

# Innovations that improve productivity

Kelly Deeks

**A**erial top dressing specialist Aerospread is paving the way to efficiency, consistency, working on innovations to improve the productivity of aircraft and helping the drive to reduce costs, giving farming clients a savings advantage.

Previous technological advancements which Aerospread has been involved in include its first for the industry, custom-built, free of charge mapping software called Aero-Link-Pro.

Farm mapping tools on Aerospread's website transfer input data to a Keyhole Markup Language (KML) format, then directly uploads it to the aircraft, providing an accurate digital map for the pilot to plan and fly the property.

It allows for hazardous areas to be marked, enhancing pilot safety and complying with WorkSafe and CAA rules and regulations.

Another world first for agricultural aviation is the DZMx software developed for Aerospread by aircraft cellular and satellite communication systems specialist Flightcell.

This allows loader vehicles and aircraft to communicate to ensure weights are counted accurately and the area covered is accurate.

The main benefits are enhanced communication, application planning, traceability, and lessening the pilot's cockpit workload which greatly increases safety.

As all aircraft are limited by weight restrictions, Aerospread is continually working on weight saving advancement.

Its recently commissioned retrofittable hopper box is constructed of lightweight carbon fibre and offers a weight saving of 55kgs.

This has now had more than 20,000 tonnes of product go through it and is proving very cost effective.

"The lightness allows aircraft to carry the equivalent of the weight saving in fertiliser for every single load, safely and legally," says Aerospread managing director and chief pilot Bruce Peterson.

Aerospread's latest development to improve aircrafts' productivity and reduce costs is an electronic variable rate system which saves 20kgs to 30kgs from the traditional hydraulic systems.

It includes GPS mapping, advanced safety features, and drift mapping. "It's a step-up to the next level never seen before in environmental practices," Bruce says.



Aerospread has worked on weight saving advancements in its planes to make them more efficient.

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Aerospread's sister company KTL Transport specialises in keeping fertiliser in front of the Aerospread planes, providing efficiencies for Aerospread and its clients.

"We cart our clients' fertiliser and we subcontract to other carriers. If a carrier can't send the last unit or two on a good day, we can jump in and do that for them. It makes it efficient for the client and efficient for us, as we can take advantage of the weather on a good flying day."

Bruce says Aerospread has 30 years of experience in the industry and 100 years of combined experience in its pilots. "We always try to front foot issues," he says.

"There is a hell of a lot of compliance in our industry, so we have developed a unique health and safety system (SMS) that covers compliance for clients and staff as well as covering off aviation rules and regulations.



"This is a very user friendly with limited input for third party and works very well." Bruce says anything developed has to earn its way into the aeroplane or into the company.

"Every time we develop something, it advances everybody. I enjoy that sort of thing, so do our staff and we're pretty proud of all of our guys. Everything we do is in the best interest of our customers."