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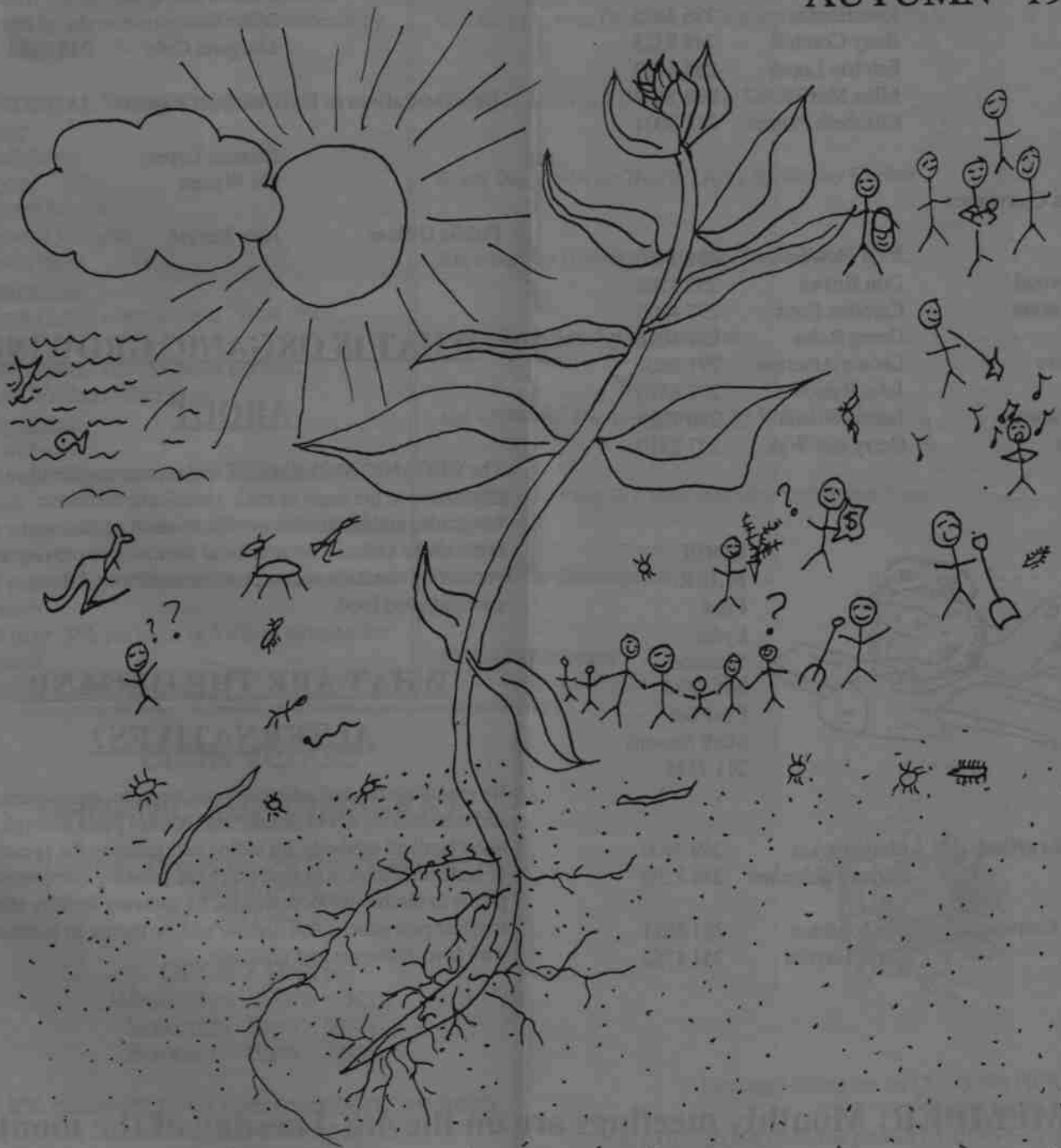


QUARTERLY

VOL 3 no. 1

ORGANIC GROWING IN THE CANBERRA REGION

AUTUMN 1995



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WHAT IS ORGANIC GROWING

ABOUT

The ORGANIC MOVEMENT endeavours to provide an alternative to the mass of toxic chemicals, fertilisers, fungicides and herbicides used in modern agricultural methods by utilising more natural means of improving and preserving our soils and to produce nutritious, less contaminated food.

WHAT ARE THE ORGANIC ALTERNATIVES?

By enriching the soil with compost, manure, green manure and mulches we avoid disease and control pests through non-chemical methods, including encouraging the presence of beneficial insects to feed on pests, growing companion plants to discourage pest attacks, by growing healthy plants to resist pest attacks and disease and by tuning in to nature with love, harmony and gratitude.

**REMEMBER: Monthly meetings are on the 4th Tuesday of the month
except December and January**

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NEWS BRIEFS...

by Michelle Johnson

AROUND THE WORLD

CROP YIELD COMPARISONS

Yields for various vegetable crops grown by the US Department of Agriculture at their Research Centre in Beltsville Md., have shown that crops such as corn and tomatoes grown with little or no pesticides and fertilisers produce as well or better than those grown with chemicals.

For example tomatoes grown in vetch are producing profits of \$US7,365 per acre, compared to \$US4,128 for those grown with a conventional plastic mulch.

Source: "Organic Gardening", Dec 1994, p18

CARROTS IMPROVE WITH AGE?

Food scientists have found that the nutrients in carrots actually increase after harvesting if stored in good conditions. The carotenes in carrots increase for up to 3 months. However the process is reversed after about 100 days and carotene diminishes rapidly after 120 days, so it is best not to store your carrots for longer than that.

Incidentally carrots left in the ground over winter will also keep their carotene store and may increase it for a similar period.

Source: "Organic Gardening", Jan 1995, p26

IN AUSTRALIA

WAY FORWARD FOR ORGANICS?

Tim Marshall, a director of NASAA, has offered his view on the way forward for organics in an interesting article in ACRES. He believes "One of the reasons organics has not progressed is that it does not depend on large amounts of inputs so there is no commercial drive, from a supply perspective, to supply information, or to support or direct farmers, as is the case with conventional farming. In

conventional farming a good deal of a farmer's knowledge is supplied by commercial interests such as chemical, fertiliser or seed companies."

He goes on to say that organics needs the dissemination of good quality information to progress and that different groups need to combine resources and work together in the areas of education and promotion of organics. It cannot be left to the certifying bodies alone, as much as they would like to work more in these areas, since they lack sufficient funds and resources. Environment groups and consumer organisations should be included.

Source: *Acres*, Vol 2, No 4 p4.

POSTHARVEST TREATMENT TO PRESERVE FRESHNESS

Grahame Stirling, organic retailer at the Organic Market in Stirling SA, believes many growers still don't realise the need for post harvest treatment of their crops, such as decreasing the storage temperature, to maintain their freshness. This can be a problem with interstate suppliers where there are longer time delays between harvesting and selling of the produce. He encourages his local suppliers to bring their produce in to his cooling facilities as soon as it is picked, if they don't have their own.

Grahame's own business is booming - an outcome he believes is due to the quality of his produce. He encourages customers to sample the fruit and vegetables before buying to enjoy the superior flavour of organic food.

Source: *Acres*, Vol 2, No 4, p22

BFA BOARD

Arthur Dakin is the new chair of the BFA following the AGM late last year. New members are Ivy Inwood from Qld, and Stewart Ross from the ACT.

Source: *Acres*, Vol2, No 4, p3

BEANS AND MORE BEANS!

Many gardeners will be harvesting this years crop of beans - probably of the green stringless variety. If you are a bit dissatisfied or bored with your current variety then consider this:-

Bill Hankin, Secretary of the Heritage Seed Curators Association (HSCA), wants to see more growers trying some of large variety of heritage beans available.

As bean curator for HSCA, he has about 200 different varieties. Some are very rare and are only shared with other curators and the Seed Savers Network - others available in large quantity are available to any keen gardener.

Many of the varieties have come from older gardeners who have grown them out each year to preserve them. For example, Lohrey's climbing bean is a zebra type climbing bean grown by a Tasmanian family for three generations and is reputedly an excellent eating variety. It is now available from Green Patch Seeds who also offer two or three American and Mexican varieties.

He names the following seed companies as among those who keep some of these heritage varieties, so check them out for next season -

Diggers Seeds, 105 Latrobe Parade, Dromana 3936

Eden Seeds, MS 316, Gympie, Qld 4570

Green Patch Organic Seeds, PO Box 1285, Taree, NSW 2430

Phoenix Seeds, PO Box 207 Snug, Tasmania 7054

Potager Seeds, PO Box 5089, Alphington, Vic 3078.

If you would like to know more about the HSCA contact them at W-Tree via Buchan, Vic 3885.

Source: *Grass Roots* No 106 Dec/Jan 1994-5 p11

New Zealand - South Island - Christchurch - Lincoln University and the 10th IFOAM Conference



What a wonderful opportunity it was to attend the 10th IFOAM Conference in Christchurch and experience the hospitality of New Zealanders in general and of the conference staff of Lincoln University in particular. The two weeks we spent in New Zealand has provided the basis for some wonderful memories and lasting friendships, not only in EnZed, but throughout the international organic movement.

