

The DOOR Manual for Plant Nurseries

Reprint – information current in 1996



Let's **DOOR** Our Own Research
The DOOR way to practical solutions

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- Contacts—many of the contact details may have changed and there could be several new contacts available. The industry organisation may be able to assist you to find the information or services you require.
- Organisation names—most government agencies referred to in this publication have had name changes. Contact the Business Information Centre on 13 25 23 or the industry organisation to find out the current name and contact details for these agencies.
- Additional information—many other sources of information are now available. Contact an agronomist, Business Information Centre on 13 25 23 or the industry organisation for other suggested reading.

Even with these limitations we believe this information kit provides important and valuable information for intending and existing growers.

This publication was last revised in 1996. The information is not current and the accuracy of the information cannot be guaranteed by the State of Queensland.

This information has been made available to assist users involved in the nursery and garden industry wishing to conduct their own research. This information is not to be used or relied upon by users for any purpose which may expose the user or any other person to loss or damage. Users should conduct their own inquiries and rely on their own independent professional advice.

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Queensland Government



THE DOOR MANUAL FOR PLANT NURSERIES

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FOREWORD

With the decline of government funds available for horticultural research, it has become necessary to establish some workable alternatives.

To this end, a project was initiated at the DPI Queensland Centre for Amenity Horticulture, Redlands, and financially supported by Horticultural Research and Development Corporation. The "Do Our Own Research" approach to in-house research was seen as one way of preparing nursery operators for the future.

Do-Our-Own-Research is a self-help system providing operators with the structure for experimentation and accurate analysis of results. This manual, along with the relevant TAFE course, should see you well on the way to satisfying some of your research requirements in-house.

The Queensland Nursery Industry Association endorses the Do-Our-Own-Research concept and encourages **all** members of the industry to utilise this resource and start reaping the rewards.



Barry Naylor

Chairman, Technical Committee
Queensland Nursery Industry Association

FOREWORD

Over the past thirty to forty years, the Queensland agricultural and horticultural industries have become increasingly dependent on the public sector for research solutions to their industry problems. This research has proved useful for many of the single commodity industries, such as wheat and sugarcane, macadamias and mangoes, but less so for the nursery industry.

In the nursery industry, generic research conducted by government institutions is often not specific enough to be highly valued and adopted by the individual operator. Operators need practical solutions to their particular problems. Such problems almost invariably involve sets of conditions common to few other enterprises. This uniqueness reflects the almost infinite variation of options available in terms of species grown, media used, fertiliser, amendments and chemicals applied and the way water is supplied.

The Queensland Government is strongly advocating increasing industry self-reliance in many aspects of agriculture. The objective of Do-Our-Own-Research (DOOR)—enhancing the capacity of nursery operators to do their own research—is thus strongly aligned with government policy. More important, however, is the assessment by industry itself that the DOOR approach is in many circumstances the only cost-effective way to find solutions or to develop new opportunities.

DOOR advocates a significant paradigm shift in technology transfer in horticultural research. The DPI acknowledges the significance of the ground-breaking work of Professor Shankariah Chamala in making this development possible.

DOOR represents a relatively unexplored way of generating new, statistically sound research information in the nursery industry. Its potential is immense. The DOOR approach has application in a number of other industries and may provide important support at a time of declining Research, Development and Extension investment by the public sector.



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CONTENTS

<i>Foreword (QNIA)</i>	iii
<i>Foreword (DPI, Queensland)</i>	vi
<i>Preface</i>	ix
<i>About the Authors</i>	x
1 INTRODUCTION	1
1.1 Research—a natural activity	3
1.2 The nursery environment	3
1.3 How to develop information	3
1.4 Statistically sound research	4
1.5 The DOOR manual	4
1.6 The future of the manual	5
2 DO-OUR-OWN-RESEARCH: HOW IT WORKS	7
2.1 Introduction	9
2.2 Consultancy involvement	9
2.3 The DOOR implementation cycle	9
2.4 Group-based research	10
2.5 The philosophy behind DOOR	10
3 PROBLEMS, OPPORTUNITIES AND GATHERING INFORMATION	11
3.1 Problem/opportunity	13
3.2 Information gathering	15
4 EVALUATION AND DECISIONS, COST-BENEFIT	21
4.1 Introduction	23
4.2 Evaluation and decisions	23
4.3 Cost-benefit analysis and project prioritisation	25
5 THE EXPERIMENTAL APPROACH IN FINDING SOLUTIONS	29
5.1 Introduction	31
5.2 Experimental design	31
5.3 Variability	33
5.4 Layout of experiment	35
5.5 Variables	35
5.6 Measurements	37

