

Construction work at Hasse Fen

With LEP AgriTech East growth initiative funding, NIAB is redeveloping a site next to G's (leading fresh produce company) and situated at Hasse Fen, in Soham. The site will house a fully equipped field station with labs and facilities for commercial scale research to reduce waste in the fresh produce sector. As shown

below, the site is surrounded by mature trees with a small lake to one side and a deep ditch (not visible in photo) on the perimeter close to the road. Before the construction work could begin, a full wild life survey revealed a number of protected wildlife species namely bats, water voles and barn owls.



The site prior to construction of the new NIAB field research facility

NIAB is strengthening its research capability in the fresh produce sector:

- Constructing bespoke research facilities
- Capacity building to engage with local and national industry
- Translating existing knowledge into commercial reality by engaging with academics
- Helping industry to access public research and funding schemes
- Working with industry on research to reduce crop and food waste.



Additional fencing to isolate the ditch during construction work

Measures put in place to protect wildlife at the Hasse Fen site

Owls: A Barn Owl Conservation Trust approved tree box was installed and we delayed demolition work at the site until after the nesting period; ensuring the building was carefully inspected to make sure that any young owls had fledged.

Water voles: These were found in the existing ditch bordering the site

and a management plan was put in place to ensure that the biodiversity of the ditch was maintained and enhanced during and after the construction work. This was desilting following the pre-works water vole survey and including planting of native marginal and aquatic habitats in the final landscaping plan. Safety signage to discourage unauthorized

access during and after the construction work was also implemented.

Bats: Although there were no bats in residence in the old buildings, there was sufficient evidence of activity to warrant the installation of special bat boxes to provide roosting space in nearby trees.



Installation of FN bat boxes



Barn owl box installed high in a mature tree on the site boundary



Installation of Schwegler 1FF

Progression of construction work

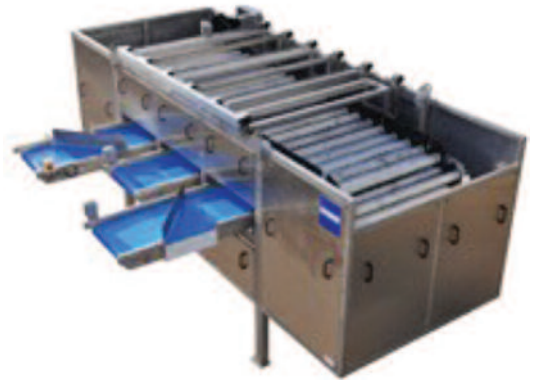
On schedule for a hand-over in August 2015 with launch event planned for October 2015



Type of research work planned at Hasse Fen

Farming systems, produce harvesting and processing will be priority research areas. The research station will have a well equipped laboratory for carrying out crop assessment work as part of research trial programmes. In addition to general laboratory equipment, we are working towards equipping the

facility with standard machinery for vegetable sorting, and grading and to build infrastructure on site for bespoke storage work. Specialist equipment for soil sampling and analysis (e.g. sieve analysis) will also be available to facilitate current and planned future work on soil health.



Example; low maintenance grader for multiple sizing of potatoes, carrots, parsnips, onions and other root crop

Research projects and proposals in progress

Vegetable Trials

We are working with onions, carrots, leeks, courgettes, sweet corn, babyleaf salads, whole head lettuce and endives. The trials deliver practical data to growers on variety performance – yield and quality; comparison of existing and new agronomic practices e.g. use of biologicals; storage potential and techniques to prolong storage. NIAB Hasse Fen Project will provide the facilities for higher throughput of graded material; greater flexibility to look at storage techniques; and to analyse material for processing. These upgraded facilities fit with the expansion of NIABs existing vegetable and salads trials.

Pilot Innovation Projects

We are working with KisanHub, (a new farm management and decision support software start-up), to develop tools for remote sensing and management of irrigation systems using cloud enabled data acquisition, interpretation and management systems. We want to install a base station at Hasse Fen to work on projects with KisanHub and others towards a digital agronomy decision support system that could eventually include innovations for open machine-machine communication. Research to help Anglian Water develop tools and technologies for managing water quality at catchment level is being planned with a view to integrate with the CamEO partnership & in particular the Shop Window project.

Research grant proposals under way

AgriTech Catalyst R4 – after a successful EOI, we submitted a full proposal to develop a soil health index system based on soil microbial profiles. Our consortium includes NRM Laboratories; Barfoots; Finlays Fresh Produce; Emmett UK; TH Clements; GS-Fresh; Strutt & Parker Farms.

EU H2020 funding stream – we are through to the final round with a project (i) to address the utilisation of low grade fresh produce waste

New funding competitions

AgriTech Catalyst R5; InnovateUK Newton Fund – are now open – if you want help with proposals and/or to work with Mexico contact us!



HASSE FEN

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