Sweet potato 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 We advise readers to take particular note of the areas most likely to be out-of-date and so requiring further research: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 Infopest <u>www.infopest.qld.gov.au</u>
- Financial information—costs and returns listed in this publication are out of date.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 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 sweet potato 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.



Sweetpotato Information Kit

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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 that is regularly sought by producers of horticultural commodities.

Each Agrilink kit has been designed to be both comprehensive and practical. As the kits 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.

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.

Grant Hall
Director
Queensland Horticulture Institute

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Photographs for Section 5, the *Problem Solver*, were kindly provided by the kit's authors; Terry Harper and Peter Mayers; and the authors and editors of the following publications:

- Diseases of Vegetable Crops, Denis Persley (ed), (1994), Department of Primary Industries, Brisbane.
- Insect Pests of Field Crops, G.A. Swaine and D.A. Ironside (eds), (1983), Department of Primary Industries, Brisbane.
- Plant Nutrient Disorders 3, Vegetable Crops, R.G. Weir and G.C. Cresswell, (1993), New South Wales Agriculture, Sydney.
- Tomato Pests and Disorders, G.D. Fullelove (ed) (1992), Department of Primary Industries, Brisbane.

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We also thank Jenny Kemp and Rose Swete-Kelly for the line drawings and Ethna Brown for digitising the images.

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 past seven 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 past 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

About the authors

Lester Loader

Lester is a District Experimentalist with the Queensland Horticulture Institute at the Department of Primary Industries at Mareeba on the Atherton Tableland. He has 35 years experience in research and extension. He became involved with sweetpotatoes with the introduction of orange-fleshed varieties into Queensland in the late 1960s, when his role involved increasing and distributing planting material.

Lester's work has included breeding sweetpotatoes, producing and growing from seed, and importing and evaluating promising new varieties. He has also been involved in international nutritional research. In 1993 Lester and Phil Buchanan (see below) went on a study tour of the leading sweetpotato-producing states of the USA, and produced a video of the trip. During the tour they studied plant breeding, agronomy, mechanisation, packaging and promotion of sweetpotatoes. He retired at the end of 2000.

Stephen Harper

Steve is a Horticulturist with the Queensland Horticulture Institute at the Department of Primary Industries' Gatton Research Station. He has 12 years experience in research and extension, particularly in soil management and vegetable farming systems, largely in the Lockyer Valley and south-eastern Queensland. Steve currently has statewide responsibility for research in potatoes, sweetpotatoes and pumpkins, but continues to have significant input into extension activities.

Vilma Amante

Vilma has 15 years experience in research and for eight years was the sweetpotato research and technology transfer associate of the Southeast Asian Program for Potato Research and Development (SAPPRAD), renamed Asian Sweetpotato and Potato Research and Development (ASPRAD). She conducted trials on variety evaluation of processing and fresh market varieties, planting densities, production of planting material and production of sweetpotato seeds. Vilma championed the recognition of the potential of sweetpotatoes for industrial use and processing. She worked with researchers in the ASPRAD member

countries of China, Indonesia, Malaysia, Philippines, Papua New Guinea, Sri Lanka, Thailand and Vietnam. She has published and edited papers on sweetpotatoes and was co-editor and co-author of a manual on sweetpotato variety evaluation and the book *The Sweetpotato in Tropical Asia*.

Ken Jackson

Ken is the Program Leader for Vegetables within the Queensland Horticulture Institute at the Department of Primary Industries' Gatton Research Station. He has 28 years experience in crop agronomy and plant improvement, initially with safflower, guar and lupins in central Queensland. From 1985 to 1997 he was responsible for the Queensland research program for heavy vegetables, including sweetpotatoes, potatoes, onions, pumpkins and garlic. Ken also provided significant input into the extension program for these crops during this period.

Phil Buchanan

Phil has been a farmer for 38 years, and for 33 years has been involved in sweetpotato production in the Deception Bay and Mango Hill areas of southern Queensland. He had some casual involvement in variety selection when the Department of Primary Industries introduced the orange-fleshed varieties into Queensland for commercial evaluation in 1972.

Phil accompanied Lester Loader on a study tour to the USA in 1993, visiting production areas in Louisiana, North Carolina and California. He again visited Louisiana in July 1999 for further variety consultations.

Jerry Lovatt

Jerry is a Senior Information Extension Officer with the Queensland Horticulture Institute at the Department of Primary Industries' Bundaberg Research Station. Since joining DPI in 1967, he has worked at six centres around Queensland where he has accumulated a wealth of knowledge about Queensland horticulture, particularly vegetables.

Jerry joined the Agrilink project team in 1993 and is responsible for the development of information packages for vegetable crops.



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