Cashew information kit
Reprint – information current in 1999

REPRINT INFORMATION – PLEASE READ!

For updated information please call 13 25 23 or visit the website www.deedi.qld.gov.au

This publication has been reprinted as a digital book without any changes to the content published in 1999. We advise readers to take particular note of the areas most likely to be out-of-date and so requiring further research: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 Infopest www.infopest.qld.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• Financial information—costs and returns listed in this publication are out of date.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 www.deedi.qld.gov.au 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 1999. 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 cashew 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.
Cashew Information Kit

Contributing authors

Noel Grundon     Nick Richards
Pat O’Farrell    John Armour
Andrew Hinton    Peter Shearer
Vinod Kulkarni   Ian Duncan
John Leonardi    Shaun Hood
Sam Blaikie

Coordinating author

Irene Kernot

Department of Primary Industries, Queensland in collaboration with RIRDC, CSIRO, NTDPIF and Department of Natural Resources, Queensland
Cashew Information Kit
First published February 1999

ISSN 1328-0457
Agdex 231/10
From the Agrilink series first published 1997
Agrilink concept devised by Noel Vock and Brian Cull
Agrilink products are proudly produced by the Agrilink Project Team:
Information coordinators — Noel Vock, John James,
                 Jerry Lovatt, Irene Kernot
Publishing production — Loraine Chapman
Editor — Glenis Ayling
Customer service — Louelle Heintjes, Sue Longin
Technical support — Peter Rigden

National Library of Australia Cataloguing-in-Publication data:
Cashew information kit
Includes index.
ISBN 0 7242 6730 1
Primary Industries. (Series: Agrilink your growing guide to better farming).
634.57309943

© The State of Queensland, Department of Primary Industries 1998

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 Q Australia

Ph: (07) 5444 9690 Fax: (07) 5444 9694 Int Code: + 61 7
e-mail: agrilink@dpi.qld.gov.au

Disclaimer
Information contained in this publication is provided as general advice only. For application to
specific circumstances, professional advice should be sought.
The Department of Primary Industries, Queensland has taken all reasonable steps to ensure the
information contained in this publication is accurate at the time of publication. Readers should
ensure that they make appropriate enquiries to determine whether new information is available on
the particular subject matter.
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 a new concept in developing and packaging the information regularly sought by producers of horticultural commodities. Each Agrilink kit has been designed to be both comprehensive and practical. As they are arranged to answer questions of increasing complexity, they are useful references for both new and experienced producers of specific crops. Agrilink integrates the technology of horticultural production with the management of horticultural enterprises.

Agrilink is a team effort. Each kit has been conceived and written by a team of extension and research staff with specialist knowledge of the crop and commodity. Most of the kits have been field-tested by producers and other users. Agrilink products are being produced to high quality standards so that you can obtain maximum benefit from your investment in information.

For this manual we welcome the collaboration with the Rural Industries Research and Development Corporation (RIRDC). Working together we have packaged the wealth of research data collected through extensive RIRDC-sponsored trials in the Northern Territory and Queensland into a working document for the cashew producer.

Technology and crop management information are changing rapidly. Agrilink has been designed so that each kit can be regularly updated and kept relevant as a practical aid for horticultural producers.

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.

Kathryn Adams
Director
Queensland Horticulture Institute
October 1998
Acknowledgements

The authors are grateful for information and advice provided by Dr P.K. Peng from the Northern Territory University; Dr Marli Malipatiel from the Institute for Horticultural Development, Agriculture Victoria; Ron Peterson, Bruno Pinese and Harry Fay, Department of Primary Industries, Mareeba. We would also like to acknowledge the support and encouragement provided by the late Dr Elias Chacko. Dr. Chacko was among the initiators of the Australian cashew industry and a great supporter during the early stages of the development of the Agrilink kit.

Photographs for the ‘Problem solver’ were kindly provided by Noel Grundon, Pat O'Farrell, Vinod Kulkarni and Shaun Hood.

The book Mango pests and disorders by John Bagshaw et al, of the Department of Primary Industries, Queensland, was used extensively in compiling the sections on pest management.

The economic analysis for the Atherton Tableland is an extract from Cashew production in North Queensland — estimating profitability, provided by Andrew Hinton, Department of Primary Industries, Mareeba.

