LIVING WITH IPM AN INDEPENDENT AGRONOMISTS PERSPECTIVE

PATRICK STEPHENSON AICC
WHY DOES IT MATTER?
CURRENT SITUATION

• Every recommendation I currently make carries no economic benefit to me personally
• A distributor agronomist has a financial gain from every product he recommends
• Both scenarios do not reflect the level of advice or the use of IPM
• The French Government of proposed only the first option should be used in food production
• The first discussions have started in the UK for this scenario
EACH SPRAY RECOMMENDATION MADE IS A PARTIAL BUDGET

- \( C = \) cost of control
- \( V = \) value of the commodity
- \( I = \) injury (e.g. defoliation or damaged fruit) based on a given density of insects/disease
- \( D = \) economic damage (e.g. kilos lost or quality discount) caused by a given level of injury
- \( K = \) proportion of reduction in injury resulting from a control measure (usually the proportion of the insect population that is killed, or “percent control”)

- Economic Injury Level = \( \frac{C}{V \cdot D \cdot I \cdot K} \)
WHEN IT'S AS CHEAP AS CHIPS
WHAT IPM DO I CURRENTLY USE TO HELP MY DECISION MAKING PROCESS?

Be decisive.
Right or wrong, make a decision.
The road of life is paved with flat squirrels who couldn’t make a decision.
Rothamsted aphid trapping

York - Rhopalosiphum padi

- Mean (2008-2017)
- 2017
- 2018

Number of Aphids (on log scale)

01 Jan, 15 Jan, 29 Jan, 12 Feb, 26 Feb, 12 Mar, 26 Mar, 09 Apr, 03 Apr, 01 May, 25 May, 08 Jun, 02 Jun, 16 Jul, 31 Jul, 14 Aug, 28 Aug, 11 Sep, 25 Sep, 09 Oct, 03 Nov, 17 Dec
Bruchid cast
SCLEROTINIA MONITORING
### NIAB/AHDB Recommended Lists

#### BASED ON RL unbalanced Yield response

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<thead>
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<td>KWS Extase</td>
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- KWS Kerrin
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LIGHT LEAF SPOT
CROPMONITOR

Oilseed rape - Light leaf spot

National summary report

Light leaf spot was first detected within the monitoring network during the week beginning 8 October 2018 at the following locations: ACAS Tarrington, Blandford. Light leaf spot has now been detected at 24% of the sites. To date, during the current season, the overall highest mean severity of 0.60% leaf area affected was observed at growth stage 1/6 at Stokesley on cultivar Nickita with resistance rating 7. The current mean light leaf spot severities as observed within the monitoring network are 0% leaf area affected in the North, 0% leaf area affected in the East, 0% leaf area affected in the South and 0% leaf area affected in the West.

Real time monitoring on CHAP network for Stokesley site

Distance between weather station and closest monitoring site: 32 Kms

**Cultivar resistance ratings for light leaf spot affecting oilseed rape**

<table>
<thead>
<tr>
<th>Cultivar</th>
<th>Resistance rating</th>
<th>Resistance rating group</th>
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<tr>
<td>Elevation</td>
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<td>Moderately susceptible (RR 5-6)</td>
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<tr>
<td>V3150L</td>
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<td>Alcor</td>
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<td>Resistant (RR 7-8)</td>
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<tr>
<td>Nickita</td>
<td>7</td>
<td>Resistant (RR 7-8)</td>
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**Percentage of plants with leaves affected by light leaf spot**
WE PRACTICE IPM WIDELY ALTHOUGH THIS HAS BEEN FROM A CHEMICAL BASE
THE FUTURE

Mavrx Imaging Network
Crop & Weeds
IS THIS IPM?
Drone flight with a high resolution image every acre.

Plant populations, early weed detection, insect and disease detection.

AT A PRICE

On-Demand Grid Imagery
IN REALITY WHERE ARE WE?

BRAVE NEW WORLD
ALDOUS HUXLEY
WHAT DO I THINK WILL SURVIVE THE PEAK OF INFLATED EXPECTATIONS?

• Disease prediction platforms
• Bio stimulants
• Agro-chemicals
• High Input farming
• Bi-Cropping
THERE IS NO TOMORROW WITHOUT IPM

• Diminishing portfolio of products
• Increasing resistance
• Public acceptability
• Government accountability
If you can dream it, you can do it. Best wishes for your bright future.