It seemed ironic that delegates from all over Australia (including a strong contingent from the Canberra region) would find a common meeting place there and, in some instances, would be making personal contact for the first time.

But first some more good news.

Has the drought broken? Certainly record rainfall for January has given us a good start but follow-up rains in March would confirm our hopes that conditions are returning to 'normal'. What a land of contrasts! To have spread out those downpours over the previous six months would have given us a steady 50mm a month and a climate akin to New Zealand's South Island.

But the rain has come at a time (when it was most needed) to create almost sub-tropical conditions here on the Southern Tablelands. Tanks are full, dams replenished and sub-soil moisture is building up but, most importantly, confidence has returned that the worst is over. The storms which started the break and the monsoon depression which followed were sufficiently spaced to permit re-starting the land preparation which had been halted due to the dry conditions.

That is, chisel ploughing to open up and aerate (but not turn over) the soil to allow the moisture to penetrate deeply and be retained where it fell. Even so, it was surprising to find that in spite of the record rainfall how dry the subsoil remained and how much more is needed for it to be fully restored. We can now also plant out those trees (which were getting root-bound waiting for the right conditions) with the confidence that

they'll have a better chance of survival now that rain has fallen.

The 10th IFOAM Conference held at Lincoln University, Christchurch, New Zealand, in early December was voted a great success. Over 50 countries were represented by 811 delegates and like most conferences the contacts and friendships made at the informal get-togethers and meal times proved as valuable as the themes and papers presented in the formal sessions. To deal exhaustively with the conference at this time would certainly test the limitations of space (and your patience) so I propose to look at some aspects of it now and save some of my impressions for subsequent editions of the Quarterly.

The official opening took place in the Christchurch Town Hall following an Organic Fayre earlier in the afternoon and a Maori welcome in the foyer. As the official guests entered the foyer they were challenged by the Pounamu Ngai Tahu Maori as 'people of the land' to determine whether the visitors were friend or foe.

As this was a peaceful delegation the 'Karanga' or call of welcome was given by a woman to receive the visitors into the prepared area. This was followed by the traditional Powhiri which (it seemed to me) served to re-emphasise how fierce the warriors could be should the visitors try to deceive the hosts, and at the same time gave expression to their relief that they didn't have a fight on their hands.

The 'Whaikorero' or formal speech was given by the Kaumatua who, as the male elder, outlined the history and genealogy of the host people and this was followed by the



Waiata, an ancient chant which re-emphasised the Whaikorero. We all gave a sigh of relief when the Hongi took place as the traditional rubbing of noses between the parties symbolised the breath of life and indicated that with this acceptance the Conference could go ahead.

Of the opening speakers particular mention must be made of Vicki Buck the Mayor of the City of Christchurch. In a brief and attention-getting speech she showed through her bubbling personality and commitment to green issues, why she is so popular in her office and why the city is a leader in re-cycling and composting, and deserves being called the Garden City. More about this in a later issue when we can look at waste transfer in greater depth.

Following the usual greetings from those associated with IFOAM and other Civic dignitaries a message from His Royal Highness, The Prince of Wales was delivered by Helen Browning a UK farmer. After light refreshments the conference guest speakers were Peter Ellyard of Australia and Dr Vandana Shiva of India. The former adopted a provocative stance in supporting the deliberations of the countries accepting the General Agreement on Tariff and Trade in creating a green future and a sustainable society. The latter gained the sympathy and applause of the audience when she pointed out GATT's implications for developing and Third World countries. This set the tone of the Conference.

The following day the morning plenary session was given over to six high-quality presentations while the afternoon session was divided into three sub-plenary sessions on the themes of People, Ecology and Agriculture. This structure was then further sub-divided into the six themes which formed the backbone of the conference and which, later, were brought together in a plenary conference statement.

These themes were:

Self-sufficiency, Education and Social Organisation;
Ecological Efficiency - Systems;
Ecological Efficiency Components;
Agriculture Systems/Techniques - Plants;
Agriculture Systems/Techniques - Livestock; and
Certification and Marketing of Organic Foods.

In such a packed programme this created the dilemma of which theme to follow and which sessions to attend.

Within these themes there were workshops, both on and off campus, which created a further dilemma as they were all equally absorbing and relevant, so it came down to a process of elimination. I settled on:

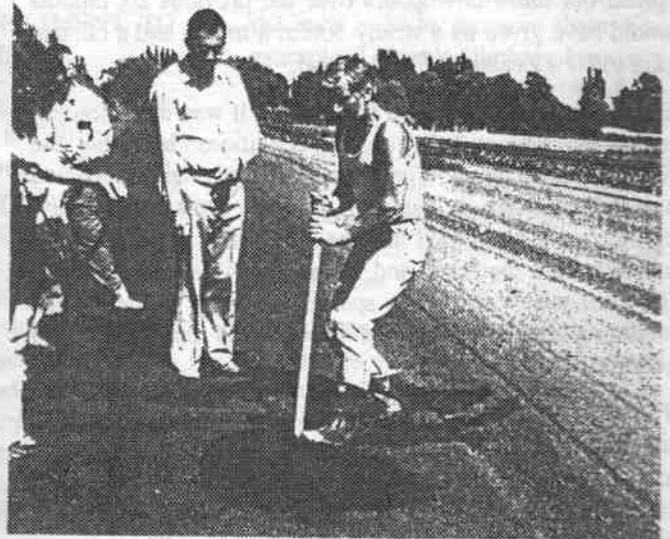
1. the Resource Management Workshop which included the Metro waste treatment plant and its composting facility (as well as a look at estuary birdlife at the sewage treatment plant);
2. the local market garden of Tony and Lynette Mallard, and
3. The large-scale composting facility at the processing works of Canterbury Frozen Meats Ltd which produces a high quality soil conditioner from its waste.

In this issue I will only have enough space to tell you about Tony and Lynette's market garden so articles on Vicki Buck's (green) Christchurch and the two composting facilities will be held over.

Tony and Lynette Mallard's 7 ha. market garden is called 'Marshlands' and has been run as a family venture for nearly 25 years. As the property name indicates it is based on reclaimed estuarine swampland. In its developmental stage this presented problems with drainage and fertility.

What we saw was 7 ha. of level 'potting mixture' supporting a variety of crops without the necessity for irrigation - it looked attractive and productive. Casting my mind back to my own rocky hillside I commented that I didn't know whether to be encouraged or discouraged by what I saw - certainly I could see *how* it was done but did I have 25 years left in which to do it?

The changes in 'Marshlands' have been brought about by truckloads of sawdust spread in long runs down the sides of the garden and as these decomposed they were gradually worked into the soil. Tony pointed out that heaped piles of sawdust were liable to gradually smoulder away under a process of slow combustion and he found it quite discouraging to find out later that the heap was hollow.



Tony is seen here showing the depth to which sawdust decomposition has taken place. When challenged that the addition of just decomposed sawdust would create an imbalance in levels of Nitrogen, Tony replied that superficially this would appear to be so but in practice it had not been a problem - and it would seem that his results bear out this contention.

I asked him did he irrigate his crops and he said that water wasn't a problem, in fact they had too much water, as below the hardpan which supported his garden was the river. If at any time water was required it was a simple task to pierce this hardpan. In fact a vigorous parsnip created a persistent damp patch when its root broke through into the water below.

All they had to do with bare-rooted transplants was to just plant them and in a couple of days they were ready to take off as the regular rainfall and the absorbent 'potting mix' provided all the required moisture -- it made one quite envious. As can be seen in the photograph succession crops follow along each of the rows to provide a continuous supply of produce.



Tony and Lynette's marketing strategy was intriguing - they opened for two days a week (on Tuesdays and Fridays) for farm-gate sales (which regularly attracted 200 vehicles on each of those days) and because they were only open to the public for 7 months of the year they had time during the winter period for an annual holiday in Fiji.

When they wished to close for the winter a notice was placed on the gate giving the date on which they would reopen. On that day a stream of cars would be lined up ready for the new season's crops.

The success of their operation could be gauged by a glance into the adjoining paddock where that owner had farm managers under contract to grow onions. The soil looked uncompromising and the crop was patchy, weedy and thriftless. When asked why that owner hadn't looked into the Mallard's garden to compare results, Tony replied that the two most recent managers had each resigned in order to set up organic gardens of their own!

Another advantage of his organic system, Tony said, was that now fertility had been enhanced his crops were maturing earlier than his neighbours' -- up to a week earlier for his lettuces - and this gave him a further competitive edge.

Getting back into my own garden proved to be a bit of a culture shock because while I was attending to all of those jobs which had seemingly built up in the time I was away, and assisted by the recent sub-tropical conditions, I found myself confronted by a mass of grass and weeds looking me in the eye. This was too much, so a concerted effort reduced

the jungle to a more orderly state and provided lots of material for composting.

I feel encouraged now to plant some brassica seeds as there is still time for the plants to size up and mature before winter.

An interesting experiment I carried out this time has been to grow broadacre potatoes under a heavy straw mulch -- a modification of Esther Deans no-dig method -- in which I planted out over 3 bags of seed potatoes, a bag of Kennybecks, 2 bags of Sebagoes and some Pontiacs and Tasmanian Pinkeyes saved from last year's seed. Results so far have been encouraging as the top growth has been clean and healthy. This method had to be adopted on this particular piece of ground as the topsoil had been removed when clearing the site for the house, leaving only the clay and broken shale and all that had ever grown there since was a tangled mass of wild radish.

