

CROP MONITORING - EVALUATING FARMING PRACTICES IN A MARGINAL CROPPING ZONE

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The mallee lands through the Piangil district have been progressively cleared since last century for the purpose of arable farming. Crop production relies heavily on growing season rainfall and on stored moisture from fallow preparation prior to sowing. Implementation of the MEY (Maximum Economic Yield) Check crop monitoring program into discussion group activities is helping the Piangil growers to improve agronomic identification skills and assess individual paddock management. Farmer commitment to the program is contributing to the fine-tuning of agronomic benchmarks through the generation of crop data more specific to the local environment.

DISCUSSION

The Piangil district is located approximately 40 km North - west of Swan Hill in the Victorian mallee. Average annual rainfall is between 250 - 350 mm, soils are predominantly sandy to sandy clay loams, average pH 7-8.5, with nutrient status of the soil generally very low. The presence of cereal root diseases, nutrient deficiencies, weed competition and poor timing of operations can severely limit the extent to which plants can access this vital moisture required for vigorous crop growth. This leads to low crop water use efficiency (WUE) and an overall drop in productivity and grain protein. The MEY Check program is being used by the Piangil farmers to *identify limiting factors to crop production, assess crop performance based on WUE and gather information to increase crop yields.*

These aims are being achieved by the participants through making recordings of crop growth and condition during the season. Priority concerns of this group that are being addressed through paddock monitoring include: Crop water use and moisture availability, disease identification and management, plant nutrient requirements and weed control options.

Paddock inspections and workshops, with technical support from researchers and agribusiness representatives, are helping the farmers to improve their identification and agronomic skills. Management of root diseases, timing and application of chemicals for effective weed control and crop nutrition have been targeted through this manner. Interaction between group members allows for increased exposure to alternative farming practices in the immediate area whilst also gaining a better understanding of their own farm management. All members of the group have been given the opportunity to contribute their thoughts on priority issues in the district affecting their overall productivity and profitability. Feedback from participants is helping to focus the direction of seasonal activities to address both short and long-term issues.

CONCLUSION

The rapid expansion of crop monitoring programs throughout Australia has proven to be an innovative method of communicating good farming practices. The *hands on* group approach to identifying the limiting factors affecting production and improving identification skills can allow fine-tuning of paddock decision making, to ensure crop yield potential is at a maximum throughout the growing season.