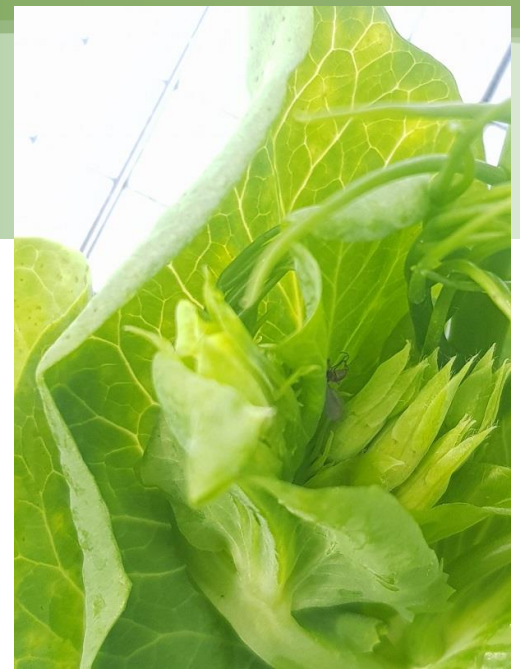
Pulse IPM update

Becky Howard

IPM/ ICM update for pulses

Monitoring and forecasting pea midge 2021-2022

- Four traps per system placed in previous years pea field (cereals?) by end of May
- Check traps 3 times each week
- Threshold is an average of 500 midges per trap
- Susceptible crops are those at enclosed bud



THE GREEN PEA COMPANY

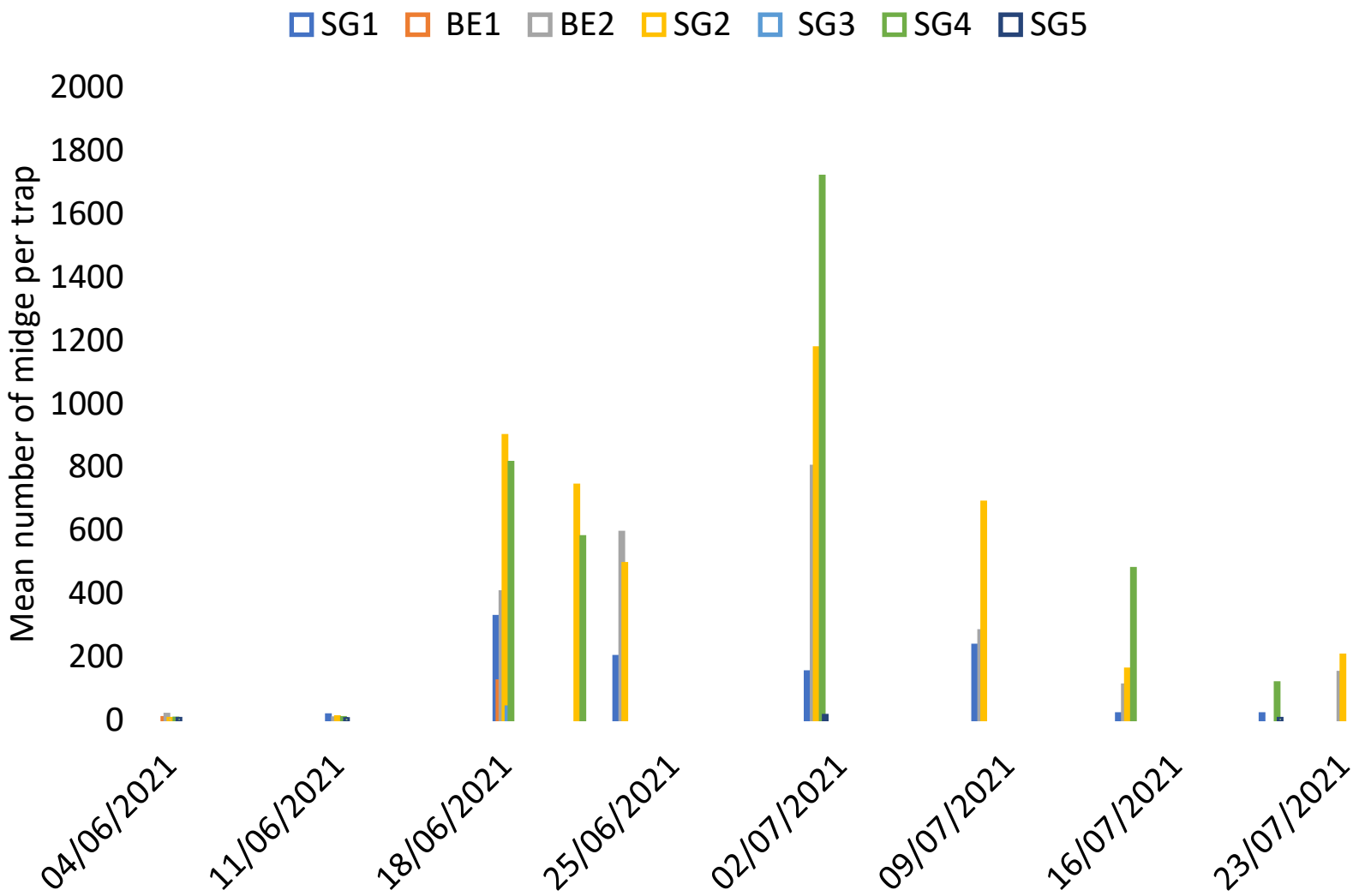
Swaythorpe GROWERS LTD.

