

FRESH PRODUCE

Sales of prepared fruit, vegetables and salads

WASHING AND PREPARATION

Commodity washer raises quality and output

Jeppo is one of Lincolnshire's top producers of speciality salads and salad onions. The Tesco supplier is based at Holbeach, near Spalding, in the heart of the Fens – and virtually on the doorstep of Watson Backus Machinery, which it recently commissioned to design and install an advanced salad onion washing system.

The new line is the latest collaboration between Watson Backus and another Spalding firm, materials handling specialist Guttridge Services. Their aim is to offer a range of specialist fresh produce washing and processing systems to meet the demands of the supermarket trade.

Jeppo's installation was one example. In another, Valley Produce, based at Reading, called in the two companies to design a bespoke washing system for its range of exotic Chinese vegetables and herbs. According to Chris Daking of Valley Produce, the new system has improved wash quality across the product range as well as helping to increase capacity.

These commodity washers are conceived by Watson Backus but designed and manufactured by Guttridge at its Spalding factory, using stainless steel components. They feature a sanitising wash system with variable control water spray jets and a triple filtration system for removal of minute particles.

The conveyor is a hygienic, single support system with a return strand that is fully cleaned as part of the process. In this way dirt build-up on the end rollers is eliminated while easy, thorough clean-down is also helped by the inclusion of removable access points.

Meanwhile The Watercress Company, based at Dorchester in Dorset, is pioneering a new vibratory method of removing pests and conta-



Commodity washer: Produced in collaboration by Guttridge Services and Watson Backus Machinery



Cleaning by vibration: High amplitude system from Wright

minants such as insects, stones and soil from salad and wet leaf produce. Initial trials with a high amplitude vibratory conveyor, purpose-built by Wright Machinery, proved successful and full scale trials got under way last year.

The system consists of a high amplitude vibratory conveyor powered by an electromagnetic drive. The product travels down the conveyor and tumbles over interchangeable screens with varying size holes, through which contaminants fall. Throughput is controlled from zero to full flow by varying the amplitude.

"Different products react in different ways to vibration but we are able to tune the system to a variety of produce with different screens in the base of the conveyor," explains Tom Amery,

sales and technical manager at The Watercress Company.

Of course some products, ranging from root vegetables to exotic fruits, require more than a thorough washing before packing for retail: they need peeling. And German manufacturer PKC now offers a range of steam peelers and ancillary equipment that can handle up to 42,000kg of produce an hour. The company produced its first steam peeler in 1962, and is now operating worldwide, with more than 60 units exported to Japan alone.

UK representative Holmach says that flexibility and accurate control of infeed, steaming and emptying are key benefits of PKC units. Control of the peeling cycle is achieved by a shaft encoder, operating on the direct drive of the vessel, which eliminates the need for sensors in the rotating and steaming part of the machine.

PKC has also eliminated all lever arrangements on the closing system, which is said to simplify the loading and unloading operations.

Venting of the vessel at the end of the cycle is achieved by PKC's twin-phase steam injection system which ensures accurate purging and hence a faster cycle. Steam inlet, venting and closing are all achieved in a single operation.

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Guttridge Services	enter 160
Holmach	enter 161
Wright Machinery	enter 162

WEIGHING

Scales and checkweigher cut mushroom giveaway

Mushroom supplier J Rothwell and Son, Mormskirk, has updated its weighing systems with six Sartorius SEB food scales and a Boekels EWK 2000 checkweigher that allows initial weighing to be into a much larger window, yet comply with average weights legislation.

Rothwell's in-house engineering team manufactured a bespoke, ergonomically designed

REPORT

are growing rapidly

TOTAL FRESH PRODUCE VOLUMES ARE RELATIVELY STATIC BUT SALES OF PRE-PREPARED FRUIT, VEGETABLES AND SALADS ARE GROWING 10 PER CENT A YEAR. MICK WHITWORTH LOOKS AT EQUIPMENT TO SATISFY THIS BOOMING MARKET.

workstation that incorporates the SEB scales, which are used predominantly for weighing punnets of mushrooms.

Empty punnets are placed on the weigh platform and filled using the digital display, which gives upper and lower tolerance limits. The punnets are then pushed a few inches or so onto the outfeed roller conveyor.

As well as providing a solution for the pack-

can easily be trapped in machinery and conveyor systems, becoming an ideal breeding ground for bacteria." So ease of cleaning was an important factor in selecting the Boekels EWK 1000 unit.

