# RESEARCH REPORT AIR SEEDER CARTS



## Simply multiply by seven to get lots

From Dalby, Queensland, Simplicity airseeders cover seven chassis configurations with more than 40 model variations.

Bin capacities are from 1500L to 20,000L and there are tow-behind and tow-between models.

Steerable axles and castering wheels are also available

In terms of design, Simplicity has not changed much over the years. As they say, "when you're on a good thing, stick to it".

One of the things which has changed is the load/unloading auger design.

The augers have been improved with better balance and a new mounting system. They also have locking clamps to improve auger use on sloping ground.

The augers are hydraulic drive and feature forward and reverse operation and a steel hopper.

Auger diameters are 152mm, 203mm, 228mm and 254mm, depending on the model.

Simplicity offers two and three-bin models plus there are small seeds box and liquid options.

### Meterina

Simplicity's metering system has not changed greatly in 30 years. It's fluted roller design has the ability to blend product within the metering unit.

See-through panels allow the operator to see product moving and there are insert plates for smaller seeds such as canola.

Simplicity mostly uses a ground drive metering system running Zero Max gearboxes but it also offers proportional hydraulic or electric drives.

Simplicity has been offering its seeders with full variable rate application, still utilising the ground-

drive mechanism but with the addition of linear actuators.

Simplicity believes this system to be both simple and reliable.

## **Calibration**

Calibrating the machine manually takes about 30 minutes but the process is sped up considerably with the linear actuator option as you don't need to count the number of crank turns and there is no trial and error in the procedure.

A range of controllers is available. The TopCon E15 Eagle is standard and TopCon X20 and X30 controllers are also available.

Recently, Simplicity added the "IB" to its monitoring options which allows other brands of screen such as a John Deere 2630 or Pro 700 to display the Simplicity software and control the airseeder using the Virtual Terminal capacity of the alternate screen.

#### Air and distribution

The metering units use four, six or eight outlets which feed into 76mm diameter hoses.

On larger bars the typical division procedure is the 76mm hose is used to deliver product to the primary dividers, and on to secondary heads which then deliver product to the seeding gear.

Depending on the set up, the primary dividers deliver product via two, three or four outlets.

Two-way systems use a 50mm line while three and four-way systems use 44mm hose. Simplicity's secondary heads range from four to 10 outlets.

Oil coolers are standard and the fans are hydraulic drive with Rexroth motors.



#### Safety

Access to the bins on most of the larger models is via a rear-mounted ladder.

On top of the bins there's a full hand rail system with kick boards. The ladders also have hand rails.

On top of the bins is a sturdy platform made of steel grating.

The middle hand rail swings down to allow auger access for filling.

#### Wheels

There is a range of wheel set ups depending on the cart capacity including castering wheels and steerable axles.

Castering generally allows sharper turns and is often suited to smaller seeding bars compared to steerable axles typically being able to carry more weight and generally track better, but are more difficult to reverse.

### Contact

www.simplicityaus.com.au

To view the full report go to http://www.kondiningroup.com.au/storyView.asp?StoryID=9641037