UKRI Innovate UK

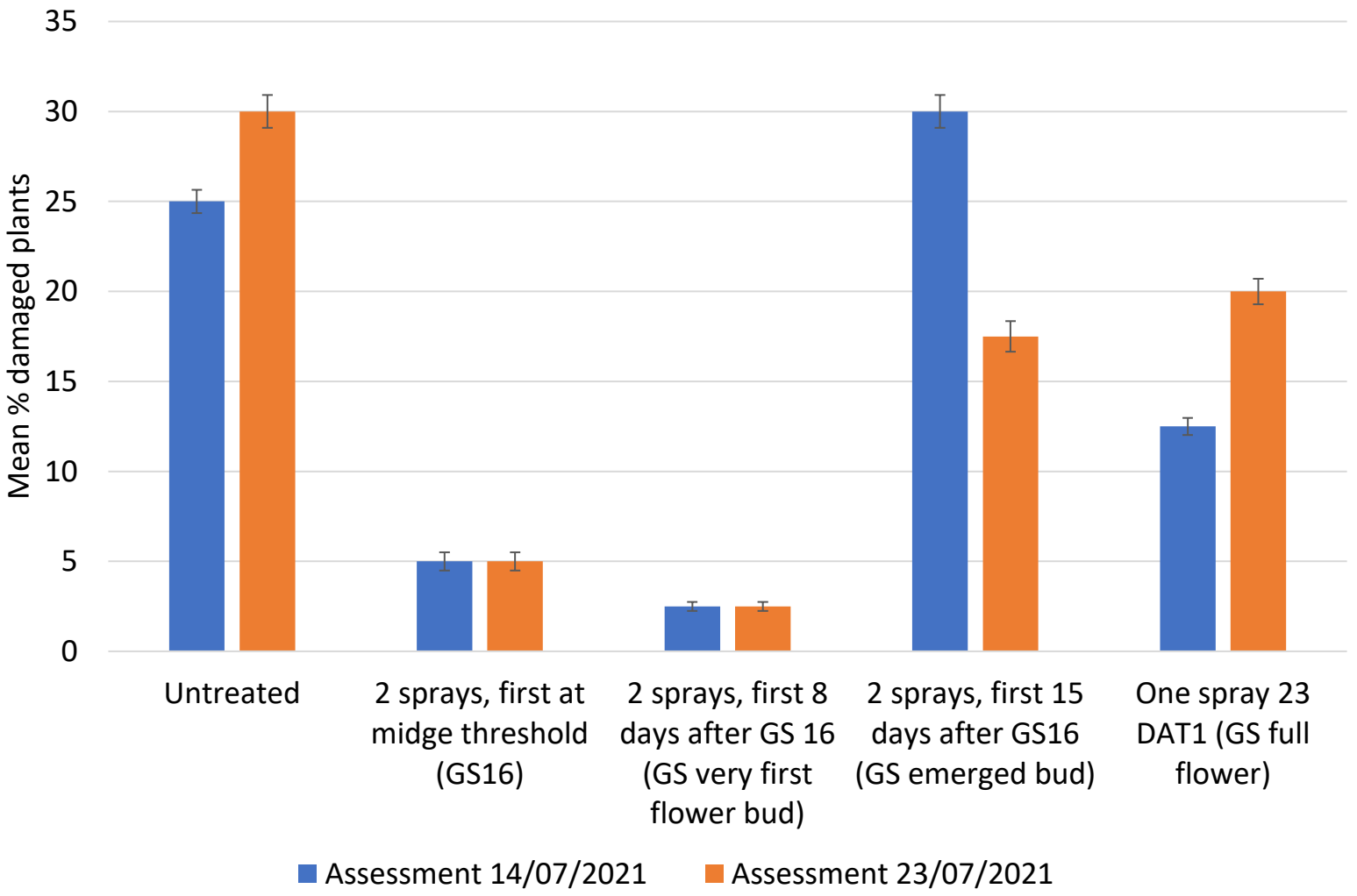
PheroSyn

Koppert

Adult activity in 2021



Management



- Ensure that pea crops are not too close to previous years crops
- Practice large-scale rotation with neighbours if possible
- Threshold 500 midges per trap
- Apply insecticides at enclosed bud stage if threshold reached

Monitoring and forecasting pea and bean weevil

- Five traps per system placed in field margins of previous years legumes by mid-February
