



World planting record for *Multi Farming Systems*



Farmer John Coggan lines up son, Phillip, at the start of their feat to plant the most wheat in 24 hours. They used a 120 foot (36 m) Multiplanter, made by *Multi Farming Systems*, the commercial arm of *Trevilyan Research*.

A Queensland farmer has broken the world record for planting the most hectares of wheat in 24 hours, using an Australian designed 120 foot (36 metre) Multiplanter.

John Coggan’s quest, undertaken to raise money for heart transplant research, drew widespread media coverage from as far as France and Denmark.

He used *Multi Farming Systems*’ cleverly designed Multiplanter to easily break the world record by planting 905.48 hectares of wheat in 24 hours.

Multi Farming Systems is the commercial arm of *Trevilyan Research Pty Ltd*. The family company is run by engineer and farmer David Trevilyan. The family also runs a fully operational farm at Honey B Ranch, near Banana, Queensland, inland from Gladstone.

The largest Multiplanter manufactured is 160 ft (49 m), but David has designed one as big as 302 ft (92 m).

“We believe the 160 foot Multiplanter is the largest in Australia, and possibly in the world,” said Kris Trevilyan, the company’s marketing manager.

“Each tyne assembly point (the digging tip used to make the channel for placing seeds) moves independent of the frame, significantly reducing the horsepower required by the tractor to pull the machinery.

“The Multiplanter tynes are depth controlled by their individual press wheels, ensuring that every seed is planted at precisely the depth the farmer wants it, even across undulating country and over contour banks.”

Kris says *Trevilyan Research*’s innovative designs are held in high regard by farmers around Australia – and David’s innovations are often in response to direct requests from farmers.

“We design our machines so that they can withstand Australia’s harsh environment,” Kris said.

“We’re farmers ourselves, so we understand the need to make machinery with minimal maintenance that is built to last.

“Our no-till machinery is becoming increasingly popular with broad acre farmers because finding labour is very difficult. Fewer passes over the same piece of land, with the ability to go wider with the same tractor, has resulted in significant labour and fuel savings for our customers.”

Trevilyan Research’s research and development received a boost when the company registered for the *R&D Tax Concession*.

“We’ve been designing and manufacturing machinery for around 25 years, but we have only recently claimed the tax concession,” Kris said.

“I got in touch with AusIndustry, and their local regional manager gave us a lot of good advice about the *R&D Tax Concession*. Then it was just a matter of speaking with our accountant who helped us put it all in place.

“Being registered for the tax concession makes a significant difference to our business – in effect it means we can keep the costs down for our customers, and it enables us to spend money on projects that we wouldn’t have otherwise gone ahead with.”

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Trevilyan Research used the *R&D Tax Concession* when designing its innovative Broadacre Chemical Dispensing Spray Rig, and Sensor Tyne System.

How it all began

David Trevilyan began tinkering with tractors on his family farm as a teenager, and at age 21, built a 53 ft spreader bar with a folding wing to run up the side of contour banks.

He was allocated his farm's acreage in a government ballot in 1957 and soon realised a no-till system was needed if he was to stay in business.

In 1975 he built what was then the world's largest tractor – complete with four-wheel drive. It was built to last a

lifetime and is still used as a crane and for deep ripping on the family farm.

His next invention was the Multiworker Chisel Plough, which could be adapted for many conventional farming activities, such as spraying cotton gantry style.

The Multiworker is used for conventional farming, and incorporates a hydraulic ram on each tyne to penetrate tough soil.

In 1985, a group of farmers approached David to build a machine capable of planting seeds at a consistent depth, regardless of contours in the field.

The farmers wanted every seed to come up at the same time, and for each seedling to grow into a vigorous and

healthy plant. This would be achieved by precisely placing each seed exactly where they wanted, and to be compacted in moist soil.

The second important criterion was that every machine have minimal maintenance.

The result was the Multiplanter, which uses an innovative parallelogram depth controlled press wheel and digging tip to precisely place each seed.

Around 10 people are employed in the family business, with piece work contracted out during periods of high demand.



A 111 foot (34 metre) broadacre chemical sprayer designed and manufactured by Trevilyan Research. The sprayer was developed with help from the *R&D Tax Concession*.

R&D Tax Offset

The *R&D Tax Concession* allows companies to deduct 125% of their research and development expenditure when lodging their tax returns.

The government has enhanced the concession by providing innovative small companies with an *R&D Tax Offset*. The offset helps small companies increase their cash flow during their initial growth phase.

Companies need to register their activities with AusIndustry each year to claim a concession.

AusIndustry is the Australian Government's principal business program delivery division in the Department of Innovation, Industry, Science and Research.

AusIndustry delivers more than 30 products, worth about \$2 billion a year, to more than 10,000 large and small businesses and 100,000 individuals.

AusIndustry products include innovation grants, tax and duty concessions, support for industry competitiveness, venture capital, tourism grants and small business skills development programs.

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