

# **Disease Challenges in High Value Crops: The Manufacturer's View**

Alan Horgan  
Technical Specialist

# Open Only in an Emergency?

---



Ever tighter restrictions on use...a challenge for our industry

# High Value Crops

- Definition
  - Harvested by non-combinable equipment
  - Soft/top fruit
  - Ornamentals (forestry nurseries)
  - Leafy/fruitleting salad crops
  - Protected potatoes
  - Early/late vegetable production



# Why do we need High Value Crops?

---

- Varied diet/food security
- Economic:
  - Employment
  - Import substitution
- Plant diversity



# Challenges

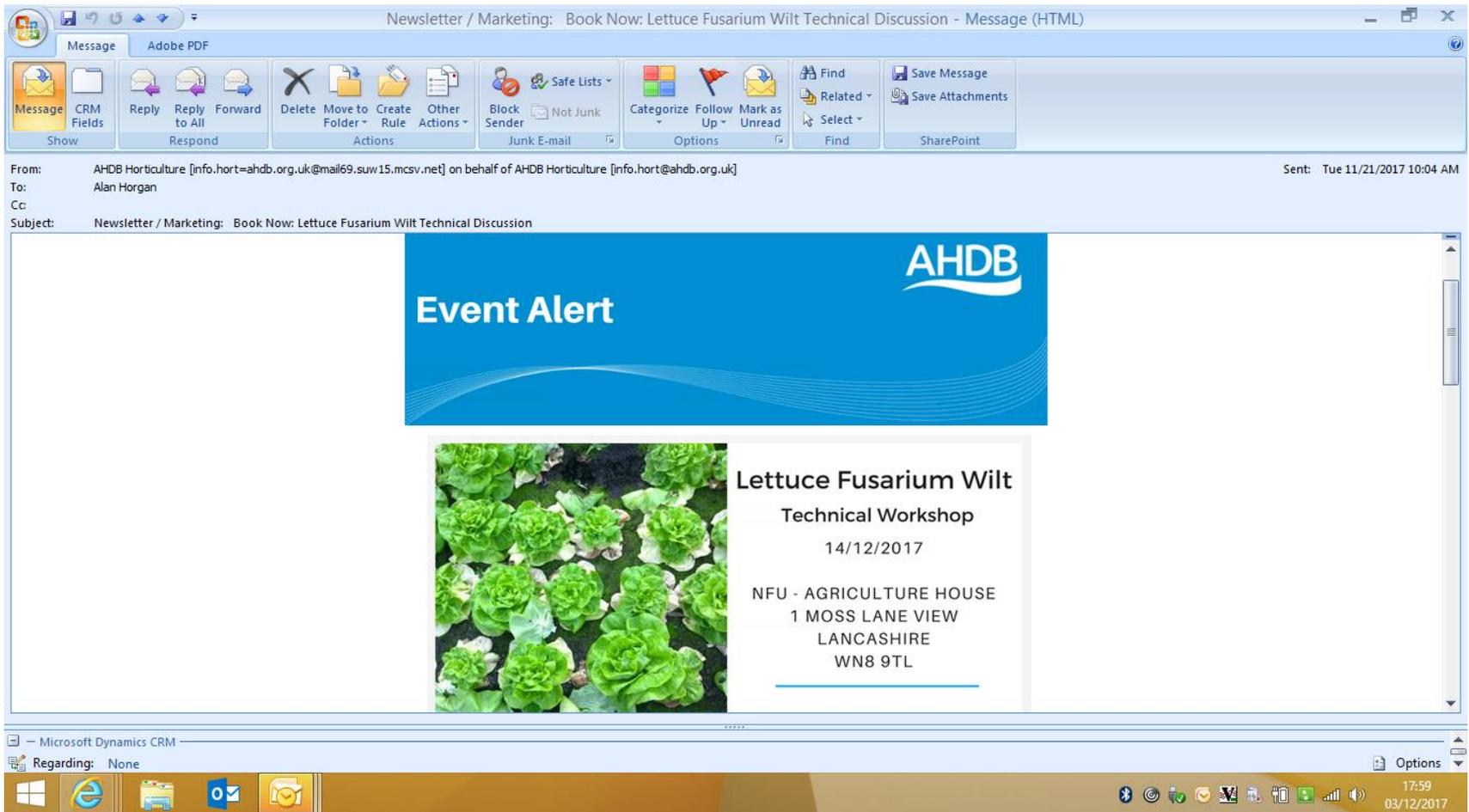
---

- Resistance
- Crop Safety
- Registration
- Future weather patterns
- Engineering developments
- Political/NGO pressures
- Range of varieties/new crops
- Changes in growing practices

