



Supporting the growth of

The Australian Herb Growing Industry

**A report for the Rural Industries Research
and Development Corporation**

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Foreword

The Key to development of a new plant based industry is information. Without the necessary technical support most new industries will not succeed. New plant based industries provide opportunity for regional diversification and growth in employment for rural Australia.

Once a new plant based industry has been identified, and initial commercial success has been achieved, it is important that if that industry is to grow and succeed, that the technical information is freely provided for the rural community.

This project seeks to disseminate, via an electronic data base located on a web site, technical support for the further development of the industry. Thirty herbs were chosen due to their availability and each herb was researched and recorded by growers. This data base is the backbone to the project which also incorporates other areas of rural isolation and communication.

This project was funded from RIRDC Core Funds which are provided by the Federal Government.

This report, an addition to RIRDC's diverse range of over 600 research publications, forms part of our New Plant Industries R&D program, which aims to facilitate the development of new industries based on plants or plant products that have commercial potential for Australia.

.Most of our publications are available for viewing, downloading or purchasing online through our website:

- downloads at www.rirdc.gov.au/reports/Index.htm
- purchases at www.rirdc.gov.au/eshop

Peter Core

Managing Director

Rural Industries Research and Development Corporation

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Executive Summary

The Australian herb growing industry is relatively small in comparison to world production. Traditionally most herbal crops were either wild harvested from native stands or grown in poorer third world countries due to the excessive amount of manual labour required. Due to present world economic standards the prices of many of these herbs have risen dramatically in past years. What was once a cheap import is now an expensive crop. Herbs, as an agricultural commodity, have now come of age.

Herbal medicines are one of the fastest growing sectors and Australia is keeping pace with these world wide trends. To further facilitate development and commercial expansion of the industry, growers require unbiased technical support.

The lifeblood of any industry is information. All too often, growers who have developed new crops are reluctant to share that information with colleagues. However, the only way for an industry to develop and become commercially viable is to reach a critical mass of production whereby the next phase of processing and value-adding can begin.

The Organic Herb Growers of Australia Inc. are the major herb industry grower association. The current membership spans the breadth of the nation. It is only fitting that the Organic Herb Growers of Australia Inc. release this technical information for the benefit of the entire industry. This has been accomplished in the form of an easily accessible web site: **www.organicherbs.org**

1. Introduction

There has been a world wide trend towards natural herbal based medicines. The United Nations, in a recent report, expressed approval and support for the development of natural plant medicines for treatment and palliative care in most developing nations. This trend has brought with it a new demand for herbal commodities.

Traditionally, most herbs were either wild harvested or grown within small holdings, usually on a village co-operative scale. Demand for these herbs have remained at a constant level up until the recent surge in useage. This has led to a raise in the price as supply has not been able to keep up with demand. Due to other world economic factors, ie. inflation, higher standards of living, the trend to leave the farm, many herbs have either risen quite high in price or become unavailable. This has led to a renewed interest in the cultivation of these herbs.

Many of the herbs which have been traditionally wildharvested, that is not cultivated but rather gathered by groups of women, are slowly disappearing from the wild.

All of these factors plus the unacceptable amount of pesticides, fertilisers, and irradiation have led to the renewed call to establish an organic herb growing industry in Australia.

The world market for these herbal products, both culinary and medicinal, is estimated to be approximate 20 Billion dollars. These estimates vary from publication to publication. Estimates for the Australian market and local production represent less than 1% of this.

Along with the renewed interest in cultivating therapeutic herbs, we have witnessed a sharp increase in the use of culinary herbs, both cultivated and wildcrafted.. Today's restaurant and food processor, as well as the home chef, is demanding a new cuisine. One which is based upon new flavours and herbal mixes.

The Australian herb growing Industry has had a few pioneers. One of these, Herb Farms Australia, has continually led the way with open independent advice for all. Herb Farms Australia were instrumental in establishing the Organic Herb Growers of Australia Inc, which today is the largest herb industry association, having over 650 members nationwide.

Herb Farms Australia has over the years trained hundreds of growers on their farm. Training has always been the key to establishing an industry.

All too often Australian growers are faced with a choice of cooperation or competition. Unfortunately they often choose the latter and the industry suffers for it. Competition has no place in the struggle to form an industry. If growers would only learn to cooperate, to form networks and exchange ideas and information, the industry as a whole would develop quicker, and be in a better position to capture world markets.

It is only through an economy of scale that growers can possible hope to attain access to world markets at competitive prices. And it is only through cooperation and the sharing of information that this will be made possible.

