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CANE YIELD AND ASSIGNMENT SIZE

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TYPICAL agronomic research anticipates being able to account for yield from farms in terms of climate, soil, and technological inputs. Rural sociological research usually takes more concern for farmer actions and lifestyles, decision making, and responses to community attitudes and beliefs. Nevertheless, two recent sociological studies—a regional study of some Bundaberg growers and a national sample survey of all the growers on the east coast—incidentally collected some self-report agronomic data.

Within it, tonnes yield increased with assignment size, as one might anticipate, but the curvilinear function suggests that two trends rather than one better describe the yield data.

The brief analysis in this poster dis-aggregates the trends for Bundaberg and for the national sample into a relatively low yield response to assignment size for farms with less than about 100 ha of assignment, whereas for assignments larger than that, yield response is much steeper.

Naturally, one would normally want to investigate the multiple determinants of yield, and this can be done to some extent with the data we have. But, for sociologists, the implications of the univariate tendencies are profound. It seems that overall industry yield could be increased if average assignment size was much larger—this is proven implicitly by the Western Australian tendency (not part of this analysis) for large farms in a new relationship to their mill to be immensely productive. However, the implication for the vast majority of small farms in the industry is their unacceptable replacement in the 'production equation' by much larger farms.

Initial data and trends will be presented in poster form.

However, there are a few small farms which perform better than those along the small-farm trend. Examination of the success of these outliers suggests a (best practice) means to increase productivity and improve small farm competitive position *vis à vis* farms with larger assignments.