# Targets Evolving

The screenshot shows a Microsoft Internet Explorer browser window displaying the AHDB Horticulture website. The address bar shows the URL <https://horticulture.ahdb.org.uk/news-item/resistant-diamondback-moths-now-capable-of-surviving-winter>. The website header features the AHDB Horticulture logo and navigation tabs for BEEF & LAMB, DAIRY, PORK, CEREALS, and POTATOES. Below the header is a search bar, a Twitter follow button, and 'Register or Login' links. A secondary navigation bar includes links for HOME, ABOUT US, MEMBERS, RESOURCE MANAGEMENT, CROP PROTECTION, LABOUR, KNOWLEDGE HUB, EVENTS, and CONTACT. A third navigation bar lists various crop categories: Protected Edibles, Field Vegetables, Bulbs & Outdoor Flowers, Mushrooms, Soft Fruit, Hardy Nursery Stock, Tree Fruit, Protected Ornamentals, and Cross Sector. The breadcrumb trail reads: LOCATION HOME > KNOWLEDGE HUB > NEWS > RESISTANT DIAMONDBACK MOTHS NOW CAPABLE OF SURVIVING WINTER. The main content area features a news article titled 'Resistant diamondback moths now capable of surviving winter' dated 21/11/2017 at 16:21. The article text states: 'A 'super pest' moth resistant to a class of common plant protection is now also capable of surviving through the UK's cold winter conditions, according to new research.' Below the text is a photograph of a leaf with significant damage from diamondback moth caterpillars. To the right of the photo, the text reads: 'Diamondback moth (DBM) caterpillars feed on crops including cabbage, broccoli, swedes and Brussels sprouts, causing cosmetic damage, which could result in the loss of up to 100 per cent of the crop. Brassicas were worth more than £200m to UK agriculture last year.' The left sidebar contains a 'Publications' menu with items like 'Sign up to Horticulture News', 'Horticulture News - October 2017', 'Horticulture News - September 2017', 'Press office contacts', 'Video hub', 'Interactive tools', and 'EAMU information'. The Windows taskbar at the bottom shows the system clock at 17:56 on 03/12/2017.

# Target Evolving



And of course interlopers eg Xylela (Bacteria) – potential threat on oak.



# Registration Challenges

---

- Return on investment (ROI)
  - Increasing costs (environmental impact)
  - Increasing time scales (& national differences)
  - Market size
- Data generation costs: “\$250 million” new active
- Preliminary meeting: £5200 (expensive for minor crop)
- Risk versus hazard classification
- Crop hierarchies – groupings/residue (LODs)
- Move from conventional chemistry to biorationals
  - Best practice/expectations
  - Definition of control/reduction/suppression - variable

# Registration Challenges(2)

---

- Substitution
- Parallel Imports – disincentive to invest



# Future Challenges

---

- New competitor products
- Revocations
- Crop changes
  - Weather related
  - Lack of resources
  - New crops/varieties
- Political/public views
- Work force skills
- BREXIT...what's the deal!

# 21<sup>st</sup> Century Effects

- Advancement in computational processes
  - ‘singularity’
  - Modelling
- Robotics
- Genetics
- Point application
- Planning timelines



# Certis' Solutions Today

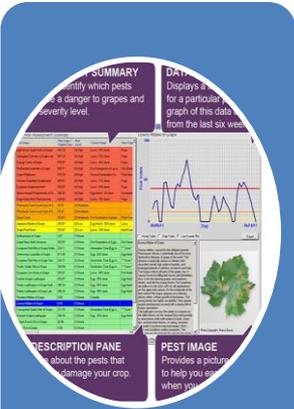
---

- Biorationals/Organic Acceptance
  - Botanigard
  - Agree 50
  - Amylo-X
  - Majestik/Eradicoat
  - Spruzit
  - Karma
  - Jet 5
- Best practice guidance
- Certis stewardship support

# Full Potential - How?



# Broad Approach Required



**Monitoring**



**Application**



**Anti-resistance strategies**

Compatibility	Medium - Less days between applications	Low
Zeneca	Prev Magnum	Codacide*
AQ10	Previcar Energy	Collis
Azoxin	Prolectus	Fungazil
Fado	Basilex	Rocket
Fenomenal	Rovral WG	Spruzit
Frupica SC	Scala	Sulphur
Hicure	Serenade ASO	Takumi SC
Karma	Silwet-L77	Bumper 250
Majestik	Subdue	Topas
Metatox	Sulphur	
Neel	Teldor	
	Cercobin WG	
	Quando	

**ICM/IPM**



**Managing expectations**



**Stewardship**

**Sustainability**

# Thanks for your attention

---

- Alan Horgan
- Technical Specialist
- [horgan@certiseurope.com](mailto:horgan@certiseurope.com)
- Mobile 079 00 276 385
- **Technical Hotline Service: 0845 373 0305**

