



Practical PA Experiences to Improve Farm Management

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Since leaving school in 1981 and returning home to the family farm many changes have taken place. We farm approx 2700 ha in the Wimmera our soils are 95% self-mulching grey clays with Ph ranging from 7.6 to 8.4. The other 5% of our farm is made up of small timber belts of natural and man-made shelter paddocks and pasture areas. These soils are made up of Self-mulching grey clays and sandy loam. New products and ideas have been tested over the past 20 years and some things have remained and others replaced with newer and more up to date systems. The modern farmer has a number of issues to contend with and there are plenty of choices for them to make.

The adoption of new ideas and techniques on our farm has been ongoing. My parents had a philosophy of keeping up to date with not only the latest information but also the latest technology, which has made our farm operate on a profitable basis.

In 1990 we ventured into direct drilling and stubble retention to help the soils capacity to retain moisture and to improve the general soil health on our farm. During this time paddock recording and soil testing has been an integral part of this system. Currently paddock and soil test data are stored on Pivot Pam QA[®], which is complemented with the Pocket Pam[®] recording system that has become our notebook recording system.

In 1996 we moved into yield mapping and more intensive soil testing with the help of Pivot Fertilizer agronomists. This work has opened up many questions and trying to find all of the answers have made it extremely challenging and interesting. Making profit from this technology has been hard to quantify but we place a lot of emphasis on the information gained.

EM38 soil surveying, trialing the HYDRO N Sensor measuring biomass on the move through the use of NDVI sensors, and more recently the introduction of satellite photo imagery, has given us more opportunity to evaluate yield data and soil types in the one paddock & make decisions on nitrogen applications in crop. Used in combination with the climate based APSIM yield prediction model, the probability of achieving productivity gain is enhanced. Trialing new varieties and using Variable Rate Technology has also been an integral part of this approach.

With the adoption of this technology and the use of satellites for site-specific work the use of machinery guidance has evolved. Through the use of guidance systems, we have found a way of making measurable savings on input costs. With average savings of around 5% on input costs this has made the option of Auto steer Guidance more affordable for the average farmer and more importantly improving efficiency and returning more profit.

Auto steer guidance has also allowed us to try different crop management techniques such as wider spacing Beans & Chickpeas and inter-row spraying with a shielded sprayer. Cutting input costs in some cases by as much as 40%.

Oaten hay is now a part of the rotation in cropping as we look to other methods of weed control on ryegrass and wild oats.

Now, a major challenge is to use the information we are gathering to improve the natural resource management on our farm without compromising profitability. Although this will not be easy, we believe the business is well positioned to achieve this.

Controlled Traffic System

Our farming system combines the use of a controlled traffic system based around the wheel centre of conventional tractors using a wheel centre of 2.1 meters.

Our farm machinery equipment that we use are as follows:

JD 8410T, 8100 FWA, 7820 FWA, 7210 FWA.
Working on 2.1m centers Auto steer compatible.

11.75m seeder on 250mm spacing.

36m Boom spray set to centre nozzle. We use a 40° 03 even nozzle over the rows early in the season and progress to an 80° 03 even nozzle mid spring.

JD 9760sts Header 11m front.

11-shield TPOS inter-row sprayer.

We sow Beans & Chic peas on meter centre paired rows. All other crops are sown on the normal 250mm spacing.

We currently use the John Deere Base RTK system as well as the SF1 system. Our repeatability is quite easy because our run lines are all setup on either 0° or 90° and by using the nudge button to compensate for the drift we are able to re enter the paddock at a later date and follow the same tracks.

Managing the Stubble

Up until 2003 we had mulched all of the standing stubbles to sow our pulse crops into since then Beans & now chic peas are all sown into standing stubbles on the Meter paired row system. Lentils and even cereals are sown inter row where possible and at this stage we have been able to manage 4t ha stubbles but the system will be tested should we return to larger stubbles or a more normal season.

Crop Insurance Post harvest Policy

One of the key issues we have faced during the last eleven years of uneven GSR and frost events is being able to predict accurately yield from paddocks pre harvest for Insurance purposes. We were either under insuring or over insuring crops and found this to be very expensive on our business. After a lot of discussion over a number of years with our insurance agent we were approached by our local Insurance representative to investigate the concept of a new insurance product called post harvest premium.

Requirements: November 15th to notify agent of prices and an approximate yield.

- Post harvest provide yield data summary for each paddock insured to agent by end of January then premium is struck.
- Yield monitor is calibrated to be within 10% of the actual yield.
- Has been an excellent policy and has the same cost as pre harvest premium.
- We believe it to be a fair product considering the seasonal finishes we have been experiencing and we have full confidence in it.
- Claims are managed as normal.
- We have been insuring crops this way since 2003.

As you can see the past few years has made life interesting on the land. We are excited about the future of agriculture, and the challenges it will bring.