

REPORTS FROM WORKSHOPS ON -

LEGUME RESEARCH PRESENT AND FUTURE

1. MANAGEMENT OPTIONS

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There were only seven people in our discussion group so we wondered whether most people here considered that crop management is not a major problem, and that we have most of the answers already for management of grain legume crops. I don't think we agreed with that.

We felt that the main requirement for successful legume crop production is to get the basics of management right, and we discussed whether that is being achieved at present. Yields achieved by the best growers are well above the average achieved by the majority. This suggests that many growers are falling short of ideal crop management, and our first conclusion was that it is important to encourage these people to lift their crop performance. There is more scope to improve overall legume crop production by increasing yields of average or below average crops than by concentrating research and extension effort on those who are already performing well.

Improved performance requires better communication to growers of what is already known about the management needs of legume crops. This is probably more important than the need for research. Research tends to improve the top yields, with less impact on the average.

We felt that an important aim of management should be to improve consistency of crop performance. Stability and reliability of yield and quality are important for growers and marketers of the crops because risk and uncertainty in planning and budgeting are reduced. Again, this means that improvement is

needed more among the majority of growers than just the top producers.

We briefly discussed likely impacts of climate change on legume crops, and we concluded that the most important undesirable effect might be to increase yield variability from season to season. If temperature increases significantly, yield potential could be reduced.

The group agreed that successful weed control is probably the single most important aspect of legume crop management. The next two priorities are disease control and irrigation management. One contributor suggested that management of harvest is often not emphasised enough; factors such as crop management immediately before harvest, correct combine setting and handling and storage of seed are very important for both yield and product quality, particularly in peas.

The group discussed the question of what limits the amounts of grain legumes grown. The main management limitation is disease which restricts the frequency of legume crops in each paddock. However, legume crops can be important for fertility restoration, and for breaking disease cycles of other crops in farm rotations. Ultimately, market signals and profitability mainly determine how much of each crop is grown. If a profitable market is available for a crop, the technology is available to overcome most management limitations.

The final topic discussed was the feasibility of soya bean production in New Zealand. We concluded that the climate is too cool in the South Island, but the crop could be a viable proposition in the northern North Island.