

# Tapered store design

Crop Systems' new TaperStor store design 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.

According to the Norfolk-based company, TaperStor enables operators to load crops 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.

Both the central duct and laterals within the store are tapered, which helps maintain even air flow throughout the store.

Fan housing also tapers, which makes loading and unloading the store easier and helps increase fill levels to 6m, so a store effectively holds 3,200t of potatoes on a footprint where a conventional store would have 2,400t.

This means operators can ensure totally even, consistent flow of air throughout the store – ideal for ensuring fogging treatments and chemicals are applied evenly.

"Most stores are loaded over a period of time, and changing

weather and ground conditions mean that potatoes come into store at different temperatures, moisture levels and states of cleanliness," said Crop Systems' Ray Andrews. "But TaperStor enables operators to manage the air flow throughout the store, so it can be increased where needed to achieve efficient cooling, or where crops need more air so they can be dried.

"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.

"The bay walls are constructed entirely in concrete, so there is no wood to rot or deteriorate and 'short-case' fans ensure even air distribution is maintained, especially when working at low air speeds.

"Tight corners have been eliminated where possible, which makes it easier to load and unload, which is helping achieve greater fill levels and raise capacity.

"To finish off the store, we have used sealed hatch louvres which eliminate leakage, which can be a problem in stores using standard louvres," he added.