GRASS & GRIT

WINTER NEWSLETTER 2020

Happy 20th Birthday BiG X

Twenty years back, on 20 May 2000, the first Krone forage harvester named Big X rolled out of the Krone factory in Spelle.

The self-propelled machine that embarked on the first few trial runs was a 40km/h high-speed version that was communicated as 540hp titan. The new Big X topped the Krone machine programme that since 2000 has covered the entire forage harvesting chain.

Available with the EasyFlow grass pick-up and the EasyCollect maize header, Big X was built on the input of contractors and machinery rings. Accordingly, the machine that was launched 20 years ago, offered a number of features that have since been copied by its competitors. These include the 40km/h transport speed and fully hydrostatic and stepless drives on all four wheels.

Further technical features are the 397kW/540hp engine, six pre-compression rollers, a 750mm diameter and 830mm wide chopping drum with 32 V-shaped blades. Designed to deliver maximum throughputs, Big X is built to a modular concept that gives quick access to all major assemblies.

The Big X actually had the 605hp engine from the very beginning, but Krone didn't want to communicate such a high horsepower on a forager, fearing that back in 2000 customers would perceive a more than 600hp engine as clearly oversized for such a machine. Since 2000 Krone has sold around 5300 BiG X units, now offering eight different versions and two series ranging from the smallest Big X 480 (490hp) to the flagship Big X 1180 (1156hp).

Over the past 20 years, the forage specialist has developed a large number of innovative and unique selling features for the Big X that have contributed significantly to its success. The most outstanding features include AutoScan, AutoStop, the biogas drum, ConstantPower, EasyLoad, the lift cab, OptiMaxx CornConditioner with 305mm diameter, VariStream, VariQuick, VariLOC and XtraPower that was presented only recently at the last Agritechnica in 2019.

Watch this space!

Over the next few months Tulloch Farm Machines will be rolling out a new logo. Our trusted name will remain but our focus will be on a brighter future for farming, starting with our new slogan '<u>Towards Greener Pastures</u>'. We feel this slogan embodies our current business values and although 'technology that works' will always be mandatory when we import machinery here, we think now is a perfect time to encourage positive change.

'<u>Towards Greener Pastures</u>' represents many things. We want our clients' farms and businesses to thrive and evolve as a result of our machinery and support, we want to pay homage to our flagship brand Krone (The Power of Green) and we want to encourage sustainable practices to ensure a farming future. This design process is still in progress but we will be updating Facebook so watch this space!

News on the Go!

Grasslands Tour 2020 Cancelled

Unfortunately due to the uncertainty around the tourism and travel industry created by COVID-19, we have reluctantly cancelled the 2020 Grasslands Tour that we had rescheduled for 2021. We are saddened by the fact we wont be able to enjoy an awesome adventure with the 45 confirmed guests of the tour but hope to see them all in the near future.

Customer Open Days

Some of our dealership network will be hosting 'Customer Open Days' around the country in the coming months. This approach will allow more one-on-one conversation with staff and more time to get familiar with some of the machinery on offer. Follow your local dealer on facebook for updates.

Nick Gillot presents a Monosem model at the FAR Fieldays in Cambridge.

INSIDE...

Tulloch Farm Machines

OUR CLIENTS

NEW RELEASE

Tough, adaptable Krone EasyCut Collect perfect mower for Central Otago

A lot of machinery will do the job well enough, but sometimes you find a bit of kit that does exactly what you want.

That is what Bede Ryan from Bede Ryan Contracting Ltd has discovered with his Krone EasyCut B950 Collect mower. It is a double mower on the three-point linkage and uses an auger system on both sides to pull the grass into the middle into one big row. They can also be used without the auger for a straight mow, or the position of the row can be moved out either side.

Bede uses his EasyCut Collect with a front mower to make a triple combination.

Bede is based in Becks. That is on SH85, the road from Alexandra to Ranfurly. If you know this area then you know about the dry, rocky terrain. It is not the place for a delicate mower.

“We like the robustness of the Krone, and it has a good stone protection set-up,” he says.

“Paddocks around here are cleared and rolled, but the occasional rock remains. The EasyCut has a good rock protection system. The pins shear off and rotors spin up out of the way to minimise any damage.”

Another advantage for Bede is it is a straight mower without a conditioner. Central Otago is a dry area and he does not need a conditioner.
Bede mows lucerne and he says a conditioner can knock the leaf around, another reason to avoid conditioners.

But how does the auger treat the crop?