Chemical information was extracted from Infopest Version 2 produced by Department of Primary Industries, Queensland. Information and pictures were also obtained from the Agrilink Citrus information kit.
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, easy access and regular updating. Over the last four years, Agrilink has developed and trialled a new information system to address these deficiencies. This has culminated in this new series of information kits.

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 last 15 years. The contents are packaged into integrated information kits that make access and information retrieval easy. For the first time, we are providing a commitment to updating the information each year. The whole system is being operated 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 kits. This new stage of Agrilink is possible through the funding support of DPI’s New Initiatives Program, for which I am particularly grateful. This support has 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 Behncken 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. The Agrilink project team looks forward to continuing the work into the new millennium.

Noel Vock
Agrilink Project Leader
About the authors

**John Armour**
John is a Senior Soil Scientist with Analytical Chemistry, Department of Natural Resources (DNR) at Mareeba. Since 1995 he has collaborated with the DPI, Queensland's cashew research team studying plant nutrition for sustainable high yields.

**Sam Blaikie**
Sam is a Research Officer with CSIRO’s Division of Plant Industry (Horticulture), Darwin, where he has been studying responses of cashew to a range of irrigation treatments. During the past 4 years he has provided information to existing and prospective cashew growers in the Northern Territory and north Queensland.

**Ian Duncan**
Ian is the Director of the Australian Cashew Company and a consultant in cashew and other tropical crops. His practical experience in cashew production includes 10 years as Project Manager for the Wildman River Cashew Project, for the CSR New Business Development Group.

**Noel Grundon**
Noel is a Senior Research Scientist at CSIRO Land and Water, Atherton. Since 1995, he has been co-leader of the CSIRO cashew project researching the fertiliser requirements of cashews.

**Andrew Hinton**
Andrew is an Agricultural Economist with DPI, based at Mareeba. He has been involved with the CHOICES project for 4 years, investigating the profitability of crops in the Mareeba-Dimbilah Irrigation Area.

**Shaun Hood**
Shaun recently completed his Doctorate with the University of Queensland’s Department of Entomology. His research was to evaluate the role of parasites and predators in cashew pest management, with the ultimate aim of contributing to the development of an Integrated Pest Management (IPM) program for the Australian cashew industry. He is currently employed as an entomologist with the DPI at Maroochy Research Station working on pest management in tropical tree crops.

**Irene Kernot**
Irene is a Senior Information Extension Officer in the Tropical Fruit Program of the DPI’s Queensland Horticulture Institute based at Mareeba. She has 7 years experience working as an extension officer for the avocado and mango industries on the Atherton Tableland and has worked on the development of information products for growers.

**Vinod Kulkarni**
Vinod is Senior Horticulturist at the Northern Territory DPIF at Berrimah Agricultural Research Station in Darwin. His major areas of work are varietal research, manipulation of tree vigour and flowering, improving productivity and developing cultural management options based on location and market needs.

**John Leonardi**
John is a Research Scientist with CSIRO’s Division of Plant Industry (Horticulture), Darwin. He has worked in cashew for 5 years, studying flowering patterns, nut set and yields in several varieties in the Northern Territory.

**Pat O’Farrell**
Pat is a District Experimentalist employed by DPI, Mareeba in cashew research. Since 1991 he has worked in cashew plant improvement, nitrogen nutrition and general crop agronomy.

**Nick Richards**
Nick works with Agriculture Western Australia in Kununurra, having previously worked with the DPI in north Queensland on tropical tree fruits. His experience in cashews relates to the development of nutrient and water management for cashew orchards in the Northern Territory, evaluation of cashew orchard systems and overseas consulting services in Africa.

**Peter Shearer**
Peter is the Director of Peter Shearer’s Menswear and the farming enterprises Cashews Australia and Big Mac. He has 16 years experience farming in macadamia and cashew nuts including processing, value adding and marketing.
Before you start
A checklist of things you need to know before you start growing the crop

Common questions
The twenty or so most commonly asked questions about the crop

Growing the crop
Our guide for selecting varieties, and establishing, producing and marketing the crop

Key issues
More detailed information on the key issues and important decisions affecting the crop

Problem solver
A picture series of the common problems with notes on what you can do about them

Contacts and references
A list of industry organisations, product suppliers, information sources and further reading

Index
An A to Z index to help you find information quickly

Your info
A place to store information that you have collected