund

- ▶ 3-6m direct drills 50% funding £15,067 (3m), £27,900 (6m)
- ▶ Air drill for establishing cover crops 60% funding = £3,150
- ▶ Stubble Rake 50% funding =£8,400
- ▶ Cover crop roller 3-6m 60% funding = £2929 (3m), £4,969 (6m)
- ▶ Inter row hoe 3-6m 60% funding = £10,818 (3m), £30,471 (6m)
- ▶ Closed transfer system for sprayers 60% £2,302
- ▶ Camera guided spot sprayer 24m 60% funding £27,600



## Current SFI Options to help IPM (and crop Margins)

- ▶ SAM2; Multi-species winter cover crops £129/ha
- ▶ SAM3 Herbal Leys £382/ha
- ▶ IPM1 Plan £989/year
- ▶ IPM2 Flower-rich grass margins, blocks or strips £673/ha
- ▶ IPM3 Companion Crop £55/ha
- ▶ IPM4 No use of Insecticide on arable crop £45/ha
- ▶ NUM1 Assess nutrient management and produce report £589/year
- ▶ NUM2 Legumes on improved grassland £102/ha
- ▶ NUM3 Legume fallow £593/ha
- ▶ AHL4 4-12m buffer strips £451/ha

# Legume fallow

## Issues

- One of our poorest fields- v heavy clay
- Bad blackgrass
- Very poor soil structure
- High inputs and still declining yields
- Negative gross margin

## Now

- £593/ha annually
- 0 fertiliser, 0 pesticides
- Red clover and Birdsfoot trefoil adding nutrients to soil
- Topped several times in year 1 & 3 = a lot of OM back into soil
- Lots of roots, and OM to encourage beetles and worms improving soil structure
- Teeming with pollinators
- Bee hives next door having bumper yields (more honey for us)
- Sell as silage in year 2 and 4
- Break pest, weed and disease cycles

# Companion cropping



# Thanks for listening

- ▶ I am no expert, but these are my experiences of IPM on our farm and I am learning more every day.
- ▶ Follow me @headysfarm on Facebook, X or Instagram to see how I am getting on, laugh at and learn from my failures, and hopefully build a healthier more resilient farm in the process

Cheers!



# Farming Advice Service

The logo for the Farming Advice Service, featuring the text "Farming Advice Service" in a green serif font, with "Farming" on the top line and "Advice Service" on the bottom line, all contained within a white speech bubble shape.

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