“It’s as good as gold, and we can switch from grouping to three rows at the flick of a switch.

“Not having a conditioner also makes it lighter. The previous grouper we had was heavier because of the conditioner and it was a lot longer hanging out the back. This one is lighter and more compact. You hardly know it’s there.”

The steep, rocky and rough ground Bede works on is no problem for the Krone EasyCut B950 Collect.

“There are all sorts of conditions here and it follows the ground nicely.”

Ground pressure is changeable from within the cab. He can lighten the pressure in wet conditions to stop it dragging on the ground, but otherwise he leaves it alone.

Bede uses the mower for hay and silage. He mows grass and lucerne and will soon be starting on whole crop.

The advantage of the Collect system is it allows him to use it as a straight mower, or he can group the crop in different ways.

“With a thin crop we can group it and then pull in two rows with a rake. Putting more in one row is a savings on chopping.”

It would seem that having a triple mower would limit his options, but no. “It is just as versatile as a single mower because it is mounted. We can back into corners and cut anywhere a single mower can cut. We can also lift either side for tighter areas.”

In excellent conditions Bede covers 12 ha/hour, and usually he can do 5-10 ha/hour.

It folds up for transport mode with the use of a switch inside the cab. This minimises downtime between jobs.

Maintenance is minimal and blades are quick-change.

“It makes it a lot quicker to change blades. If I am changing the whole set I can easily do it in half an hour.”

The EasyCut Collect has its own monitor. Bede mostly uses it on his 270-hp tractor, but can swap it to another if needed. He says the monitor is simple and easy to learn.

Bede bought his Krone EasyCut in October from Agricentre South in Milton. He says the people there have been supportive and ensured tractor had the correct couplings. When it was set up, technicians worked with him to make sure he was confident with all aspects of the double mower.

Einbock Row-Guard keeps export squash weed-free

Hamish Thomas says weeding around squash and pumpkin plants is easier with an Einbock Row-Guard inter-row cultivator. As cropping manager for NH Packing Ltd, Hamish has operated the camera-guided cultivator for three seasons, and he says it saves time and money when it comes to weeding his prized crops.

“I saw the Row-Guard on the Einbock website andI liked what I saw. I talked to our local salesman, Adam Thomsen, from Stevenson and Taylor, and Tulloch Farm Machines.

“The machine was good, but it was also about making sure it would work for our operation and making sure it was going to work with our row spacing and it did. It is spot-on.”

Hawkes Bay squash exporter NH Packing Ltd bought the first Einbock Row-Guard cultivator to be imported into New Zealand in November 2017. Hamish says there are limited chemical control methods to control weeds in squash and pumpkin crops.

“The Row-Guard has allowed us to become more accurate and get closer to the plants with mechanical weeding. This limits the amount of hand weeding we carry out.

“During weeding, the squash plants are smaller than the palm of your hand, meaning accuracy and precision are so important.

“The machine is pretty accurate, so we can scoot along pretty quickly. It needs a bit of speed to move the dirt away, so it disrupts the weeds and leaves the plant free to grow without disruption,” he says.

A camera mounted on the Row-Guard is positioned to view either one, two or three rows. As it detects the plant row, it can side shift the cultivator up to 250 mm either way to avoid taking out the crop.

At NH Packing, the Row-Guard is used to cultivate three rows of squash on 1.5m row spacings. NH Packing grows 650 hectares of squash itself, and is supplied by other local growers to meet the demands of the export market.

“We cultivate our own crop with the Einbock and offer that tool to our growers who supply us”, Hamish says. “With us having a bit of scale, it has given us the ability to get the technology and offer it to them as well.”

NH Packing grows a further 50 ha of pumpkins for the domestic market, meaning the Einbock Row-Guard is kept busy.

“It is used right the way through the season, from mid-October to the first week of January,” he says.
While Hamish normally gets to operate the Einbock Row-Guard, he says he was beaten to the punch on day one.

“Before I got to the paddock to set it up properly, one of our guys had it already lit up and it was away. He was keen as mustard. Everyone wants to play with the new toy.”

Hamish says the Einbock Row-Guard is pulled behind a little John Deere 6130R, which is “a nice, nifty little tractor and handles the Row-Guard nicely”.

He cruises along at 8-10 kph, but the Row-Guard is capable of motoring along at up to 15 kph.

NH Packing Ltd is a family-owned business, Hamish oversees the cropping operation. He grew up on a dairy farm just south of Hastings, before completing a diesel mechanic apprenticeship.

