

Farm Management

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My wife Jo and I, and our three children, are dedicated zero-tillage farmers, operating two properties, totalling 12500 acres. We are dry land cropping 10,000 acres and irrigating a further 1500 acres on Jedburgh and Drunglear, North-West of Warren in NSW.

With a highly variable 455mm rainfall, and a commitment to long-term sustainability, we needed a business that was robust, profitable, offered long-term security, with an enterprise mix that was environmentally friendly and returned a better family life-style.

Being a fourth generation farmer, I grew up facing the reality of the hardships our conventional sheep, cattle and cropping operation faced with our highly variable climatic conditions. Over grazing and crop failures was creating major soil degradation and stress during dry times, and then an over abundance of feed during wet periods that were not being capitalized on.

To mimic what nature had in place in our area, before white settlement i.e. open savannah grass covered clay soil plains, inter-dispersed with timber woodlands provided me with the key for change. Nature was providing permanent soil cover.

In 1990 we removed all hard hoofed animals off our property and became opportunity zero-till croppers. Permanent stubble cover with control traffic returned the land to a stable, sustainable and economic environment. A positive key indicator was the increase in native fauna and flora that permanent cover was mirroring the natural habitat.

Soil amelioration, cover cropping and moisture conservation have been paramount to the success of our operation. The system allows us vastly improved flexibility with the capacity to produce economic yields in the drier years. The most satisfying outcome whilst living through this current, worst in 100-year drought is observing that we are losing no precious topsoil.

From a management perspective we opportunity grow both summer and winter crops. This has increased our cropping flexibility and cropping frequency and allowed a decrease and better control on our input costs. The main crops grown are wheat, canola, chickpeas, lupins, sorghum and cotton. A specific example of how we create opportunities, in the 04-05 summer we faced a 2% water allocation in the Macquarie Valley. 1500 acres that was to be planted to irrigated cotton obviously was not feasible. To generate cash-flow we established we had 80cms of stored moisture in the soil profile and we had forward sold cotton back in 2000 at profitable prices, we decided to plant the area to double-skip dry land cotton. Due to drought conditions this did not produce a record yielding crop, however we were able to produce reasonable cash flow, utilise our machinery and staff and generally keeping our business working with flow-on benefit within our community.

Jedburgh Farming operates with a team approach, employing two full-time staff working along side myself and using casual employees as the season dictates. My wife Jo manages the bookkeeping side of our business. Marketing, Financial Planning and Budgeting are an ongoing process and regularly discussed. As a husband and wife team, good communication and planning has been paramount in setting and achieving our goals.

INNOVATION & RESEARCH.

The day we stopped ploughing our soil and introduced permanent stubble cover, combined with controlled traffic, and the removal of stock, was without doubt the simplest yet most effective change ever to be implemented in our operation to date. Starting with homemade marker arms and no-till planters in the early 90's to now utilising GPS auto-steer has given our farming operations cost effective precision, and controlled soil compaction. The advantages include increased accuracy, reduced fuel, seed, fertilizer and spraying costs, by eliminating the standard 10% overlap. Less horsepower is required running the tractors on compacted tramlines. Better soil structure and stubble cover gives less evaporation, whilst ensuring higher moisture infiltration and moisture retention.

To become successful at zero till, has involved many hours of trialling numerous items manufactured and designed in our workshop. Today we operate two 12.2metre wide zero-till planters. One, a

custom-built single disc opener, allowing high speed planting with extremely low disturbance. The second planter was built and designed by ourselves, a dual tool-bar configured for both summer and winter planting on a variety of row spacings. We built two self-propelled 24.4 metre boom sprays using old cotton pickers with capacity to spray 100 ha per load. A new innovation we developed from an earlier homemade planter design is a green manure, cover crop roller. Trials to date have included rolling saia oats and vetch on the soil surface to produce a very thick surface layer of mulch. The green decaying crop has found to greatly enhance soil microbial activity and retain even higher amounts of soil moisture. A positive outcome has also been the effective control of weeds by the biofumigation action of the decaying crop. Other green manure crops have involved forage sorghum and fenugreek. On going soil research has involved many on farm trials over the years. Addressing calcium deficiencies in our heavy clay sodic soils has been an exciting challenge. These include lime, gypsum, humates, rock phosphate and carbon trials.

A major innovation in our winter pulse crop programme has involved growing these crops on wide one-metre row spacings. This has allowed for many inter-row weed control options using our home-modified shielded sprayer. The wide rows have also provided increased sunlight and air into the crop canopy, greatly reducing the incidence of leaf born diseases and ultimately increased yields.

On farm storage and grain trucks have given us flexibility to market and contract cart throughout the year.

A strategic tree-planting programme has been active and on going for the past 15 years. We try and plant 1000 to 1500 speedlings per year. The idea has been to create buffer zones and wind breaks whilst creating an aesthetic value.

Marketing both summer and winter crops is usually dictated by seasonal progress. Once our production base has been covered we generally forward sell one-third of the commodity, allowing flexibility in the sale of the remaining crop balance.

FINANCIAL & MANAGEMENT SYSTEMS.

Jedburgh Farming P/L operates on the Phoenix Financial Management Set Of Books. As our business grew, my wife Jo whose background profession was a Registered Nurse/ Midwife had to participate in numerous bookkeeping and computer TAFE courses and Phoenix workshops. Jo spends two to three full days per week in our office. We were one of the first businesses to trial RABO Internet Banking and have successfully used Electronic Funds Transfer for the past 5 years. Data entry and quarterly BAS are attended to in our farm office, with the BAS being reviewed and checked externally as required.

We have a very open and close liaison and a shared vision with our Accountant/Financial Planner, Bank Manager and Agronomist. All these people have been paramount to our business in growing and achieving our goals. Positive and optimistic thinking has been absolutely essential and is the platform for our family and our business.

On purchasing our second property in 2000, five and ten year goals and budgets were implemented. The key to this partnership has been open, honest and regular communication with ongoing forward planning and commitment.

In regard to monitoring and benchmarking, we have involved our business in comparative analysis studies, enterprise based regionally. We participated in this benchmarking programme over a five-year period from family partnership split to purchase, from 1998 to 2002.

We use the tools of Benchmarking, Comparative Analysis, Risk Management, Forward Marketing, Yield Performance, Double Cropping and Succession Planning as Key Performance Indicators in our business. This gives us a good indicator of how robust our Farming System is performing locally and regionally.

Risk Management Strategies first and foremost involve conserving as much rainfall moisture as possible, to take better advantage of our extremely variable climatic conditions. This offsets to some degree the effects of drought. Full stubble cover, and No till planters with the capacity to moisture seek allowing crops to be planted within the correct window, instead of having to wait for the season to break. Wheat yields can diminish up to 7% per week once outside the optimum-planting window. We maintain and produce up to 90% per year all our planting seed requirements, which is stored,

graded and treated on farm. We carry an extensive grain variety mix, covering long, medium and short growing season, giving good insurance and flexibility to suit seasonal conditions.

Our marketing is closely tied into our tax planning, and annual financial commitments, such as interest and machinery repayments. Cash, Pool and projected forward sales at locked in commitments are used as security going forward.

Agronomically we grow crops on varying wide row spacings to target disease, weed control and resistance strategies. Soil Testing and available moisture are regularly monitored and dictate our crop inputs.

A footnote in summary: I'm passionate about soils and cropping and have chosen to remove livestock from our farming operation. It is important for others to understand soil cover is the driver for our business. A modern rotational grazing system can offer similar environmental benefits.