Different weighing challenges are presented when packing fresh tropical fruits in individual snack cups. So, following an approach from a major packer suffering damage to fruit segments from conventional multihead

weighers, Euroweigh has developed a version of its automatic weighing machinery specifically for the purpose.

Euroweigh's new Speedweigh 301 is a high speed vibratory feed machine which is sufficiently compact to be moved on and off conveyor-based packing lines

and offers minimal product drop from the infeed to the outfeed.

Along with these 'low drop' weighers, a range of stainless steel container indexing conveyors has also been introduced. These provide speeds up to 130 containers a minute on a twin-lane system and can be adapted for a variety of container shapes and types.

All Euroweigh equipment is manufactured from stainless steel and other food grade materials, enabling hosing-down in situ at the end of a production run. Any weigher parts in contact with products can be easily removed for cleaning off-line if necessary.

The Worcestershire-based company says it has received over £1.5 million in orders from the fresh fruit industry over the past three years and has more units lined up for delivery in 2004.

Astec Conveyors recently completed a contract to design, manufacture and install a sortation system for punnets of soft fruits, using a high-speed channeliser that automatically diverts the punnets to one of three discharge lanes depending on weight.

Punnets are loaded onto the system at speeds

up to 80 a minute and checkweighed. Correct weight punnets continue through the system for lidding and labelling while the channeliser transfers underweight punnets onto an inner loop conveyor and overweight units onto an outer loop conveyor.

Both of these conveyors return the punnets to the infeed workstation where their contents can be adjusted before being re-introduced into the system.

For further information:

Astec Conveyors	enter 164
Euroweigh	enter 165
Sartorius	enter 166

DENESTING

Denesters taken up by tomato-packing industry

Eric Wall, English Village Salads and Stubbins Marketing are among the British tomato growers to have installed Pneufeed tray denesters from FP Packaging Machinery.

The Pneufeed model can handle a variety of trays and punnets at speeds up to 120 a minute and is claimed by FP to provide flexibility, easy size change with no extra change parts, low maintenance and high reliability. The machines can also be coupled to existing flow-wrappers without difficulty.

Applications for tomato packing typically involve denesting trays or punnets into the flighted infeed conveyor of a flow-wrapping machine at speeds up to 100 a minute. The Pneufeed can handle six or eight-pack trays as well as larger punnets.

FP has also supplied punnet denesters for potato packing, installed in twin lane and single lane formats to deliver punnets to down-line grading and feeding systems.

Another supplier of tray denesters to the produce industry is MGS Machine Corporation which has just delivered two IPP390D vacuum-fed tray denesters to a leading UK packer of fresh salad crops. Each machine, sold via UK



Reducing giveaway: J Rothwell has installed six SEB scales from Sartorius

ing line, Sartorius has also delivered a Boekels EWK 2000 checkweigher to check and record the weight of packs of fresh mushrooms sold by average as well as minimum weight.

Although the platform scales are employed as the primary production tool, using the checkweigher to accurately measure and record the weight of each pack means that J Rothwell & Son can now weigh into a much bigger window.

For example on a 250g pack the company can now weigh to $\pm 9g$ and still comply, helping to reduce giveaway.

Sartorius has also supplied a Boekels checkweigher to Cambridgeshire's Allpress Farms, which supplies loose and pre-packed leeks to Sainsbury and other supermarkets.

This product is packed to a minimum weight, and Allpress wanted to avoid falling foul of Trading Standards without compromising its throughput of 60 packs a minute.

There were other considerations, too. Allpress produce co-ordinator Stuart Threadfill explains: "We monitor our production processes closely, but leeks are a wet product and easily damaged. This leads to debris which

representative Partners in Packaging, is capable of speeds of up to 120 a minute.

Key features of the IPP390D units are stainless steel construction to IP65, making them suitable for washdown in harsh environments, and a cantilevered design allowing easy access for cleaning and maintenance. The two recently-supplied units also feature three large-capacity magazines and MGS's Kwik Klip technology, said to provide 'running to running' changeovers in minutes. All MGS denesters feature Piab or Gast vacuum feeding systems, no-tool changeovers, quick-change vacuum heads, downstream surge controls and low-magazine sensors.