The residue of the straw and haulms will be disced in as a basis for next year's crops. If this method is successful, and I have every confidence that it will, then it will demonstrate that crops can be grown (and soil reclaimed) under the most adverse of conditions. I will keep you posted as to results.

I will leave you with this thought : "We are so busy with human *doings* we don't have time to be human *beings*". See you soon!

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10th IFOAM Conference

Betty Cornhill's experiences in the pre-conference tour

I have always wanted to see New Zealand, so I chose the long tour (1 week) starting at Auckland and finishing at Lincoln University the day before the opening ceremony, so that we were settled in and rested before the Conference began.

One of the highlights of our tour was a visit to Rotorua, where apart from the geysers and the gurgling, plopping mud in the mudholes, the most interesting thing was watching Maori women making the New Zealand flax leaves into strips for the skirts worn by both men and women in the ceremonies.

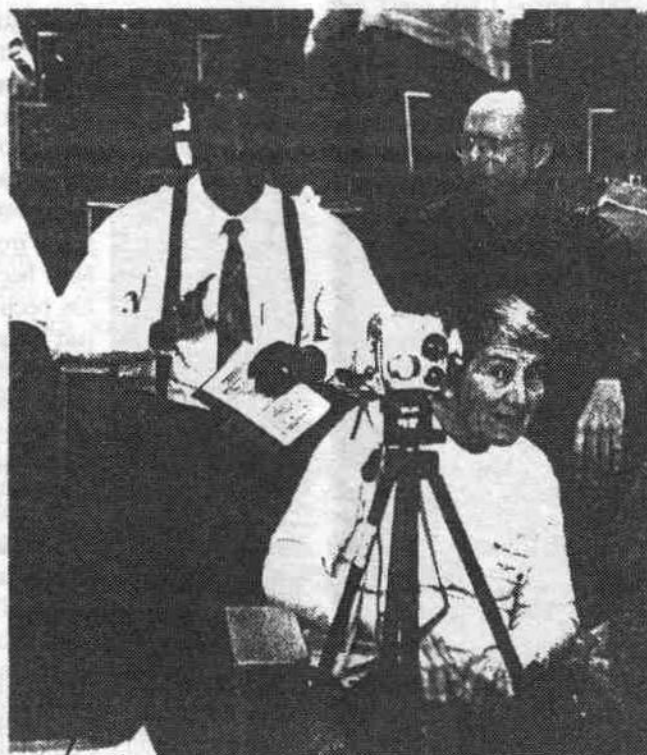
I was so engrossed with taking a video of this that I hurried after the rest of our party, leaving my red bag with small camera, wallet etc, on the floor nearby. I did not notice it was missing for a while, then had to run all the way back for it, thus missing the carving school, but feeling lucky that I had retrieved it without making the two busloads of people wait for me.

My first night in New Zealand was at a Youth Hostel. I can recommend this. The wardens are very helpful, the airport shuttles are cheap, and know where to go, and the saving in money is phenomenal (like NZ\$64 per night saved).

The next day, the warden phoned for a taxi to take me to the White Heron Motel, where I deposited my baggage, and walked out to do some exploring. Later I got my key and met my room-mate who came from Finland, and was a great walker. Together we went up to the roof where there was a good view of Auckland Harbour with sailboats, and also the container port. We then went past a little churchyard where early settlers were buried, down into a valley, and up to a lovely park and rose garden.

I noticed the architecture was quite different from Australia, most houses being two-story, and built of timber, though a few were brick. There were some wonderful old trees in the park. The branches were huge and horizontal, and there were small children and dogs running about on them.

On our return I had a lovely swim in the motel pool (not too much chlorine and just the right temperature) and found a nice little Japanese restaurant attached to the Motel, where I later led some of the tour members for dinner. By dinner



Betty at the Conference

time, however, my room-mate had retired to bed, which she continued to do throughout the tour, eating a large breakfast with 4 or 5 cups of coffee, the big lunch provided, but no dinner. She was up at 6 or 7, and would go for a long walk before breakfast. We got on fine, as I only need 6 hours sleep, and she did not mind having a light on till I came to bed.

The tour started with a meeting of all those taking part, and the two tour guides, Perry Spiller and David Skinner, one for each bus. I was on Perry's bus, and thoroughly enjoyed his little stories. We really became one big friendly party towards the end. There were 61 people from 23 countries on the tour.

The first visit was to Resource Recovery Ltd, Albany, on the northern edge of Auckland,

which has the largest metropolitan population in NZ. This company is reducing land fill (dumps) waste volumes by processing suburban organic wastes into Bio-Gro certified compost, potting mixes and mulches. It is run by Kerry and Michael Reilly.

Garden waste, grass clippings, coffee grounds, and chicken manure are the main ingredients. Fish factory waste was tried, but found to be too smelly and to attract flies. It costs Auckland residents more money to take this sort of waste to the city dump than it does to take it to Resource Recovery.

Truckloads of the bulk compost are sold to Bio-Gro Certified primary producers, a step towards redressing the flow of nutrients from country to city. Auckland Garden Centres sell it in bags.

This is a machinery intensive operation on 4.5 hectares, boasting a unique, mobile Treacyler 2000, designed and built by Kerry (a former marine engineer), that shreds shrubs and trees and wood for composting.

Kerry became interested in composting municipal wastes when he was operating a truck and transport business, and he was faced with enormous dumping charges. Pondering this and the environmental consequences, Kerry travelled the world looking at similar operations, and their machinery. An imported machine would have cost NZ\$.75 million, and would not have coped with some of the things that are shredded by the (circa NZ\$.4 million) Treacyler. Kerry's

philosophy is clear in the company's name: Resource Recovery.

One of the places Kerry had visited was Canberra, where he saw Brian Corkhill's Mugga Lane setup. What Brian could learn from him is his marketing technique. All the delivery trucks are clearly marked BLACK GOLD, as are all the bags, and in smaller letters, Bio-Gro Certified organic compost.

Because of the large area of land they have, it is possible to have long windrows of the compost, which are frequently turned, so that the most recent windrow moves down the line, and finally ends up at the end where it is bagged, or taken away by the truckload. It is frequently tested for contaminants. There is a drainage pond where the surplus water goes.

This was a very satisfactory beginning to our tour, and before leaving we were all presented with hand-painted floral bookmarks, by the secretary, who I believe was the wife of one of the brothers. New Zealanders are very keen on family businesses. The big supermarket we saw in Christchurch was also a family business with a large section for organic produce.

Our next visit was to Hort Research, Mount Albert, Auckland., Where Dr John Clearwater and others spoke to us about their research on the use of pheromones. In 1967 John became convinced that pheromones would become a vital part of future insect control. Literature searches, laboratory investigation, then field (orchard) trials followed.

During this, John says that watching a male moth flying down a wind tunnel in response to a sex pheromone extract reinforced his conviction. Male moths are strongly affected by the signal that a ready-to-mate female moth releases. It was easy to foresee that manipulation of this signal in an orchard would powerfully change the behaviour of wild moths.

Commercially valuable results in the last few years have shown how accurate such foresight was. Plastic tubes, filled with an exact (synthetic) copy of the female moth pheromone, are tied in the apple trees. For several weeks they release their aroma, saturating the air with the pheromone. This prevents the male from locating the female, who, unmated, lays infertile eggs.

Pheromone traps are also used for monitoring male moth numbers in the orchard. John co-ordinates an organic apple producers group of orchardists who have volunteered their properties for use in the research work.

In 1992, local market sales were followed by the first export shipment of Bio-Gro apples from NZ, to Belgium and Fiji. Later, we visited one of these orchards, where Dr. Clearwater met us, showing the system in action, and explaining it again.

In all, we visited 23 places. Waitakere City Waste reclaim station, Henderson, Auckland, had dinner in the Good Earth Restaurant or the Appetite Cafe--all organic food, Waitete Orchard, Gracewood Organics Orchard (kiwifruit and

avocadoes, and some persimmon and citrus trees), Bay of Plenty Polytechnic Organic Orchard (kiwifruit,apples European and Asian pears, citrus and feijoas).

The visit to Bay of Plenty included a sumptuous dinner made by the polytech student chefs under the supervision of their teachers. For this we sat at tables under a glass dome.

Our visit to Rotorua was followed by the Forest Research Institute, Rotorua, where they are growing magnificent forests using treated sewage, and in this way keeping Lake Rotorua clean.

We visited Taupo beside Lake Taupo, the largest lake in the southern hemisphere, and spent a night in Napier, passing on our way there vast areas of exotic pine and Eucalypt plantations, and visited a small remnant of indigenous forest.

There were ten other properties, farms, orchards, vineyards, organic shops, an all organic baby food factory, a free range egg farm (run by Ernst Frei, who persuaded Tui and Brian Newberry of St. Martins New World Supermarket to try selling organic eggs from his farm), and also organic fruit, vegetables, and groceries. It has proved a great success. I am still recording all the video cassettes I took on this trip. It was certainly a memorable one, and a fitting prelude to the conference.

My accommodation was excellent, if a little far from the scene of action, but, as someone said to me, "The walking is good for you!" On the few rainy days I didn't appreciate it, but I must comment that students sharing a flat at Lincoln are very lucky. The four-bedroom flats are large and well equipped. The living room had large floor to ceiling picture windows and a sliding glass door, which gave onto wide green lawns, bordered with shrubs.

