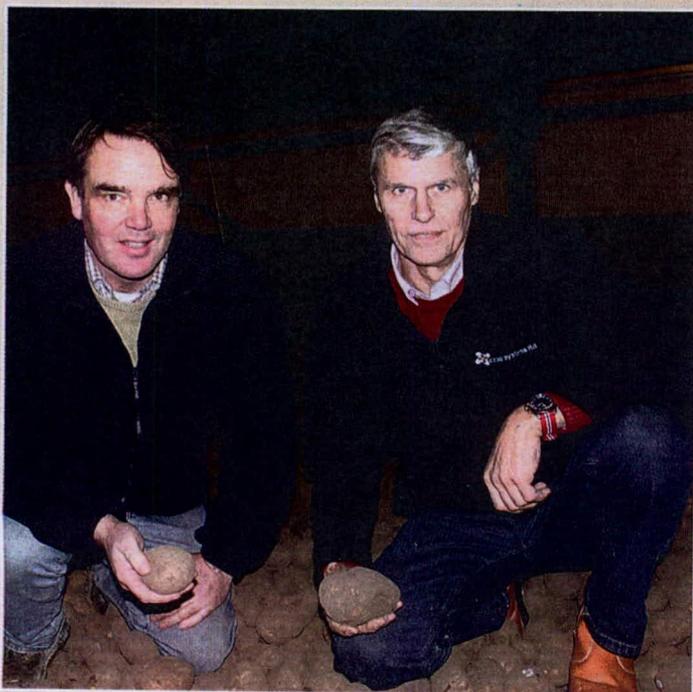


POTATOES

Taperstor – bespoke storage perfected



Crop Systems Ltd's new TaperStor™ offers operators total control over the stored crop and the environment in which it is kept, combined with the ability to maximise the volume of storage available on any given footprint and so reduce storage costs per tonne.

TaperStor™ enables accurate airflows and allows crops to be loaded to a greater height and – by eliminating tight corners – to achieve more complete fill levels across the whole floor, which optimises the use of space.

The first store to 'go active' is at Fridlington Farms' base at Sutton-on-the-Forest, North of York, and is loaded with over 3,000 tonnes of crop, one side being split between the varieties Royal and Innovator, and the other half with Fontaine.

Owner Stuart Stark is impressed with its performance: "We used to rent stores but were never happy that they were good enough. The cost of growing potatoes is so massive we feel we must do everything we can to store them correctly, and we believe this store offers that.

"We needed the best potato store we could get and we feel Crop Systems Ltd has given us precisely that."

Under the store's innovative design, both the fan house, central duct and laterals leading away from it are tapered and incorporates Crop Systems' "GuardedSlot" system which helps maintain even air flow throughout the store. Airflow to laterals can be managed individually using proportional adjustable lateral slides.

As the housing in which the fans are located is tapered, this makes loading and unloading the store easier and also helps increase fill levels to six metres, so the store effectively holds 3,200 tonnes of potatoes on a footprint where a conventional store would have 2,400.

The store uses "a specific design of fan, which provide a gentle air flow – which proved ideal for ensuring fogging treatments and chemicals are applied evenly, says Matthew Wallace, who manages the facility: "We fogged for the first time in November and there was less than a 5% difference between the

gas levels at the front of the store and the back, and in the laterals. The computer system provides a huge amount of information which makes it very easy to manage the treatments".

Andrew Wagstaffe, from Superfog Ltd, says the store's design helps eliminate wastage: "The fans in this store turn very slowly and push the fog gradually and consistently through the store. After the treatment we could see no deposition on the blades, and there are very few points where leakage can occur, so the level of wastage was minimal".

The store's flexibility is a key asset, says Ray Andrews, from Crop Systems Ltd: "Most stores are loaded over a period of time, and changing weather and ground conditions mean potatoes come into store at different temperatures, moisture levels and states of cleanliness.

"TaperStor™ operators can increase airflow where needed to achieve efficient cooling, where crops need to be dried and high soil levels or problem potatoes increase the crop's resistance to airflow.

"We believe it represents a significant step change in store design. It is totally flexible and can safely store any crop – no matter how dirty or wet – in any year. It is constructed entirely in concrete, so there is no wood to rot or deteriorate.

"To finish the store, we have used sealed hatch louvres which eliminate leakage, which can be a problem in stores using standard louvres. When closed they become an integral part of the outside wall.

"We have heard a few horror stories about people having to unload Fontaine this autumn because it would not keep; at the moment this crop is fine. It was cooled very quickly and is stable now".

Owner Stuart Stark says: "Crop Systems Ltd never ending quest for perfection, backed up by their wealth of knowledge and expertise gave us complete confidence in the end result, which we are thrilled with. We have a store that has surpassed our expectations and it is exciting to be involved in such a pivotal development in crop storage".