For further information:

FP Packaging Machinery
Partners in Packaging

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TRAY SEALING

Pre-formed tray sealer can be washed down

The Ross Inpack pre-formed tray sealer forms the core of a range of equipment now available for fresh produce packing from Reiser UK. The S60 can run at speeds up to 75 packs a minute, depending on the tray size, with a touch-screen console providing easy switching between different pre-programmed pack options.

There is an optional modified atmosphere packing facility while Reiser says that the machine is the first horizontal pre-formed tray sealer that can be washed down.

Meanwhile pre-packed salads and vegetables specialist Soleco has recently installed its second Vision 4000 machine from Packaging Automation at its UK headquarters in Staffordshire. The line was needed by Soleco – owner of the Florette brand – for hermetically sealing film lids to aPET bowls of snack salads. The unit was supplied with gas-flushing capability and includes a 7.5 metre conveyor.

Tray sealing equipment built in Italy by Tecnovac is now available in the UK from Planet Flowline and includes machinery such as the Linvac for modified atmosphere packaging.

Capable of handling trays in polypropylene, PVC, aPET, cPET and polyethylene, the machine is equipped with a drive system that provides a soft start/stop advance for the trays,

to avoid slopping liquid products onto the seal area and endangering seal quality.

It can run at speeds up to 15 cycles a minute, with tooling for up to four trays at a time, and is



Washdown capability: Ross Inpack S60 pre-formed tray sealing machine from Reiser UK

equipped with a slide-out system for the tooling, allowing a complete tool change to be carried out in under ten minutes.

Union Food Machinery & Equipment has supplied a number of Reepack tray sealing machines for lidding fresh produce for major supermarkets. These include the ReeSeal 30 manually operated drawer machine for sealing only as well as the in-line Reeflex and Reematic 1000 machines.

For further information:

Packaging Automation
Planet Flowline
Reiser UK
Union Food Machinery

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THERMOFORM-FILL-SEAL

Domed base gives trays fully filled appearance

Kanes Foods of Evesham produces chilled prepared salads, coleslaw and stir-fry vegetables, as well as bean-sprouts and mushrooms. It recently joined forces with Multivac to produce new, thermoformed packs for prepared vegetables which, according to Multivac sales manager John Hutchen, "give a whole new look to a product that can be difficult to pack attractively."

One problem with using thermoform-fill-seal technology as an alternative to overwrapped trays is that chopped salads and vegetables

tend to be springy and uncontrollable, and can spill onto the seal area during filling. The usual solution is therefore to use an over-sized tray, which stops product spilling over but also leaves the completed pack looking under-filled.

The R530 thermoformer installed for Kanes includes a feature devised recently by Multivac to ensure every pack is full to the top. The tray is made with a dome in the centre of its base. This dome is concave during fill-



Filled to the top: Kanes Foods' packs have a domed base that pops up after filling

ing, lowering the fill level, but then pops upwards just before the lid is sealed, pushing the product up to give a full pack. The result is better shelf presentation and ensures a secure seal, as well as providing tamper-evidence.

For Kanes, one benefit of the increased cavity volume is that product has become easier and thus quicker to fill, which has led to a significant increase in line speed while requiring fewer operators. Already, the company has extended this technique to its coleslaw packing.

The R530 – which has been configured to work in conjunction with Kanes' fully automatic loading line – uses a tandem die system that means packs sizes can be changed "at the push of a button". According to John Hutchen, the line need only be stopped for a few moments to switch pack sizes, which means downtime is virtually eliminated and flexibility is maximised.

For large tray applications, Spanish-owned Ulma Packaging steers clients towards its Taurus thermoforming tray sealer, which is available in standard and MAP versions. A wide range of tray shapes can be handled, with fruit and vegetable packers being the main buyers.

For further information:

Multivac UK
Ulma Packaging

enter 176
enter 177

STRETCHWRAPPING

Wrappers raise pack integrity for Simply Fresh Foods

Prepared foods processor Simply Fresh Foods, Manchester, has adopted a new system of combined stretch and shrink-wrapping – pioneered by Japanese manufacturer Fuji – allowing the company to produce fully sealed overwrapped trays of products such as stir-fry vegetables and baby potatoes, part cooked in garlic butter.

Previously the trays were stretch-wrapped, but with the PVC film gathered below and tacked in place by a heated pad.

