

Nice piece of kit

Doris Lee Butterworth talks to leading machinery manufacturers and discovers that many are introducing new products and programmes, as well as finetuning their existing offers, to continue their strong presence in the fresh produce arena

Flexibility. Speed. Efficiency. Convenience. When it comes to produce machinery and equipment, these requirements are key priorities for the fresh produce sector.

In this modern age, nothing stands still for long and investing in state-of-the-art technology is essential for fresh growers and packers to stay ahead of the competition.

Sorting machines, temperature-controlled systems and new forms of labelling and packaging have undoubtedly made handling and sorting fruit and vegetables easier, as well as ensuring maximum returns.

Greefa, the Dutch manufacturer of grading and sorting machinery, is hoping for great things from its new range of intelligent dumper machines.

The dumpers were introduced at the end of last year and since then, have mainly been sold in the Netherlands, Belgium and Germany.

"Our dumper range includes several types, from manual operating machines to fully automated rotating dumpers," says Greefa's Monique Doornebal. "All dumpers

are suitable for a range of fruits, including apples and pears."

According to Greefa, the new line of dumpers have a high capacity and are user friendly. "The control system of the dumper is integrated in the control system of the sorting machine for optimal feed of fruits," Doornebal explains.

The firm also hopes that its Gentle Bin Filler (GBF) will repeat its US success in the UK market. The GBF can hold numerous types of fruit and vegetables, including apples, pears, kiwifruit and peppers and ensures that fruit is handled as carefully as possible to prevent bruising and loss.

"One key advantage of the GBF is that it uses little space," says Doornebal, adding that Greefa has received notable interest from UK producers.

Fellow Dutch manufacturer Aweta believes it will score high with Rollerstar, its latest development in grading and sorting technology.

This machine is able to grade weight, colour and diameter quickly and efficiently and according to Aweta's Elaine Foster:

"Every aspect of the process has added value which has not been seen before in grading and sorting technology."

A key benefit of Rollerstar is its compact size, which according to Aweta, addresses space constraints in a packhouse. Rollerstar can be used on a wide range of fruits including plums, stonefruit and citrus as well as apples and tomatoes.

Aweta is also keen to promote its Acoustics Firmness Sensor (AFS), which uses acoustic signals to indicate the firmness of a fruit. "This system has proven itself to be a perfect tool to analyse mangoes and avocados," Foster says. "More growers all over the world are using AFS as an effective tool to ensure that their product is in perfect condition to service the market."

Furthermore, Aweta has developed several camera systems, including DualVision and PowerVision, which can identify tiny scars and blemishes using more than 100 parameters.

"Using our systems, a grower can tailor his system to his own specifications and quality parameters," Foster says. "Where a traditional quality sorting system shows up defects on the basis of a library of samples in the system, the vision systems can be 'trained' by the user to evaluate deviations in these defects. As the product moves and rotates under the camera, images are taken at different angles."

Innovation is also a priority for Sinclair International, which has supplied fresh produce packers worldwide with an extensive range of automatic fruit labelling systems – from high speed multi-lane on-size systems, to specialised tray or pattern applications, for more than 20 years. Rather

MERLIN SPELLS MAGIC FOR ROSE FORGROVE

ROSE FORGROVE'S new Merlin flow wrapping machine features a comprehensive product size flexibility, as well as single and twin jaw options capable of handling up to 150 and 200 packs a minute respectively. This budget machine also comes with optional twin film spindles allowing faster film roll changes.

The new electronic controls and large touch screen allow up to 100 product recipes to be stored for fast changeovers as well as simple operator controls through a pictorial layout of all machine functions and controls. ☺

than rest on its laurels, the Norwich-based firm is striving to develop and improve upon what it has already achieved.

"The recent change of logo to include an introduction of a new strap line 'world-class label solutions' does no harm in ensuring that we and the industry know exactly where our strengths lie and what we have to do to continue being the industry leader," says Neil Winney, Sinclair International Ltd's marketing manager for South Africa, China and Thailand.

Sinclair says it is continuing to develop new label initiatives to help drive fruit consumption. These include Peel & Reveal, a label that hides a secret. "Sinclair is offering the ability to print messages on the back of labels so that you can in effect double the area to advertise or brand on or take advantage of the 'hidden' space for messages, fortunes and prize giving," Winney explains.

"This technique has already been taken up successfully by a well known alcoholic drink producer who introduced an apple flavoured drink and wanted to promote this with prizes given away on the back of labels placed onto apples."

Another initiative is the introduction of Collectibles, a simple but effective way to encourage mums and children to find fruit more interesting. The labels are particularly effective in pre-packed fruit when the individual fruit label is linked to the theme of the package, such as cartoon characters or sporting events such as the football world cup. Themes could also be educational with world flags, historic figures etc.

Winney says: "Kids love to collect stickers and this provides a way to increase the interest and link fruit to fun as well as being tasty and healthy. For example Disney has recently linked up with Tesco and is launching fruit products labelled with characters from Winnie the Pooh."

As well as introducing new concepts, Sinclair also ensures that it keeps up with the ever changing trends in the fruit



Sinclair: 'world class label solutions'

industry, especially changes that are driven by the supermarkets. Barcode labels are fast becoming commonplace in supermarkets, especially within the express convenience stores.

