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HERB GROWER

PUBLISHED BY THE ORGANIC HERB GROWERS OF AUSTRALIA INC.

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EDITORIAL

HOW has the weather been your way? Up here it's been strange, to say the least. Soaring temperatures, as high as 39°c, followed by hail and rain storms. Not once, but several weeks running.

Meanwhile, an interesting process is happening. A growing number of OHGA members up here, including Howard and I, are planting medicinals. It's as if we're going back to our roots. Old members will remember that the Northern Rivers Herb Ass., the forerunner of OHGA, started off with members who were basically interested in talking and learning about medicinal herbs. In those days the association was more or less the same as the many other herb groups around Australia.

It was through the drive and effort of a small group of people that the tone of the association changed to one of active participation in the world of herbs. This resulted in the growing and promoting of culinary herbs; after all, all of these have medicinal powers too. The membership unanimously decided to change the name of the association to OHGA. Quality produce, especially herbs, it was was argued, should be grown without chemicals.

Now that we have an established and experienced grower base, the growing of medicinals has started. Thousands of Echinacea seedlings have been planted and other varieties have followed. Those members who are also interested in growing medicinals and who live in the Lismore area, please contact Howard.

In September OHGA again took part part in Farmarama. Like last year, there was much interesst from the public. We also had a team for the local environment centre's trivia night, which was great fun. Even though we were at the bottom of the heap the whole night, we made a great effort in the last round so as not to shame OHGA and ended several places up in the final tally. Well, it's not easy if you've been up since 5 'o clock. While we were all sitting there yawning, the other teams didn't look as if they'd had an early morning harvest on.

As often happens, for this issue there was more material than the pages could handle. An article on recycling of styro boxes, and a warning that food irradiation is again on the agenda in Australia, have missed the boat. We must all raise our voices against the practice of food irradiation. If this is given the go-ahead here, fruit and vegetables will be exposed to a beam of ionising radiation from radio-active gamma sources before reaching the shops. It keeps them "fresh" longer, or should I say fresh-looking. Herbs from third world countries are usually treated this way, in order to kill any harmfull bacteria that are present due to the unhygienic way in which they are grown and dried.

If you saw that great ABC program 'Vegie Wars' you'll have seen that there is already an over-production of fruit and vegetables. So, who needs stuff that is artificially kept fresh? The mind boggles....

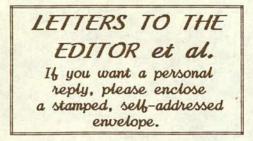
There's a new group of readers of this issue. The participants of the herb conference that Howard attended (see two reports in this issue) are receiving a copy. We hope they'll join OHGA and become contributors to the HERB GROWER.

The OHGA committee and the HERB GROWER send you

2

蘭 Season's Greetings 智 Meilleurs Voeux 氰 Felices Fiestas

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Dear Editor,

I enclose the manuscript of an article outlining the research activities on herbs being undertaken within the Department. Your offer to publish this article in your journal is appreciated.

The objective of the programme at UNE is to tackle some of the problems associated wirh commercial herb growing in general although there is some focus on the New England area initially. This work has been stimulated by the interests of 'local' people interested in growing and processing herbs. It fits within the Department's broader interest in the development of 'new crops'. By combining our efforts, and with financial support from private sources, access to University research facilities and funding from RIRDC, we are able to develop the research programme. We look forward to the continued interest and support of your readers.

Robin Jessop, Dept. of Agronomy and Soil Science, UNE, Armidale.

See Robin Jessop's article in this issue. Anybody want to comment? –Elle

With their renewal, quite a few members wrote of their appreciation for HERB GROWER. Here follow the comments of a couple of members:

Liked the info on Soil Deficiencies. We look forward to reading the HERB GROWER every 2nd month. *His N Herbs, Armidale, NSW*

You are doing a great job. We especially look forward to our 'HERB GROWER'. Thanks for another year crammed with information on our industry. Marg & Barry, Nyah Wesr, Vic.

A thank you to these and all the other members that sent in encouraging words. We aim to improve the magazine all the time and feel sure there's a big future for our HERB GROWER. ELLE

Herb Industry Forum Says Networking Crucial To Growth

An Australian herb industry 'think tank' funded by RIRDC was held at Mt Macedon, Vic, 1-3 October. For the first time representatives from the different areas of the industry – growers, processors, manufacturers, researchers – met together to clarify the status of the industry, identify and analyse current problems and opportunities and develop a future plan for the industry.

The forum, organized jointly by Focus on Herbs Consultancy and New England Natural Products, was developed in response to a recognition of missed opportunities in competing for both import and export orders and lack of cohesion and focus within the industry.

In analysing its strengths and weaknesses, the forum recognized that the fragmentation existing within the industry, and lack of an accurate picture of the current market, were major factors in preventing Australia maximising its full potential in the domestic and international market, and that these issues had to be addressed if the industry was to be able to compete against overseas competition.

The development of effective networking and on-going communication between special interest groups and the industry as a whole, was seen as crucial to its future growth and to overcoming many of the existing problems. To this end the workshop recommended that an active network system be established to promote information exchange, strengthen mutual understanding and develop a sense of cohesion and cooperation, giving the industry a capacity to unite against the challenges and competition it faces.

A steering committee, composed of Howard Rubin (OHGA), John Penninger (Fancy Foods Freelance), Rodney Brennan (Blackmores) and Kim Fletcher (Focus on Herbs Cons.) has been formed to assess industry response to the proposal and examine funding arrangements for the appointment of a part-time facilitator for a 12 month period who will be responsible for initial establishment of the network.

It is proposed that another herb industry gathering, open to all interested parties, be held within 6 months to reinforce the spirit of cooperation and focus achieved by the forum and further develop the future direction of the industry.

Kim Fletcher, Focus on Herbs Consultancy.



ALL HERB GROWERS have an abundance in the garden at this time of the year. Here are some ideas for turning our herbs into Christmas presents.

FLOWER AND HERB SACHETS

Mixes of dried, sweet-smelling herbs and flowers can be sewn into silk or cotton bags for hanging around the room or at the back of chairs. For the kitchen, small hessian bags can be filled with sharpsmelling mixes to keep away flies. Fill some with lavender flowers for kitchen cupboards to keep cockies at bay.

Kitchen Mixes:

3 Parts of lemon verbena to 1 part each of peppermint and lemon geranium leaves. Add crushed lemonpeel and a few tbsp. orrisroot powder.

4 Parts of lemon verbena, 2 parts each of crumbled bay leaves and mixed mints, 1 part lovage. Add several teasp. crushed cloves and some tblsp. orrisroot powder.

Mrs. Earle wrote in 1905: "On the back of my armchairs are thin Liberty silk oblong bags, like miniature saddle-bags, filled with dried lavender, sweet verbena and sweet geranium leaves. This mixture is much more fragrant than the lavender alone. The visitor who leans back in his chair wonders from where the scent comes."

Mrs. Earle's sachets: 50 gr. lavender flowers, 25 grs. lemon verbena leaves, 25 grs. lemon or mint-scented geranium leaves, with 1 tbsp. orrisroot powder.

To increase the perfume, she added two drops of lavender oil.

The following mixes are traditional ones, if you want you can embroider on them, of course.

Victorian Sweet Bag

25 grs. thyme, 25 grs. rosemary, 15 grs. cloves, crushed, 2 teasp. orrisroot powder. *Elizabethan Sweet Bag*

25 grs. rose petals, 25 grs. lavender flowers, 2 tbsp. carnation petals, 15 grs. marjoram, 1 tbsp. crushed cloves, 1 tbsp. orrisroot powder.

Moth Deterring Bag

25 grs. cotton lavender (santolina), 25 grs. lavender fls., 15 grs. rosemary, 1 tbsp. orrisroot powder.