“Our customers, the major retailers, are constantly demanding much higher standards of presentation and pack integrity,” explains Alastair Clark, engineering manager at Simply Fresh Foods. “The Fuji stretch-shrink method gives us packs that are fully sealed for hygiene, neater than before and eliminates risk of liquids escaping.”

Simply Fresh Foods has installed three of the new Japanese built Fuji Alpha FW 3462 stretch and shrink-wrapping machines, supplied by UK distributor Paramount Packaging Systems with Fuji multi-belt smart feeders that marshall trays arriving at random pitch accurately into the wrappers.

The machines provide an initially tight wrap that requires little shrinkage, make a bottom fin seal that is trimmed close to the tray base for a smooth appearance, and employ flow-wrapper style box-motion cross seal jaws to make a secure hermetic seal that will allow gas flushing if required.

The shrinking operation, which tightens the pack slightly and pulls the end seals in neatly below the flange of the tray, is carried out by Cryovac CJ51 hot air tunnels.

“One of the main advantages of the Fuji stretch-shrink process is that consumer familiarity with the packaging style – the ‘just-prepared’ look – is retained, but without risk of leakage from stretch-wrapped trays and the cross-contamination issues that retailers seek

to avoid,” explains John Roberts at Paramount Packaging Systems.

Punnets of mushrooms or trayed vegetables are typical fresh produce applications for the Delford SP6000 stretch film tray overwrapper which can handle a variety of tray sizes at speeds up to 90 a minute.

The SP6000 is microprocessor controlled, with a 50 program memory, and provides automatic adjustment of film length, knife position and running speed. Together, these are designed to minimise changeover times and reduce film wastage.

Delford says that a well-sealed pack is ensured by the unit’s film tensioning and pressure-assisted film heat sealing system, which



Sealed packs: Simply Fresh Foods now has three new Fuji machines

can also handle polyethylene-based films.

Spanish manufacturer Ulma is another supplier with a track-record in fresh produce – including fresh flowers – after supplying its domestic produce market with packaging machinery over several decades. Ulma’s PV350 machine has recently been upgraded, with improved electronics making it easier to operate, and is available in four packaging formats: shrink-wrapping, flow-wrapping, a round product machine and a combination machine.

One of Ulma’s latest machines is the Super Chik A200, a stretch film wrapper aimed mainly at fresh vegetable packers, particularly for cauliflowers. Ulma UK director Derek Paterson claims the machine is one of the most versatile of its kind, capable of packing trays of vegetables ranging from spring onions to potatoes. It has, he says, proved especially useful for handling large trays.

For further information:

Delford Sortaweigh

Paramount Packaging Services

Ulma Packaging

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BAGGING AND FLOW-WRAPPING

Pillow packs oust twist-tie bags to give higher output

Pillow packs produced on vertical form-fill-seal machinery have progressively replaced twist-tie bags for fresh produce and the evidence – packs ranging from 500g organic salad potatoes through to 5kg main crop potatoes, shallots, onions, carrots and the usual selection of fresh semi-prepared vegetables – is for all to see in most high street multiples.

The benefits of the change to form-fill-seal have been numerous and include higher throughputs, increased flexibility – with various pack styles available from a single machine – and extended shelf life with modified atmosphere packaging. Probably the key issue is gentle product handling, with machines now called upon to handle higher drop weights and also pack delicate products such as broccoli florets without risk of damage.

Machinery manufacturers particularly active in the field include Gainsborough Industrial Controls (GIC) which, over the past three years, has installed more than 50 bagging lines for fresh produce. Projects have ranged from basic entry-level machines, designed to be simply interfaced with existing product feeds, through to full turnkey lines where GIC has taken project responsibility for supply and installation of all equipment.

In many cases, says the company, customers started the move to vertical form-fill-seal with a single line but quickly placed repeat orders as the new pack style became accepted.

One such GIC customer is Greenvale AP which now runs nine GIC bagging lines on a multi-shift basis at three sites. The first order for two special versions of GIC’s VFB4000 model was placed during the early part of 2001 and the machines were installed in a new pack-house extension with new upstream feeding, inspection and high speed weighing equipment.

The specification of the machines and the line included stainless steel construction and servo motor drive with colour touch screen operator panel for the bag makers.

The latest machines to be delivered to Greenvale are two GIC continuous motion VFB8000 baggers, servo driven machines with control

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systems based on a high speed industrial PC.