On Sunday, we were all transported to the Organic Market outside the Town Hall in Christchurch. The market was fun, with Morris Dancing, and even a couple of Jersey cows, which I am sure David Odell would have made friends with! Many of the farms we had visited had stalls. Their presentation was terrific, making you want to buy from them.

After doing the rounds of the market I sat on a bench munching my dinner, a large organic sandwich bought at one of the stalls, drank freshly juiced organic orange juice, and watched the beautiful fountain outside the Town Hall, waiting for the opening ceremony to begin. In order to take a good video of this I had to position myself several times in order to find a good spot, and stand for a long time, as the huge hall was packed, as also the gallery above. When you realise that there were 811 people from 51 different countries at the conference, you can imagine how crowded it was. Also I think there were many Christchurch residents there to see the spectacular Maori ceremony.

It is hard to describe the ceremony, but what impressed me most was the fierce Maori warrior who advanced from behind the line of chanting women, spear in hand, shouting threateningly in Maori language pointing the spear at the waiting dignitaries outside the doors, and finally, when he at last allowed them in there was the nose touching greeting.

Organic Cereal-Livestock Farming -- Problems & Possibilities

by Dr Els Wynen, Eco Landuse Systems, 3 Ramage Place, Flynn, ACT 2615. Phone 06-2583561 Fax 06-2583812

In 1986 I undertook a survey of broadacre cereal-livestock farmers in southeastern Australia, which was published by La Trobe University in Melbourne (1989)¹. In the early 1990s the Rural Industries Research and Development Corporation funded a study, which culminated in the report: *Conversion to Organic Agriculture in Australia: Problems and Possibilities in the Cereal-Livestock Industry*². The following article is a summary of the two reports.

One of the main reasons compelling the surveyed farmers to change their farming practices towards organics is that most of these farmers had major problems with their soil, crop or stock, and had tried everything to solve the problem within conventional agriculture. For them, organic farming was the solution at the end of the road. Yet, for other farmers in the report, it seemed a logical way to farm. All of the farmers mentioned that the spouse's support had been very important in starting, and continuing, on the road towards organic farming.

Among the most difficult problems to solve for broadacre organic farmers are weeds in the cropping phase and pest problems, especially in livestock. Insects in crops and soil nutrients are seen as less of a problem.

Because, in organic agriculture, problems are seen as part of a whole system, no one measure is seen as the solution to a problem. In addition, differences between farms are great, such as in soils, local climate and farm history. This means that problems with pests and diseases, and the way in which to combat them, also vary from farm to farm, even from paddock to paddock. But there are certain practices which many organic farmers use which should help to solve problems: namely, rotations, grazing, choice of crop varieties, timing of planting and mechanical cultivation.

In general, with regard to pests in livestock, organic farmers try to maximise stock health and so minimise problems. The more healthy feed on the farm, sometimes supplemented with minerals, rotational grazing and culling susceptible animals, were considered important ways to avoid problems. Breeding one's own replacement stock and better fences with the neighbours were also seen by some as means of avoiding the likelihood of stock having lice. The use of veterinary pesticides must be cleared by the organic licensing office, followed by measures such as keeping treated stock in a paddock set aside for that purpose for a specified period. There are strict rules about the sale of livestock as organic if treated with pesticides.

Other problems mentioned when converting to organic cropping were related to machinery and storage. Farmers reported problems with blocked machinery when planting the second crop. Stubble, which was previously often burnt, now lay on the surface of the ground. The straw would get stuck in the machinery, and the germination rate would be unacceptably low in the first years after conversion. The way in which to cope with this was to alter the machinery so that the straw did not get stuck in it. In any case, after some

years the increased levels of microorganisms in the soil decayed the straw sufficiently before seeding to remove the problem. Storage space also needs extra attention on an organic farm as most traders of organic grain do not usually have a lot of storage facilities.

Farmers often ask the question what all these measures do to the yield. In the survey, wheat yields on organic and conventional farms were similar. However, to look at the financial returns to farming not only yield, but the whole system, such as total production (which is dependent also on the rotation used), the input cost and the output prices are important.

The market for organic products depends for a great part on which kind of product is produced, the quality of the product and the effort the farmer puts into the marketing. For example, in the early days some farmers spent time on developing a market of shops and private customers. For some of the crops, the demand has expanded a lot in recent years so that private marketing is not necessary any longer. A lot of that extra demand stems from bigger companies getting into the market. How far that makes it easier for farmers to sell their grains depends on a number of marketing aspects, such as the number of suppliers and buyers. The market for organic meat is not well developed at present, but if overseas experience is anything to go by, an expansion in that market should not be too far away.

Where does all this lead as far as the financial side is concerned? In general, on the farms surveyed, input costs were lower on the organic farms than on the conventional farms. This was mainly due to lower fertiliser and pesticide costs. But also the fuel bill was lower on organic farms per hectare operated, though similar per hectare cropped (due to the area cropped being a smaller part of the area operated on organic farms).

Although the total cash receipts were lower on organic farms, the net cash receipts (receipts minus the costs) were similar for the two groups of farms. This picture (of similar returns to farming) stays the same if the non-cash costs are deducted, such as the family labour (same for the two groups of farms) and depreciation cost (lower on organic farms). These figures were not dependent on premium prices for organic products.

Although net returns to farming can be similar between the two farm management systems once the organic farm is established, there are likely to be costs attached to converting towards organic farming. Some fencing to provide smaller paddocks (to improve rotational grazing) and more (or different) grain storage are often needed. Machinery frequently needs some attention to be able to cope with stubble, and to accommodate a possible change in cultivation method. Although yields can be as high under organic as under conventional management, some farmers talked about a drop in yields in the first years after conversion. *cont opp.*

Learning Organic Growing In California

by Julia Veitch

If you want to formally learn about organic growing in Australia, where do you go? My information to date is as follows:

- * NSW TAFE at Ryde and Kurri Kurri, a 160 hour course consisting of lectures and field trips, which is being upgraded to a certificate of 216 hours some time soon
- * Units or subjects in courses such as the Graduate Diploma in Sustainable Agriculture at Hawkesbury
- * Biological farming course taught by correspondence through the Open Polytechnic of New Zealand
- * A course through the Australian Correspondence School based in Queensland
- * Workshops and short courses (e.g. Organic Gardening, a 14 hour fee-for-service course taught through the Canberra Institute of Technology).

None of these courses is structured to include full time, practical (hands on!) experience, which would seem to be a prerequisite to going into full time, hands on work, whether it be running your own place or managing someone else's.

There are conventional farming apprenticeships in Victoria, but these do not feature organic growing as such.

So what are the other possibilities? If you are confident and knowledgeable, or simply like working out things for yourself, you can strike out on your own, as hundreds of successful organic growers have already done in Australia. Or, if you want the structured learning experience through a formal institution, the next option is overseas.

In December 1993 I read Tim Marshall's article in *Acres Australia* about the Apprenticeship in Ecological Horticulture, offered jointly by the University of California Extension and their Agroecology program at Santa Cruz in California. It sounded worthwhile.

The six month residential (you live in tents in the garden!) apprenticeship offers instruction in traditional organic and

biodynamic horticulture, stressing ecological interactions between plants, soils, climate, insects and pathogens.

In a hands on educational approach, apprentices work alongside staff on a day-to-day basis in the greenhouse, gardens, fields and orchards, as well as attend lectures, demonstrations and field trips. The proportion of practical to theory is 80% to 20%, very similar to TAFE programs of vocational instruction in Australia.

The Santa Cruz garden was established by a visionary gardener, Alan Chadwick, 25 years ago, and despite his death a few years ago is going strong.

Santa Cruz itself has a mild climate, is mostly famed for its good surfing, and its main insect pest seems to be plume moth, judging from the Agroecology Institute's publication, *The Cultivar*.

I decided to apply, as did my partner Phil Moore. We have both been accepted into the 1995 intake of 40 students. There were 120 applicants, many from overseas. Besides us two Australians, two from Kenya, two from Germany, and one from Hungary have been accepted. So the cultural mix should be interesting if nothing else!

The course begins on April 10 and finishes 27 weeks later, on October 13. It costs US \$2,200, which roughly equates to A\$3,000, a good price for US courses. Costs are kept down because the garden produces not only food for the apprentices, but a marketable surplus.

What do we hope to achieve through doing this course? It will be stimulating and fun, but it will also provide a model of how to run a teaching and demonstration garden. We both like working with people and imparting knowledge about growing organically. The Californian experience will give us many ideas and skills. Hopefully, I will be writing more for the COGS quarterly during the year, and sending over a photo or two.

Organic Cereal-Livestock Farming continued from previous page

More livestock is needed if more pasture is included in the rotation. What the effect will be exactly on the financial returns will differ greatly according to the history of the farm (present rotation system, fertiliser and pesticide management), skill of the manager to adapt to the new system, availability of price premiums for the outputs, and input and output prices in the particular year of conversion. For example, with increased numbers of livestock an increase in the wool or meat prices, as compared with grain prices, will make the transition easier than with relatively high grain prices.