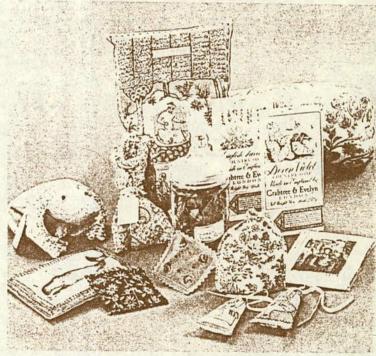
Sweet Bag for Men

50 grs. lemon verbena, 25 grs. peppermint, dried rind of 1 lemon, crushed, 1 tbsp. crushed cloves, 1 tbsp. orrisroot powder.

Another way to achieve sweet smelling drawers, is to line them with scented paper.

Scented Drawer Liners.

Buy a roll of the cheapest wallpaper (the cheaper, the more absorbent) and cut to measure a drawer. Unroll and scatter thickly with a dry potpourri or sweet bag mixture and roll it up again. Seal in a plastic bag and leave for six weeks, by which time it will have absorbed the scent.



SLEEP PILLOWS

For centuries, mattresses and pillows have been stuffed with scented grasses and ferns (e.g. bracken to keep fleas and bedbugs away).

The Romans added dried rose petals to their pillows, Victorian ladies favoured lavender and George II could not sleep without his hops pillow. Sleep pillows delicately perfume the bedroom and help to relax. They sweeten the sick room, help the elderly and calm babies.

A pillow made mainly from hops can be made the size of an ordinary pillow, since it'll be soft enough to rest the head on. For a full size pillow you'll need ½ kilo of hops.

Other herbs are more scratchy and are best made into sachets of 25x20 cm. These are put inside the pillow cover, under the pillow or hung up just above the head.

For a head cold, a lavender pillow will help. Or do as William Turner, who wrote in his 'New Herball' of 1551: "I judge that the flowers of lavender quilted in a cap and worne are good for all diseases of the head that come from a cold cause and that they comfort the braine very well"

If you feel your pillows don't smell strong enough, you can add some drops of essential oils.

The following are some traditional recipees.

Fresh Lavender Pillow

25 grs. lavender flowers, 4 crumbled bay leaves, 15 grs. lemon thyme, 15 grs. sweet marjoram, 2 tbsp. rosemary, 1 tbsp. crushed cinnamon, 1 tbsp. orrisroot powder.

Rosemary and Lemon Pillow

25 grs. rosemary, 25 grs. lemon verbena, 2 tbsp. peppermint, 1 tbsp. crushed dried lemonpeel, 1 tbsp. orrisroot powder.

Pillows for the Sleepless, 1700

"Of strong linen, close woven. A strip fifteen inches wide and thirty six deep. Fold to make a bag eighteen inches deep. Seam and fell all sides, leaving a space on one end to admit the stuffing.

Take of cowslips and fresh hops, newly dried, as many as you deem enough to make a soft cushion in equal parts. Distribute your hops and cowslips nicely, in a bowl, and proceed to stuff your pillow until you feel it comfortable to the head. Over-sew the opening and your pillow is made.

Those who by reason of great grief, study or long watchfulness cannot catch their sleep will find such a pillow serviceable".

TALCUM POWDERS

Talcum powders became fashionable in Elizabethan times and were used not only on the body, but rubbed on clothes and gloves. The Queen's special formula was made of orrisroot, dried rose petals, calamus and ground cloves.

The base for a talcum powder can be: unscented talcum powder, cornflour, riceflour or precipitated chalk. Add essential oil, herbal infusions or flower water and fix the scent with orrisroot.

Basic mixture

75 grs. unscented talcum powder or precipitated chalk, 75 grs. rice or cornflour, ½ tbsp. boric acid powder or crystals, crushed, 1 tbsp. orrisroot powder, 1 teasp. essential oil.

Mix the dry ingredients, add the oil and rub in in with your fingertips until it's absorbed. Sieve twice and pack the powder in a nice box. It is applied with a dusting puff. Alternative put it in a used talcum tin or a large salt shaker.

Dried and powdered herbs and spices can be added to the mix, such as camomile flowers, rose petals, lemon peel or cinnamon or any of your favourites.

There is no end to the presents that can be made with herbs.

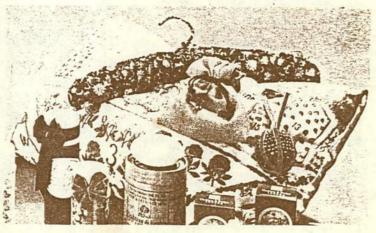
There is the scented notepaper, which is made by putting small sachets filled with a fragrant mix between sheets of paper and sealed in a plastic bag for six weeks; or the old-fashioned lavender scented ink, where you simmer 15 grs. lavender flowers with 6 tbsp. water for 30 minutes, strain and add the liquid to a small bottle of ink.

There are the herbed oils and vinegars and scented candles (see Nov/Dec 1992 issue), toilet waters, colognes and a whole range of beauty products.

I'll leave you to find other ways of using your herbs. It's great fun!

For this article I was inspired by A Book of Pot-Pourri by Gail Duff.

Elle





BY DR. A.J. KATELARIS

The first European Conference on Industrial Crops was held in Maastricht, the Netherlands, in November of last year.

One of the main items discussed at the conference was the Dutch government's hemp project. This is a four-year project investigating the potential for developing an ecologically benign and long-term sustainable non-wood paper industry utilising Indian hemp, *Cannabis sativa*, as the principal feedstock.

The Dutch government has seriously committed itself to reducing the volume of toxic chemicals used by the agricultural community and at the same time providing farmers with an additional source of income. They have identified cannabis as the crop most likely to achieve these objectives, by providing a rotation crop between beet, potato and cereal crops to reduce the soil nematode load and other pests – and paper as the most likely profitable product, due to dwindling forest resources and increasing world demand for paper products.

The project is comprehensive and includes plant breeding, agronomy, logistics and pulping technologies. Included in this last category is detailed evaluation of mechanical. alkaline chemical and organosolv pulping methods. The Kraft paper-making process, which is the method proposed for new Australian mills, is now thoroughly discredited in Europe, with a total ban on planning and construction of this type of mill.

The United Nations Single Convention on Drug Use specifically exempts the industrial cultivation of cannabis.from prohibition (see Art.28.2 of the Convention). The European Community, mindful of the economic potential of Indian hemp and in accordance with the intentions of the Single Convention, has formulated regulations for the industrial cultivation of cannabis. Cultivars producing less than 0.3% total alkaloid content are scheduled as a fibre crop and cultivation is not only permitted, but in some cases subsidised. In France 8,000 hectares are cultivated annually under the guidance of the Fédération Nationale de Producture Chanvre for the production of speciality papers.

In the Ukraine annual production is over 60,000 hectares, used mostly for heavy-duty fabrics, though research is now being directed to paper manufacture.

Hemp stalks are composed of 30% bast fibre, the premier paper-making fibre used for best stationery and archival purposes, or for banknotes, filter paper and the like. The remainder is hurd, or shortlength fibre. With modern methods of production, all grades of paper can be produced by blending these in various proportions. Cannabis hemp will produce approximately three to four times as much fibre per hectare as our current forest practices.

In 1990 a study was commissioned by the Minister for Energy into the prospects of developing an ethanol production capacity in NSW to supply environmentally safer vehicular fuel, such as bioethanol, E 10%. The addition of 10% aqueous alcolhol to an internal combustion engine can eliminate the need for any and all additives, whilst improving the lead efficiency of the engine and reducing levels of non-lead emissions. The key areas identified by this comprehensive study were recommendations to reduce production costs by identifying new, high-yielding ligno-cellulosic crops. A key feature of the analysis was selection of crops that would yield secondary harvests to enhance the economic viability of the project. In northern NSW, cannabis could easily yield twenty tonnes per hectare of dry stem material annually, being exceptionally rich in cellulose, whilst top-cutting of the leaf crown and seed heads would supply a highvalue stock feedcake and oil source.