Malpack, the Lincoln-based division of the Supreme Plastics Group, is best known as a supplier of reel film and finished bags, but also supplies a complete bagging system, in association with Swedish equipment manufacturer Pronova, which is attracting particular interest from the fresh produce market.

The Joker system enables companies to fill reclosable or conventional pouches in high clarity polypropylene or polyethylene and is already being used to pack grapes, fresh herbs and salad leaves.

Various models are available, ranging from manual to fully automatic filling. But the stainless steel Joker 425UR model is said to be particularly suitable for products such as fresh cut salads and vegetables that need hygienic packing, and to work well in combination with in-line portion weighing units.

Chain of linked bags

The 425UR uses a chain of linked bags hanging from parallel rods to keep several packs open for filling, so a number of operators can work side by side. This makes it suitable for packing herbs – a task often carried out manually, directly after collection. However it is also used for packing pouches of grapes by hand.

Before bags are sealed they pass through a compressing unit that gently presses out excess air, helping to extend the shelf life and also making case or tray-packing easier.

For high volume applications, British manufacturer CSS Packaging Machinery offers a variety of flow-wrappers and vertical form-fill-seal baggers, although two models proved particularly popular in 2003: the Sprinter Junior flow-wrapper and the BD01000 bagger.

Sprinter Juniors have been supplied as stand-alone units for packing various trayed and loose fresh product, but CSS has also worked with Pre Pack Systems of Liverpool to integrate machines into fully automatic production lines. In these installations, bulk loose tomatoes are automatically weighed and fed into automatically denested trays. The trays are then conveyed to the flow-wrapper which has its own automatic infeed system. On these lines, trays of tomatoes are being packed at rates up to 100 a minute.

The BD01000 bagger has been installed in a number of pack houses where existing equipment has previously been used to feed wicketed bags or nets. According to CSS, the compact BD01000 can generally be coupled to existing

equipment without major expense.

Working again with Pre Pack Systems, CSS has combined two BD01000s with a single Daumar PA25 weighing machine to give an output of around 50 packs a minute for "a modest outlay of capital". The machine is currently being used to bag potatoes, onions, carrots and



Reduced cost: Hayssen Ultima SV 'E' bagger - built with some recycled material - has allowed D Laurie & Sons, Norfolk, to move from pre-made bags to automatic form-fill-seal at reduced cost

peas in weights up to 1kg, although CSS also builds a larger machine for handling packs in the 2.5-5kg range.

Over a third of the Gainsborough Engineering form-fill-seal machines built in the last 12 months have been installed to handle fresh produce, with applications extending from 80g packs of sliced apples, produced at high speed, to 10kg of peeled potatoes in modified atmosphere.

Lowest drop height

According to Gainsborough Engineering UK sales manager Wayne Kedward, advantages of the GV2K produce machines include one of the lowest product drop heights on the market.

Most of the company's sales in the fresh produce industry have been GV2K3P baggers. The standard format machine is currently being used for onions, potatoes and whole carrots

while the high care IP65 machine is being used for prepared vegetables and fruit such as 'lunch box' baton carrots and sliced apples, along with mixed vegetable packs, salads other ready to eat vegetables, and fruits.

The 'lunch box' sliced apples pack contains an equal amount of both red and green apple slices and is being marketed by a leading supermarket as a healthier convenience snack for school lunch boxes.

The main specification from the customer was to pack at speed but avoid any damage to the apple slices which bruise easily. This was overcome by keeping product drop-heights to an absolute minimum, using a combination of specially designed feeders to spread out the slices before feeding onto separate shallow angled elevators. A wiping mechanism at the top of each elevator ensures that all the slices are transported to the weigher with minimum contact.

The slices are fed into a split weigher, which drops equal



Bagging herbs: Joker system from Supreme plastics

amounts of each colour of sliced apple into the bag, which is gas flushed to increase shelf life.

The latest installation of the Gainsborough GV4 bagger has been at a leading potato processor to pack sliced and diced, half and whole peeled potatoes in weights of 2.5-10kg in modified atmosphere. For fast changeover, the complete system can be hosed down with no need to remove any parts.

Sandiacre's TG350-RC vertical form-fill-seal machine has been developed to pack a wide range of potato types and sizes into a variety of bag sizes. A major benefit is said to be its ability to pack significant weights at high speed without increasing damage to the product,



Big bags for potatoes: Sandiacre TG450-RC runs at speeds up to 120 a minute

particularly sensitive main crop potatoes.