1. *Sustainable and Conventional Agriculture in South-Eastern Australia - A Comparison*. Discussion Paper, School of Economics and Commerce, La Trobe University, Bundoora, 3083. Available from La Trobe University.

2. This report (softcover, 139 pages) is available for \$20 (postage included) from: National Association for Sustainable Agriculture (Australia), PO Box 768, Stirling 5152, tel. 08-3708455.

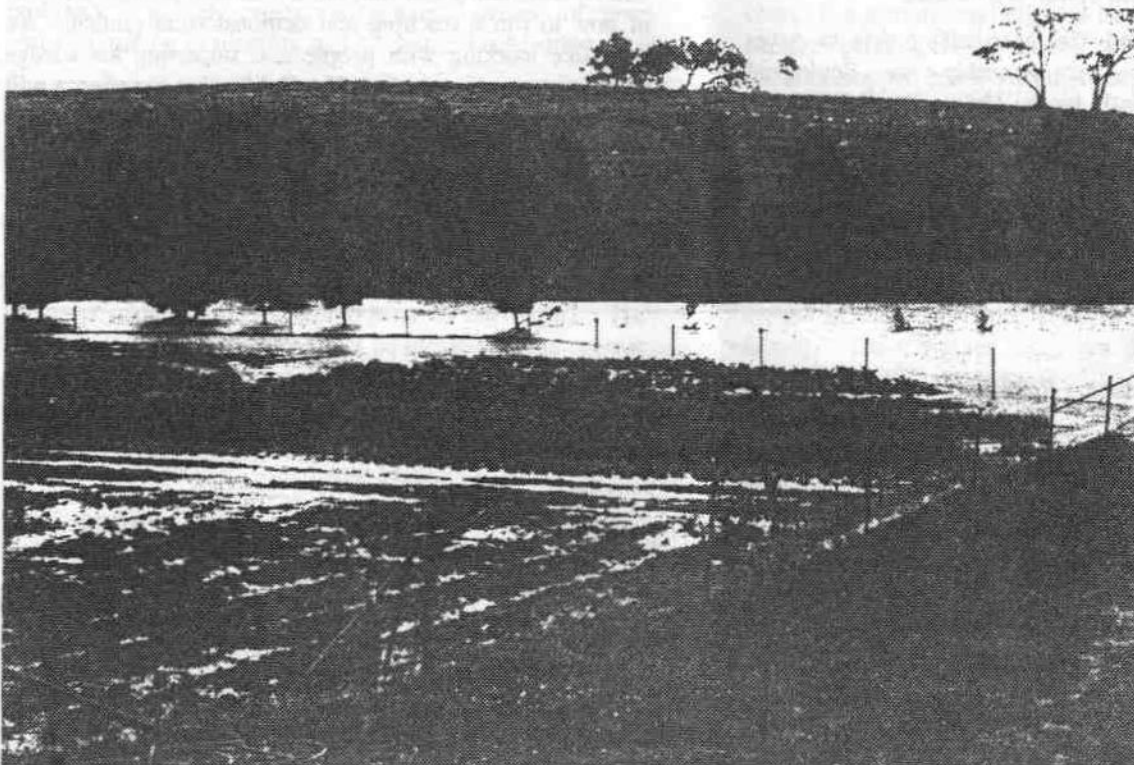
COGS GENERAL MEETING on 25th APRIL:

DR KATE SHORT will speak on " Pesticides, the transition to Organic Farming, and the conversion factor in relation to exports"

Several years ago, the Australian Government committed itself to promoting Australia's clean green export image abroad. Confident that pesticide use was under control and buoyed up by apparent reforms in pesticide regulations, Trade and Primary Industry officials have been working closely with Australian producers in order to gain market share in Asia on the basis of our clean agriculture.

Unfortunately, the latest pesticide residue scandal involving the insecticide *Helix* has shown conclusively that the government approach to pesticide reform is inadequate to protect our export markets. There are a range of export risk pesticides still in use in Australia, awaiting attention from the National Registration Authorities' review of existing pesticides. However, this process is very slow and is not being sufficiently resourced either financially or intellectually. Meanwhile Australia's organic farmers keep working to produce clean green products for both domestic and export markets but as yet receive very little assistance with education and extension programs that will network their tried and proven techniques of sustainable agriculture. So, toxics and organics go together. As pesticide risk awareness increases, so does the production of organic food. It is essential that Australia's organic growers become *street-wise* on pesticide risk issues.

The End of the Drought.



Geoff & Colleen Foster's organic garden at Brooks Creek benefits from a bit of flood irrigation.

Every Day Herbs For Health Living

The first article in a two-part series by Shirley Carden

The Oxford Dictionary defines the word herb as a soft-stemmed plant that dies down to the ground after flowering, one with leaves or seeds etc. that are used as food or in medicine or for flavouring. There are plants that we regard as herbs that do not fit this definition e.g. rosehip, lemon verbena and elderberry.

My main aim with this series of articles is to instill in you a desire to learn more about the unlimited treasures to be found in the plant world - the healing powers, the simple remedies - there for the taking if only we strive to familiarise ourselves with them.

Herbs are a very personal thing - what appeals to me or suits my needs may not necessarily appeal to you. I can pass on to you my experiences and once your interest is aroused, hope your life will become all the richer as you seek more knowledge about these gifts from nature.

Most of these plants are hardy and easy to grow. If I were given the choice of one garden - vegetables, fruit, flowers or herbs - I would decide on the last of the four with no doubt in my mind whatsoever.

They can have eye appeal, delight the sense of smell - even the sense of touch. They can improve the health of your family, your garden - even the health of your pets or domestic animals.

Each country in the world has its favourite healing plants. Occasionally one plant proves so effective its fame spreads and it is distributed around the globe.

But there are millions of plants in this world of benefit to mankind. I feel we should concentrate on those that grow around us rather than attempt to get supplies of those proven elsewhere but unavailable here.

Different countries have produced authors of best sellers on this present-day popular subject. Some publications have become so famous they have been translated into other languages, e.g. Maurice Messegue's books, Maria Treben's "Health Through God's Pharmacy".

However for a beginner in Australia I would suggest Dorothy Hall's "The Book of Herbs". To me all three authors have a similar style and share a love -- almost a reverence -- of these valuable plants.

I should also point out to you that many plants that are considered as weeds are prized by those who know their value as powerful medicinal herbs, valuable food sources or of cosmetic use -- some fitting into each of these categories.

I grow my herbs in healthy soil without the use of chemical sprays or fertilizers. I use them mostly freshly picked, always seeking out the best quality.

One of my family's favourite drinks is what we call the "green drink". I can vary it to lessen stress, give energy, ensure a good night's sleep, overcome the unpleasant effects of hayfever, colds - the list is endless.

I prefer a base of unsweetened apple or pineapple juice with the addition of a little lemon juice to make sure the colour is green and not a murky brown. A good selection of herbs would be lemon balm, peppermint, borage, yarrow and lemon verbena. The herbs are blended into the juice and the mixture strained.

The lemon flavoured herbs tend to have a calming effect as well as improving the flavour. Peppermint also makes the drink more flavoursome, but as an added benefit, it rids the body of excess mucus -- thus helpful in all the "itis" illnesses e.g. sinusitis, bronchitis -- even hayfever.

If you haven't the time to prepare a green drink or herbal tea, just chew a few sprigs fresh from the garden.

Lemon balm is great for anyone under stress -- it has a calming effect on young and old.

Yarrow helps to keep up one's energy.

Borage is good for the heart and helps to keep our kidneys functioning effectively.

Another family favourite is pesto dip served with cracker biscuits and crudites, e.g. carrot and celery sticks, tomato and cucumber wedges etc., also grown organically and picked fresh from the garden.

Basil is the magic ingredient in this recipe. It is the sacred herb of India. It is reputed to gladden the heart and lighten the mind - great for anyone under stress or depressed.

PESTO: 2 cups fresh basil leaves (or basil and parsley),
1/2 cup pine nuts or blanched almonds,
3 cloves garlic,
1/4 cup romano cheese,
1/4 cup parmesan cheese,
1/2 cup olive oil.
Blend thoroughly in a food processor.

PESTO DIP: Blend in a small container of cottage cheese.

The Antiseptic herbs

The Antiseptic herbs can be very helpful in maintaining good health. I shall concentrate on half a dozen of the well known ones - sage, thyme, marjoram, oregano, basil and garlic.

The term "Antiseptic" is not appealing with regard to food but I can assure you the recipes I shall pass on to you are such firm favourites in my family that we occasionally have problems with grandchildren eating far more than their share.

Herb bread is but one example:

HERBED BUTTER:
125g butter (at room temperature),
4 sprigs each of marjoram, thyme and oregano, (strip leaves from woody stalks if necessary),
4 sage leaves,

4 sprigs parsley (not too large),
bunch chives about 1/2 inch thick,
a few leaves of garlic chives if available.
Chop the herbs very finely. Combine thoroughly with the softened butter. Spread generously on long wholemeal rolls cut on the diagonal.

Either use on fresh rolls or heat in an electric fry pan lined with foil until the butter is melted and the under side of the bread is golden brown. Serve immediately.

PESTO BREAD may be prepared in the same way by stirring finely chopped basil through the butter and sprinkling grated parmesan cheese on top of the buttered bread before heating.

Marjoram and **oregano** are the same family. Marjoram is more flavoursome. Oregano is hot to the taste buds if you bite into a leaf.