No one grower can achieve nor sustain a push into the world marketplace.

And it is to the world marketplace that Australian growers will have to go if they are to establish a business with a sustainable outlook. For the Australian herb manufacturing industry is too small to accommodate a professional herb growing industry.

There are currently only four major buyers of medicinal herbs and not that many more of culinary herb buyers. The throughput for these buyers is relatively quite small compared to the purchasing power of the larger international buyers.

Most Australian manufacturers are still locked into a 'indent' buying system using cheap imported herbs of dubious quality and cleanliness. By the time these herbs reach our shores, they are usually one year old, due to the shorter growing seasons and single harvest in the Northern hemisphere; have been in transport for over 2 months; fumigated or irradiated; and mishandled and mistreated along the way. Foreign organic certification systems are not as stringent as our local standards. And the disappointing resulting medicines, foodstuffs, and oils are the result of this lack of quality starting materials.

The true starting point of a quality product is the soil.

Only organic farming methods can deliver healthy soils. Healthy soils produce healthy plants which in turn yield healthy food and medicines. The practice of organic growing not only relieves the burden on the national health system, but will also improve our natural health industries, whereby our products will actually be sought on the world market for their quality and cleanliness, not just as an out of season, cheaply priced product.

To accomplish this building of an industry, the Organic Herb Growers of Australia Inc. have successfully started to share this much needed information via an on line web site.

Readers of this report should log onto www.organicherbs.org and see for themselves.

2. Objectives

This project has sought to redress the lack of grower information, as well as the tyranny of distance faced by most rural producers.

Firstly, lack of information. Without an accurate assessment of what will grow and how to grow, no industry will be able to succeed. This was our first mission, to supply growing information for Australian conditions.

The second objective of our project was to close the gap of rural isolation. Many growers face hardships based on lack of time, lack of information, lack of communication. By making this information available on line via a web based site, whereby anyone, members and non members alike, can access this information at any time of day, we have closed some of the gaps.

3. Methodology

Our association, The Organic Herb Growers of Australia Inc, is a democratically elected industry association. We try at all times to further the herb growing industry by working voluntarily for our membership in many fields of endeavours.

As our membership began to spread from the centralised areas of the Northern Rivers region of NSW to encompass the entire continent, we realised that we had to do something to include these out of area members. We did not wish to relocate our central office, nor to create several smaller chapters thus diluting the central office role. Fortunately, at this time the world wide web made communication possible and we decided to launch a fully interactive web site.

A sub committee drew up a plan to tackle the situation. Once this plan was accepted by the executive committee, it was forwarded to RIRDC for approval and funding.

Upon receipt of acceptance by RIRDC, we put the plan into operation.

A list of the 30 most popular and commercially viable herbs was compiled by the committee. This list included 20 culinary and 10 medicinal herbs.

- Calendula
- Astragalus
- Chamomile, german
- Basil, sweet
- Chives
- Burdock
- Chervil
- Coriander
- Echinacea
- Feverfew
- Garlic
- Ginkgo biloba
- Horseradish
- Golden Seal
- Lemon Balm
- Lemon Grass
- Marjoram
- Meadowsweet
- Sorrel
- Mint
- Oregano
- Parsley
- Passionfruit
- Rosemary
- Rocket
- Sage
- Scullcap
- Tarragon
- Thyme
- Valerian root

An advertisement was placed in our own magazine “The Herb Grower” for a qualified researcher to undertake the desk study of these herbs. Research was gathered from many sources according to the chosen formula of inputs.

The data base of each herb was to include:

- Common Name
- Other name
- Genus
- Species
- Variety
- Family Name
- Plant description
- Origin
- Climate
- Main Uses
- Parts Used-main
- Other uses
- Parts Used-other
- Active Ingredients
- Medicinal properties
- Human Nutrition
- Position
- Drainage
- pH
- Soil Type
- Water Requirements
- Pests
- Disease
- Propagation
- More pests/diseases
- More propagation
- Plant nutrition
- Row spacing
- Bed Spacing
- Seeds per gram
- Plants per hectare
- Extra Notes

(see Appendix 1 for example downloaded from web site)

Once this data base was researched through text books, we then put it through the personal test and asked growers of these herbs to comment on the text book research. Most text books are written for northern hemisphere climates, and have very little significance for Australian growing conditions.

Upon completion of the data base, we contracted a local web technician and turned the data base into an electronic version. This electronic web version was then placed onto our web site.

Lastly we hired a webmaster to continually monitor and update the web site and manage the information on a daily basis.

