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THE

GENETICAL EXAMINATION

OF

'GRASSLANDS ARIKI'

RYEGRASS

Lolium [(multiflorum x perenne) x perenne]

A thesis presented in partial fulfilment of the requirements for the degree of Master of Agricultural Science in Plant Science.

John Richard Sedcole

1970

Preface.

'Grasslands Ariki' ryegrass - Lolium [(multiflorum x perenne) x perenne] - has been established in New Zealand as a successful pasture variety. Thile some genetic parameters were determined during its breeding programme, no diallel cross analyses have been performed on 'Ariki'. It was for this reason that this particular experiment was suggested to me.

The inclusion of two treatments arose from a cynical remark passed by W. Harris, regarding the failure on the part of plant breeders to use simulated swards. The experiment was designed to determine the levels of genotype-by-environment interaction in 'Ariki' ryegrass.

Acknowledgments.

The author wishes to record his appreciation of permission granted by Dr. L. Corkill, Director of "Grasslands Division", D.S.I.R., for the use of "Grasslands" facilities.

Acknowledgment is due to Professor B. R. Watkin, and to Mr. R. G. Clements, of the Agronomy Dept., Massey University, and to Dr. P. C. Barclay, of "Gresslands Division", D.S.I.R., for valued assistance in discussion on the design of the experiment and in interpreting the results; also to Professor B. I. Hayman of the Mathematics Dept., Massey University, and to Mr. V. G. Thomas, and Mrs. W. Singers of the Applied Mathematics Division, D.S.I.R., for encouraging help in the design of the experiment and in the statistical analyses.

Thanks are also due to the technicians in the Flant
Breeding Section of "Grasslands Division" for assistance with
planting, harvesting and weighing; and to Mrs. C. S. lanting and
Miss G. Smith for typing the thesis.

Finally, the author wishes to acknowledge the receipt of a State Services Study Award while at Massey University, thus enabling this work to be presented.

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