Marjoram can be difficult to grow, so in early spring it is a good idea to divide your plants and plant in various areas of the garden.

Golden oregano is a very attractive plant in the summer with its golden foliage. Purple oregano has purple buds changing to lavender flowers -- a colourful addition to floral arrangements.

However the ordinary oregano is better as far as flavour is concerned in food preparation. There are many delightful varieties of thyme.

Caraway thyme has a distinctive caraway flavour. It can be grown as a lawn.

Shakespeare thyme is another low growing type, beautiful when flowering, but quite attractive when green with its closely packed tiny rounded leaves.

Lemon thyme is distinctly lemon in flavour and valuable during the winter months when lemon grass and lemon verbena are unavailable for herbal teas and green drinks.

The thymes are beautiful as edging plants, as ground covers or in rockeries. Their presence in the garden help to keep other plants healthy, e.g. roses, and they also discourage the cabbage butterfly from laying eggs on the brassica plants.

Thyme is the herb for the relief of fungus type infections such as thrush. It can be made into a strong tea, strained and stored in the refrigerator. Pour a little into a glass, top up with hot water to make warm and use to gargle the throat.

Use in the same way in larger quantities in a bowl to bath the feet in the case of tinea.

Use to soak fingers in the case of fungus type infections under the finger nails.

Sage, marjoram and oregano can be used in the same way for the relief of sore throats.

Sage was considered so valuable by the Chinese for a long and healthy life that they were happy to exchange four pounds of China tea for one pound of sage tea.

The leaves may also be dried, powdered and used to clean the teeth to keep the gums and mouth healthy.

Garlic is quite a remarkable herb. It is a powerful antibiotic and good for circulation. The Russian government during a severe 'flu epidemic advised the population to eat lots of garlic.

It can be used to worm both humans and animals. However it is not acceptable socially. The problems of unpleasant odours can be solved by eating lots of parsley which has a deodorising effect.

Small cloves of garlic can be swallowed whole like capsules followed by lemon juice and water.

Honey has the ability to extract moisture from substances. An easy way of giving garlic to small children is to peel and halve garlic cloves, cover with honey and allow to stand. Give by the spoonful to small children. You'd be amazed how a child can reek of garlic after this treatment.

A very potent SALAD DRESSING recipe was given to me by a doctor who used it regularly but still managed to lead a very busy social life:

1 knob of garlic peeled,
the juice of one large lemon,
1/2 cup olive oil,
as much parsley and/or mint as will fit into a blender.
Blend thoroughly.

This dressing can be used on salads or hot vegetables. The mint and parsley have a deodorising effect. BUT a word of caution -- all things in moderation -- I know of two people who have had very severe nose beads after eating very large quantities of garlic over a long period.

By using these antiseptic herbs in dishes tasty enough to be accepted by one's family, it is possible to prevent infectious illnesses spreading from one member to another. They will also help a person recover more quickly from an illness.

Their use can prevent many common illnesses which make life so unpleasant, but at the same time their addition to various dishes makes food much more interesting and attractive.

Pizzas and omelettes are greatly improved with the addition of some of these herbs.

OMELETTE WITH CHEESE AND SAVOURY HERBS:

3 eggs,
2 sprigs each of marjoram, oregano, thyme and sage,
1/2 cup grated cheese,
1/2 cup chopped parsley and chives.

Have an electric frypan ready. Grease. Blend herbs with the eggs. Pour into a medium hot frypan. Cook for 3-4 minutes. Sprinkle the cheese, chives and parsley evenly over the top. Fold. Serve with hot buttered toast.



The "tonic" type herbs

Lack of energy seems a common complaint in modern times. These herbs are invaluable in this area.

One of Dorothy Hall's favourite herbs when she needs a boost is **yarrow**. I find it not very inviting by itself so add more flavoursome herbs such as lemon grass, or peppermint.

I've always endeavoured to make my herbal remedies tasty. Perhaps that is why they are so popular in the family -- even with regards to the goats and chickens.

Yarrow is astringent so will stop bleeding. It can help in the case of a fever, break a stubborn cold, prevent cramp. It is an attractive plant in the garden with its fern-like leaves and clusters of tiny flowers of white, yellow, pinks, orange or reds.

It is regarded as a plant doctor and will improve the health of ailing plants when planted close by. A few sprigs forked through a compost heap will speed up the process.

Dandelion is considered by many as a weed to be disposed of as soon as it appears. In reality it is a general spring tonic and blood purifier. It is high in vitamins and minerals. Use the leaves in salads, cook as a spinach, make into a tea or include a few leaves in a green drink.

Gather the roots, clean, chop into about 1/2" pieces and dry in a slow oven until brown. Grind and use as a coffee substitute. The instant variety is available in health food shops at great expense imported from overseas.

Use the flowers to make a cough syrup by placing in a jar and covering with honey. Allow to stand for a few weeks.

Parsley is a most valuable addition to a diet. Remember the stalks are even more nutritious than the leaves. It has vitamins A, B and C and is very high in iron as well as other minerals.

Your body uses the iron within hours of your consuming this herb without side effects, so it is very important in the case of anaemia. It is a pleasant addition to mashed potatoes, potato soup, boiled rice and scrambled eggs just to mention a few.

It can be frozen. Do not thaw to use but crumble by rolling lightly with a rolling pin. It is amazing how much chopped parsley can be stirred into boiled rice, etc if someone in the family needs a boost.

It needs a rich soil and plenty of water.

Basil is another pick-me-up for those who feel they need more energy. Use with **borage** as a tea. This is reputed to cure a migraine.

It is too stimulating to take before bedtime. The plant likes lots of water but dislikes wind and frost.

Stinging nettle may not sound too appealing but it is a very valuable plant. It is high in iron, magnesium and phosphorus.

Chlorophyll is also very high in this plant so that it is cleansing to the system. Nettles have been described as an arterial tonic. They are quick acting in the case of anaemia.

Use it instead of or with spinach, in green drinks or teas. It can even be chopped very finely and added to a salad. It stimulates the system. In the garden it can be regarded as a companion plant, or more appropriately a mother plant. I have noticed the quality of strawberries has been greatly improved by the presence of several nettles in the garden bed.

Thyme and **marjoram** also have a tonic effect on the system.

TOSSED GREEN SALAD:

lettuce, dandelion leaves, rocket;
juice of half a lemon,
2 tbsp olive oil,
1 clove garlic (peeled),
4 large sprigs parsley.
Blend thoroughly. Combine with salad greens.

PIZZA BASE:

2 cups wholemeal flour,
1 teaspoon dry yeast dissolved in
1/2 cup warm water with
1/2 teaspoon raw sugar.
Allow yeast to froth. Add flour and mix together to form a workable dough, adding a little more warm water if necessary. Knead lightly and roll out to the desired shape. Place on oiled pizza tray, or biscuit tray. Top with your favourite filling and bake in a moderate to hot oven for 30-40 minutes.

SAVOURY TOPPING:

Tomato paste, thinly sliced tomatoes, thinly sliced onion rings, chopped capsicum, sliced mushrooms, chopped herbs (thyme, marjoram, oregano, sage, chives and parsley) and grated cheese.



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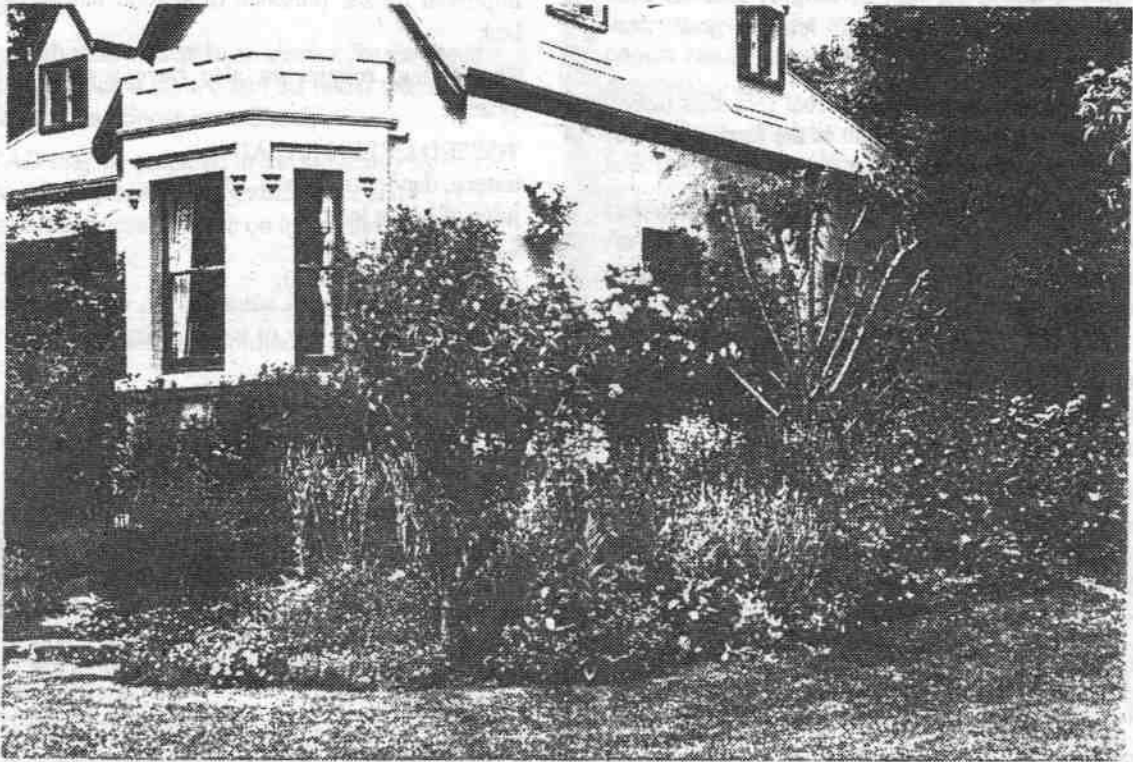
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VACANCIES FROM MARCH

Knowing and Growing Herbs

Cuttings from a talk presented to the November COGS meeting by Marcia Voce, Birchfield Herbs, Bungendore, about Herbs as Lovable Garden Companions



Birchfield Herbs, Bungendore

Loosely defined, a herb is said to be a plant which is of use to man, apart from being a source of nourishment. Herbs then, by definition, cover a very broad range of plants, embracing annuals, biennials and perennials - including a few woody plants as well, e.g. bay, *Laurus nobilis*, which in hospitable conditions can grow to a medium-size tree.