6	RESOURCES AND TRIAL IMPLEMENTATION	39
6.1	Plant husbandry	41
6.2	Check list of requirements	41
6.3	Laying out an experiment	42
6.4	Environmental control	43
6.5	Environmental monitoring	44
6.6	Timing of measurements	44
6.7	Record keeping	44
6.8	Costs	45
6.9	Staff and others	45
7	DATA INTERPRETATION	47
7.1	Introduction	49
7.2	Statistical comparisons	49
7.3	Analysis of variance	51
7.4	Response curves	58
7.5	Interpretation of results	59
7.6	Cost-benefit analysis	59
8	RECOMMENDATIONS	61
8.1	Introduction	63
8.2	Availability of information	63
8.3	Integration with current information	63
8.4	What impact will a new practice have?	64
8.5	Specifying new practices	64
8.6	Recording and reporting	64
9	VALIDATION TRIAL	67
9.1	Commercial relevance	69
9.2	Scale and design	69
9.3	Adoption	69
9.4	Rejection, opportunities and problems	69

	APPENDIXES	71
1	DOOR-accredited consultants	71
2	DOOR-accredited nursery operators	72
3	Philosophy of R & D management and learning	73
4	Facilitators notes and resource material	79
5	Plant hardiness zones for Australia	80
6	Origin of relevant journals	83
7	Visual exercises to get beyond the boundaries	84
8	Word associations	86
9	Partial profit budget format	87
10	Experimental pre-schedule check list	89
11	Proforma for experiment report	94
12	Case study: Experimental pre-schedule check list	95
13	Case study: Experiment report	100
14	List of DOOR projects	104
	REFERENCES	105

PREFACE

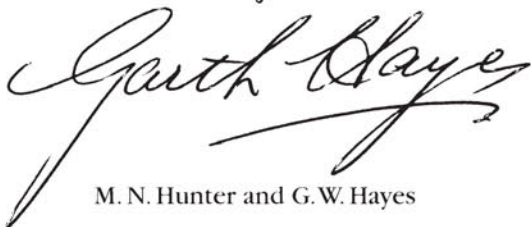
The aim of the manual is to enhance nursery operators' understanding and skills development in the following areas:

- critically evaluating opportunities and problems in the nursery environment,
- gathering relevant information,
- deriving and prioritising potential solutions to problems and opportunities,
- becoming familiar with the scientific method employed in testing potential solutions,
- carrying out statistically sound and rigorous research, and
- developing recommendations that flow from the research information generated.

Additional material and resources for facilitators and operators are provided in the appendixes.

We would like to acknowledge the help of everyone who made this manual possible, including Dominic Wright for writing most of the keypoints, Bev Traynor for the original layout, Naomi McIntosh for the final design and layout, and everyone who read and criticised the manuscript.

This manual was developed by the following members of the DOOR project team: Mal Hunter, Garth Hayes, Cynthia Carson, Stuart Scott, Jim Page, Janet Giles and Vesna Popovic (DPI Queensland); Shankariah Chamala and Emma Durrrough (student observer) (University of Queensland); Wayne Bacchi and Barry Naylor (Nursery Industry Advisors); David Hawthorne, Herbert Hartwig, Kevin Body, Stephen Collins, Ian Waters, Ian Greet, Matthew Plummer, Jim Goody, Rob Burfein, Brad Skinner, Ian Heymink, Martin Hickey, Lex McMullin and Carmel Hennessey (Queensland Nursery Industry Association participants).



M. N. Hunter and G. W. Hayes

ABOUT THE AUTHORS

Dr Hunter joined DPI Queensland in 1972 and has been involved in crop agronomy research under dryland and irrigated conditions. He has specialised in the area of crop nutrition with an emphasis on the role of mycorrhizas in plant production. He spent from 1989 to 1993 in Brisbane as a statewide technical manager (Chief Agronomist) for crop agronomy and horticulture before moving to Redlands Research Station. He has a major skill in the conduct of nutritional experiments.

Mr Hayes joined DPI Queensland over 30 years ago and has spent most of that time servicing the fruit and vegetable industries and the last eight years carrying out extension activities in the cutflower industry. He developed a strategic plan for the conduct of R, D and E in cutflowers and was instrumental in chrysanthemum white rust detection, control and management. He is currently the editor of the very successful saleable quarterly newsletter, *Ornamentals Update*.

Ms Carson has worked as a horticultural extension officer since 1985. In 1987 she became involved with the nursery and cutflower industry, moving from Victoria in 1989 to DPI Queensland. She was instrumental in the development of a national ornamental crop database and information centre at Redlands Research Station and is known for her work with Queensland's wildflower industry.

Dr Chamala is an Associate Professor at the Department of Agriculture, University of Queensland. He completed his PhD in the early 1970s on the adoption of improved practices in the sheep industry. He has special interests in producer adoption of soil conservation principles and associated practices. He has been involved in rural extension and adult education.

Ms Giles joined DPI Queensland in 1970 as a biometrician and has provided consultancy service to researchers in agronomy, plant breeding and horticultural post-harvest studies on fruit and on food. She has provided in-service training on biometrics and computers.

Mr Page is a senior economist with DPI Queensland with extensive experience in the dairy, dryland cropping and sugar industries. He has developed considerable expertise in the cost-benefit analysis of research work.