

Precision **Ag**

MAGAZINE OF JOHN AUSTIN LTD

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2003 RURAL
CONTRACTOR
OF THE YEAR

JOHN AUSTIN
AGRICULTURAL CONTRACTORS & MAINTENANCE



Spring is here

Welcome to Precision Ag for Spring 2003

This edition will give you insight into the new technologies we are investigating. It details our efforts to make your operation more profitable and satisfying as we strive to add value - real world leading value.

I've just returned from a trip to USA. Our Customer Care Manager Malcolm Lind accompanied me. We spent one week touring with Pioneer and other contractors from across New Zealand.

Pioneer gave us a detailed look at their research and effort they make to bring us world leading hybrids and inoculants. This included inspections of Plant breeding, inoculants selection and production. We visited Francis Childs' farm and a farm contractor.

We visited Pioneer's livestock nutrition centre and saw first hand the amazing research they are performing under commercial conditions with silage and animals. This demonstrated to us the huge commitment and important role Pioneer has in our industry.

We certainly were impressed!

The contractor's tour then returned home while I stayed on to look further into new ideas and equipment. I travelled to Minnesota and visited with Vertical Tillage Strip expert Dr James Ladlie. We visited trial plots and discussed our new venture into strip tillage. I learnt more about the value of soil health i.e. fertility balance, oxygen, precision placement of fertilizer and cost effective production systems. I heard more of Ray Rawson (a legend

in top crop production like Francis Childs) who has doubled local averages - and that's on 20,000 acres. Like Francis he's been perfecting his system for 30 years.

From there I visited friends in Ankeny, Iowa who are corn and soybean growers.

This was followed by a visit to John Deere AMS Precision Farming at Waterloo to see the new 7020 Tractors. This was an excellent opportunity to talk tractor efficiency

I then travelled to friends at Wisconsin Dells who grow seed corn, corn soya beans, snap bean and cattle. On to Illinois and the John Deere Harvester works and seeding factories to talk about the latest machines and how to maximise productivity. We also discussed the future development of these machines and how that will help us in the future.

During this time I also met James Purlee, (an award-winning farmer) and discussed his farming operation. It's very smart - big on machine utilisation and efficiency. This visit was right on the focus for my trip. I caught up with friends at Galesburg, Illinois - a farming family who grow corn and beans. They have always been early adopters of new practices and it's always great catching up with them.

Then on to Montana for a very special visit for me. Scott and Linda Payne are legends in custom harvesting. They are outstanding operators - well known for quality and professionalism in contract harvesting. My association with Scott and Linda goes back many years and I have valued their



encouragement and wisdom. They visited us in New Zealand several years ago and were struck by the intensity of the phone contact we have in our operation.

In their business they would only have probably 25 customers.

Scott was injured two years ago and is slowly regaining his health. Despite this Scott and Linda are still fully involved in the harvest.

I had a wonderful time with Scott and Linda and as interesting was my visit to two of the farmers that they harvest for. Both valued yield monitoring and used variable rate seeding and auto track steering. I was surprised that these two farmers, with 10,000 acres each, were so heavily into Precision Farming.

My trip was highly motivating and gave me even more encouragement to continue trying new things and to pushing for increased efficiency.

Our goal remains to deliver world-class technology - and that's exactly where we are heading. Following are some examples. 🌱

John

New sprayer

Always conscious of the need for efficiency we have looked hard at all our operations. One area I really wanted to change was spraying. We have made a heavy investment in this area. The technology we've selected is not new to the USA and is well proven. Ours will be the first in Australia and New Zealand and is being built to our specification to meet your requirements.

We have a new 3000 Ltr capacity drawn Sprayer capable of applying three different chemicals at one time.

We can change application rates or turn on additional chemicals from the cab whenever we want.



We can also change to different chemicals very easily. That means there are no pre mixed chemicals left over. No more going back for small amounts of spray to finish the job. We can do multiple smaller jobs without filling or pre-mixing or we can do 40 ha a load. 🌍

POP UP

Fertiliser for planting

We are certainly proud of the quality of our planters. The world record holder for grain production (Francis Childs) looked at what we were doing with these. He was impressed. The only thing that we were not doing was pop up fert. This is a liquid fertiliser applied with the seed on each side of the seed trench.

So we have changed that this year and now have two planters equipped with pop up and we'll be monitoring their performance this season. We believe that this should help in early growth and gives you the option of adding nutrients that may be deficient in the early stages. 🌱



Mowers

We've invested in new extra wide mowers which have great flexibility and the ability to leave well shaped and fluffy swaths in single, double or triple rows. They can also spread the grass, negating the need for a separate operation enabling us to give you a faster and more cost effective mowing service.

