# Should I grow wildflowers? information kit

Reprint – information current in 2000



# REPRINT INFORMATION - PLEASE READ!

For updated information please call 13 25 23 or visit the website <u>www.deedi.qld.qov.au</u>

This publication has been reprinted as a digital book without any changes to the content published in 2000. We advise readers to take particular note of the areas most likely to be out-of-date and so requiring further research:

- Chemical recommendations—check with an agronomist or APVMA www.apvma.gov.au
- Financial information—costs and returns listed in this publication are out of date. Please contact an adviser or industry body to assist with identifying more current figures.
- Varieties—new varieties are likely to be available and some older varieties may no longer be recommended. Check with an agronomist, call the Business Information Centre on 13 25 23, visit our website <a href="www.deedi.qld.gov.au">www.deedi.qld.gov.au</a> or contact the industry body.
- 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 for each crop. 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 2000. 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 to identify issues involved in wildflower production. 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.

While every care has been taken in preparing this publication, the State of Queensland accepts no responsibility for decisions or actions taken as a result of any data, information, statement or advice, expressed or implied, contained in this publication.



# Should I Grow Wildflowers?

# **Contributing authors**

Peter Beal

Ken Young

Lois Turnbull

Leif Forsberg

Alenna McMah

Geoff Sullivan

Shirley Doull

# **Coordinating author**

Cynthia Carson



Queensland Horticulture Institute
Department of Primary Industries, Queensland

# Should I grow wildflowers?

First published June 2000

Agdex 294/10

Agrilink concept devised by Noel Vock and Brian Cull
Agrilink products are proudly produced by the Agrilink Project Team:
Project Leader—Noel Vock
Publishing Production—Loraine Chapman
Coordinating Editor—Glenis Ayling
Customer Service—Lourelle Heintjes

Information Coordinator – Cynthia Carson Editor – Helena Bond Cover design – Design Solutions

# National Library of Australia Cataloguing-in-Publication data:

Should I grow wildflowers? Includes index. ISBN 0 7345 0099 8

1. Cut flower industry - Queensland. 2. Proteaceae - Queensland. 3. Native plant industry - Queensland. 4. Native plants for cultivation - Queensland. 5. Wild flowers - Queensland - Marketing. I. Carson, C.J. (Cynthia Jean), 1959-. II. Beal, Peter R. III. Queensland Dept. of Primary Industries. IV. Queensland Horticulture Institute. (Series: Agrilink series: your growing guide to better farming).

338.17595109943

© The State of Queensland, Department of Primary Industries 2000

Copyright protects this publication. Except for purposes permitted by the Copyright Act, reproduction by whatever means is prohibited without the prior written permission of the Department of Primary Industries.

Enquiries should be addressed to:

Agrilink Manager

Department of Primary Industries

Maroochy Horticultural Research Station

PO Box 5269 SCMC

Nambour 4560 Qld Australia

Ph: (07) 5444 9690 Fax: (07) 5444 9694 Int Code: + 61 7

E-mail: agrilink@dpi.qld.gov.au Web: www.dpi.qld.gov.au/agrilink

### Disclaimer

This book is distributed by the Department of Primary Industries as an information source only. The information contained in the book and other material incorporated by reference is provided solely on the basis that readers will be responsible for making their own assessment of the content and seek professional advice. Readers must note that the information contained in this book has been developed for growers in Queensland, Australia and the Department of Primary Industries gives no warranty that the information is suitable for conditions outside Queensland, Australia.

# **Foreword**

The Queensland Horticulture Institute is a business unit of the Department of Primary Industries with staff located at 17 centres across the state. It is the service delivery arm of the Queensland Government's support for the fruit, vegetable and amenity horticultural industries.

The core business of the Queensland Horticulture Institute is providing effective technical, scientific and market-driven solutions for the horticultural industries. A key element of this is information. Our team of researchers, extension officers and other skilled professionals generates, formats and distributes information to advance the horticultural sector.

Agrilink is an innovative concept in developing and packaging the information that is regularly sought by producers of horticultural commodities.

Each Agrilink information product has been designed to be both comprehensive and practical. *Should I Grow Wildflowers?* is a useful reference for both new and experienced producers of cultivated Australian wildflowers and South African proteas. Agrilink brings together horticultural production techniques and the management of particular crops.

Agrilink is a team effort. Each title has been conceived and written by a team of extension and research staff and in some cases primary producers with specialist knowledge of the crop and commodity. Agrilink products are produced to high quality standards so that you can obtain maximum benefit from your investment in information.

The Queensland Horticulture Institute aims to be the key provider of innovative research services and support for the development of horticulture in Queensland. We seek to find solutions through science. Agrilink is a means of bringing that information to you.

