

# Basingstoke Monitor Farm meeting report

Sustainable agriculture and integrated pest management

Date: 27 November 2018

Location: Longmeadow Sports and Social Club, Whitchurch, RG28 7RB

For more information, visit: [cereals.ahdb.org.uk/basingstoke](http://cereals.ahdb.org.uk/basingstoke)



## Key messages

1. Have a rotation plan, but be prepared to change.
2. There is no single solution to weed, pest and disease control; you have to have diversity in cropping and within cropping to disrupt lifecycles and build beneficials.
3. Think about the field, the farm and the landscape.

## Sustainable agriculture

There is a need to optimise inputs, improve productivity, reduce impact and increase public good. We need to produce more and impact less. This is a challenge for a lot of industries, not just agriculture.

Agriculture's contribution to the national economy is growing. But there are pressures on farming and farming businesses, including but not limited to the weather, prices, costs, training, disease and regulation.

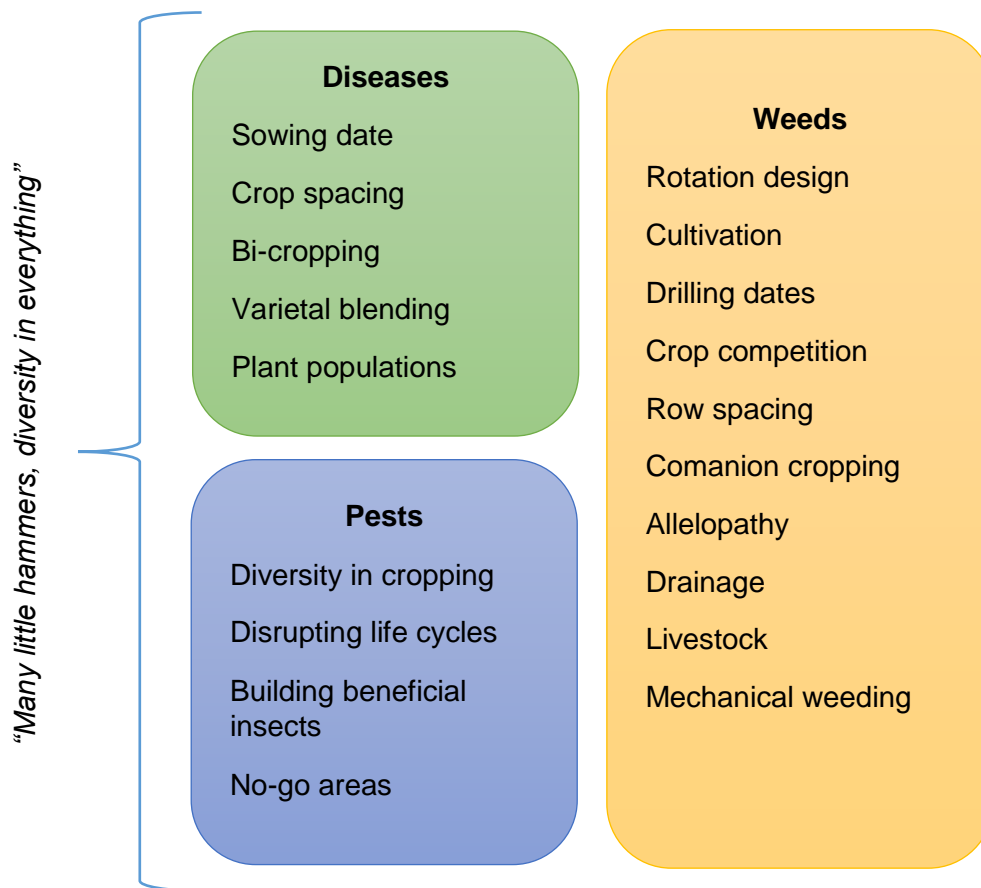
There is also the water challenge. Agriculture uses 2% of total water, and relies on rain, mains water and abstraction. Water availability is particularly vulnerable to climate change, and causes conflicts at times of scarcity. In a well adapted system, farmers:

- Invest in water and energy efficiency technology
- Apply field mapping and precision techniques
- Improve water saving and storage practices
- Invest in better drainage
- Work collaboratively

To achieve sustainable agricultural production we need to balance the environment, volatility and productivity. We need to ensure safe, sufficient and nutritious diet to a global population which could reach 9 billion by 2050. 70,000 different pest species damage agricultural crops, and a reduced number of effective products are available.

In 1999, John Pawsey began a conversion trial to organic production. A further 65 hectares were converted in 2000, and the rest of the farm was converted in addition to contract farms. John farms a 6 year rotation

including 2 years grass/ clover ley, winter wheat, winter spelt, spring quinoa, spring oats, spring barley, triticale, beans and peas. John also runs a flock of New Zealand Romneys – an easy care breed requiring low management input.



## Integrated pest management

Integrated pest management (IPM) is *“the use of all available plant protection methods, the integration of appropriate measures to discourage the development of weed, pest and disease populations, keeping the use of pesticides and other interventions to levels that are economically justified, and minimising the risks to human health and the environment.”*

Pesticides are important to:

- Maximize yields
- Minimize losses and food waste
- Reduce damage/ rejects
- Reduce labour costs
- 25-75% of crop production would be lost if no pesticide were used.

Integrated pest management should include:

- Rotations
- Cultural controls
- Resistant varieties
- Biological controls/ natural predators
- Site choice
- Altitude
- Bait plants

## Stewardship programmes



## Making unproductive land work for the farm business

Land that was marginal or unproductive when put into an agreement will cost time and money to put into production. Keep what you have got – it was unproductive when you put it into stewardship, so question whether you should spend money and time to make it productive. The field margins and awkward field corners you may have had in ELS can benefit water quality and wildlife.

## Achieving Sustainable Agricultural Systems (ASSIST)

The aim of the ASSIST project is to develop and test innovative farming systems that increase food production and resilience to future perturbations, while reducing the environmental footprint of agriculture.

- ASSIST is a 5+ year £11M National Capability\* research programme that unites expertise from NERC and BBSRC institutes, with integral support from the farming industry
- Develop a large-scale network of study farms & new sensor networks to undertake hypothesis-driven experimentation

- Provide data, models, web portal, infrastructure & opportunities for complementary research programmes & Horizon topics

More information on the ASSIST project is available [online](#).

## Find out more – Links to AHDB information sheets or research


- [Livestock and the arable rotation](#). This guide covers the extensive opportunities available, including the grazing of arable land, growing crops for silage or hay and arranging muck-for-straw deals.
- Read the Royston Monitor Farm meeting [report](#) on making the most of environmental stewardship and using areas of your farm that you want to develop or improve.
- AHDB Cereals & Oilseeds has a range of [publications and tools](#) to assist with environmental stewardship.

## Further information

Winter meetings will take place at 10 am at Whitchurch Sports and Social Club and finish with lunch at 13:30

- 16 January 2019 – Collaboration ventures
- 27 February 2019 – Drilling into your fixed costs to sow a profit

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