



Wide rolls make sense for progressive farming business

A Cambridgeshire-based agribusiness has taken delivery of the first set of Dal-Bo 24.3m rolls supplied in the UK. **David Williams** reports.

PX. Farms Ltd, based at Scotland Farm, Dry Drayton, Cambs, farms a mix of owned, rented and contract-farmed land in Cambridgeshire and Lincolnshire. Cropping is on three main soil types; heavy Hanslope Series and Wickham 2 (medium) clays and Fen Silt. Crops include winter and spring wheats, winter and spring barleys, spring peas, winter beans, linseed, mustard, sugar beet and potatoes - grown for the first time this year in co-operation with an established producer.

As well as the arable farming business, PX Farms specialises in grain storage, with up to 84,000t capacity at the Dry Drayton farm headquarters for the company's own crops and as contract storage for other farming businesses. Specialist drying and cleaning equipment allows preparation to a particular specification and a fleet of eleven 44t lorries is operated, for efficient transport to markets including end users. "Part of our storage service is the capability to prepare out-of-specification produce for the intended market and deliver it direct, achieving

premium returns for growers," explained managing director James Peck. "Our grain 'hospital' removes admix and ergot and can improve quality including colour and bushel weights. Being able to collect from the farm, treat the crop and deliver it means we provide a full, simple and efficient service."

CTF pioneer

The farm practises controlled traffic farming (CTF), ensuring all vehicles share the same wheel tracks during field work, year after year. Benefits include improved soil health and structure, partly through reduced compaction and the ability to carry out timely field spraying and spreading applications as the long-established tramlines provide improved load-bearing capability even when wet. "We moved to CTF over two years from 2010, after I studied the subject as part of my Nuffield Scholarship," explained James. "By 2012 we were fully equipped so that all machinery was compatible with the 36m tramlines."

The machinery fleet includes 3



The MegaRolls replace a 12m set and were bought for higher work-rates and to be compatible with the farm's CTF field work system. The 24.3m working width makes the 400hp Fendt on the front look small.

and 6m subsoilers, a 12m precision cultivator, and a 12m heavy cultivator. The self-propelled sprayer has a 36m boom and the two Claas Lexion combines both have 12m headers.

Cereals are established with two Horsch drills; a 12m Sprinter and a 6m Pronto KR6 power harrow/drill combination. Most land is deep cultivated with one or two passes and rotational subsoiling is practised. Sugar beet land receives a pass with the Dal-Bo RolloMaximum 12m precision seedbed cultivator before drilling by a 6m sugar beet drill, due for updating to a 12m in the near future.

Black-grass has declined in recent years partly due to a wider range of crops grown in an extended rotation. "Whereas black-grass used to be a primary consideration whenever we did anything, now it is not such a threat," said James. "It's always there

but manageable."

Slugs have also declined, mainly because of the broad rotation but also because oilseed rape is no longer grown, and James said approximately five per cent of the quantity of slug pellets are needed now in a typical year.

Rolling benefits

When James first took over running the farm from his father, his first significant purchase was a set of 12m rolls. "That was in 1998 and everyone commented they were far too big and quite ridiculous. But they performed well for many years, the size became the norm, and we consider rolls an important part of our crop establishment routine.

"The main reason we roll is to ensure good seed to soil contact through adequate consolidation," he explained. "Another consideration is that if land isn't rolled and dries out large cracks appear and soil lower down dries out and the seed dies off. A few years ago we had cracks in our sugar beet land so wide that mice used them to get to the seed, so where possible we roll almost all our crops after drilling."

Other benefits include improved tillering in the spring if the weather allows rolling of late-drilled winter crops, and the level surface and reduced numbers of clods improves efficacy of chemicals. "We could achieve a more level seedbed by increasing the number of cultivation passes," pointed out James, "but

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An effective weight transfer system ensures even consolidation across the working width.

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cultivating more doesn't guarantee a result even though it takes much longer and costs more, whereas rolling always has benefits."

With more land taken on in recent years and the farm's average tractor size and power increasing, James considered moving to a set of wider rolls, to make better use of the tractors available and to fit in precisely with the CTF system. When the 12m rolls were bought the biggest tractor on the farm was 200hp but two 400hp Fendt 939s are

available now with the capability to pull larger sets of rolls more quickly.