Propagation

1. *Seed.* Annuals, biennials and perennials can all be propagated by seed, although because of seedling variation, this method is best suited to annuals and biennials unless large quantities of a single species are required. Sow in autumn or spring, i.e. avoid extremes of heat and cold. Most herbs germinate easily and quickly. Germination of parsley can be irregular. Angelica keeps its viability for a short time, so throw out seed older than one year.

2. *Cuttings.* Reliable and easy with many varieties and a useful way to keep frost-susceptible varieties going from year to year. It is safest to take cuttings of scented geraniums, pineapple sage and heliotrope in autumn. They may survive a cold winter, but it really is easy to take a cutting or two from a strongly growing plant in early autumn.

3. *Division.* The easiest method of all. Simply divide perennials into convenient sized pieces, each with a good root attached. Discard old material and select the best of the rest for replanting into soil which has been replenished with compost or animal manure. The discards can be particularly useful for the compost heap, especially comfrey and yarrow; both are activators and help speed the compost making process.

Insect Repellents

Many strongly scented herbs are useful insect deterrents and can be used as small hedges around garden beds, vegetable beds, etc. Lavender, box, santolina and southernwood are all suitable and very beautiful as well. Wormwood is an effective deterrent, but is best placed well away from most other herbs (except those in its own family, *Artemisia* sp.). As an outer hedge, clipped two or three times a year to maintain health and density, it is excellent. A useful "tea" can be made from its leaves for killing harmful insects and for protecting newly planted seedlings (it is the action of the roots which can be detrimental to other plants).

Companion Plants

Well-known duos are borage with strawberries and basil with tomatoes. This is an interesting topic and several good books are available on the subject.

Where to Grow Herbs

If a separate herb garden is not desired, or there is insufficient space, tuck herbs into all kinds of spaces or grow in large pots, especially near the kitchen door; herbs are more likely to be used regularly if they are growing close to hand. When growing in containers, remember to use a good rich compost with free drainage and choose a sunny spot. A narrow strip at the edge of a terrace, by the barbecue or at the end of a lawn, even in the clothes-drying area, may be utilised for herbs. Lay down an old ladder, or copy its design in brick or wood to create a herb garden. I have an old tin bath near the shed, stuffed full of compost and overflowing with culinary herbs in summer. Plant mint by itself; it is a greedy feeder and spreads rapidly. Although it appreciates plenty of water, mint also must have good drainage.

Interest in herb growing is definitely increasing. When I began my small herb nursery about 12 years ago, many people travelled from Canberra to Bungendore (not so much to see and do in Bungendore in those days either) to buy mint and parsley. Nowadays it is hard to keep up with the expanding list of requirements as more people discover just how fascinating herbs can be and of course, as you well know, nothing beats home-grown!

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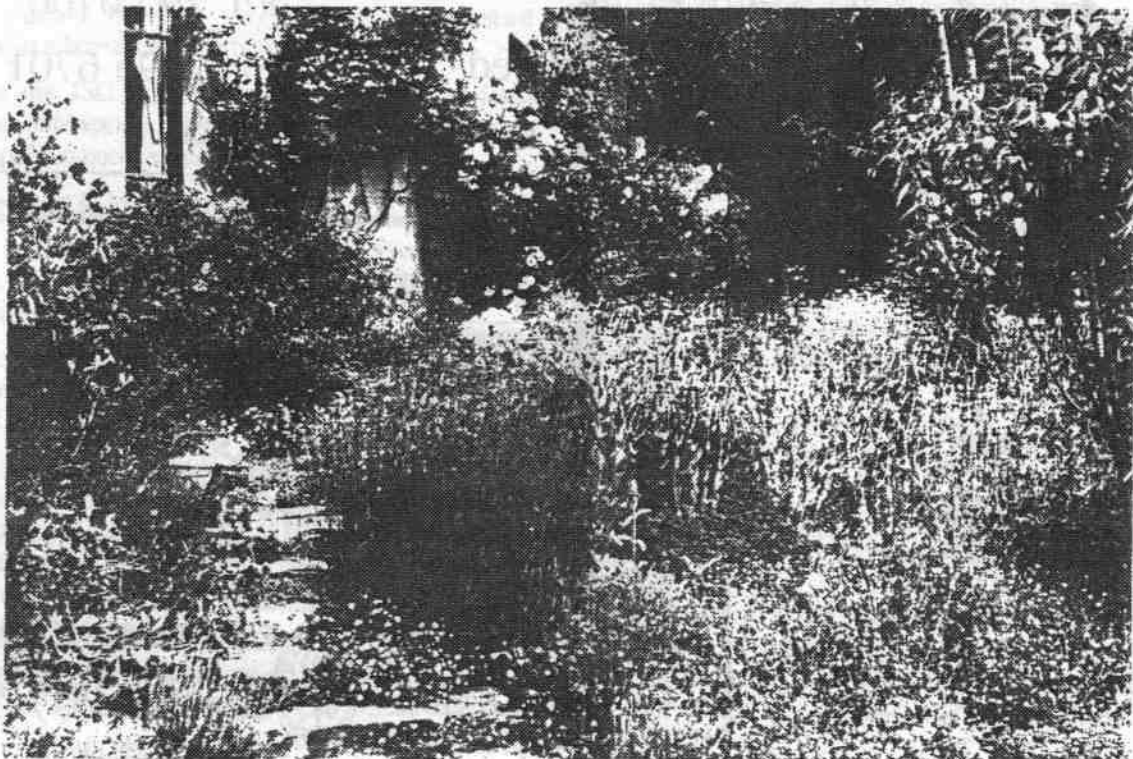
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Part of the garden at Birchfield Herbs, Bungendore

Thoughts on seed

by Marjatta Asa

The COGS seed exchange has been operational for 18 months and should be ready to emerge from the nappy stage. The start was a donation of rainbow chard. The current stock contains some 20 to 30 different seed and turnover for some seed is fast.

Most donations come from members and all from the Canberra district. The way we operate is to clean the seed at least partly, package and label it and sell it at the monthly meetings.

No recording is done and no effort is taken to guarantee that a particular seed is kept going.

The seed exchange in its current form serves the members well. It is a source of cheap locally grown organic open-pollinated seed. However, we could go a step or two further, by starting to keep records of seed quality and have dedicated members to grow these particular crops for seed.

This is an expansion from seed exchange to seed saving. Are we ready for it? I think the time has come to venture into seed saving. Let me know if you would be interested to grow some "Canberra heritage seed".

Seed germination and plant growth

My own experience compared with commercial seed has been positive. COGS seed has been as good as or better than seed from any other source.

Interesting seed

I haven't been able to grow nearly all the seed but one interesting new vegetable has been mustard lettuce. It really is a leaf mustard, but with very delicate, mild mustard flavour and as a bonus very pretty frilled edged leaves.

It survived my 13C frost last winter and produced fresh salad greens until spring. I am just about to start the coming winter's supply in pots because it also transplants well.

General interest in locally grown seed

So far we have had only one opportunity to present COGS seed to the public, at the Murrumbateman field day. We did sell a fair amount.

If you know any gardener who has a special seed try to convince him/her to donate some for us or ask me to make the contact.

What about that freak bumper crop? Why not make an effort to save some seed to share your good fortune? (Of course, if the magic crop was grown from hybrid seed there is no guarantee that the seed will produce anything like the original crop).

Just in case there is something special growing in your backyard here is a brief summary of rules for seed saving taken from the *Seed Savers' Handbook* by Michel and Jude Fanton.

1. Very easy seed

tomato, bean and pea All of these are self-pollinating and a number of varieties can be grown at the same time.

Just save seed from a well grown plant and good tomatoes or pods. Let the pods ripen on plants.

lettuce Also self-pollinating and a number of varieties can be grown at the same time. Let best plants to go to seed.

radish Insect pollinated and self-incompatible. Let a number of the best plants go to seed. You cannot grow more than one variety for seed at a time.