So, there are the facts. Do our farmers need a new and highly profitable crop?

Historical and current agronomic data indicate that cannabis cultivation has many advantages. Hemp is a hardy and adaptable crop able to accommodate to a range of growing situations. It is autocompatible and rarely troubled by insect pests or disease. Cannabis, when sown densely as is the practice in fibre production, acts as an efficient smother crop. Several rotations of cannabis can clear a field of weeds, leaving the ground improved for subsequent crops. This, along with a deep and vigorous tap root which remains in the soil after harvest, will actually improve soil structure in longterm cultivation.

Would the country benefit from the introduction of a paper-pulp industry employing thousands of people more than the capital-intensive Kraft mills, and without the insidious problems caused by the accumulation of dioxin and other as yet not even categorised organochlorides?

The future of Australia is in the balance. Our balance of trade deficit is a staggering \$145 billion and rising at a frightening rate, whilst our traditional export commodities are attracting very low prices and suffering severe dislocation due to United States and European trade policies. The export of crude agricultural products such as woodchips, derived from old-growth forests, inflicts maximum environmental harm, whilst returning very little wealth to the country. For example, we sell our old-growth forests as woodchip for \$60/ton, whereas refined bast fibre from hemp or kenaf is worth \$400/ton, and a high-quality pulp such as organosoly from this fibre, could fetch over \$1,500/ton on export markets.

There are now hundreds of research papers published in the world literature on the applications of cannabis fibre for papermaking. Only minor alterations are required to optimise production to a particular situation. Countries around the world and states in Australia are finding that a relaxation of prohibition, such as the Cannabis Expiation Notice System in South Australia (so that those interested can grow up to half a dozen plants), does not lead to increased usage in the community but has tremendous social advantage with savings of many millions of dollars in jail costs, a major redistribution of police manpower into areas of more importance - such as crimes of violence - and an enhanced public iumage of the police force, as a major area of potential corruption is removed.

The time to take a rational view of

cannabis has arrived. The prohibition of cannabis is incompatible with public welfare. The alcohol and tobacco industries kill 23,000 Australians each year and cost the country of \$6 billion annually in medical costs alone. They contribute only \$800 million in taxes paid as excise.

The legislative vendetta against cannabis was originally applied by a series of lies and the worst type of racial vilification in order to gain an advantage for petrochemical items over natural fibres. Some public officials have been completely brainwashed by fifty years of propaganda and maintain the prohibition with a misguided fervour.

This attitude must change.

Cannabis hemp will return to agriculture. Whether Australia is one of the countries to take advantage of this new industry and invest early, remains to be seen – but we live in hope.

This is an adapted version of an article which appeared in Nexus 2/15.





NOVEMBER

15-20 Days to plant or sow leafy annuals. Cresses, lettuces, silverbeet, cabbages, parsley, dill and basil in it's many varieties. Dark opal basil does really well in hot weather and gives a lovely pink tint to vinegars and oils if you steep the plant in them. Try growing lemon, licorice or cinnamon basil too.

21 First Quarter, take this Sunday off.
22-28 Time to plant or sow seedbearing annuals and flowers: cucumbers, eggplant, capsicums, rosella, pumpkins, melons, squashes, zucchini's, sweetcorn, chili's and any annual flowers that you fancy.
29-30 Full Moon with an eclipse, no less. No time for work.

DECEMBER

1-5 Days to plant rootcrops and perennials, including trees and bushes. Perennials for spring flowering should be sown now. Primroses and polyanthus, foxgloves, stock and hollyhock, to name but a few, give a fantastic spring show. So think ahead and get the seeds in now. These are also the days to divide rootcrops such as valerian and comfrey.

6-7 Days off.

8-14 Maintenance days. Spraying for pests with garlic, pyrethrum or wormwood, liquid manuring with comfrey, nettle or a liquid animal or seaweed manure, or weeding.

15-20 Time to plant or sow leafy annuals, such as lettuces, celery, cresses, parsley and other greens.

21 Day off.

22-25 MERRY CHRISTMAS!

If you're into it, these could be days to work with seed-bearing annuals and flowers. It means that cucumbers, pumpkins, melons, tomatoes, eggplant, capsicums etc. can all be sown or planted. . 26-29 Apart from taking cuttings (herbs, geraniums, chrysanthemums, carnations) these days are not good for anything. 30-31 It's really allowed to just have a holiday, but for those who are workaholics, this is rootcrop and perennial time. You know the ones: onions, radishes, carrots, most herbs etc.

JANUARY

1 HAPPY 1994! Take the day off. 2-4 More days to work with rootcrops, perennials, bushes and trees. Some summer flowering trees and shrubs are acacias, clerodendrons, gardenias, hibiscus, abelia and the Norfolk Island hibiscus. If you're in a frost-free area, you might consider growing artichokes, the globe variety. It's a beautiful plant, grows to about a meter in height and the flower heads, in an immature state, are sold as artichoke-hearts.

5-11 Try to keep up with the weeds. Hibiscus, in tropical or subtropical areas, should be pruned to encourage more flowers in winter; citrus trees need feeding up; petunias should be cut back and roses need blood and bone-ing. 12 New Moon, a day off. HAVE FUN!



THE IMPORTANCE OF AGRICULTURE

1990-91 In Australia had \$21.7Billion worth of agricultural production which contributed 2.9% of Australias' Gross Domestic Product

Australia exported \$14.2Billion worth of rural products, which represented 27% of Australia's total merchandise exports.

Interestingly, Australia's current account deficit of \$15.6 Billion dollars would have doubled without rural exports.

Agriculture employs proportionally more people than the mining and manufacturing sectors.

When the flow on effects of processing, value adding, transport are included, the total value of agriculture can be multiplied by three times.

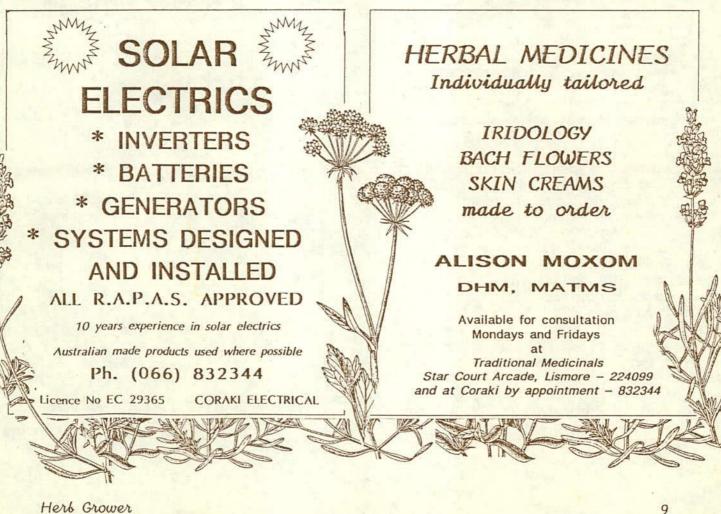
These statistics indicate that while Australia no longer rides on the sheep's back, agriculture continues to provide a significant input into GDP and contributes more than proportionately to employment and in particular to export earnings.

Because of the importance of agriculture to the economy, the majority of Australians believe that Australia has boundless agricultural productive capacity. The reality is a stark contrast to this view

The Australian continent is an ancient landscape. The geologically recent tectonic upheaval and glacial activity which renews soils in most other continents of the world has been relatively absent in Australia. As a result, our soils are generally old, highly weathered, shallow and infertile. They have relatively low organic matter, are often saline, stony and prone to structural degradation, wind and water erosion. Furthermore, Australia is the driest inhabited continent on the planet Earth. Rainfall is generally low with variable intensity while evaporation is high. This severely limits the area available for fed agriculture. An additional rain constraint is imposed by terrain. Of the total land mass of Australia (769 million ha.)less than one third or 237 million ha. is climatically suited for crops. Terrain constraints reduce this to 132 million ha., while soil constraints further reduce the suitable area to 77 million ha. This equals just 10% of Australia's land mass.

