Farmcare Award for Initiative in Growing or R&D

Innovation, science and R&D is the beating heart of the fresh produce industry, and this award recognises the best

Have you made a major investment in production this year, developed new techniques for growing or found a novel way of working? Or perhaps done some major work in the area of science or R&D? This award will crown the outstanding new example of innovative growing, science or research seen in the past year.

The contenders are:

Agrico UK

Business: Agrico UK is a specialist breeder of potato varieties and a supplier of seed potatoes.

Objective: Producing bioethanol from brewer’s draft, pot ale and rotting potatoes with a view to creating biofuel, reducing waste and potentially producing animal feed.

Potato production inevitably produces a percentage of secondary-quality potatoes due to bacterial breakdown or other maladies

- If the demand exists, these stocks can be processed and converted into other products, or dumped

Edinburgh Napier University has developed an IP protected fermentation technique which utilises the remnants of yeast and carbohydrate from waste products as pot ale, brewer’s offal and rotten potatoes to produce Acetone, Butanol or Ethanol.

- The biology has been well understood since the early 20th century but modern techniques and processes have greatly improved the method of converting these waste products into high-value by-products

- The project has been awarded funding support from Interface Food and Drink

- Project members include Edinburgh Napier University, Celtic Energy, Agrico and Hatton of Ogilvy Farms. These businesses are collaborating to produce a supply chain model and commercially costed feasibility study to determine whether such a project is viable on a commercial scale

- If so, the intention would be build a suitable refinery and trade refined products in energy commodity markets as a profitable venture

Agrico are the lead partner on supply chain mapping, sharing their knowledge and understanding of the potato trade to help advance this opportunity.

Alan Bartlett & Sons

Greenvale

- Each bench is barcoded and can be located and isolated immediately from on or off site.

- The 550m2 germination room allows optimal growth and crop uniformity and give the crop a kick start in three days, the equivalent of eight...
Alan Bartlett and Sons have shown their dedication to new technology investments by developing the world’s first fully automated parsnip trimming line, which they welcomed to their site this year.

Developed in partnership with Dutch engineering firm Feltracon, the project was in development for two years and over £1m was invested to ensure its successful integration into the market. The trimming line offers a series of benefits – most notably, increased output capacity and an improved cut of parsnip.

The idea for the trimming line followed internal project and analysis work that highlighted the need for increased productivity as well as reduced labour costs.

Bakkavor/Hammond Produce

The team at Produce Solutions are currently working with a number of ambitious growers to support them in the implementation of new technology, including the parsnip trimming line. Alan Bartlett and Sons were one of the first growers to show interest in the line, setting up a joint venture with the Producers World Group to provide bespoke support.

Prepared produce supplier Bakkavor and Nottingham-based vegetable grower Hammond Produce partnered up this summer to launch the ‘Garden of Innovation’, a 15-acre market garden planted with over 50 speciality varieties of root vegetables, herbs and salads, many of which are grown using sustainable practices.

Newly launched in July 2015 was is Produce Solutions, Greenvale’s very own division of agronomists and set up to be a new division of Greenvale. The team is headed up by Greenvale’s group technical manager James Lee and has been essentially created to ensure the highest of standards are met for all of our customers specifications.

A key USP of the team is the fact that the agronomists are more than field and crop support, they are involved in the whole of the potato supply chain and understand the full process. The team at Produce Solutions cover a number of areas, from helping with the selection of seed, to ideal planting rates and after-harvest storage care. The team offer soil sampling, nutrition advice, pesticide recommendations, field inspections and irrigation help and schedules.

There are five full time and one part time team members covering the UK and the team also recruits by engaging with agriculture colleges and universities. One key member of the team, Fiona Law-Eadie, uses her technical management skills to provide auditing support, helping growers prepare for audits and in some cases acting as a third party and auditing growers on behalf of our customers.

The expertise provided by the team is also further strengthened by the fact that they have a number of growers as customers that don’t supply Greenvale with potatoes.

A key part of the success of Produce Solutions is the investment into IT support, which allows the team to capture live data and report to growers straight from the field, making recommendations in real time. The team invest as much time as necessary with each grower which can be a couple of hours to full days, with bespoke support.

Recruitment is underway to allow for more growers to be supported.

Langmeads

In 2015 Langmead Group opened the UK’s first days in a standard glasshouse!
have not previously been available in the UK on a commercial basis.

The ‘Garden of Innovation’ was a joint venture between the two firms to grow rare and unusual produce for new prepared produce ranges. Varieties such as Yukina savoy, red kale, purple cauliflower and red sprouts have been planted, grown and then harvested at Hammond Produce in Arnold, Nottinghamshire, for development by Bakkavor on site in a specially constructed demonstration kitchen marquee. A selection of the varieties have gone on to form part of a limited edition range of fresh prepared food products, to be listed in retailers before the end of 2015.

The aim of the initiative was to introduce British consumers to exciting new produce through prepared ranges first instead of wholehead, to better show innovative uses and exciting dishes. The ‘Garden of Innovation’ launch was marked by a visit from Defra minister Liz Truss in August, who said it was “a fantastic example of our forward-thinking food industry”.

“The Garden of Innovation reflects Bakkavor’s fundamental approach of constantly innovating and pushing boundaries through new products, processes, technology or in this case fresh produce. Innovation remains a key driver of our success and leadership in fresh prepared foods”

Ivan Clingan, managing director of Fresh Convenience, Bakkavor.

“This unique initiative showcases the best of British food production and farming working together in an innovative, creative way to address and satisfy changing consumer demands”

Hammond Produce director Jon Hammond

fully automated herb growing facility in West Sussex.

The business embraced the innovation, technology and investment required to create a cutting edge environmental and stock management system. The result was a unique automatic potting, sowing and growing system that can run 24 hours a day and requires minimum human input. The 1.2-hectare site grows a variety of conventional and organic herbs for retailers and other customers in the UK.

The glasshouse has a capacity of five million pots per year and is the result of £3m investment:
- The site is heated by a fully sustainable biomass fuel system fuelled by local woodchip.
- The glasshouse uses zero tap water. Water is sourced from Langmead’s reservoir and is treated via a UV filtration system; fertilisers can then be added as needed. Water is then recycled.
- Automation has changed the growing of indoor herbs, allowing for minimal human contact resulting in better quality. From sowing the product to cleaning down the benches afterwards, all of the growing processes are automated.
- The site has full remote capability, allowing even the smallest detail to be changed from off site. All of the benches are moved by robots and the robots carry cameras to assist in effective problem solving when off site.
- The site has a full environmental measuring system to adapt the facility to changes in environmental factors. Along with the bespoke heating system and the optimal placement of fans allows for consistent crop 24/7/365.

and predicting future responses.

Ultimately it is hoped that Soil-for-life will improve crop management, optimise inputs, improve yields and help to increase the accuracy of yield predictions.

Valefresco

Valefresco is an industry-leading grower, growing on over 1,000 acres and has made many major investments to improve its operation and efficiency including:

Installing multi-shappel polytunnels earlier this year which were the first of its design in the UK along with a climate control system which monitors the atmosphere within the tunnels and reacts accordingly; and a rainwater harvesting system that collects water from the polytunnel roof, which is then treated and used for irrigation.

Major investment in a 21 million litre reservoir to eliminate the need for river abstraction on the farm.

Electric-operated babyleaf harvesters and crop weoders, which are more environmentally friendly than fuel operated.