After completing his OE in the United Kingdom, he returned to Hawkes Bay “to hop on a tractor”.

He began working at NH Packing Ltd 10 years ago as a summer job, which soon became full-time and he eventually rose to cropping manager.

“I enjoy farming and being a mechanic. I enjoy working with machinery and horticulture spins my wheels too.”

Einbock is an Austrian company which has been producing agricultural products since 1934.

As well as the Row-Guard, Einbock offers a range of options for chemical free weed management which are suited to different farming conditions.

NEW PRODUCTS

Comprima Plus: The compact, high-capacity and all-round machine

Krone raises the curtain to present the latest addition to its product portfolio – the Comprima Plus. The new range of variable chamber round balers stands out for a compact build and boosted performance especially in terms of intake and wrapping technology. Also, automatic oil and grease lubrication is standard specification on Comprima Plus for minimum service and maintenance.

Developed for professional and high-throughput applications, the machine has a camless pick-up with helical tines which is sourced from the company's forage wagons and round balers where it has proven tremendously well. The trademark of this pick-up is the patented arrangement of its tines which are aligned in five wavy rows ensuring a consistent and full-width flow to the rotor cutter for perfect cuts and reduced peak loads.

Applying controlled cuts, this XCut rotor cutter delivers precise and consistently high-quality cuts. Its tines are arranged in a helix which distributes the material uniformly across the full width of the feed chamber, ensuring firm edges in all types of crop. The precision cutting system is available with 17 or 26 blades that cut to nominal 42mm and 64mm lengths and that can be selected in groups of 17/8/9/0 and 26/13/13/0. This choice gives users greater flexibility for ideal results in various crops. The rotor is made from extra tempered steel and the cutting system stands out for harder wear which guarantees an exemplary stability and longevity.

Bale roll is taken care of by the well-proven Novogrip belts and sturdier chains and sprockets. Novogrip stands out for a clever combination of fabric belts and horizontal slats that provide effective bale roll and make Comprima Plus the perfect jack-of-all-trades for any crop. The variable chamber models now feature electric density control which allows operators to adjust the bale density from the comfort of the seat and respond rapidly and conveniently to varying crop materials.

The variable chamber Comprima Plus range includes compact and robust models: The solo model Comprima V 150 XC Plus (variable chamber for 1.00m–1.50m bales) plus a combined baler wrapper version CV 150 XC Plus. The combination baler wrappers now boast twin dispensers that orbit around the bale at 36rpm for shorter wrapping cycles. Bale transfer to the wrapping table is fast and reliably with the help of a bale lifter. On the table, which is made up of tubes and chains, the bale is reliably rolled for optimum wrapping. The machine can store up to 12 film rolls in the compartments where they are protected from the ingress of dirt.

Those who work the machine long hours can opt for LED lights which help operators monitor the wrapper and the net application system. Also, more LEDs under the panels make servicing an easier job.

All Comprima Plus machines can either take film or net wrapping and a weighing system is available for the CV model.

Further novelties include new tyre versions of up to size 500/60 22.5" and the KRONE Comfort control unit or the CCI ISOBUS terminal as an option. Standard specification is the TIM tractor implement management system which reduces operator stress by automating such functions as opening and closing the rear door.

Monosem introduces new 17 row Cereal Seed Drill

MONOSEM presents a set of precision planter and cultivator of 17 rows with inter-row of 25 cm for precision planting and hoeing cereals such as wheat or barley.

Promising results

Many trials conducted by seed companies show the importance of seed placement quality, even in cereals.

The use of a precision planter meets this criterion by limiting losses at emergence and obtaining faster emergence thanks to the quality of the seed to soil contact provided by the PRO wheel.

The consistency of the seeding depth provided by the discs and the gauge wheels offers uniform plant sizes. This limits the competition between the plants and making it possible to optimize the phytosanitary applications (all the plants having the same stage during the treatments).

Because losses at emergence are limited, it is possible to reduce seedling densities (less than 100 seeds/m^2) and thus save on the cost of seed. In addition, better spatial distribution combined with lower planting densities limit susceptibility to disease and lodging.

In a context of reduced use of plant protection products or in organic farming, the interest is even more marked, especially as field observations show that the quality of seed to soil contact associated with the regularity of depth of sowing limits losses when using mechanical weeding solutions.

In the end, with this sowing technique, the yields are higher or at least equivalent. When added to the saving of seeds realized, the gain on the net margin is significant.