The conclusion is that, contrary to public misconceptions, Australia has very limited resources of prime agricultural land. We therefore need to protect, conserve and rebuild our soils. Only you can help!

Excerpts of a report written by R.T.Young on the ROYAL AUSTRALIAN PLANNING INSTITUTE (NSW) CONFERENCE, March '93.



Herb Grower



AS you will have read in the last issue of HERB GROWER, Russell Quinn has resigned as OHGA's Organic Certification Officer. Fortunately he has promised to be around a bit longer and help train the new Certification Officer.

It was not easy to find another person to take his place, but we did find someone, who we think will be a good replacement for him. This is how it went.

We advertised in the HERB GROWER, as you will have seen, but got no response whatsoever, which we found a little surprising, since at the previous field day meeting several members had shown interest in the job, and our priority was of course that an OHGA member should take it on.

Our next step, then, was to place an ad in the local paper and this was more successful. We had close to a dozen applicants. At the following exec meeting, we went through the applications and selected five people, who were invited to attend the AGM, which two of them did.

Then came interview night. The panel consisted of Howard, Dave, Russell, Magda (one of our new committee members) and myself. The choice was really difficult. We made it by way of voting.

After the first round two were eliminated and the other three debated at length.

The second round of voting was easier and the choice unanimous.

We now have a new Organic Certification Officer. Her name is Fiona Fisher. I will tell you a bit about her.

Fiona (32) is born in S.A. and was educated in Adelaide. She attended Universities in Tasmania and Queensland, attained a Batchelor of Science degree, studying, amongst other subjects, Botany, Zoology, Geography, Vegetation management, Environmental Impact Assessment and Plant Ecology and Evolution. She also did Barrier Reef studies, Rainforest Ecology and a Vegetation Survey and Mapping for the Brisbane City Council.

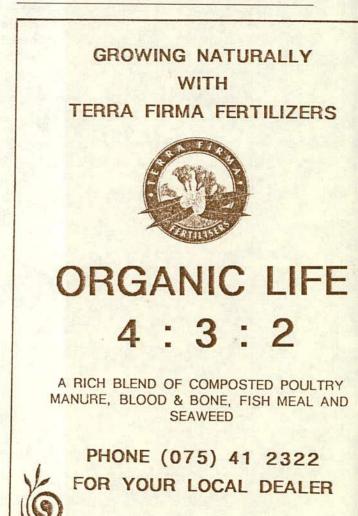
She has written education information brochures, patrolled National Parks, solo-trekked the Himalayas and rafted the Franklin River in Tasmania.

As you can see she has got plenty of qualifications and also a keen interest in herbs and organics.

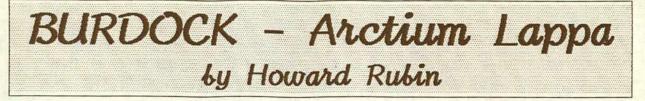
But I think what decided in her favour in the end is her personality. She is friendly and cheerful and easy to talk to. And that is really important in the job.

As I said, fortunately Russell is willing to stay around to train her. The next couple of certification visits will be done by the both of them.

To Fiona, welcome to OHGA!



Herb Grower



Burdock is a biennial plant found in the Northern United States and Europe. It is also found in Victoria, Tasmania, New Zealand and possibly in NSW.

Lesser Burdock (Arctium minus) occurs in Southern NSW, west to Moulamein and north to Narrabri.

It is a very common plant belonging to the order of Compositae, usually found growing in ditches, hedgerows, along fences, walls, in waste places and around populated places.

Burdock is known by several nicknames, such as beggars buttons, lappa, cockleburr and happy major.

It is probably best known for its little burrs, which children of all ages pick off and throw at one another to stick to their clothing.

It derives its name from "dock", due to its long leaves, and "burr", which is a contraction of the french Bourre, which means a lock of wool, which is usually where the burr is found entangled in the sheeps wool.

The plant has large wavy leaves and round heads of purple flowers. It is often thought of as a thistle. The plant varies considerably in appearance. The whole plant is a dull pale green colour, with the stem rising to ± 1 meter. The lower leaves are very large, heart shaped with a grey underside. The upper leaves are much smaller, more egg shaped in form and not so dense. The plant uses its burrs to hook onto passing animals and thus carry its seed further afield.

Burdock will grow in almost any soil but the roots are best formed in a light well drained soil. The seeds will germinate with no problems and can be direct sown in the field in the springtime. Use raised beds to improve the drainage and root development. Sow thickly and then thin to 15cm apart.

During the first year of growth, the plant has only the large basal leaves. The root is dug up at the end of a complete growing year usually in the springtime or early summer. Yields will vary but one should expect ±1000 kgs of dried root per acre.

The dried root from the plant's first full year of growth is the official drug. The

root is usually processed into cut pieces, 2.5cm in length, 2cm thick. When dug up

they are usually 30 cm in length and 3 cm thick. They are fleshy and wrinkled. As they dry, they go a brownish grey colour, while internally they are a greyish white. The fracture is short and the transverse surface shows a thick bark. It's taste is sweetish and mucilaainous. The root contains

"lappin", a bitter

crystalline glucoside, inilin, mucilage and sugars and starch.

The burdock root is known to be one of the finest blood purifers and is usually combined with other herbs. It is also useful in skin disorders and eczema. It is usually employed as a liquid extract.

In Japan the root of the burdock is a very popular vegetable called "GOBO". While it resembles the french salsify, it appears to be unique to Japanese cuisine, and has been identified as a possible export crop (RIRDC research report (93/3) Asian Food market trends and prospects).

Though GOBO can be eaten raw, it is usually soaked and boiled in changed water to reduce the strong flavour. It is not peeled but scrubbed with a brush.

Roots from younger plants that have not flowered are tender and more palatable. the young cooked flowering stems are a tender delicate vegetable, but become bitter after the plant has flowered. The small green shoots of the young plants are eaten raw in salad mixes.

- Ref. A Modern Herbal, Mrs. M. Grieve
 - The Herb Book, John Lust
 - Potter's New Cyclopedia of Botanical Drugs and Preparations, R.C. Wren.

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REPORT ON THE AUSTRALIAN HERB AND SPICE INDUSTRY CONFERENCE

by Howard Rubin

I recently attended the Australian Herb & Spice Industry Conference (see article page 3) held at Mt. Macedon in Victoria.

The conference took the form of a "think tank" and full marks must go the organisers, Kim Fletcher and Shirley Fraser.

What always fascinates me about attending these conferences, is that every participant (me included) usually comes with their own agenda and goes home with that confirmed.

I attended with an open mind, but soon found that I had to defend our "organic" association. Many of the participants did not belong to a grower group, but felt that joining the Organic Herb Growers of Australia would imply that they too are organic growers.

There still appears to be some fear of being associated with organics; not to mention that some still don't believe that you can successfully grow broad acre organically. The key of course is choosing the crops which you grow. Not every crop will lend itself easily to organic growing.

I pointed out to the group, that although our name incorporates the word "organic", not all our members and growers are organic. Our association is open to one and all, be they banana growers, herbalists, departmental advisors or herb growers. Our name has been chosen through the democratic process and reflects the opinion of our membership.

Our magazine, on the other hand, is simply called "Herb Grower", and makes no distinction about organics. Although most of the articles are contributed by organic growers, it is a open forum, and despite a bit of editorial license, everyone gets a fair go.