- If you haven't grown legumes before, place them in the margins of the current crop
- Check traps 3 times each week
- Threshold is average 30 weevils per trap
- Susceptible crops are those that have emerged in the last 10 days, or will emerge in the next 10 days

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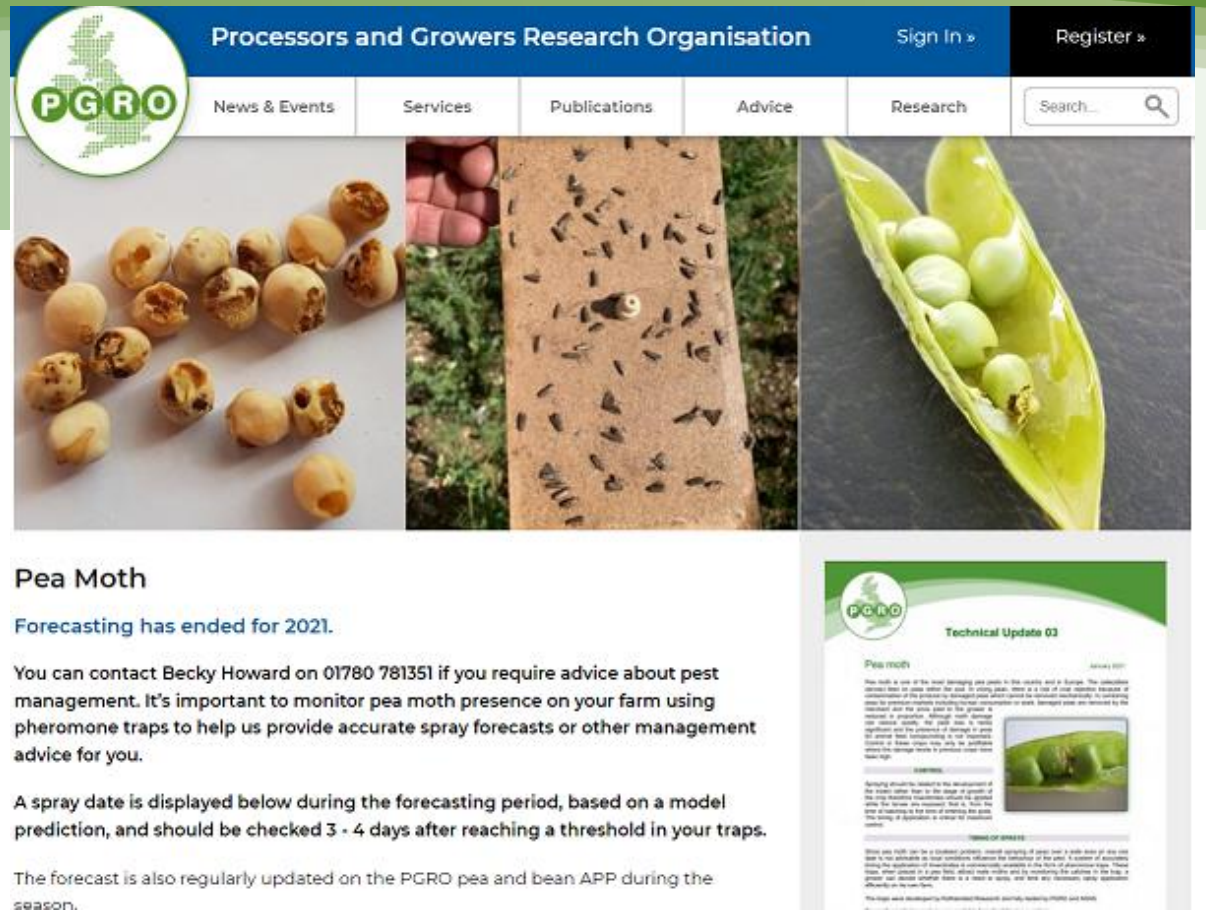
Monitoring and forecasting pea moth