"The existence of a barcode on an individual piece of fruit ensures that fruit is correctly identified and therefore correctly charged at the checkout as well as speeding

up the checkout process," Winney explains. "The barcode on the label therefore benefits both the retailer and the consumer by providing greater accuracy and efficiency."

Sinclair recently developed its largest label to date, the 6.0-29 which is 26mm x 36mm and can be applied automatically to individual fruits. It is large enough to carry a barcode, product price and promotion information. "The micro-thin Sinclair film label is preferred by the major retailers because of its superior adhesion characteristics and ability to lie evenly on the surface of the fruit, minimising creasing and enabling the barcode to be scanned effectively," Winney claims.

The most recent development that Sinclair has been invited to participate in, in relation to barcodes, is the testing of a so-called RSS14 barcode. This gets more information onto a smaller label, but is still scannable at the check-out.

"The RSS or Reduced Space Symbology system also allows for more detailed information that could potentially track fruit origins as well as inventory management," says Tim Watkins, Sinclair's marketing

ABAR ROBOTS DANCE TO POTATO TUNE



ABAR AUTOMATION has recently installed four new, multifunctional robotic pick and place systems for pre-packed fresh potatoes.

Designed to operate with the latest generation of VFFS bagging systems, the Abar DL-16 robot is capable of loading 500g-5kg bags into display containers, cardboard containers and 400x600 plastic retail crates.

The DL-16 uses a patented gripper and infeed collating system to enable fast, yet gentle handling of products at loading rates of up to 70 bags per minute for 2.5kg bags. Central to the system is an industrial robot equipped with advanced anti-collision software to minimise potential damage to the robot arm and pack gripper to safeguard the investment.

The major benefits of the system include the ability to change over instantly from one transport medium to another, thereby eliminating down time while offering increased productivity. Other benefits include reduced manning levels and line management. The unit is also ideal for use with other root crops, Abar says. ○

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manager for Europe and the Mediterranean region.

Tests are underway at Tesco stores to evaluate the use of RSS14 codes to scan Price Look Up (PLU) numbers prior to weighing at the checkout.

Watkins says: "Tesco believes that using

the RSS14 code on its loose fruit and vegetables offers it the opportunity to significantly speed up the checkout process whilst at the same time improve on pricing accuracy. Wal-Mart is also trialling RSS14 in the US and Sinclair is involved in the pilot currently taking place

at selected stores."

As well as growth in retailer labelling, Sinclair is also experiencing growth in the use of quality brands globally. Examples of these are Zespri and Pink Lady who both franchise their well-known brands to ensure year-round global supply.

In Europe, Sinclair has worked with its Italian agent Sorma to develop its current labelling machinery to meet an ever-growing range of labelling applications.

"Recently, a new system was developed for labelling Pink Lady apples in shallow punnets prior to being shrink wrapped on customer's flow pack lines," Watkins says.

Meanwhile, Italian apple packer Melinda, VOG and Valvenosta have taken advantage of their recent individual EU Protected Geographical Indication accreditations to incorporate the PGI into their label designs which also carry their brands, apple variety and PLU number.

Following strong growth in the Italian market, Sorma is about to open new Sinclair dedicated premises in Cesena (near Bologna) where labelling machines and labels can be stored to meet the needs of the Italian market.

Furthermore, a new shaped label was recently developed for VOG to assist it in its regional Sud Tirol promotional push in the German market. "This label incorporates the unique Sinclair Tablift™ adhesive free tab feature across the whole width of the label ensuring clean and easy label removal by the consumer," Watkins explains. ○

HOE DOWN FOR ROBOCROP



GARFORD'S FARM Machinery produces a range of inter row hoeing equipment, providing advanced mechanical weed control tools.

The Garford range of Robocrop Precision Guided Hoes first arrived on the scene five years ago and, according to the company's Philip Garford, is becoming more relevant to the marketplace.

Garford says: "With the fresh produce industry demanding reduced pesticide usage wherever possible and fewer herbicides available, Garford is concentrating its efforts on developing improved mechanical weed control solutions."

The Robocrop system uses a video camera which looks at the crop rows ahead of the hoe. A computer processes the images at a rate of 25 frames per second to identify the crop rows, and then hydraulically steers the hoe to keep it precisely aligned.

With an accuracy of 15mm and forward speeds of 12kph, the

Robocrop system facilitates maximum weeding efficiency, whether employed in a conventional or organic system.

The latest development of the Robocrop system is its extension to multiple camera systems. The hoe works on three beds of lettuce which have been planted as individual beds. The toolbar features three independent hydraulic, sideshifting units controlled by their own camera system which allows hoeing tools to accurately follow the crop rows. Under this system, productivity in this case is improved by a factor of three.

Lettuce grower Intercrop received its updated Robocrop hoe last month. Thane Goodrich of Intercrop outlines the many advantages of the new system: "There's faster speed of output and the new system is able to cover more ground. This ensures less driver fatigue and allows operations to carry on for longer. Liquid fertilisers are injected at the same time as hoeing, ensuring greater efficiency." ○



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