



SUPPLY ANALYSIS FOR AUSTRALIAN  
AGRICULTURAL PRODUCTS WITH APPLICATIONS TO  
FARM AND NATIONAL INCOME ESTIMATION.

A thesis submitted in partial fulfilment of the  
requirements for the Degree of Doctor of Philosophy.

by

T. J. MULES, M. Ec. (Adelaide)

Faculty of Economics,  
University of Adelaide.

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SUMMARY

The basic aim of this thesis is to develop an econometric model of the Australian farm sector and a major part of the thesis is devoted to this aim. The Introduction sets the stage by illustrating the lack of attention that has been paid to the farm sector by Australian econometric model builders. The Introduction also points out the emphasis on farm income and the "supply function" approach of this study. Chapter 2 discusses some methodological considerations and outlines some of the mathematical and statistical techniques that are used in the development of the model.

The next six chapters are devoted to estimation of the parameters of supply functions. In all, some twelve supply functions are specified and their parameters estimated. Between them they account for over 95 per cent of the value of all farm production. Chapter 8 develops functions for three different items of farm costs. Chapter 9 then brings together the supply functions, the cost functions and some identities which result in a complete model leading to the determination or explanation of farm income.

In Chapter 10, the model of the farm sector developed here is linked to a model of the Australian economy. The effects of the following simulations are then studied in terms of their effects on farm income and on G.N.P.; a fall in wheat prices, a drought, cost inflation and finally a fall in wool prices. The fall in wool prices is looked at under two different assumptions - (1) the fall only lasts for one year and (2) prices persist indefinitely at their new lower level.

The final section of the thesis is an Appendix containing data that were used in developing the model.