

FARMERS, BECOME MOISTURE MANAGERS AND PROSPER...



The Inaugural Westpac and Charles Sturt University Agribusiness Index was launched last week with some surprising findings highlighted by Westpac economist Justin Smirk. Key among these was that the top 25 per cent of farmers have earned better returns than investors in the money market and stock market since 1999-2000. Whilst the "drought of the century" has resulted in a series of poor seasons it's the loss minimisation techniques used by these leading farmers that has secured them ongoing rates of return of between 10 and 25 per cent for the past 8 years.

One such farmer is Bill Bernheim, a wheat producer in North Western NSW, who has been generous enough to share his own personal journey of change. This process has been the culmination of his working relationship with Ross Hubbard, managing director of Australia's first dedicated precision ag distribution network, Agline Distributors.

"In early 2002 we placed an order to manufacture and purchase an 18 metre Bio Blade No-Till Planter, with 41 Openers with Namoi Valley Implements, Narrabri.

The decision to place this order was as a result of research carried out by myself and information supplied by Mr Ross Hubbard, of Namoi Valley Implements."

"We first encountered the Bio Blade concept in 1998 at a field day where Mr Hubbard attended. This demonstration led to further enquiry and research by myself into the concept of the inverted 'T' seeding slot and the Baker seed boot. Both of these technologies had been developed as a result of ongoing research out of New Zealand. The logic behind this system was monitored over the next four years and as Mr Hubbard continued to refine and develop the Bio Blade to Australian conditions, we felt that by 2002 we had the confidence to move to the next step in No-Till farming."

"We had been carrying out minimum till and no-till farming practices for a number of years and the benefits of this had already led to increased yields and better environmental outcomes. The move to the Bio Blade was prompted by the need to place the seed into the healthiest and most likely place to achieve germination and emergence with no disturbance of the structure of the soil."

"Our farm is situated between Coonamble and Walgett in New South Wales. The soil type is grey vertisol (grey cracking clay). Our average rainfall is 462 mm per annum which can be received over the whole of the year. The rainfall range is from 125mm to inundation by flooding. The rainfall is variable and can be heavy followed by months of no rainfall. This area previously could be considered marginal cropping country. Today it is viewed as reliable with the odd hiccup from the really 'ugly years'. I now consider our farm, after the advent of the Bio Blade to be totally reliable cropping country. I have doubled our farm size over the past two years and the Bank's have been willing partners. This has been carried out during the 'drought of the century'."

"During the past two years our farm has doubled the yield of surrounding neighbours on both sides of our farm. This year 2006, we have achieved a harvest where for the whole of the cropping year we received 150mm rain with only 75mm of in-crop rain. Our neighbours on both sides did not harvest most of their crops but we achieved 0.8 tonnes per hectare average for our wheat and 0.8 tonnes per hectare for chickpea. This result can be placed squarely at the feet of the Bio Drill. (We upgraded to Bio Drill this season)."

"Prior to the introduction of the Bio Blade in 2002 we required a minimum of 25mm of rain to be able to start to sow our crops. We would wait 1 day and then have 24 hours in which to be able to sow our crops with any chance of successful germination and perhaps emergence. In 2004 after 15mm of rain I achieved germination and emergence over 800 hectares (2000 acres) and was able to sow for 5 days. To achieve this head start on the cropping season by being able to sow on time, into the right soil structure and at the right seed depth while retaining 99% on soil moisture gave me an advantage over every grower in the region. This resulted in increased yields and a huge cost saving because with this amount of rain, weeds had not even germinated so the young baby wheat plants had no

competition for moisture or nutrients. Again, this dynamic innovation had resulted in a win for me, a win for sustainability, a win for the environment and a win for our country and industry. I can not over rate the importance of this achievement in the current state of competition on the world farming scene. This Bio technology research together with the other ongoing research into plant breeding and the micro environment of the soil forms a partnership that has led and will continue to lead our grain industry into a sustainable and reliable source of food and wealth for our country.”

“Our region of New South Wales, with the decline in wool prices in the late 1980’s and early 1990’s has almost universally turned to cropping to be able to survive. This expansion was limited by Government regulation into land clearing and also the re-emergence of the fat lamb and cattle industries as viable alternatives. The cropping area will not decline as we use a pasture rotation and/or Lucerne rotation in our cropping system. We therefore use livestock in this phase. The Bio technology has enabled me to sow into long standing grasslands to re-establish existing pastures and to re-establish others with virtually no disturbance to the existing soil or plants. This was done to increase biomass and pasture for grazing with the main aim to prevent dominance of weed species to inhibit a mono-culture developing. We have been able to introduce biodiversity back into the pasture. I do not know of any other implement or system that can achieve this with little or no soil and plant disturbance. Using this Bio system we have been not only able to survive but to prosper and grow.”

“We are aware of the seriousness of a dominant mono-culture developing within our farming systems which can lead to the dominance of particular weeds and diseases. This mono-culture can develop within the micro-organisms in the soil itself. This dominance leads to such things as crown-rot, nematodes and other costly and unsustainable micro climates. With the use of the Bio Blade and Bio Drill we can preserve the micro environment because there is no disturbance but we have added organisms to this by introducing micro-organisms that are beneficial. E.g. Rizobia for lucerne and chickpeas to aide nodulation. This in turn leads to added free nitrogen which is then available to grass plants after mineralisation. Ongoing research will in the future result in the development of micro-organisms that are effective and beneficial which will not only improve the bio-diversity of our soils but benefit the growing and yields of our crop plants. This will help prevent disease and improve the nutritional value of our plants to both humans and livestock.”

“The current world grain market is about to go to a new plateau in regard to price, with energy as the driving force. The current explosion of ethanol plants that are coming on stream in the U.S.A. will require a huge expansion in corn production. These plants will have to be fed no matter what. The usual replacement of corn in the U.S.A. is wheat which will go into such enterprises as feed-lots etc. The huge demand for grain will be supplied by the U.S.A. itself, but this will cause a shortfall in wheat that is traded around the world. Every other commodity (gold, oil, iron ore, cattle, lambs, land, real estate etc) has moved to a new level over the past couple of years. Grain is going to move there within the next two years, driven by demand and also the technical market. The technical market is driven by the hedge-funds who have formed a view that grain is undervalued. They will affect the market with this view in an effort to make a profit. This together with the demand led revival in the industry caused by the demand for energy can only lead to higher prices.”

“The Bio technology enables me to be able to take advantage of this market place because I can retain moisture in our soils. Our soil type is able to store large amounts of moisture because of its high clay content. This ability to take advantage of stored moisture when required with the Bio technology can only lead to higher yields, higher profits, better environmental outcomes for the crops, plants, soil and biosphere, and an advantage that other countries do not possess. “

“Bio technology has not been and will not be a static technology. The ongoing research into the easier and better placement of the seed, auto-down force (to take out human error) and the integration of the system into D.G.P.S. is exciting for me as a farmer. The commitment of this team of researchers/manufacture/farmers (Apline Distributors) has sustained our business and taken it to a level now that I could not have conceived. To go to the next level again will benefit our farm, our region and our nation. My only comment is ‘Bring it on’. “

For further information go to www.agline.com.au or call Felicity White, Northern Area Manager on 0428 537 934.