This is achieved, says the company through a combination of motion control technology and a specially designed low drop former to ensure a softer catch of the product into the bag, minimising the potential for damage. Up to 5kg of potatoes can be dropped in one dose without blocking, so allowing speeds of 50 packs a minute to be achieved.

A larger version of the machine, the TG450-RC, can produce packs 140-450mm wide and of infinitely variable length, with maximum speed in the region of 120 packs a minute.

Work by Sandiacre to eliminate packing-related product damage has also led to the tilting TG320-LD bagger, which avoids problems of product bruising and disintegration when packing delicate products such as broccoli and cauliflower florets by operating at any angle from vertical to 45deg. A rail-mounting option allows the machine to be realigned with the product feed device and moved to a remote location during washdown.

Most Sandiacre machines can accommodate reclosable zipper and also Quad Pack styles in which a fin seal at each corner adds rigidity to packs made from heat sealable materials, improving product presentation.

Upgraded in the field

Rose Forgrove has many Merlin, Minerva and Integra Flowpak flow-wrappers employed for packing delicate fresh produce such as tomatoes, salads, peppers, brand-selected baking potatoes, cucumber, corn-on-the-cob, mushrooms, soft fruits – including peaches and strawberries. These machines, as well as Sandi-

acre baggers, are available for modified atmosphere packaging and can be upgraded in the field with 'bolt-on' options.

Two ranges of bagging machines well suited to fresh produce are made by Hayssen Europe, the high speed Ultima SV and the economy E range.

The servo controlled Ultima SV is available in single or twin tube format and comes in a full washdown specification. Press button program changes allow the machine to run polyethylene, co-extrusions and laminates while a series of purpose designed product handling systems is available, including salad strippers, spinach plungers and bag squeezers. Pack styles include four-corner sealing, block bottom, gusseting and cross-web zipper attachment.

Hayssen's E range is aimed particularly at start-up operations, including growers diversifying into added value packaging for the first time. The machines are built in the UK using an element of recycled materials to reduce cost.

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Sandiacre Rose Forgrove	enter 187
Supreme Plastics	enter 188

LABELLING AND CODING

Machines cope with odd shapes and aid traceability

The shape and size variations inherent in fresh produce pose particular challenges in labelling. So Precision Labelling Systems has extended its range of modular systems to include several units incorporating flighted conveyors to contend with odd-shaped products. The latest of these is designed specifically to handle cucumbers.

The labeller accepts the products wide-edge leading and carries them forward against the flights on an elevated conveyor. The conveyor itself is narrower than the shortest cucumber, allowing the product to hang outside the conveyor frame, supported at each end by angled guides.

Cucumbers are carried forward through the

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overhead-mounted labelling station and a special spring-loaded dispensing beak ensures the label is applied securely while protecting the surface of the product. Thermal printing facilities can be added where print-apply is required.

Addressing a similar shape issue, PLS has recently demonstrated a system to apply a pressure-sensitive label around a sealed pack containing an oven-ready jacket potato. The hinged container is manually clicked together and placed on a conveyor where the label is applied. The hinged lips of the pack apparently made it difficult to apply the label in a single wipe, but PLS overcame the problem by introducing several wiping stations to ensure the label was securely stuck down.

Tracking and traceability are issues for fresh produce suppliers just as they are in more conventional packaged goods sectors, and Codeway is one of several suppliers offering systems tailored to this market.

By capturing traceability data at each stage of the chain, growers and packers can cut out the unnecessary paperwork and logistical costs of handling sub-standard products.

Indeed, according to

Codeway, the Canaries banana industry has trimmed 15 per cent from its administration and waste costs through better product tracking.

Ideally, the grower will identify each bulk box or pallet with a barcode or possibly a radio frequency tag for the packer to scan. Otherwise, the packer can apply a barcode when the product arrives. In either case the packer can use a wireless terminal, such as Codeway's RF600, to track the boxes in bulk stores.

Once the packers have identified the batch they can link it with details of the producer, lot number, date, variety and origin, as well as with quality checks on freshness, ripeness, temperature and so on.

When the produce is ready for inspection and packing, the line supervisor can use the RF600 or a computer terminal to retrieve the batch record, and then set up label printing with display dates and the packer's batch and line codes.