www.pgro.org/pea-moth/

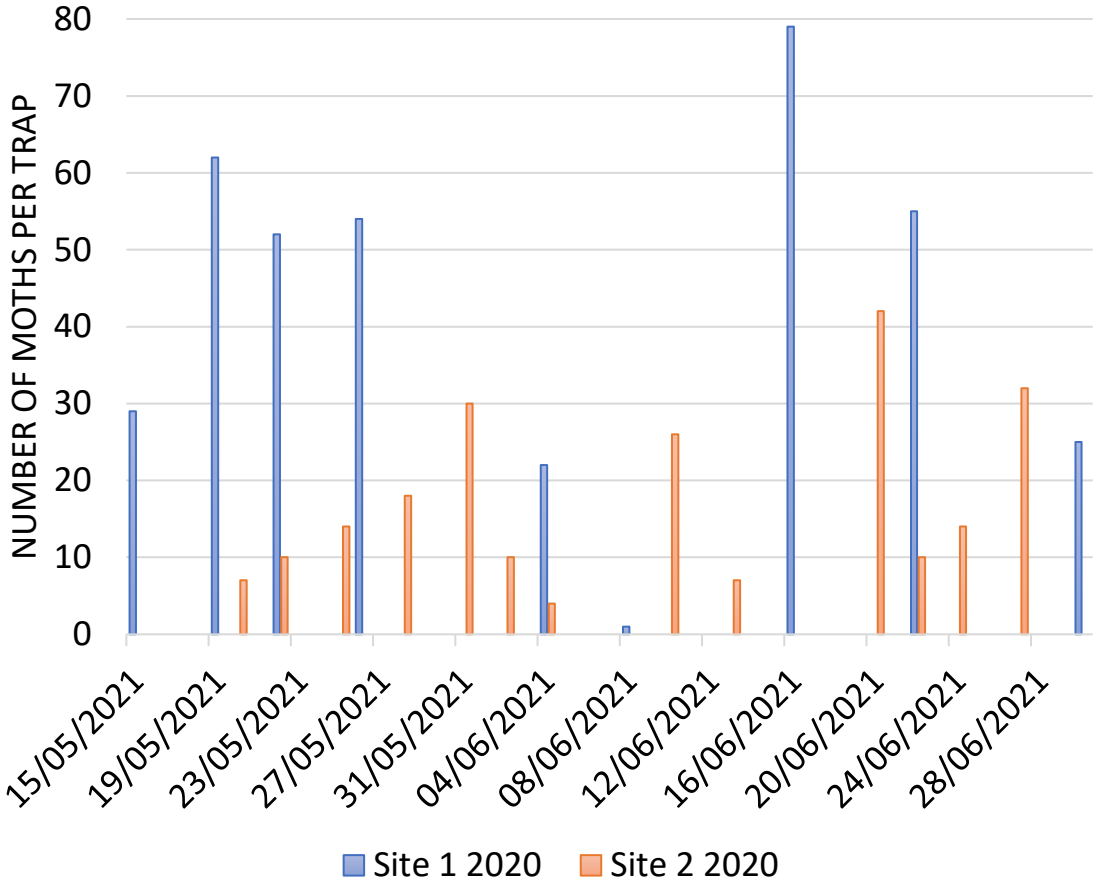
- One trap system per 50ha block of peas, placed in early May
- Threshold is 10 moths recorded on two consecutive occasions for combining peas
- Spray date is predicted by the PGRO model and available for all regions on the website