But back to the conference. I felt that a great opportunity was not fully capitalized upon. Here we had the representatives from all facets of the industry, with some notable and unfortunate exclusions, gathered together

for the purpose of exchanging ideas. Only the format of the conference was too restrictive and academic to allow for a free interchange of ideas. The sessions were too long, too structured, and failed to capture the moment. All the real networking took place in the corridors and over food or drink. Only at the last session, when it painfully obvious that if became a conclusion was not reached, did one participant push through the formation of a steering committee to at least continue the work. Only on the last day, and only for about half an hour, did the entire group share openly some of the real industry problems. Problems like sage production, the Farm Produce Act, the TGA, and work cover insurance premiums. The remainder of the conference was structured to identifying very general but basic questions.

Fragmentation and lack of communication were key words bandied about on the weekend. But I must say, from my point of view, that networks do already exist, have existed for many years, and that there is an interchange of information and ideas. Perhaps not to the level that some of the conference participants wished. I would rather use the word integration, or lack of, rather than fragmentation.

It was decided that the conference canvass other would the industry participants to raise money as their contribution towards employing a part time industry network facilitator. The role of this person would be to instill trust in all the diverse groups and reconvene the conference in 6-9 months time.

But the grower groups must also consider coming together with a common voice. It is the grower base which can unite the entire industry. Most of the processors and manufacturers can do without us. They already are. We have to convince them that it is in their best commercial interests to support us. We have to look hard at the economics of our industry, the herb growing industry, and come to the table with our proposals. We need to speak with a common voice. I trust that you will all support the establishment of an industry network and are willing to contribute to its success.

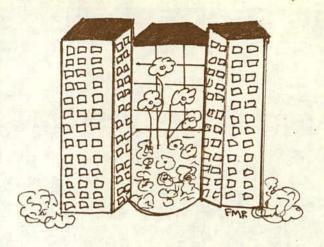
Work between rituals and get to lead the life of Riley

LAST Saturday evening, we dragged ourselves out of our nest up here in the sky and walked down to the annual Boundary Street Festival in West End. This yearly ritual has some special meanings for we South-siders. It is the time when the alternative thinkers and doers on this side of the Brisbane River reclaim their main thoroughfare from City officialdom and throw a street party which, ten years ago, would have seen us all chucked in clink.

Over the years, it has developed into a genuine celebration of good food, music and markets which incorporate a host of cultural, political, ideological and generational diversities. Part of it is our thumbing our collective nose at the Queen Street hustle across the River. Part of it is a historical longing for the era when West End was the commercial hub of this infant colonial city - before overcrowding prompted developers to cross over to an area long shunned for its stigma of being in the shadow of the Queen Street convict barracks. Part of it is just celebrating the fact that West End is different - it is bound by a community spirit and friendliness seldom seen in inner city suburbs.

For us, Boundary Street also celebrates an evening when our house burnt down just as festivities were about to get under way. (That is <u>guaranteed</u> to spoil a good party!) Still, the silver linings from that particular cloud were learning to let go of a hoard of possessions (not much choice really!) and the beginning of a new annual ritual - the "*Fire Fighters Reunion Ball*". The people who salvaged our belongings from the smoky-wet mess, now get together each October for a meal and a yarn somewhere. Because we have spread out a bit over the years, it is a rare opportunity for us to catch up with some distant friends to whom we owe a great debt. This year we are taking a boat-ride up-river. Next year we gather in the Jiggi Valley!

Actually, we are starting to keep an eye out for a few rituals to have hanging around the farm for other special occasions. Just in case! Hard workers need to let the grindstone wind down occasionally! Anyway, for many of us, it might be quite timely to let a bit of fun back into farming. Some song and dance. A few laughs. Perhaps we ought to find any old reason to hold a festival, big or small, and have a few... each week! I'd imagine harvest festivals would still be remembered by enough people to be brushed off and polished up when we need them. The fertile planting days would themselves provide a couple of dozen parties. We could have us a tree planting festival or two to break the



PADDOCK ON TOP By Kenrick Riley

boredom of gently harvesting those moist, aromatic plants on cool, clear dawns when the loudest sound is a kookaburra insomniac startled by a cicada sneaking home after a late night out. Rain sounds like a good reason to go inside and celebrate. Filling a dam would be another - and would provide the chance to have two celebrations at once. The more greedy among us might celebrate lowering the dam so we can more frequently revel in its re-filling (irrigation celebration).

House warming parties are in. So are house cooling parties in Winter. May Days and Beltanes shared with the Europeans. The solstices and equinoxes add another four festivals spread nicely around the year. Birthdays. Arrival of guests. Their departure. Full moons. Melbourne Cups. April Intelligence Day. Easter bilbys. Goddesses and Librans. (Is there a Lismore Day? Georgica Picnic? Jiggi Valley Ball?) National Woodlot Day. The Northern Rivers Forest Festival. Herb Week. Christmas. (Even if it is now increasingly being seen as a retail therapy celebration built around a date borrowed from an adjacent Pagan solstice festival and superbly promoted by Mr Clause whom, I was surprised to learn, has dressed in red and white only since a cola company sponsored him to don its corporate colours.)

Celebrating with neighbours and valley events are a must. Seeing the first star in the evening. (Remember the sixties when satellites used to shine at night?) The joint flowering of the Jacaranda and the Silky Oak. And if, after all that, some free time arrives which has been overlooked in the festival schedule, we could always choose to do some work around the place. Or, alternatively, we could seize the opportunity to sit down and plan a new festival to occupy the recently discovered vacancy so we won't waste any precious time next year!

MARKET REPORT



HERB FARMS AUSTRALIA

As I write this, the winter season is now truly over. For us on the North Coast, the hot weather has appeared, while in the southern regions, freak storms are causing havoc.

The past two months (Sept-Oct) has seen demand for both sage and tarragon almost impossible to supply, while basil maintained stocks from the Mareeba growers in North Queensland.

The most striking feature of the past season has been the dull trading with very flat prices. No high peaks like other years. For only a brief week was tarragon fetching high prices, but that quickly subsided. Oregano and mint highs didn't last long either.

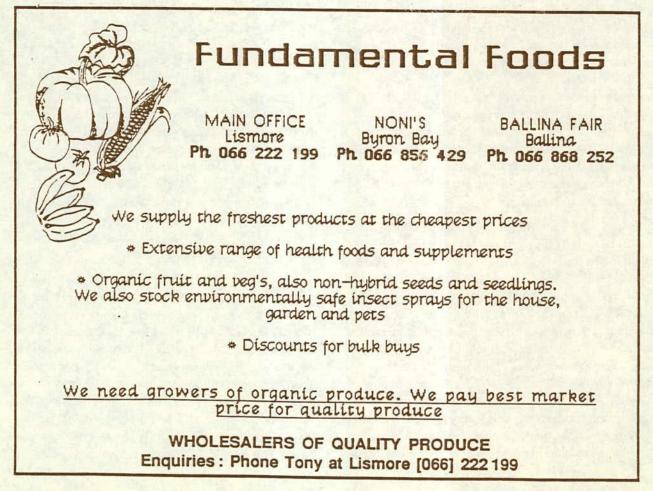
The spring season does not look very promising. Prices are already down across the nation, local produce is in local markets, and demand is only moderate. The same cry can be heard in all three major capital city markets..."where are the customers?" The major chains are buying more and more outside of the centralised markets.

As the weather heats up, demand for the cooler, and therefore more difficult to produce herbs will become greater. Look for increased demand and possibly sales of coriander, dill, chervil, mizuna during the summer months. Lemon grass is in strong demand but prices are only ordinary.

The Christmas build-up is very dependent upon politics-economics of the nation. If the country is in good economy we should all have a good season. Expect basil to still be the number one seller, with at least one or two unexpected surprises. What will it be this year?

Unusual weather patterns and sudden freak storms will be the ruin of some growers and the saving grace of others. C'est la vie.