As most fresh produce labels are pre-printed,

the variable data that is over-printed as barcodes or text takes up only a fraction of the label area. According to Codeway, packers such as its customer Foxash Growers find that ribbon-saving label printers, such as the Avery 64 series, soon pay for themselves. "Typical reductions in thermal transfer ribbon costs are 25 to 75 per cent, depending on the label design," says Codeway's Ian Russell.

Automatic print-apply

When a pack house is operating 12 hours a day or more, the case for automatic print-apply using machines such as Codeway's ALS230 series applicator or ALX924 series printer applicators becomes "even stronger", according to Ian Russell. Lower labour costs are the main justification for automatic labelling, but



Handling cucumbers: Purpose-built machine from Precision Labelling

there are further benefits, he says. For example, the chance of picking up the wrong labels from stock are eliminated, and speed of response is generally faster.

A further advantage of an automated system is automatic barcode checking. Codeway's Checkrite systems have scanners to read the code on every pack and divert any that fail to scan. The company also supplies QuickCheck verifiers to ensure packers meet the CEN/ANSI barcode standards demanded by retailers.

After packs and trays are labelled, the next step is to ensure 100 per cent accurate deliveries. By scanning barcodes on trays with RF600 handheld terminals, packers can check them off against the order record in the database and capture advanced shipping notification (ASN) data at the same time.

Codeway says its RF600 unit is also useful for confirming final quality checks and for scanning every pallet or dolly onto the lorry to ensure the load is complete. And it is recom-

mending that larger packhouses weigh up the advantages of RFID to track pallet movements.

Lincolnshire based fresh produce supplier T H Clements used to experience many of the typical product tracking problems associated with barcode errors: codes that failed to scan when they reached their destination or that related to the wrong products.

However, Clements has switched to a Trak 'n' Trace system from Norprint, which it says has improved its overall efficiency and helped ensure a constant supply to customers.

The packer's previous system verified the barcode, but did not tie it to a particular product. As a result, each barcode number had to be checked individually against the product specification, a time-consuming process for Clements' quality controllers.

However, the Norprint data capture system uses handheld units to verify codes and ensure the right code is printed on the right label. The data can then be downloaded onto a standard PC and the information archived for future reference.

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Norprint	enter 191
Precision Labelling Systems	enter 192

CODING SECURITY

Software takes account of changes in coding criteria

CLARIFY code planning software introduced by Claricom has been developed to prevent coding errors as a result of manual data input – the prime cause – specifically in operations where there may be variations to coding rules.

If product life is determined by circumstances other than the date of packing, or where coding rules frequently vary for factors such as concessions or promotions, this can now be taken automatically into account when creating the use-by date.

For example, as Claricom points out, the use-by date for a punnet of washed new potatoes will often be determined from the time the product was washed – not from the date of packing. Similarly, the life of a pre-packed salad begins from the date it was washed and mixed.

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CLARiFY provides a means of setting coding rules that take all this into account and allow batch planning with unique, batch specific information. These rules might include nominal date offsets, allowable date code ranges for each product, avoidance dates and day-of-week rules.

The system is also able to help with product traceability, the differentiation of GM Free produce and the pending FoodTrace legislation, which takes effect from January 2005.

"Because of the complexities of product coding, manufacturers often survive on a mix of know-how, intuition and a variety of verbal or written instructions," says Claricom managing director James Butcher. "If the operator is required to 'work out' the life based on, say, the cook date, or to make sure they have the right number of days in the month, human error is almost inevitable."

The system can be used to print out an easy-to-follow visual digest of what the coding information should look like, with an explanation of any variations made by the planning department, and other related instructions such as the requirement for promotional flash labelling.

More information - enter 194

CASE-PACKING

Fast payback anticipated for pick-and-place machinery

Kroon Salades says it expects to achieve payback within nine months on a newly installed integral case erector and pick-and-place case packer from Watershed Packaging. The Quadro 400 erects cases and packs trays of coleslaw in two layers of three before sealing the case. It is the first of three due to be installed by Kroon.

Meanwhile, French case-packing specialist Cermex has unveiled 'new generation' versions of its SB side loader.

The new SB27 is a response to growing demand for more compact machines combining easy access with optimum hygiene perfor-

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Compact machine: Cermex has introduced the SB27 side load case-packer

mance. Key features are direct, ground level access to the heart of the machine, a compact and ergonomic machine design, a limited number of product retention zones, and casing of the different machine parts.

For further information:

Cermex

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Watershed Packaging

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