2. Easy seed, but usually takes two seasons to grow to seed

carrot, parsnip, spinach, celery, onion, leek These ones are biennials. So you grow the root or whatever is the crop the first season and in the second season they flower and produce seed. In the Canberra climate the second season is normally the next spring-summer. This means that seed carrots, parsnips etc. have to be kept over winter. Select the best carrots, parsnips etc. for your seed crop. All of these plants will cross-pollinate with their own kind if you have more than one variety. Except with celery, have more than one plant to go to seed, in case of onions up to 20 if possible

chicory & endive, silverbeet & beetroot Follow the same rules as for the group above but also don't grow silverbeet and beetroot at the same time, or chicory and endive, because they will cross-pollinate.

3. Easy seed but watch for cross-pollination of varieties

capsicum, eggplant, pumpkin, squash, zucchini, cucumber Cross-pollination amongst types of each species. Some have separate male and female flowers. Some you have to let specially grow for seed.

Fyshwick Garden Centre

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4. Difficult ones because of cross-pollination

whole brassica (cabbage) family because they not only cross-pollinate amongst different varieties but amongst each other. Therefore you can only grow one out of cabbage, broccoli, brussel sprouts, cauliflower, kohlrabi etc. for seed at any time and there shouldn't be any other cabbage family plants flowering on a 2 km radius. This would be almost impossible to achieve in a suburban situation unless the plants are in a cage.

turnips, swedes and Chinese cabbage The same story as above; these will cross-pollinate with each others and also with wild turnip which is a common weed around Canberra.

5. Difficult because of cross-pollination and in-breeding

corn Different varieties will cross-pollinate. You should have a number of plants growing (more than 50) to keep plant vigour.

Finally into news of my own seed. I have a difficult one, Finnish turnip. In my mind Finnish turnip is the king of the turnip kingdom. They have a nice golden yellow skin and flesh, flavour which is a mixture of sweet and tang and possess the real turnip shape. For the last three years I have tried to grow Finnish turnips in Australia from seed imported from Finland.

The first year I put seed in early October. It germinated beautifully but as soon as the summer heat arrived the plants gave up. Last year I knew not to put the seed in while it was too hot. I waited until the end of February. Again the seed germinated. Plants started to grow and in a couple of weeks the weather cooled down, especially at night and the plants stopped growing. They didn't die even during the winter but by early spring I had radish sized turnip with soft flesh and no taste.

This year I put the seed in mid January. Again the seed germinated beautifully and now I am hoping and waiting.

Another Finnish story. I spent a week in Melbourne last autumn and met another Finn. He has been growing Finnish strawberries and was happy to give me runners. They produce a delicious, small-sized fruit almost continuously.

I should have runners to spare in 12 months time.

Recently I read a book "Potatoes and People" by Bertha S. Dodge. It has a number of chapters on the history of potato including information that the South Americans used to grow their potatoes each season from seed.

It so happens that I have a patch of pink eye potatoes and they have flowered profligately. Currently the plants are producing large bunches of "tomatoes".

Anyone interested in growing potatoes from seed? We might come up a new magic variety.

That's all for now. Come and see me if you have any ideas on seed exchange, seed saving or any seed to donate. You can contact me at the next monthly meeting or by phone (048-471173 evenings or 06-2497406 any time, answering machine).

EM--Effective Micro-organisms.

By Betty Cornhill

One of the most exciting things I learnt about at the IFOAM Conference was Effective Micro-organisms.

After the conference was over, I was sitting chatting with Dr Ana Primavesi, and said to her that I was sorry I had not been able to get to hear her paper, and asked her to tell me what it was about. I had met Ana on the tour, and knew from that that she was very knowledgeable about soils. Later I discovered that she is Professor of Soil Management and Plant Nutrition, Itai, Sao Paulo, Brazil.

Ana explained that she sprayed Effective Micro-Organisms on the soil a few weeks before planting. This makes the weeds germinate and grow very fast. The soil is then cultivated to kill the weeds. Carrot seeds are then planted into a clean seedbed.

Before writing any more about this and other uses of EM, I have to do more reading and research on the subject, but I would be pleased to hear from anyone (CSIRO?) who knows anything about EM. Please phone me on (06) 249 8323.

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Insights On A Field In Cambridgeshire

Prose by Stewart Ross, Pialligo

A bronze tunic button, washed clear of that winter's clay, begged retrieving, lying there, amid the long fallowed sods of an East Anglian potato field and among the field's detritus—this shard, this remnant of man's folly summoned attention. It had survived being hurled by the blast of grape shot or musket ball from the dear breast of some farmer/warrior in some engagement of the protagonists of right or wrong during the Cromwellian/Royal struggles of the English revolution. It had overcome the share, harrow and hoes of countless tillage and crops and now quietly, insistently sought attention. From a cottage at the field's edge, bound to its pastoral green and sheltered by a coppice of yew the refrain of Briton's Lark Ascending in ultimate tumescence summoned down a chorus of air-fishing larks to witness again what, over that field in times past, other larks had seen—the burial of that breast from which this button came.

Brave, good and a comely people had patiently long tilled these lands, these chalky marls, they had toiled to bring to fruition these sadly fertile fields so long ago made rich by the senselessly slain youth of another era. The growing grounds of Anglia, like that of the Somme, till now repaid their heavy toll in prideful descent rural labour and sweet and nourishing produce, earth apples, sweet beet, brassica, salsify, strawberry to name some and from the coastal littoral kale and samphire and these together with rich sweet lamb made fine feast for fair.

Amid another summer plump heads of corn await the scythe and maybe some strong and supple hands to bind, and maybe too, some strong stalks will feel the gentle dexterous hands of dolly weavers and will hang in bedchambers and hark their magic to the dreams of laughing rural brats. And on some beautiful nights under good stooks of summer hay, meadow sweet, to touch and smell, divine and timelessly demanding love will play out its ageless role in the scheme of things and fine youth will have the freedoms and spirit to know again one of their just birthrights—the one of clear skies and clean earth and no more brass buttons.

And to be no more, cannon fodder.

Nihil est agri cultura melius
Nihil uberius nihil dulcius
Nihil homine libero dignius
Cicero De. officiis

There is nothing better than farming
Nothing more rewarding
Nothing more congenial
Nothing more befitting a free man

COGS NOTICEBOARD

FEBRUARY GENERAL MEETING:

The February General Meeting will be held at Room 4, Griffin Centre Tuesday 28 February, 7:30 pm. Speaker: **Allan Druce**, on "A Farmer Must be a Husband to the Whole Ecology" *Visitors are most welcome.*

MARCH: ANNUAL GENERAL MEETING:

The Annual General Meeting will be held at Room 4, Griffin Centre Tuesday 28 March, 7:30 pm. At this meeting the annual election of the COGS Committee will be held. Speaker: **Jackie French** *Visitors are most welcome.*

APRIL GENERAL MEETING:

The April General Meeting will be held at Room 4, Griffin Centre Tuesday 25 April, 7:30 pm. Speaker: **Dr Kate Short**, on "Pesticides, the Transition to Organic Farming, and the Conversion Factor in Relation to Exports" *Visitors are most welcome.*

MEMBERSHIP FEES UNCHANGED: Membership and joining fees for COGS will remain unchanged for 1995, at \$20 (\$10 concession) and \$5 (\$2.50 concession) respectively.

NEXT COMMITTEE MEETING:

Tuesday 7 March, 7:30 pm, Environment Centre.

VACANCY -- COGS SECRETARY

The position of COGS Secretary is vacant. Members interested in this important job please contact **Michelle Johnson** (ph 231 6219).

SEED EXCHANGE:

If you have an excess of seeds of your favourite non-hybrid vegetables or flowers, please remember the COGS Seed Exchange and bring some along to our Seed Librarians to share with other members.

Anyone willing to help clean seed (and learn how to do it in the process), please contact **Marjatta Asa** (ph 249 7406) or **Barbara Schreiner** (ph 248 8298).

SPEAKERS AVAILABLE: COGS will endeavour to make speakers available to interested groups in the Canberra region. Please contact **Michelle Johnson** (ph 231 6219).

THANKS TO SMITHS ALTERNATIVE BOOKSHOP:

Many thanks to **Smiths Alternative Bookshop** (Alinga St, Civic) for their generous donations of prizes for our book raffles. Proceeds go toward purchasing books for the COGS Library. We ask members to show their appreciation by supporting Smiths Books.

JOYCE WILKIE'S RADIO PROGRAM:

Don't forget Joyce's regular session with Elaine Harris on radio 2CN, the first Friday of every month, 1:30 pm to 1:50 pm.

COGS MULCHERS:

The two COGS mulchers are available for use by COGS members. Enquiries to: **John Ross** (Northside, including Queanbeyan & Bungendore) ph 241 4063, and **Richard Blyton** (Southside) ph 231 6219.

NATURAL HEALTH SOCIETY: First meeting of the year will be held at the Canberra Seniors' Club, 10 Watson St Turner, on Tuesday 21 February at 7:00 pm. Speaker: **John Hyslop**, on "Antarctic Living". Cost: Members \$4, Visitors \$5 (includes meal). *All members and visitors welcome.*

RSPCA FETE: Have an enjoyable day at this fete in the grounds of Government House from 10 am to 3 pm on Saturday 4th March, 1995. There will be many stalls, including a white elephant stall and also an excellent plant stall. Have fun and support this very worthwhile organisation at the same time!