We hope you'll agree that this all adds up to real service and real efficiency. We trust you'll help us harness its potential by giving us plenty of warning about your needs and having your farm set up for our arrival so we can deliver your expectations. 🌍



Strip Tillage is an exciting concept

Francis Childs and Ray Rawson are passionate about managing soil health to get oxygen and soil nutrients deeper, thus promoting healthier and deeper roots. This focus on the soil is often referred to as 'Farming Vertically'.

According to the text books, the soil performs well with no tillage. However, I believe ripping a slot in the soil with the strip till and banding your fertiliser leaves a warmer, well drained environment for the young plant to grow in. 🌱



Massive corn root system assisted by vertical strip tillage



Compacted roots

Cows and production both benefit from diet of

High conception rates, low induction rates, great condition and improved production are just some of the benefits that Otorohanga farmer Gwenda Mudford attributes to her cows' daily diet of maize.

Gwenda milks 600 cows on 160 ha, at a stocking rate of 4.25 cows per ha, and last season produced 220,000 kg m/s from a herd she proudly describes as 'happy, fat capacious cows'. This year she's aiming for 240,000 kg m/s and plans to achieve that by continuing to focus on optimal nutrition, which she is adamant should include a daily feed of maize.

According to Gwenda, having John Austin Ltd partnering with her in the production of her maize has helped immensely in the running of her farm. She says, "I can't speak highly enough of John and his team, they really are amazing. They advise me on the best seed, do all my groundwork, cultivation and harvesting, and if I need to buy in extra they organise that for me as well."

A long time believer in the benefits of maize, Gwenda has gradually increased the amount of maize she produces to feed her cows since she first introduced it as a supplementary springtime feed in the early 70s. Five years ago she invested in a nearby 40 ha run-off and now produces 30 ha of maize per annum, and feeds out approximately 1500 kgs of maize dry matter per cow.

"It took me less than three years to get a return on my initial investment, and it was

daily Maize



definitely worth it," Gwenda says. "Everyone goes on about Gwenda's fat cows, especially my heifers which at 574 kgs are really, really fat, but they're sure in good condition. Almost half their diet is made up of maize, but I need to feed them well because the Canadian semen I use produces very big capacious cows that need a lot of feeding."

Along with increasing production, Gwenda credits the maize in her cows' diet for her low empty rate (approximately 4%), low induction rate (2%), and her cows' overall better health, which has minimised her need to call out the vet.

Last season, Glenda extended her operation to the 160 ha she has now by joining two neighbouring farms on opposite sides of State Highway 3 with an underpass and a new 50 bale rotary. Previous to that she was farming 100 ha, and in the seven years before the farm was extended she gradually increased her feeding of maize from a springtime supplement to a mostly pasture-based diet, to part of her cows' everyday diet. During that time her production increased from 90,000 kg m/s to 150,000 kg m/s.

"If you are prepared to make the investment, you definitely get great results," Gwenda says. "Over the years some people have ridiculed me and said, 'Oh, you're just buying your production' and all that sort of thing, and I used to get a bit nervous and lose a bit of confidence in what I was doing, but feeding maize has been a real Godsend. Every night I can go to sleep knowing that my farm is running well and my cows are well fed."

"I definitely plan to continue feeding maize each day. I'm all set up for it now, and that's how it will remain." 🌱

Maize silage The forage for profit



The 2002-2003 season payout has highlighted the challenges that pasture only farm systems present. Short lactation lengths, low per cow productivity and variations in pasture growth and availability associated with wet springs and extended summer dry spells continue to limit production.

Maize silage is the most economic supplementary feed that can be used to boost profitability by extending lactation, increasing pasture growth and utilisation, lifting cow condition, improving labour productivity and increasing per cow performance.

Independent research from the Waimate West Demonstration Farm has provided the

principles of profitable maize silage feeding. The underlying economic and productivity rationale behind these systems are now clearly recognised and acknowledged by top performing dairy farmers throughout New Zealand.

Well-managed maize silage systems are substantially more profitable than all-grass systems. Even at a conservative response rate of 100 gMS/kgDM and a milksolids payout of \$3.60/kgMS, \$1.00 spent on maize silage (costed at 20c/kgDM in the stack) will return \$1.46. This equates to a 46% return on investment. For a 90ha farm this gives a lift in profit of \$9,439. 🌱