Jan Phillips, our correspondent from HJ Langdons reports steady demand for Lemon Grass, Nettles Ivs, Rosehips, Alfalfa, Peppermint Ivs, Burdock Root, Chamomile, Chasteberry, Hydrangea root, St. Johns Wort, Catnip, and Lemon Balm. Slippery Elm Bark Powder prices continue to stay high.



Herb Grower

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SUPPORT LOCAL BUSINESS

Herb Research at the University of New England, Armidale

Herb research at the University of New England, Armidale commenced in 1989. Climatic screening of herb species began with a two year survival trial on a range of perennial herbs. These plants had to contend with a climate relatively unique in Australia with an average of fifty frosts a year, usually between April and October. About this time local interest in the production of herbs emerged and contact was made between several individuals who wished to either grow herbs or invest in a local herb industry and a potential processing/packaging group, the Challenge Foundation Armidale Branch.

As time passed the remaining interested parties identified themselves as *The Natural Products Group (NPG)*. This informal group, including several people from UNE, applied to the Department of Business and Consumer Affairs for funding under the Regional Business Development Scheme and was successful in obtaining funding to conduct a market survey and develop a business plan. The market survey (completed by mid 1991) provided information on the fresh and processed herb trade in Armidale. The big selling herbs were clearly identified. Because Armidale's fresh herb market was already supplied locally, and because the business plan (completed March 1992) showed adequate profitability of processed herbs, NPG decided to concentrate on the latter. NPG's long-term goals were also with broad acre crops for pharmaceutical, medicinal and industrial herb products.

The research at UNE continued to be very low key because of a lack of funding, and much of the labour input was voluntary by members of NPG. Field trial plots of herbs were placed on land of interested parties at Bellingen, Tenterfield, Guyra and on a UNE rural property at Armidale. Key areas identified for research were weed control, harvesting, handling and packaging. Also, funding was needed to provide staff dedicated to conducting herb research. It was also apparent that no concrete data was available about production of commercial herb crops in this area.

In 1991, Shirley Fraser, a Tutor in this Department, made application to the Rural Industries Research and Development Corporation (RIRDC) for funds to conduct research continuing on from that already done. This application detailed all the relevant herb work of the past three years and was supported by the industry partners involved including the Challenge Foundation and the NPG, now known as New England Natural Products Pty Ltd. The application was successful and the way was now clear to investigate solutions to problems with growing, harvesting, processing and packaging herb products in an area of NSW centred on the Northern Tablelands. Funding from RIRDC totalled \$141,000 with concomitant contributions of \$300,000 in kind from UNE in the form of infrastructure support (eg office facilities, photocopying, etc) without which the RIRDC funds would be ineffectual. Industry partners contributed \$22,000. The project is to run for two years should RIRDC continue to support it. Funds will principally be spent employing a research/technical person to do the work, but also providing facilities and materials.

The project commenced on January 4 1993 with the employment of Jeremy Whish as the Research Fellow to conduct the investigations. Jeremy had just completed a joint project with the Department of Industry Technology and Commence and Tetrol, a private tea tree oil company. During this project Jeremy increased the oil yields of tea trees by 38%, developed a mass production method for cloning plants and developed a new distillation procedure enabling accurate measurement of oil yields with minimal plant material.

Within a two year project it is not possible to examine all the agronomic aspects of herb production therefore specific areas were chosen for in-depth examination. Ten herbs were identified during the previously completed Environment Suitability Study (Shirley Fraser 1989-1991).

'93/'94 OHGA COMMITTEE

AT THE AGM, the committee for the coming year was appointed. There was just one nomination for every position, with the following outcome:

President H	loward Rubin
Vice President	Andrew Tsikleas
Secretary	Robin Andrews
Treasurer	Dave Carey
Committee	Magda Verbeek Alister Janetzki
Editor	Elle Fikke-Rubin

As you can see there are three new faces on the committee. Robyn, Magda and Alister have all been committed members of OHGA for several years and have helped man stalls and displays at the various shows OHGA has taken part in. All three are commercial herb growers.

We welcome them to the committee.

SUMMER HERB PUNCH

Ingredients: 2 tolsp. lemonbalm. 2 tolsp. borage 1 tolsp. mint 1 ltr strong tea juice of 6 lemons juice of 2 oranges 170 ml. pineapple juice sugar syrup (1 cup sugar/2 cup water) 3 ltr ginger ale Pour 1.7 Itr boiling water over the lemonbalm los and steep for 30 min. Strain into a bowl containing the borage and mint, stir in the tea, fruit juices and syrup. Allow to stand for 8 hrs or overnight. Strain and mix with the ginger ale, serve with lots of ice and

(Pot Pourri, Oct.93)



mint.

GROWER HINTS by Dave Carey

"I don't know why it works, but it works for me."

Before we began farming, we had heard about Bio-Dynamic Agriculture. Even though it seemed somewhat peculiar and cosmic in it's ideas and practices to me, my wife Jenni, as soon as she heard about it, felt it was the way to go. It's credibility was always strengthened by the positivity of long time BD users.

As we began our organic farming, the idea to give anything a try seemed to be the best way to learn. We dabbled in BD methods during the establishment of our first ¹/₂ acre of herbs. During the preparation and establishment of our second ¹/₂ acre, we concentrated more closely on using BD practices.

As both gardens have now had at least two growing seasons, it has been possible to make some comparisons. The observations we have made are that in the second ¹/₂ acre the plants in general:

- * had more vigorous initial growth
- * have far less pest problems
- * show good production in the second season.

We like to believe that the Bio-Dynamics that we use have some effect to give these better results.

What I can gather from listening to BD farmers and reading the available literature, is that it is aimed at improving the soil. If we can increase the 'life' and 'energy' in our soil and give it a balance in nutrients and soil microbes, then what we grow in it will be a stronger and healthier plant. Consuming stronger and healthier plants has to be better than plants which are forced and induced with additives not natural to the soil.

The BD farmers believe that this happens, but it requires a patient and sedulous type of person with keen observing skills. Jenni, who is a homeopath, has a particular knack and sense for the subtle differences and changes that occur. We consider Bio-Dynamics to be like Homeopathy for the soil.

Here are some of the activities which

we have tried to follow. During the preparation of the ground for a green manure cover crop, we applied BD 500. This 500 is a specially prepared form of cow manure. To make 500, fresh cow manure is collected by hand and compacted into cow horns. The horns are buried in a selected soil plot for several months over winter. When the horns are dug out and the manure removed, it's consistency has changed into a sweet-smelling mass like that of bread dough. To use the 500, a small amount is added to warmed rainwater and stirred. On the small farm scale, stirring can be done by hand in a 'copper', in one direction and then in the opposite direction, as a whirlpool or vortex is formed. This solution is then sprayed on to the soil. The timing and application requirements are fairly detailed and it is suggested that one attempts to adhere to them. The experience of this whole process is well worthwhile, if you get the opportunity.

Other applications are made at appropriate times during the year. A celestial calender with planetary rhythms and a planting guide is needed to choose the optimum times of spraying.

When we make up compost heaps, we add to them a series of BD preparations. These preparations are aimed at enhancing different soil qualities and components. It is a simple process. When the heap has finished working and we add it to the garden beds, the soil is continuously 'enriched' and 'balanced' over a period of time.

Liquid manures, made up of either compost, seaweed or wormcastings, can also have the BD preparations suspended into them as the mixture is 'brewing'. Small amounts of the liquid manure can be diluted and sprayed on the foliage of your crops. Another BD prep called 501 can also be used as a spray, but my experience with it is fairly limited at this stage.

I find that being a commercial grower, it is easy to get sidetracked into the growing, harvesting and selling. This can lead to a continual using and taking out of the soil. As our soil is the most important of all our farming assets, anything we can do that may improve and maintain it is well worth the effort.

The Bio-Dynamic Farming & Gardening Association in Australia can be contacted at BDFGAA PO Box 533, Armidale 2350 for enquiries and BD preparations. They have a news leaf journal to which you can subscribe.

