

- Irrigation farming is labour-intensive, which will have major economic consequences in the future, placing a premium on developing present labourers to be active participants in the organisation and management of the irrigation function.

The increasing attention being given to small farmers, facing circumstances unfamiliar to the specialist, has emphasised that "perceptions" of the farmer involved are just as important as "facts" available to the specialist. Internationally, there is recognition of this, particularly by agencies concerned with development funding.

Significant *verbatim* comments by farmers covering a broad spectrum of their perceptions and activities are included in Appendix B.

Farming practices: Semi-structured open-ended interviews proved to be particularly effective in obtaining insights into farming practices. This is of particular importance when technical aspects, such as irrigation and mechanisation, are directly related to these practices. It was noticeable that two interviews undertaken on sugar farms captured the essence of the "hows" and "whys" of irrigation in the area. The technical detail that emerged from these interviews was comprehensive and detailed and explained anomalies that had been concerning design engineers with considerable experience in this field.

Irrigation management and training: The interviews have emphasised the relatively low priority that most farmers place on irrigation management, and the almost complete dearth of effective irrigation extension. There is, possibly, a link between the two. Effective extension is not possible if the subject is not important to the farmer! There can be no doubt that more effective management would be in the interests of both the farmer and the country but this will require a new approach based on farmer perceptions and priorities.

Labour development: The survey emphasised the value of the support provided by employees who had developed from being labourers to being active participants in the organisation and management of the irrigation function.

8. RECOMMENDATIONS

The important contribution that qualitative research techniques, based on open-ended interviews, can make to commercial irrigation farming and planning, has been demonstrated by this pilot project. Internationally and in the RSA, similar techniques, including Participatory Rural Appraisal (PRA), have gained acceptance in small farmer development. The procedures are suitable for use by technical specialists after initiation into the techniques and are time- and cost-effective.

It is recommended that these techniques, including the computer program SAPFACT, be drawn to the attention of people concerned with irrigation and water supply, by means of publications and workshops.

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