Grant Hall Director Queensland Horticulture Institute

# Acknowledgements

The authors and book coordinator are grateful for financial assistance provided by the Rural Industries Research and Development Corporation (RIRDC). This money was used to enable four wildflower producers from different regions in Queensland to travel to a workshop where crucial information for the content of the book was extracted and the initial structural framework was defined. The involvement of RIRDC has greatly assisted in broadening the relevance of *Should I Grow Wildflowers*? to both existing and intending growers throughout Queensland.

As the book coordinator I sincerely thank wildflower producers Ken Young, Geoff Sullivan, Alenna McMah and Shirley Doull; Department of Primary Industries experimentalist Leif Forsberg; and former DPI researchers Peter Beal and Lois Turnbull. As co-authors they provided valuable information and technical advice, suggestions on layout and enhancements, and supplied many of the images in this book.

In addition, I have sought the assistance of many other people with expertise in specific crop areas. I would particularly like to thank David Hockings of F. David Hockings; Tony Slater from Agriculture Victoria, Institute for Horticultural Development, Knoxfield; Prof. Margaret Sedgley from the Department of Horticulture, Viticulture and Oenology, University of Adelaide; Peter Abell from the University of Sydney; Philip Watkins of Sunglow Flowers Pty Ltd; Judy Moffatt of Nanju Proteas; Ross Worrall from NSW Agriculture; Brian Mills and Brian Freeman of IHM Pty Ltd; Brian Jack of Western Flora; Margaret Zorin from DPI; and Queensland flower growers Dennis and Ruth Morgan, Peter Agnew, Lloyd Finlay, Brad Voller and George Hendrick. I would also like to extend my appreciation to the many other people who I have contacted in the course of compiling this book. They have provided me with up-to-date contact details and other important information.

Additional images have been kindly supplied by the Flower Export Council of Australia (FECA), (by Joanne Prior, former Executive Officer); David Hockings of F. David Hockings; Prof. Margaret Sedgley from the Department of Horticulture, Viticulture and Oenology, University of Adelaide; Judy Moffatt of Nanju Proteas; Tony Slater from Agriculture Victoria, Institute for Horticultural Development, Knoxfield; Paul Dalley of Mountain Nursery; Brian Mills of IHM Pty Ltd; David Carson of Wanguri Australian Cut Flowers; Dulcie Waters of Atherton; Doreen Child of Malanda; and the grower group Ausbud.

Andrew Griffin from the florist 'Alfresco in Noosa' expertly handled the job of acquiring to specification the quality flowers used in the cover design. I would also like to thank Ethna Brown from DPI for her care in digitising the images.

Cynthia Carson Coordinator and author

# **Preface**

To be viable and competitive, horticultural growers face many challenges. These require significant economic and social restructuring and the adoption of new, complex and high risk technologies. The main prerequisite for these decisions is the availability of high quality, timely and relevant information.

Producing this information was the challenge that triggered the Agrilink information concept in 1992. Agrilink evolved from research that showed our existing information at that time lacked completeness, quality, ease of access and regular updating. Agrilink developed and trialled a new information system to make good these deficiencies and in 1996 introduced this present series of information products.

Agrilink is built around several important principles. Its products focus on the core information that is most needed and regularly sought by growers. The information is presented in line with how it has been sought from us over the past 15 years. The contents are packaged into integrated information kits or books that make access and information retrieval easy. The whole system operates under quality management to guarantee product quality and integrity.

The development of Agrilink has been a team effort. I thank all of the DPI staff, consultants and growers who have cooperated in our information gathering workshops. I also thank the artists, printing consultants and editors who have helped to turn the raw information into information products. This latest stage of Agrilink was possible through the funding support of DPI's New Initiatives Program, for which I am particularly grateful. This support enabled a specialist project team to be developed to carry on the work. I thank this team for the wonderful effort they have put in to getting this new stage off the ground.

Four people deserve special mention. Brian Cull helped to develop the Agrilink concept and has vigorously encouraged its development since. Geoff Behencken provided the initial funding and was instrumental in helping secure the special funding for this new stage. Loraine Chapman has provided a range of specialist design and desktop publishing skills, a contribution which has been outstanding. Cheryl Hutchings helped to develop the Agrilink logo and has provided valuable commercial advice throughout.

I believe that Agrilink has made considerable progress in the challenge to provide high quality, timely and relevant information to Queensland's horticultural industries.

Noel Vock Agrilink Project Leader



This book is designed for new and existing commercial cut flower or foliage producers of Australian native flora and South African Proteaceae (SAP) and related species. The authors have generally agreed to treat SAP under the umbrella of 'wildflower' for ease of use. This is justified in part by similarities in crop culture, the short period of domestication of these crops and a relative lack of distinction between these products by buyers in global markets.