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figraine sufferers who recently took part in a U.K. clinical study showed reduced symptoms while taking daily capsules of freeze-dried Feverfew.

The leaves of the Feverfew plant are rich in sesquiterpene lactones, a substance thought responsible for the

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NATURAL HEALTH CARE



FEVERFEW · RELIEF FROM MIGRAINE

TREBLEJOHNS + MORE BLAC 0241

cont'd from page 16

Using chemicals to control weeds on fresh and dried food crops is a major concern. To address this concern the use of five different forms of mulch ranging from plastic films to insitu green manure crops is being examined. It is not intended to simply compare the mulches by measuring the amount of weed suppression and the relative growth of the plants but to also examine the soil physiology under the mulch and measure the effects different mulches have on the soil micro fauna, temperature, moisture conservation, plant nutrition and disease.

Plant nutrition is another area which will be examined in detail. Much of the current literature describes individual nutrient effects on the production of oil components or flavours within the plant. However, to date no comprehensive nutrient response curves exist for herbs. During the project it is planned to evaluate the nitrogen and phosphorus responses for each of the 10 selected herbs. The responses will examine both the growth and regrowth of the herb along with effects on time to flowering and production of flavour components.

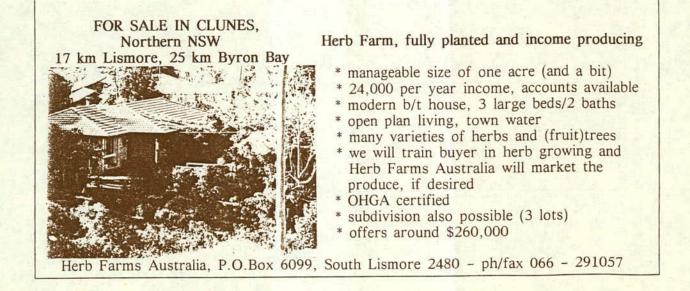
With a broad acre approach to the production of herbs, methods to mechanically plant, harvest and process the herbs will be examined.

The Agronomy Department at the University of New England Armidale has been investigating the use of plant extracts as biological control mechanisms for a number of years. It is planned to use the same analytical methods used to determine quantity and quality of plant extracts as a means of objectively assessing the flavour of herbs before and after processing. The object is to ensure maximum flavour is retained in the final product. These methods would also be useful in the selection of new cultivars or breeding of hybrid seed.

To avoid re-inventing the wheel, part of the project is to establish a world wide database listing all current herb research and herb related projects. In association with this, it is planned to publish a review of this literature.

For this project to be a success it must add to the pool of information available regarding commercial herb production in Australia. We encourage persons in herb production and related industries, who feel that research in specific areas is lacking, to contact us and discuss their views, research priorities and needs. A co-operative approach will aid in the development and prosperity of the herb industry.

The future success of the herb industry in Australia will depend on the production of the highest quality product by selection of superior varieties, introduction of 'new' plants to the industry and the maintenance of strict quality control.





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I

GREEN MEDICINE NEWS FROM GREENRIDGE

Greenridge Botanicals have released two new herbal liquid extract products: Gotu Kola and Hypericum - St. John's Wort.

Science has now proved what herbalists have always known, that Gotu Kola improves the body's ability to cope with periods of prolonged stress, as well as help relieve symptoms of immediate stress, nervous tension and fatigue, particularly in males.

Hypericum – St. John's Wort is well known for it's calming, sedative action and ranks as one of the most popular anti-stress herbs available. It is used to relieve stress symptoms like Insomnia, Mild Hysteria and Fatigue. This is definitely a female-friendly herb, used for Pre-Menstrual tension and mild anxiety states. Health and herb conscious people everywhere are now using Green Medicine products to reduce symptoms of excessive stress without adverse or dangerous side-effects.

Greenridge is about to release five new formulations of herbs for common health problems:

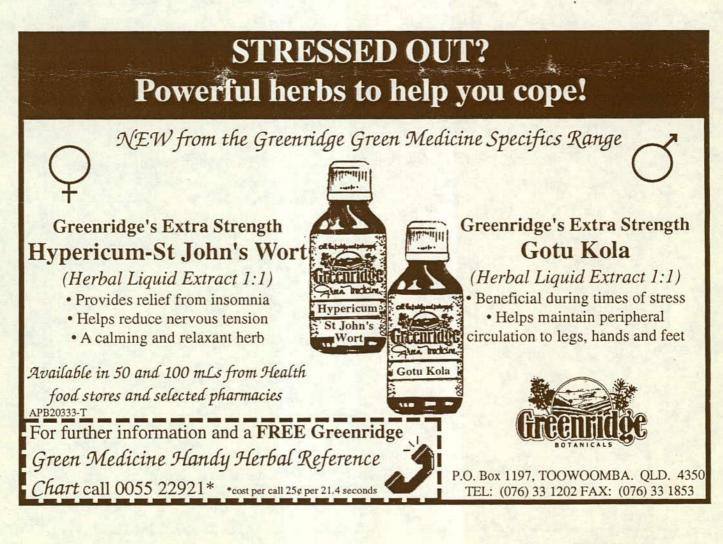
EZY-FLO for MEN #9 - A diuretic herbal formula which helps provide relief from the pain and burning sensation of Cystitis. Ideal for the mature male.

PRE-TENSE for WOMEN #10 - With herbs specifically combined for female problems, this formulation will give relief of Pre-Menstrual symptoms and menstrual pain.

GASTRO-GEST #11 - An ideal herbal combination with an antacid action for those suffering Digestive Discomfort, Dyspepsia, Flatulence and Acid stomach. This product may help alleviate nausea and vomiting too.

URI-COMFORT #12 - People suffering from Cystitis will welcome this specific herbal blend to give them relief from the pain and burning sensation.

VITAL-TONE #14 - The five, powerful anti-stress herbs in this advanced formulation will ensure relief of symptoms of stress and tension.



THIS AND THAT

IN 1989 the German government produced their Commission E monograph on Echinacea purpurea herba. More specifically, it covers the drug composed of the "Fresh overground parts of E.purpurea gathered blossom." while in However. the Commission noted a lack of sufficient scientific data about its efficacy. A new clinical study of 180 patients found that four droppersful of a standard 50% ethanol water extract of E.Purp. root was significantly effective in relieving symptoms and duration of flu-like infections. Patients in this study were both male and female between the ages of 18 and 60 years old. They were divided at random into three groups, one of which received a placebo while the other two received the echinacea extract. This study found that two droppers of echinacea extract had some effect but not enough to be statistically significant, while the four droppers per day did prove effective.

Therapeutic effectiveness, according to the supervising physicians was "good to very good" when using the echinacea extract at the four droppersful level.

(Herbalgram #29)

US CHEMISTS have found that marigolds give off a volatile insecticide that is toxic to the mosquitos that carry malaria and yellow fever.

It has long been known in organic circles that marigolds help in keeping pests away from nearby plants, but the discovery of the reason could lead to an enormous market for marigold insecticide. If the insecticide proves as effective as other natural insecticides, such as the pyrethrins, it may be of tremendous benefit to countries still battling to control the two diseases.

The team of chemists from the University of Alabama studied three species of marigold and found that all had insecticidal properties. They also learned that the flowers were the most potent part and that the Tagetes Minuta (our stinking roger - Ed.) species contained the most powerful insecticide. The chemists discovered that a number of compounds in the marigolds were insecticidal, including volatile chemicals called thiophenes. These killed the larvae and adults of both Aedes aegyptii, the mosquito that carries the malaria disease, and Anopheles stephensi, the mosquito that carries yellow fever.

(New Scientist, July 1993)

THE AVANT GARDENER news service reports that the world's most ambitious reclamation project is taking place in the world's most developed country.

The Netherlands is returning 245,000 ha, wrested from the sea by a system of dikes and pumps over the past 1,000 years, to wetlands and forests.

