



FLEXIBLE FARMING SYSTEMS

Evolution of systems, not revolution is required for businesses to remain profitable in times of change. By Chris O'Callaghan

PHOTO: LIEBE GROUP

Trial inspection at a Liebe Group field day. Incorporating seasonal forecasting information into management decisions is an important part of maintaining productivity in a changing climate.

MANY ADAPTATIONS TO CLIMATE CHANGE ARE EXTENSIONS OF CURRENT PRACTICES.

KNOWING WHAT THE future holds and understanding what changes may need to be adopted and why, is the focus of a project run by the Liebe Group in Western Australia's northern grainbelt.

Based on current climate predictions for the next 30 years, improving water use efficiency is considered to be essential if farms are to remain sustainable and profitable. Through the use of trials, on-farm demonstrations and workshops, the Liebe Group is raising growers' awareness of adaptation strategies that will help mitigate the effects of climate change.

For example, improving water use efficiency can be achieved by an increase in the adoption of best practice management strategies including: optimising sowing time; crop and variety choice; managing soil type differences correctly; conserving soil moisture; integrated weed management; and optimum management of fertiliser inputs.

As part of the project, the Liebe Group hosted climate applications scientist Steven Crimp, of CSIRO Sustainable Ecosystems. He presented information on climate change projections for the area and how growers would need to adapt their farming systems.

A key message from his presentation was that many of the actions required for adapting to climate change are extensions of practices currently in use. However, he also reported that analyses suggest that incorporating seasonal climate forecast information into management decisions could serve to offset climate change and result in production benefits. These decisions could include: the selection of sowing times and rates; timing and quantity of nitrogen application; ground cover management; and choice of crop.

Changing systems requires good information and awareness of the opportunities and risks of change. It may require change in agronomy, farm practices and/or decisions about management approaches. Working with local growers, the Liebe Group has worked through scenarios to estimate the structure and systems of farming in the region in 2020–25.

If a farming business is to be responsive to climate change, profitable and attractive to the next generation, it needs to be run professionally, it was proposed. It needs to be responsive to the

external environment – globally, nationally and regionally – including markets, environmental attitudes and influences, and climate change.

The project scenarios proposed that for growers to achieve long-term sustainability and high profitability and to be responsive to the external environment they would:

- focus on technology and innovation;
- make full use of precision agriculture (PA) technology for cropping and livestock;
- integrate more accurate weather forecasts into management and use best practice, including integrated weed, pest and disease management;
- outsource marketing – with a full marketing plan, focus on reducing risk and being more responsive to consumer wants/needs;
- use farmer groups for their relevant research, demonstrating practices, building skills and capacity, and accessing information; and
- contract professionals where there is a lack of capacity in their business – for example agronomy, benchmarking, financial strategies, contracts and legal issues.

The proposed result of adopting these changes was that the farm size in the region would plateau due to increased profitability, family farms would prevail, local business and communities would have the potential to increase and be more vibrant and livestock would stay in the system.

With funding from the Australian Government's FarmReady initiative and the GRDC, the Liebe Group is working to provide growers in its region with farm business management workshops. These workshops will focus on the agronomic, financial and social aspects of farming. They will also involve experts in improved water use efficiency, the use and implementation of PA technology and the understanding of climate drivers.

This package of trials, demonstrations and workshops will support growers to better adapt to dry seasons and climate change. □

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