Although our web site was intended to offer the data base as it's primary focus, we have built a very professional site which encompasses many other worthwhile topics. These can be found on the "home page" and include:

- News...** current events which affect our industry
- About OHGA....** a brief description of our association
- Certification...** what it is and how to begin the process
- Standards....** the complete OHGA Organic standards for production
- Membership...** an on line application form
- Classifieds...** an on line buy & sell opportunity
- Organic Forum...** an on line discussion point
- Herb Database**
- www Links...** links to other sites
- Contacts...** how to contact the OHGA and their officers

4. Detailed Results

The initial impact of the web site was not known for several months. This was due to a lack of advertising and a poorly constructed meta-tab search word.

We began to gently push all our members towards the on line web site. Interaction between members was encouraged by logging on and becoming familiar with this new technology. For further information regarding our association, membership forms, organic standards etc we have been encouraging everyone to log on by advertising and promoting our website. We envision that the future will see less telephone useage and more on line contact.

Meta-tabs are the key words used in web based technology that allows a search engine to locate a particular subject. Without the correct meta-tabs no one will be able to find you on the web, which houses millions of web sites.

We corrected the meta tab search and watched the “hits” just increase every month. “Hits” are the number of times that a person logs onto your site. Current “hits” per month are recorded below:

Month	Daily Avg	Monthly Totals
December 2000	315	9791
November 2000	490	14712
October 2000	730	22636
September 2000	610	18320
August 2000	607	18234

5. Implications

This project has been highly successful for the growth of the Australian organic herb growing industry. The web site has lifted the status of OHGA to the penultimate herb industry association, both here and overseas.

We have witnessed a new approach to information gathering. Instead of making hundreds of telephone calls, usually at STD rates, rural land owners can access this information via the web, at a time which suits their lifestyles.

We have recorded on line visits from over 30 different countries, wishing to examine our Organic standards, our memberships, and the way in which we promote our industry. Previously this had not been possible due to a limited budget.

6. Recommendations

With the highly successful result recorded so far, the sub committee recommends that the content of the web data base be expanded, to include more herbs as well as a section on vegetables. We would like to see a further inclusion of perhaps another 10 herbs, including several ayurvedic varieties.

We would consider a Market Reporting column which will offer growers an indication of current world wide prices.

We would also recommend that a further topic of “in conversion to organics” be set up on the site. A basic “how to” with all the ins and outs of conversion to organics.

On the supply side, herbs are reaching their full capacity in Australian manufacturing. It is obvious that for the growing industry to be able to continue there is a great need to increase the manufacturing base. We recommend that a section be devoted to value adding and the requirements to setting up as a manufacturer, including correct labelling of products.

7. Appendices

Appendix 1

Common Name:	Calendula
Other Name:	Pot Marigold
Genus:	Calendula
Species:	officinalis
Variety:	
Family Name:	ASTERACEAE
Plant Description:	Annual large daisy to 60cm with soft mid green herbaceous stems and spathe shaped leaves which flowers summer/spring bright orange single flower
Origin:	Sth.Europe
Climate:	Sub Tropics : Temp
Main Uses:	Medicinal Aromatherapy : Culinary : Horticulture Medicinal : Tea
Parts Used – Main:	Flowers
Other Uses:	Culinary : Horticulture
Parts Used – Other:	Flowers
Active Ingredient:	Triterpenes, Resins, Volatile oils, Flavonoids, Mucilage, Carotenes
Medicinal Properties:	Anti Inflammatory : Good skin remedy : Promotes perspiration : Strengthens heart : Against thrush: Against boils, bruises, etc. in salve form
Human Nutrition	
Position:	Sun
Drainage:	Well drained
PH:	6 to 7
Soil Type:	Wide range
Water Requirements:	Medium
Pests:	Medium
Disease:	Low
Propagation:	Seed
More Pests/Diseases:	Caterpillars enter flower bud before open : Caterpillars eat centre of flower : Subject to leaf diseases, check regularly under leaves for fungal disease, remove badly affected plants.
More Propagation:	Seed late summer, early autumn takes 1-2 weeks 20 - 30 degrees C. : Can be direct sown.
Plant Nutrition:	Prepare soil with compost and mulch plants to conserve moisture
Row Spacing:	30 cm x 30 cm
Bed Spacing:	1mtr. x .5mtr path
Seeds per gram:	160
Plant per hectare:	65,000
Extra Notes:	Remove spent flowers to prolong flowering period and promote new flowering growth