	Overview An overview of the native wildflower and protea industries in Queensland in an Australian context, and the opportunities and challenges facing the Queensland industry	
2	Before you start  The business of growing wildflowers, the markets, the costs, the skills needed, the farm and planting materials	5
3	Common questions The most commonly asked questions about growing wildflowers in Queensland	13
4	Marketing Where and how to market wildflowers, quality specifications and managing risk	23
5	Cultivated wildflowers in Queensland  Major cultivated Australian wildflowers and South African proteas grown in Queensland and other Australian species that are suitable	33
6	Economics of production  Example budgets for six products: eucalypt buds and flowers, eucalypt foliage, kangaroo paw, Protea 'Pink Ice', rice flower and waxflower	57

7 —	The farm  What to look for in area, soil type, slope and aspect, water, climate and trial blocks	71
8	Labour  Labour requirements at key production times and the skills needed	79
9	Machinery and equipment  Essential and optional equipment for working the farm	83
10	Other considerations  Developments and safeguards in the Queensland wildflower industry	87
11	Contacts  Directory of key industry contacts	91
12	References Further reading and other information sources	_113
13	Glossary A guide to terms used	_133
14	Index Searching this book	_135

# About the authors

# Cynthia Carson

Cynthia is a Senior Extension Horticulturist with DPI's Queensland Horticulture Institute at the Centre for Amenity and Environmental Horticulture in Cleveland. She has been involved with ornamental horticulture since 1986, first in Victoria and then with the DPI. Cynthia has worked with Queensland wildflower growers since 1991, has written numerous articles on commercial wildflowers and co-wrote the book *Rice flower-integrating production and marketing* for growers considering export. In 1993, Cynthia established DPI's GrowSearch national ornamental crop database and information service.

### Peter Beal

Peter has 38 years experience with the DPI in research and development on fruit, vegetable and ornamental crops. He was a Principal Horticulturist with DPI's Queensland Horticulture Institute, at the Centre for Amenity and Environmental Horticulture in Cleveland. Peter has had a long interest in Australian flora with a strong commitment to wildflowers since 1991. His research and development work in wildflowers has specialised in agronomy and genetic improvement, with particular emphasis on rice flower, Australian native Asteraceae, *Grevillea* and waxflower.

### Ken Young

Ken is manager of Ebonybrook Pty Ltd, and a major producer of waxflower, kangaroo paw and *Grevillea* species for the export market on his 20 ha plantation at Gatton in south-east Queensland. He has been involved in the propagation and cultivation of Australian flora since 1971 and is a former member of the Wildflowers and Native Plants Advisory Committee for the Rural Industries Research and Development Corporation.

## Lois Turnbull

Lois has grown protea as a flower crop since 1988. She is also a florist shop owner and has 25 years experience in teaching and research, both at the University of Queensland and with DPI. For 12 of those years she has worked with the flower industry, including six years as a floriculturist at what is now the Queensland Horticulture Institute's Centre for Amenity and Environmental Horticulture in Cleveland. Her work has included developing rice flower as a cut flower crop and *Phytophthora*-tolerant rootstocks for the protea industry.

She is the author of numerous articles, co-author of a book on grafting proteas and was editor of the *Journal* of the *International Protea Association*.

# Leif Forsberg

Leif is a District Experimentalist with DPI's Queensland Horticulture Institute at the Centre for Amenity and Environmental Horticulture in Cleveland. He has over 30 years experience in plant pathology, and is currently specialising in disease diagnosis in ornamental, flower and nursery crops with Crop Health Services (Redlands unit). Leif has a wide knowledge of diseases caused by *Phytophthora* species, a major cause of economic loss in wildflower plantations.

# Alenna McMah

Alenna started growing wildflowers in 1994 at Emerald in central Queensland. She had 2.5 ha under cultivation to a range of crops including several kangaroo paw hybrids, rice flower, *Scholtzia*, flannel flower, *Stirlingia*, *Micromyrtus* and *Ptilotus*. These were successfully grown and sold on the domestic and export market. Alenna has since moved to south-east Queensland where, with her family, she is establishing and planting a new native flower farm.

# Geoff Sullivan

Geoff has a 14 ha plantation at Jandowae on the northern Darling Downs where he specialises in producing buds, flowers and foliage of eucalypt for the domestic and export market. He is also growing *Melaleuca* and *Agonis* species. He has been involved with the wildflower industry since 1990 and is a current member of the Wildflowers and Native Plants Advisory Committee for the Rural Industries Research and Development Corporation.

## Shirley Doull

Shirley is a flower grower at Malanda in north Queensland where she specialises in protea and banksia, kangaroo paw and native foliage. She established one of the first wildflower plantings in far north Queensland. Shirley has been growing wildflowers since 1988 on a 2 ha site for the local market, supplying florists in Cairns with boxes of mixed wildflowers.