

28 May, 1997



*Harden Murrumburrah Landcare*

P.O. Box 145  
Harden. N.S.W. 2587

Dear Database Contributor,

The Database Committee would like to thank the 30 farmers who gave their time to complete the database form again last year.

Discussions have continued through out the past year on the possibilities of incorporating with TOP CROP but this has again not proved satisfactory. The group has aligned with PAM (Paddock Action Manager - Fairport Technology based in Perth) and there have been several changes made to this program to enable participators to collate all required information and then forward a disk with detailed crop information that can be loaded directly into the Database using a multiclient base. The changes to the enclosed Database survey form will enable the information to be collected and collated in a PAM format for those participants that do not have PAM.

The data is then downloaded into an Excel format and forwarded to researchers for analysis, the gremlins are almost out of the system and it is hoped that this will happen at a speedier rate next year. The National Landcare Program funding has ended and the project continues due to generous donations made by R&N Gebhardt, Reid Fertilisers, Chandlers IAMA and Dalgety/Westfarmers - Kennett, our thanks to these companies for their continuing support.

#### 1996 DATA ANALYSIS

1. The report shows that crops sown before 15 May have higher water use efficiency and therefore higher yield.
2. Sowing prior to 15 May, Rosella consistently been in top 33% yield.
3. There appears a little correlation between yield and protein, this is to be explored.
4. It appears that again management (weed control, sowing fertiliser applications) have a greater influence on yield than non controllable influences like rain or soil type.
5. Higher sowing rate has not necessarily lifted yields, it is not fully understood how this equates to final tillers/m<sup>2</sup>.
6. Individual farmers have an across paddock variability similar to the variability across the group as a whole. This has been established from the satellite particularly in relation to the canola crops.
7. Again wheat following a break crop is the higher yielding crop.

#### GENERAL COMMENT:

1. To effectively determine water use efficiency more accurate rainfall records are required.
2. Accurate areas of paddocks - this maybe done by using the satellite map currently being used to access remnant vegetation? Although not on this years survey form a grid reference or GPS location (centre of the paddock) would be helpful.
3. If you have a contractor with yield monitoring capability would you please advise us on the bottom of the form.
4. Would participants please consider including an extra paddock this year.

It is hoped to forward a more detailed report within a couple of months, please do not hesitate to contact any of the Committee if you require further information.

PTO

Peter Holding, Chris Duff, Mark Barber



**KENNETT**  
RURAL SERVICES

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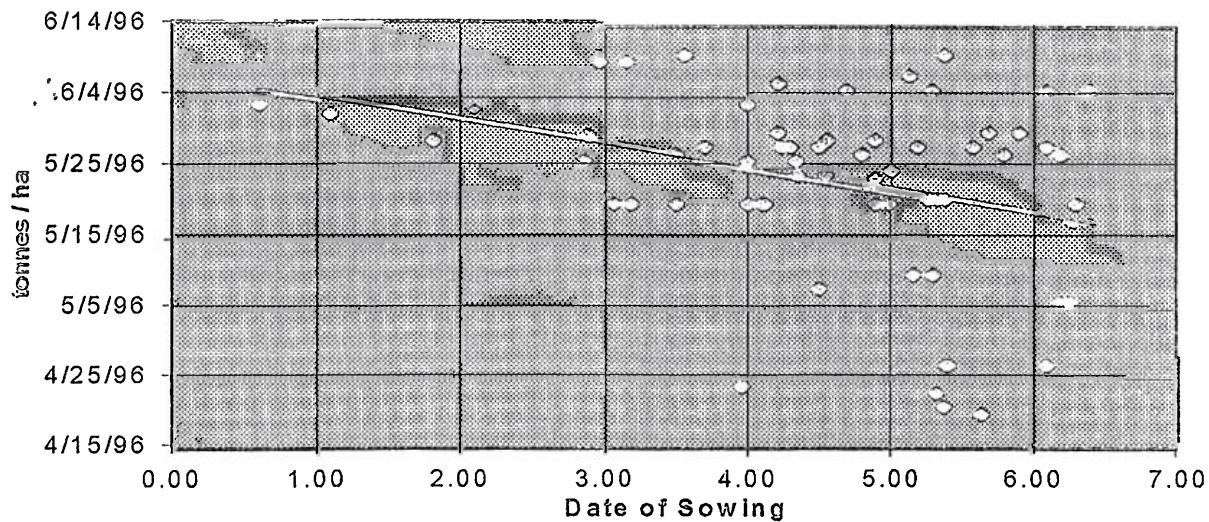


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## Comments

## Yield By Date of Sowing



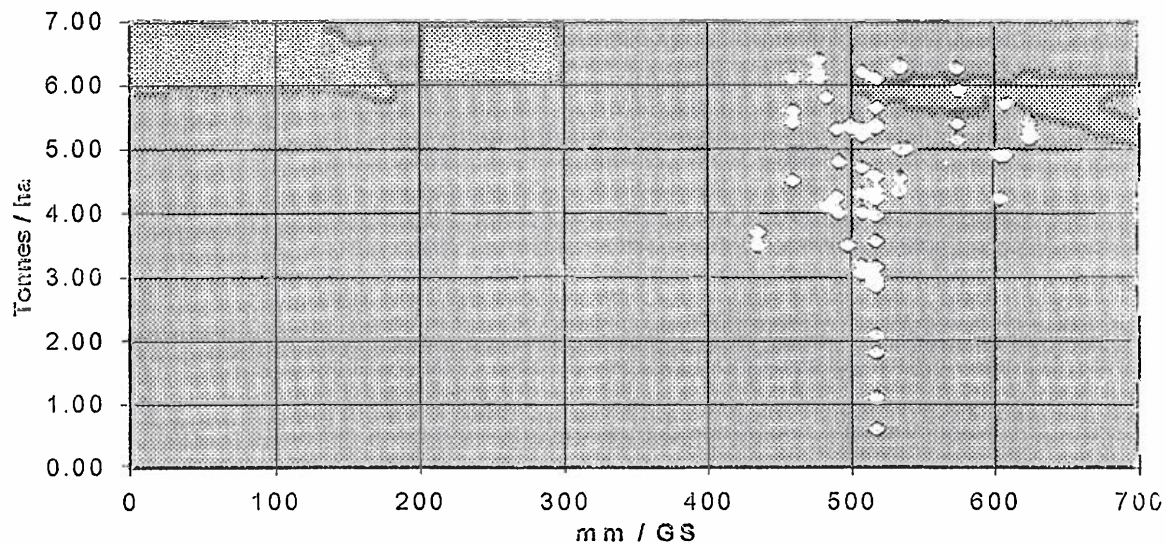
The chart indicates a relationship of the time of sowing and yield but not as strong as in previous years. There appears to be a trend of bunching of the 4 - 5 tonne ha yields in mid May. The trend line indicates that there is a penalty for sowing latter than the middle of May. This is consistent with previous years data.

Factors that may have been contributing to the variation are

- the length of the spring
- varieties other than Janz included. Eg early sown soft wheats accounting for high yields from a mid April sowing.
- area included in survey. Wallendbeen being latter sowing than Harden and east.

The long cool spring conditions allowed the late sowing penalty to be pushed out to latter in May.

## Growing Season Rainfall / Yield



The chart above clearly shows that moisture was not a limiting factor in the 1996 / 97 growing season. The close bunching of the results demonstrates that other limiting factors contributed to the spread of yields once the crop received 500 mm of GS rainfall or better. Once the GS rainfall reached 600mm some water logging may have been experienced as yields began to be affected.