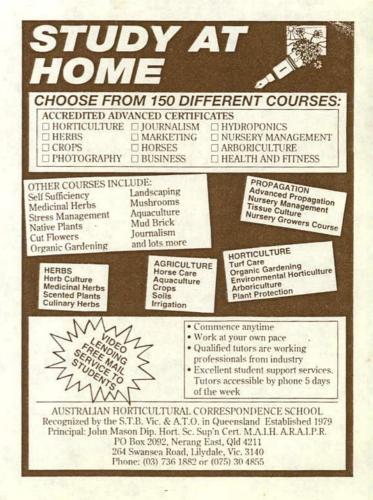
Intensive cultivation and the use of chemicals have caused severe pollution and decimation of plant and wildlife resources. Opening the dikes is already bringing a spectacular recovery of nature and the Dutch government plans to create ecological core areas and corridors throughout the country to reverse centuries of suffocation of life.

(Permaculture Intern. Journal #48)

MINT, noted for its unique flavour and aroma, has joined the list of plants being studied for their potential to control insects.

Florence Dunkel, a Montana State University entomologist studying bean and grain storage in Rwanda, Africa, discovered that farmers there use mint leaves to protect their stored grain from insects. She is now leading a team that is studying mint's insecticidal properties and possible use as a fumigant for stored grain.

(Sieve, Feb. 26, 1992)



"THE IRRIGATION SOLUTION"

LEAKY PIPE IS THE ULTIMATE IN HIGH TECH IRRIGATION

LEAKY PIPE is a subsurface irrigation system.

LEAKY PIPE is a microporous, flexible rubber pipe, which sweats when placed in the soil. The capillary action of the soil draws water from the pipe, which replaces water used by trees, plants and turf. This capillary action delivers water, oxygen and nutrients uniformly through the soil directly to the roots.

LEAKY PIPE works with a low volume and a very low water pressure.

LEAKY PIPE can be used in most agricultural crops. Citrus, tree, vine, field and row crops.

- Increased Crop Yield
- Water Savings of 30% to 70%
- Reduced Maintenance
- Efficient Herbicide Use
- Low Maintenance
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LEAKY PIPE is:

- a unique synthetic microporous pipe, tough and durable. Water can seep through the numerous capillaries in the wall of the pipe under low pressure and volume.
- an extension of the soil capillary system.
- reliable and inexpensive as a system.
- an ecologically and economically sound method of irrigation.

LEAKY PIPE shows:

- a highly uniform porosity, ensuring an even distribution of irrigation water end to end.
- no mechanical or moving parts.

LEAKY PIPE is economical:

- making efficient use of irrigation water by delivering it directly to the roots.
- saving energy by the use of low pressure.

LEAKY PIPE does not:

- interfere with any surface activities.
- need an expensive control system when used subsurface as a continuously operating system.

LEAKY PIPE can be:

- used for almost any crop, orchard, groves.
- used for almost all kinds of irrigation purposes.
- used in level terrains as well as slopes.
- used for lawns and gardens.
- used for parks, playgrounds, athletic fields.

LEAKY PIPE needs:

only a minimum of surveillance and maintenance.

LEAKY PIPE installed underground is:

- protected against intentional or unintentional damage.
- not subject to vandalism and/or theft.

LEAKY PIPE makes it possible:

- to use soluble fertilizers in small doses as and when needed and therefore, to economise on fertilizer use and achieve a higher efficiency.
- LEAKY PIPE is:
- the ultimate irrigation system.
- LEAKY PIPE microporous pipe:
 the vital system that goes to the root of professional irrigation.

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HIGH RISE HERBS

CHEF JAMES FIEN had one of those great ideas that was so simple, it makes you wonder why nobody thought of it before.

James is sous-chef at Blake's restaurant in the Hyatt Regency hotel in Adelaide, SA.

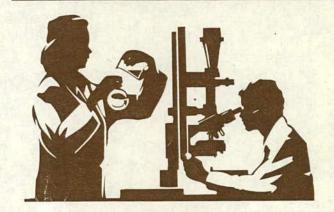
In April this year he got management go-ahead to convert the hotel's purely decorative rooftop garden into an area for growing edible plants. Now a vegetable and herb garden (complete with snails) is thriving five stories above the traffic in North Terrace.

James uses only natural methods of pest control and organic techniques to produce a wide variety of herbs and vegetables. He hopes that as the garden expands to full production, the hotel as well as the restaurant will have an ongoing supply of fresh produce including strawberries, tomatoes, several varieties of lettuce and beans and thirty types of herbs, including two bay trees.

(Permaculture Intern.Journal #48)

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- Herbs must be certified as Organic.
- Organic methods that do not use chicken manure are preferred.
- Prices vary according to quality.

For further information including a full list and current prices please contact: Mr Peter Purbrick, Raw Materials Manager, MediHerb Pty Ltd, P.O. Box 713, Warwick, Qld, 4370. Tel (076) 61 4900.





Usually the meeting starts around 11 am, but everyone is welcome from 10 am onwards.

Rita and family have around 26 acres, grow flowers, vegies and trees and use the herbs primarily as companions. Their place is set up in the style of a cottage garden.

Above you'll find the map to the farm.

(Rita and family run the popular coffee and cake-stall 'Dutch Treat' on the Sunday markets. We hope they have their cakes for sale.)

AGENDA

HERB GROWER was asked to publicise the following events:

ORGANIC KNOW HOW EDUCATIONAL DAY on Sunday 28 November, 9.30 am-5.30 pm in the LUDDENHAM showground. Talks, workshops, demonstrations, stalls etc. No pets. Admission \$6/4 Info: 047-748067 or 02-8250078

HOMELAND CELEBRATION

on November 26-29, 1993 at Homeland, Upper Thora 2454 Celebration of dreaming spirit, nature, unity, peace, healing etc. No dogs, cats, alcohol or drugs. Admission \$40, kids under 16 free. Info: 066-558514

CLASSIFIEDS

CLASSIFIED ADS up to 4 lines are free to members. They must be in 3 weeks prior to publication.

FOR SALE:

ORGANIC NON-HYBRID HERB SEEDS

All culinaries, also some medicinals, such as valerian, feverfew and burdock Call Elle on 066–291057 or send SAE to P.O.Box 6099, South Lismore 2480.

CLASSICAL HOMEOPATHIC COURSE

- INTRODUCTORY COURSE covers Home use, First Aid and the Basic Principles. 6 months duration.
- <u>DIPLOMA COURSE</u> covers all areas necessary for a Professional Practice with humans or animals.

duration 3 years, part time. For prospectus contact: Phillip Robbins 141 Bridge St. North Lismore 2480 Ph. 066 – 215155

WANTED:

Mulch materials and manures from organic certified properties. Call any committee member (see backpage).

HERB GROWER

CL

YES! I would like to become a member of OHGA and receive the HERB GROWER.

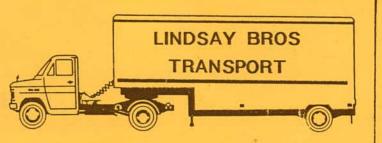
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Please find enclosed payment for:

Joining fee	\$ 5.00
Australian membership	\$ 20.00
Overseas membership	\$ 30.00
Half year membership	
(Febr-August)	\$ 10.00
Application for	
certification	\$ 5.00
TOTAL	



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ORGANIC HERB GROWERS OF AUSTRALIA INC. P.O. BOX 6171, LISMORE, N.S.W. 2480

PRESIDENT SECRETARY TREASURER

Howard Rubin VICE-PRESIDENT Andrew Tsikleas 066-291006 Dave Carey

Robyn Andrews 066-895441 EDITOR 066-282031

066-291057 COMMITTEE Magda Verbeek & Alister Janetzki 066-298413 Elle Fikke-Rubin Ph/fax 066-291057

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