

ADOPT



NIAB WORKS WITH FARMERS TO ADOPT NEW APPROACHES FOR FRUIT CROPPING

ABC – Adopting biologicals to control spotted winged drosophila on soft fruit

Farmer lead: W B Chambers Farms Ltd

The challenge: Recent research has highlighted the significant damage caused to UK crops from invasive pests.

The solution: Exploring releases of UK native parasitoids, natural biological controls, on English fruit farms. This adds a new important sustainable pest control option to growers' Integrated Pest Management (IPM) approaches. These natural biological controls will help reduce the serious fruit losses in highly nutritional fruit crops including strawberries, raspberries, blueberries, blackberries, cherries and plums.



Using novel nutrition in apple orchards to work towards net zero emissions

Farmer lead: W Stewart Wood

The challenge: Reducing reliance on synthetic nitrogen not only benefits orchard productivity and resilience but also supports climate goals by lowering greenhouse gas emissions linked to fertiliser use. These technologies are already used in arable crops but have not yet been tested in English fruit production.

The solution: Testing two innovative nitrogen products; R-Leaf and Vixeran, as sustainable alternatives to conventional foliar fertilisers in commercial apple orchards. The trial will monitor tree health, nutrient uptake, fruit yield and quality, and potential cost savings with an aim to improve nutrient use efficiency, maintain yields, and lower environmental impact.



Soil amendments to improve apple establishment

Farmer lead: A C Hulme and Sons

The challenge: Newly planted apple orchards typically require four years to reach full production. At the end of an orchard's life, trees are typically grubbed and burnt or left to biodegrade, releasing the carbon they have sequestered throughout their lifetime.

The solution: Scientific advances suggest that the use of 'charged' biochar, made from grubbed apple trees, and combined with beneficial microorganisms such as trichoderma and mycorrhizae, either individually or in synergy, may decrease time to full crop production while providing an end-of-life use for the trees. Trials in commercial orchards will explore and seek to optimise solutions in practice.

Low volume ProBanz bait sprays for pest control in fruit crops

Farmer lead: New Farm Produce Ltd

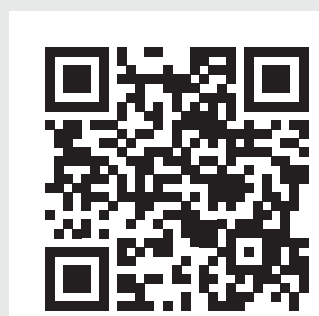
The challenge: Spotted wing drosophila (SWD) is the most economically damaging pest of soft and stone fruit crops in the UK and increasingly important in vineyard grapes. Few insecticides are effective against SWD, and there are limits on the number of insecticide applications growers can make.

The solution: ProBanz is a phagostimulant bait adjuvant, which when mixed with insecticides, enables up to 90% reduction in insecticide use whilst maintaining effective pest control. The project will provide robust, field-scale evidence across a range of fruit crops that the use of ProBanz and modified spray technology reduces insecticide use, input costs, and environmental impact, with improved pest control.

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ADOPT support hub:

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