Road and field

"We looked at two alternatives," said James, "including the Dal-Bo MegaRoll. Some of our land involves road journeys up to 45 miles and it was important to us that the rolls we chose not only perform well in the field but also tow safely on the road at the higher speeds our tractors are capable of."

Both rolls were borrowed on demonstration last year and the

simple Dal-Bo folding design and high quality running gear immediately appealed. Twin commercial specification axles and high quality Michelin 600/50-22.5 tyres were identified as preferable to those of the other rolls which still offered high-speed but lacked the full commercial specification. Adjustment from the cab allows tyre pressures to be optimised for high-speed road transport and reduced for the field. The lights fitted are clear and easily seen by other road users. "Running our fleet of lorries has made us

more aware of the need to check specification of components such as the wheels and brakes, and we have everything regularly tested," explained James.

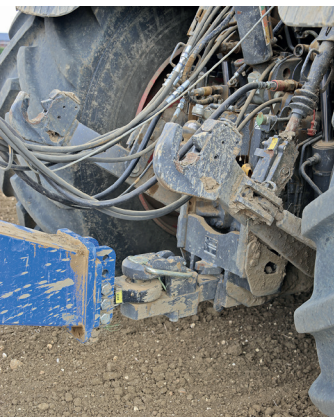
"The MegaRolls fold to under 3m for transport and tow like a lorry trailer. Being so wide we have to unfold them in the field, so the four large tyres are an advantage carrying the weight on soft ground until weight is transferred to the rollers. They unfold in under seven minutes and tyre pressures are reduced from the cab for maximum flotation.



Weight distribution is adjusted hydraulically from the cab and gauges monitor pressure.



Owner James Peck said a big attraction of the Dal-Bo rolls was the transport arrangement. Twin commercial axles and four large flotation tyres ensure the rolls tow like a lorry trailer. Air brakes are effective on the road and in the field.



A Cat 4 hitch was specified. "We run a fleet of 44t articulated lorries as part of our grain storage business so are very aware of the need to make sure wheels, tyres and brakes are all up to standard," he said. "We go to great lengths to make our operation as safe as possible and uprating the hitch means there is no drawbar play and reduces risk of failure."

Bo's exclusive hydraulic pressure compensation system transfers weight from the centre larger rolls to the lighter outer rolls ensuring even consolidation across the full width. "That is important," explained Dal-Bo UK sales manager Steve Atkin. "If pressure is uneven the surface won't be level and, more importantly, crop emergence will be uneven. Even with the weight transfer, every section moves independently following ground contours accurately so uneven or undulating surfaces are followed accurately for consistent consolidation."

Ideal power match

James said using the 400hp Fendt tractors allows high work rates with minimum ground damage. "We had a 240hp tractor on the rolls when we trialed them on demonstration," he explained, "and although the tractor coped it lacked traction, so wheelings were clearly visible. The 24m rolls are heavy but the bigger

tractor not only has plenty of power; the extra weight and larger tyres mean there's no shortage of grip resulting in less surface disturbance. We have some slopes which make the tractor grunt a bit with the weight behind, so I would say a 400hp tractor is an ideal match."

Results since delivery in mid-spring have been good so far and James expects the rolls to be used extensively across all the sites farmed. The increased cropping area means the farm fleet has to be capable of high work rates when weather windows allow and the new rolls are ideal. "Our range of soil

types helps spread our workload and running high output machinery helps us make the most of optimum opportunities for field work," he added. "Currently our land is mainly medium to heavy but we are keen to take on some lighter land too, helping us make even better use of our fleet capacity."

"Soil to seed contact is critical," concluded James, "and a level surface with fewer clods ensures we get maximum benefit from chemical applications. Using the Dal-Bo 24m MegaRolls we can cover up to 200ha per day and guarantee improved crops."

"When we bought our Dal-Bo seedbed cultivator four years ago, we were impressed by the company's efforts to make sure we got what we needed and after we took delivery the Dal-Bo team was interested in its performance. Although these wide MegaRolls are new to the UK, we are confident that if they aren't satisfactory the company will take them back without question which gives us confidence. They want to be involved, welcoming our feedback and we are more than happy to work with companies in this way," he added.

Even consolidation

The wide roll's 9 sections of 55cm ductile rings are in a Cambridge/breaker combination and Dal-



PX Farms managing director James Peck is pictured with the rolls working on recently drilled sugar beet land, being farmed by the business for the first time this year.