Farm Profitability and the MSF message

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The issue

Mallee Sustainable Farming (MSF) has been conducting research for over 10 years and with the recent retirement of David Roget it is an opportune time to reflect on recommendations coming out of the research. The main issue for Mallee farmers is taking the research results and assessing how they fit into their ‘whole-farm’ contexts. This farmtalk reports on MSF farmer workshops held in December 2006 and March 2007 with David Roget, Mike Krause and Dr. Rick Llewellyn.

The main messages coming out of MSF research as reported at the workshops are:

- The development of more environmentally sustainable farming systems significantly decreasing wind erosion.
- The need for matching inputs to yield potential.
- The need to understand the use of nitrogen with increased crop intensity.
- The importance of tillage selection.
- The importance of soil available moisture.
- The possibility of better understanding farm paddocks with the use of EM mapping.

The question for the workshops was ‘Do these new farming systems improve the profitability of farming’?

What we know

Environmental sustainability - Retaining ground cover with the use of minimum and no-till has seen wind erosion in the Mallee dramatically reduced. This is clearly evident when you compare the 2002 and 2006 droughts 2002 saw high levels of damage from wind erosion, in contrast to the minimal wind erosion in 2006. This trend will help maintain paddock productivity in the long term, so it must be good for economic sustainability.

Matching Inputs - Good crops cannot be grown with minimal inputs. The best economic results occur when the inputs match the season’s potential. We know for some seasons it can be difficult to prejudge the season’s potential, but providing too high inputs in a poor season produces high screenings and higher costs. This is a double-edged sword, which can decrease profits.

Increased cropping intensity - Understanding your paddock’s nitrogen availability is critical when it comes to managing more intensive crop rotations. Nitrogen availability depends on the nitrogen taken off in the previous seasons’ grain, rain events over summer and the amount of retained stubbles. Keeping an eye on these will give you valuable insights into the nitrogen you will need to put on during sowing (see farmtalks No 2 Intensify Cropping - Improve your profitability & No 6 How do we manage Nitrogen in Mallee soils?).

Tillage selection - The selection of minimum and no-till is important when considering managing wind erosion, but it seems to be less important when it comes to achieving your potential yield (see farmtalk No 12 Getting into No-Till in the Mallee).

Soil available moisture - Knowing the available moisture at sowing provides a great edge when it comes to managing your cropping program and hence business profits. Soil moisture can be measured by either soil testing or monitoring moisture use from the

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previous year and measuring summer rainfall (see farmtalk No 24 Measuring Your Own Soil Moisture to Better Target Yield Potential).

**EM Mapping** - The challenge of taking the MSF trial results and duplicating them on your paddocks requires knowing your soil variability. EM mapping can help you understand your paddocks better. This will lead to investing the correct inputs onto that part of the paddock that will give you the best returns (see farmtalk No 23 Making use of EM in the Mallee).

**What it means**
The challenge for farmers is to adopt MSF farming systems in such a way that farm profits are improved. A farm planning program call Plan to Profit (P2P) has been developed for farmers to test the 'what-if's' of adopting different strategies and to test farmers' own business risk if adopting these new technologies.

This program was used in the farmer workshops to demonstrate the likely improvement in farm profitability if some or all of these farming systems were used on a 'typical' farm. With some systems, there were significant profit improvements, while in others some improvement was experienced.

The profit outcome was dependent on management skills and the soil types available on the farm. The results in the graph below came from the 'typical' farm in SA and indicate that in average to good seasons the adoption of MSF recommended farming systems provided improved profitability.

*Figure 1: Cash flow difference of a case study adopting MSF farming systems.*

With some systems, the total costs of running the farm will increase, but so will the profits. Again, using the 'typical' SA farm, the program indicated that annual costs could increase if adopting MSF recommended systems. Care needs to be taken when weighing up the added fertiliser cost against the risks of the season.

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It means farmer management skills need to continually improve as well as their understanding of their paddock capability. The use of P2P on an individual farm basis will also provide a greater understanding of MSF farming systems on that farm. Farmers are encouraged to assess the profit impact on their business by using P2P, as each farm has its unique management, debt structure and enterprise mix.

**Where to next**
Training programs for using P2P on your farm are being planned for later this year. We are currently waiting on the new FarmBis scheme to take effect in Victoria and NSW.

Interested farmers who attended the MSF workshops will be contacted and notified of the dates where P2P training will occur in their area.

If you did not attend the MSF workshops and would like to receive more information on the P2P training, please contact Mike Krause details below or go to www.planetprofit.biz for more information on P2P.

*Figure 2: The costs of the case study farm adopting MSF farming systems.*

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