A unique planter

The experience of MONOSEM in sowing cereals such as wheat or barley started in seed production and then with pioneering farmers. The versatility of the MONOSEM distribution made it possible to test this technique without modifying the seed drills or calibrating the seeds.

The first tests were carried out using single row seeders with inter-rows of 50cm but making 2 successive passes, i.e., final inter-rows of 25cm. To facilitate the reduced use of herbicides, the 25cm inter-row is more suitable for hoeing.

Today, to meet these demands without requiring two successive passes, the Monoshox NG Plus M or NG Plus 4 units are equipped with narrow gauge wheels and hoppers as well as a compact rear packer unit.

This reduced inter-row model planter also allows the use of a single planter for all crops, including beet and maize, with the possibility of using only one row out of two or three to achieve sowing at 50 or 75cm.

Multicrop Compact Hoe

The development of hoeing requires solutions to adapt to all inter-row spacings, especially the narrowest when hoeing cereals. The compact version of the Multicrop range has been developed to adapt to inter-rows from 18 to 65 cm for cereals and some market gardening crops.

This new element has a narrow front wheel of 380x65mm and the adjustment of the working depth is carried out quickly using a notched lever. The element can receive up to 3 tools (shoes, shovels, Planet blades, Lelièvre blades).

The supports of these tools are positioned close to the wheel. This design, combined with a very short element, increases the precision of hoeing thanks to perfect ground tracking and low offset.

The design of the banded parallelogram arms comes from the Multicrop range, ensuring a high strength of the element allowing intensive use over large areas.

The element is also able to support numerous complimentary equipment (rotary finger weeder, rear comb, disc ridge etc). The Multicrop Compact unit can accommodate seedling discs as well as hydraulic cylinders for components that are compatible with GPS auto lift.

NEW RELEASE — On-site Pelleting Press - Introducing the Premos 5000

Krone Premos 5000 is the name of the world's first mobile pellet harvester that produces pellets as it picks the stalks from the swath. The pellets are then conveyed by a belt to a trailer which hauls them directly to the retail customers who use them as feedstuff, bedding and fuel.

Derived from the Latin word 'premere' (pressing), Premos 5000 has a hopper capacity of 5,000 kg (up to 9 m³) and an output of up to 5,000 kg/h which is 3 to 5 times the output of most of today's pelleting systems.

This is how pelleting works: The material is picked up by the 2.35 m pick-up, then a rotor feeds it to a conveyor belt that offers an 800mm flow width. The belt feeds the material through two rollers (800mm wide, 800mm diameter) which act as ring dies with rows of teeth alternating with rows of holes. The rollers work together pressing the material into the holes and the 16 mm diameter extrusion molds.

The finished pellets are then fed by augers inside the rollers on to a conveyor belt which takes them to a hopper that is integrated here. This innovative system eliminates any energy-intensive pre-treatment (chopping, milling). In fact, the energy demand is just half the demand required by stationary pelleting systems.

Pelleting generates temperatures of 80 °C and pressures of up to 2,000 bar. In these conditions, the moisture content is 12-15 % which allows the material to form lasting pellets.

In material where moisture levels are low, operators can spray the material with small amounts of water or molasses to encourage effective bonding. They can also use an integral intelligent wetting system which maintains an optimum moisture level.

For this reason, the pellets made by Premos are as easy to handle as heating oil. At a 600-700kg/m³ bulk density (3 to 4 times the density of straw bales), an amount of 2.5 kg pellets substitutes for about 1 kg of heating oil, a rate that translates into massive savings in comparison with oil and other fossil fuels.

Naturally, it is possible to use the pellets also for bedding and as feedstuff. Experience shows that 250 g of straw pellets absorb about 1 l of water which means that manure volumes can be reduced by about 40 %.

Pellets are rich in crude fibres and make good animal feed. They also offer the advantage of being easy to dose. In addition, being heated to 80 °C they are germ-free.

Summary:

Premos 5000 (System Kalverkamp) is the world's first full pellet harvester which produces pellets from stalks and stems right in the field. The machine harnesses renewable resources and secondary raw materials and helps reduce CO2 pollution.

Another advantage of Premos 5000 is the fact that it can also be used outside the harvest season, if buyers opt for a bale splitter for stationary use all year round.

Furthermore, the machine operates extremely efficiently. It uses only half the energy normally used for pellet production by stationary plants.

Secondly, designed to the concept of a tanker harvester that produces the pellets at the moment of harvest, the machine takes the stress out of logistics as it eliminates the entire and complex harvest chain (baling, bale collection, haulage, handling, storage and pelleting).