

# Early Start, Impressive Results



**E**arly September 2011 we were invited to visit Paul Lush, of Mallala, SA. Paul is very pleased with the results of furrow injecting fungicides, trace elements and inoculants. Paul purchased a Liquid Systems (SA) TBT 2010 Module, with SPIKER variable injection and STACKER Distribution system prior to 2011 seeding.

First we were greeted by John Lush (father), who quickly said “We have paid for our Seeder costs in one season!” As in years previous, they

spread chicken manure, but this year they had the ability to apply trace elements, fungicides and inoculants in-furrow and it’s looking likely that they will have a 10% increase in yield --- even with this winter having below average rainfall.

Paul said, “I’m rapt with this set up — you’ll see the difference the minute we start driving around, looking at the crops. I said to someone the other day I can’t wait for seeding time next year as this system is *so* good to use.

We were then taken to several of his properties where we were shown a number of crops. First was a field of lentils that were sown with inoculant, using the SPIKER. Paul explained, “we suspend the inoculant in calico bags in the product tank and you can easily see in the crops where it’s been applied” --- (they had left control sections so that they could observe the effects of inoculant application).

We were taken to a tillering wheat paddock where Paul had left a control strip where no trace elements or fungicides had been applied. The picture shows (side ‘A’) where no liquids had been applied and (side ‘B’) where trace elements and fungicides had been applied. Paul explained that side ‘A’ “looks fluffier and is coming to head quicker, showing stress”. The wheat on side ‘B’ “is stronger, has a better root system, better leaves, thicker stems, larger heads --- better everything!”

“The spikelets bear from 1-5 flowers (florets). In a good year you’ll get 5 flowers wide in a spikelet and in a poor year only 2 flowers wide per spikelet.”

He informed us that he was getting 8-10 spikelets per head and 4 florets wide --- with only 6 inches of rain.



**ABOVE & BELOW:** Paul Lush says in-furrow applications has made the wheat stronger, a 50% better root system, better leaves, thicker stems, larger heads—better everything.



**UPDATE:** 8 FEB 2012

## The Results Are In

Lush Farms have completed their harvest and the results from their testing are impressive.

Prior to sowing, Lush Farms spread chicken manure. They sowed Mace Wheat with a granular starter fertiliser but also treated their crop by injecting in-furrow:

- a premium blend of zinc, copper and manganese at 8L/Ha (90c/litre)
- 250g/L Flutriafol at 400mL/Ha (\$10/litre)

The trace elements were tank mixed with water and applied using a Liquid Systems (SA) 2010 TBT Rate Control Module with a SPIKER module dosing the output with the Flutriafol. These modules were mounted on their John Deere 1910 Air Cart and with a STACKER Distribution system mounted on their 1890 disc seeder.

Data was collected to compare Test Weight and Screenings against an untreated control strip. The results show a significant productivity advantage in the treated crop.

	Treated Crop	Untreated Control Strip
Test Weight	81 kg/Hl	78 kg/Hl
Screenings	1.5%	3%

As a result of the plumper grain, protein was slightly lower in the treated crop (without downgrading). This will be compensated for this year by applying additional nitrogen towards the end of the growing season.

The in-furrow Flutriafol gave around 16 weeks protection against stripe rust.

Paul Lush is extremely happy with the results. “We have soil that’s low in trace elements and the plant is taking up all the nutrients we are putting out.” He said. “We have had to change the way we farm but we are heading down the right track without a doubt.”

This year Lush Farms will be increasing the size of their control plot to get a better picture of the benefits of their new practices. The flexibility of the Liquid Systems (SA) setup will allow them to customise the fertiliser, micronutrient and fungicide mix based on crop requirements and soil testing results.

This is a prime example of how Liquid Systems (SA) equipment can be used to cost effectively provide prescription farming even without the use of nitrogen or phosphorous based liquid fertilisers.

**LIQUID SYSTEMS (SA) IS AN AUSTRALIAN OWNED COMPANY**

# Opportunities for protecting crops and improving profit this seeding season!

Australian farmers rank amongst the most efficient in the world. Fiercely independent and incredibly resilient, they continue to push the boundaries in terms of crop establishment regimes.

Farming has changed dramatically over recent years through advancement in scientific knowledge and development of sophisticated technology. Unpredictable weather, nutrient deficient and non-wetting soils and with greater environmental regulation of farming practices on the horizon, accuracy and uniformity of fertiliser application at seeding is essential.

For 11 years, Liquid Systems (SA) has been designing and manufacturing its unique, specialised systems and components to furrow inject liquid fertiliser, trace elements, inoculants, fungicides, soil wetters and other products at seeding. They have spent considerable time and money on research and development to create reliable, accurate systems that help farmers maximise their productivity by seeding and injecting multiple liquids simultaneously. Farmers can count on Liquid Systems (SA) products to deliver faultless streaming of liquid at the openers. They will know exactly what rates they are applying and they will be able to integrate with mapping systems.

Farmers and scientists understand that the object is to get nutrients back into the soil more efficiently, using the right amount at the right time to increase productivity and minimise costs.

Liquid Systems (SA) products give opportunities for improving yield by up to 10%.

## Individual requirements resolved, read what satisfied customers have said.

**Cleve Farmers, Mathew & Taris Price** stated, "We have an extensive cropping programme which needs to run efficiently, so we chose a system that delivered ease of operation. We required a system where we could put trace elements out, fungicides and liquid nitrogen UAN. We chose a G22 and Spiker system, which gives us a lot of flexibility with rates and mixing capabilities. We find the Spiker system fantastic because of its capability of low rates which enable you to put products e.g. trace elements or fungicides out neat, this then mixes into the G22 main stream."

**Trevor Walters from Managatang, Vic.** protected his crop and recouped his investment in Liquid Systems (SA) technology in its first season injecting zinc and fungicide with water while seeding. By injecting these products in-furrow he avoided the need entirely to spray for stripe rust that was prevalent in the region. He did not require any additional crop care products post seeding. Trevor said "I needed to have a constant rate of crop protectant of fungicide and zinc products, along with handling and safety issues, the Liquid Systems unit proved to be very reliable, very easy to use and calibrate and paid for itself in the first season."

Australia can't have sustainable agriculture without profitable farmers and being smarter with fertilisers is a critical part of the equation.

When seeding, protect your crop from diseases with fungicides in-furrow. Improve your soil by injecting nutrients & trace elements in-furrow with systems you can trust!



Liquid Systems (SA)  
Liquid Systems (SA)

Maximize your productivity when seeding by injecting in furrow multiple liquids simultaneously with accurate & reliable equipment. You can count on faultless streaming of liquid output, save thousands on input costs, know what rates you are actually doing, integrate with field mapping systems, while minimizing down time during your seeding regime.

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