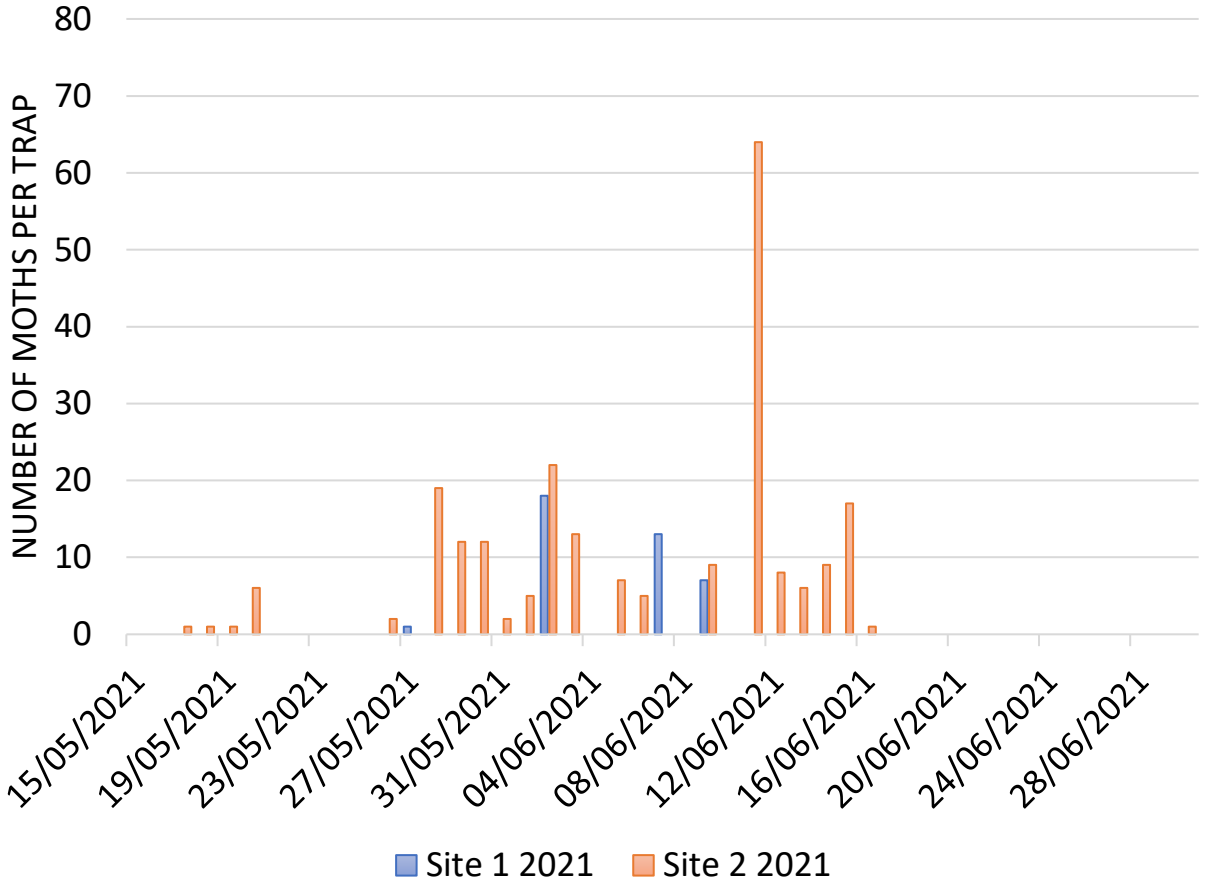
Koppert

Andermatt UK

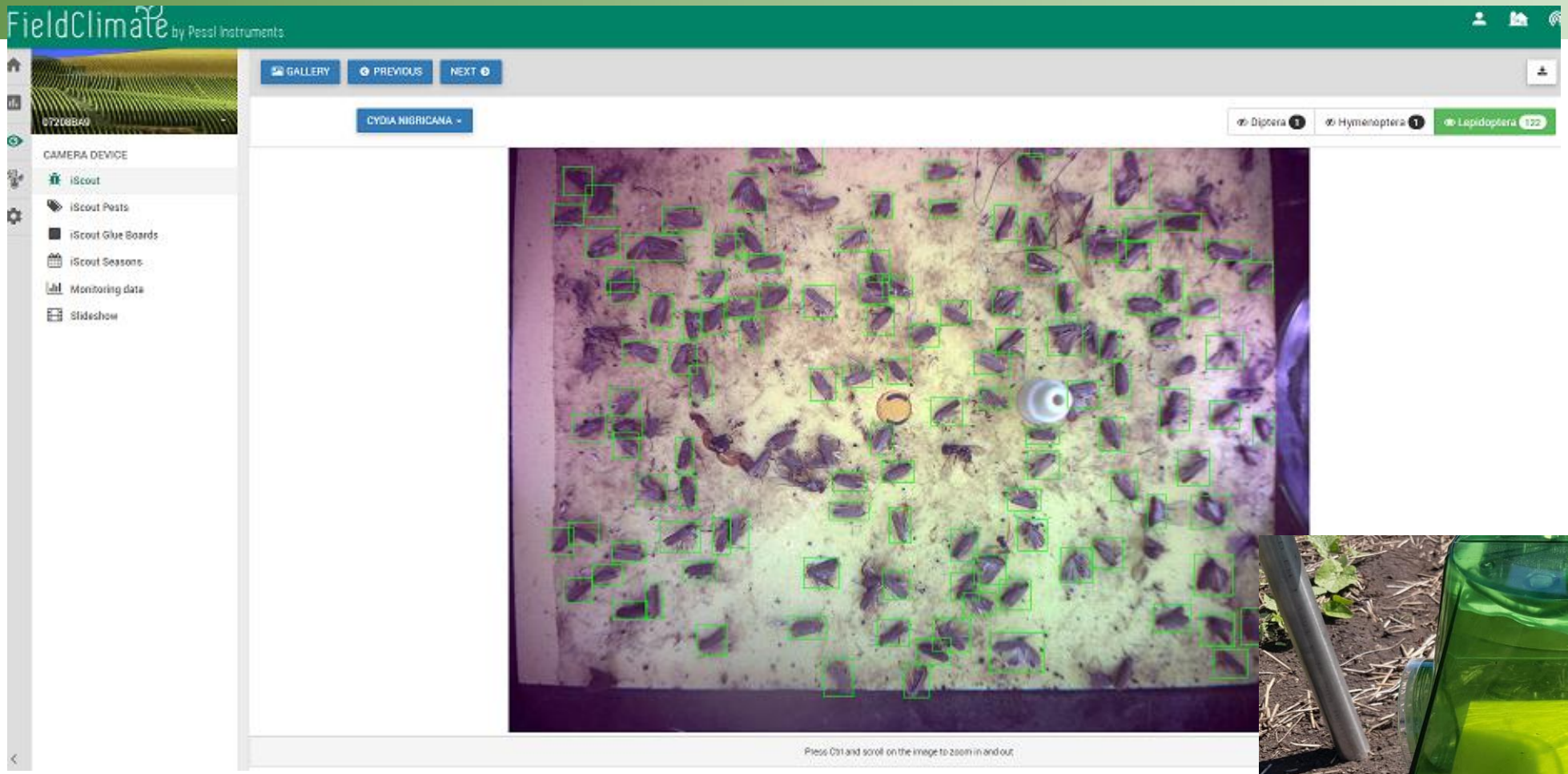
dragonfli

Pea moth activity 2020 and 2021

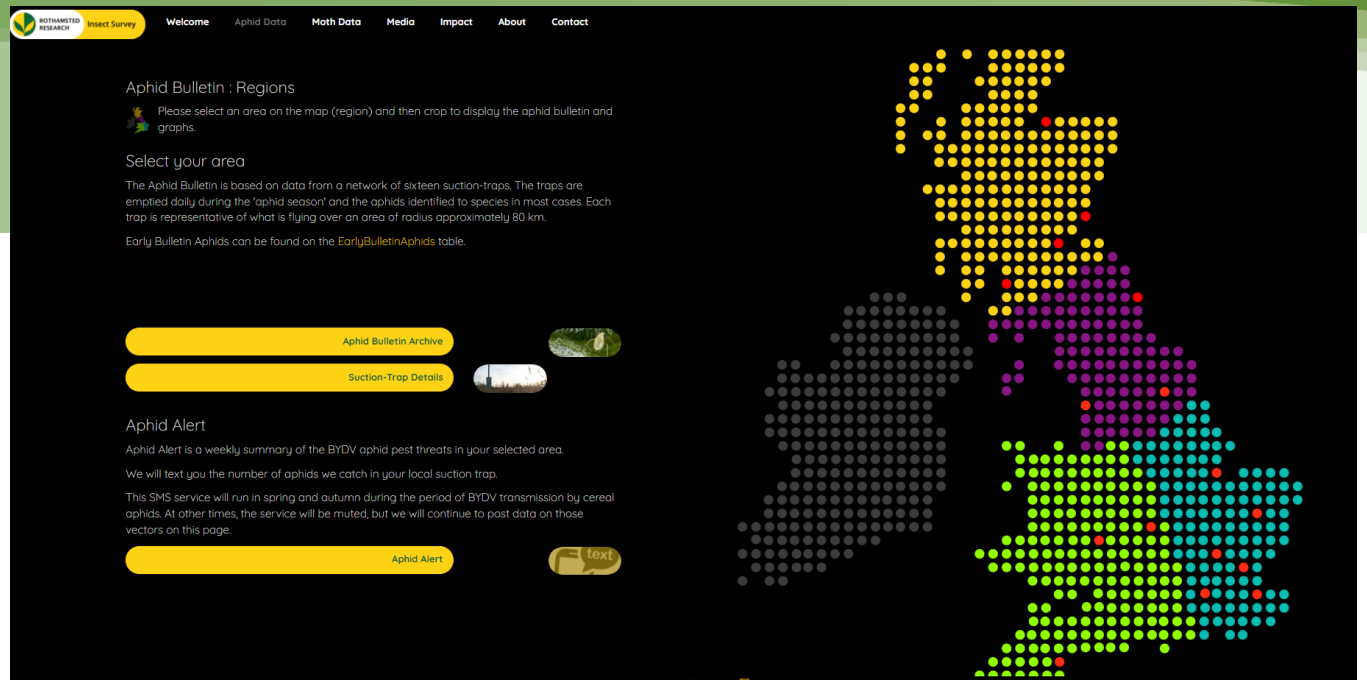




Automatic camera trap



Aphid monitoring



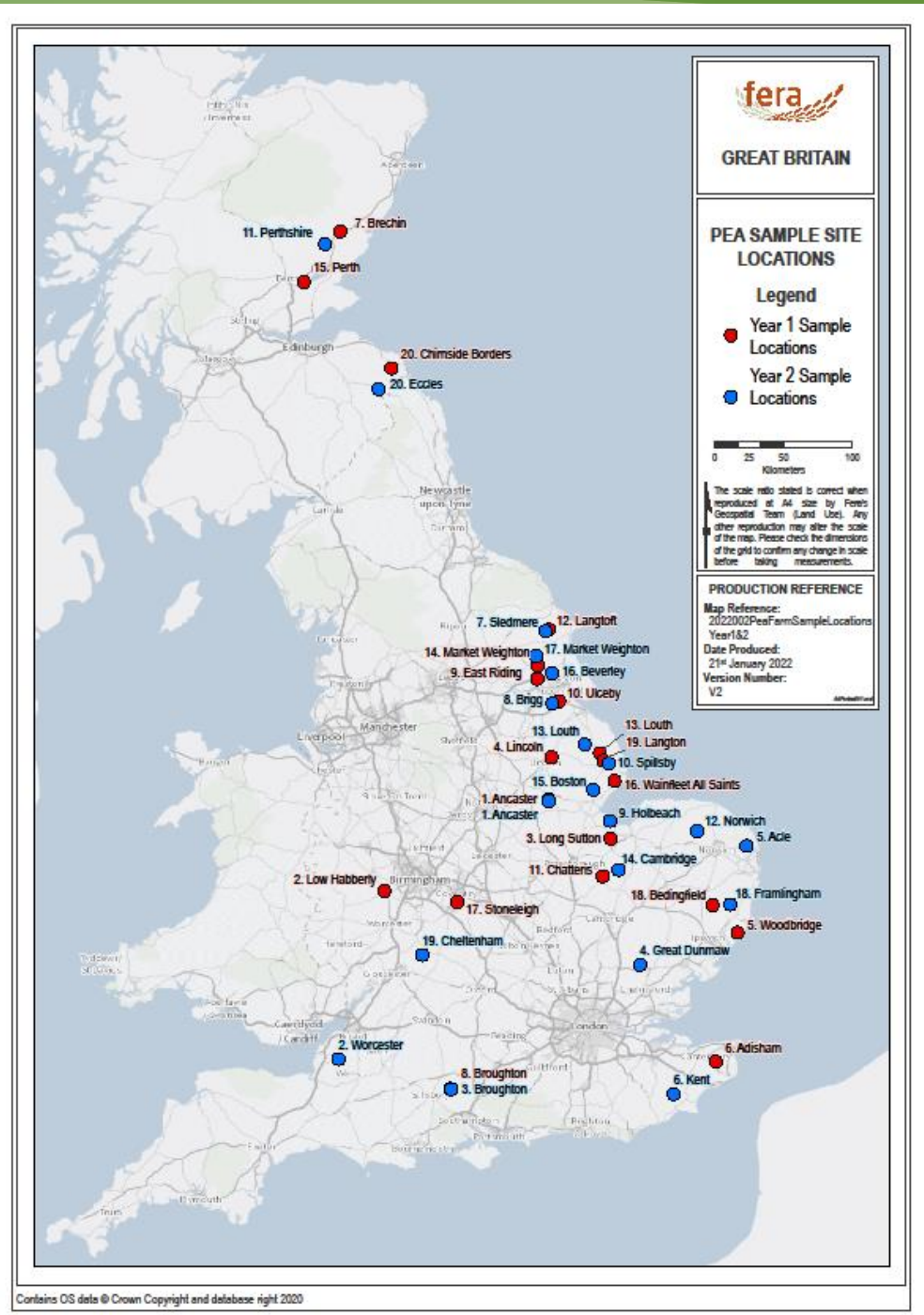
https://insectsurvey.com/aphid-bulletin

ROTHAMSTED RESEARCH

Biotechnology and Biological Sciences Research Council

Surveillance of virus diseases in UK Pea Crops

- First thorough survey for over 40 years
- 20 sites in each year (2019 and 2021) distributed across the UK
- Sampled using a grid, leaving an untreated area at 5 sites for comparison of yield versus standard grower treatment



Map source: Lee Butler – Land Usage, Fera Science Ltd.

Surveillance of virus diseases in UK Pea Crops

- Using high throughput sequencing to identify candidate viruses, followed by RT-PCR to quantify
- Most common viruses are turnip yellows virus (TuYV) and pea enation mosaic virus, with pea seed-borne mosaic virus at fewer sites
- TuYV has been present in the UK but not identified, pea necrotic yellow dwarf virus and soybean dwarf virus are new viruses, previously not present
- Aim to improve our understanding and advice to growers regarding management and possible vectors

Project management, HTS and RT-PCR: Adrian Fox and Aimee Fowkes, Virology, Fera Science Ltd.

Thank you for listening

Thanks to all of our partners

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