Summer

Canberra Organic Growers Society
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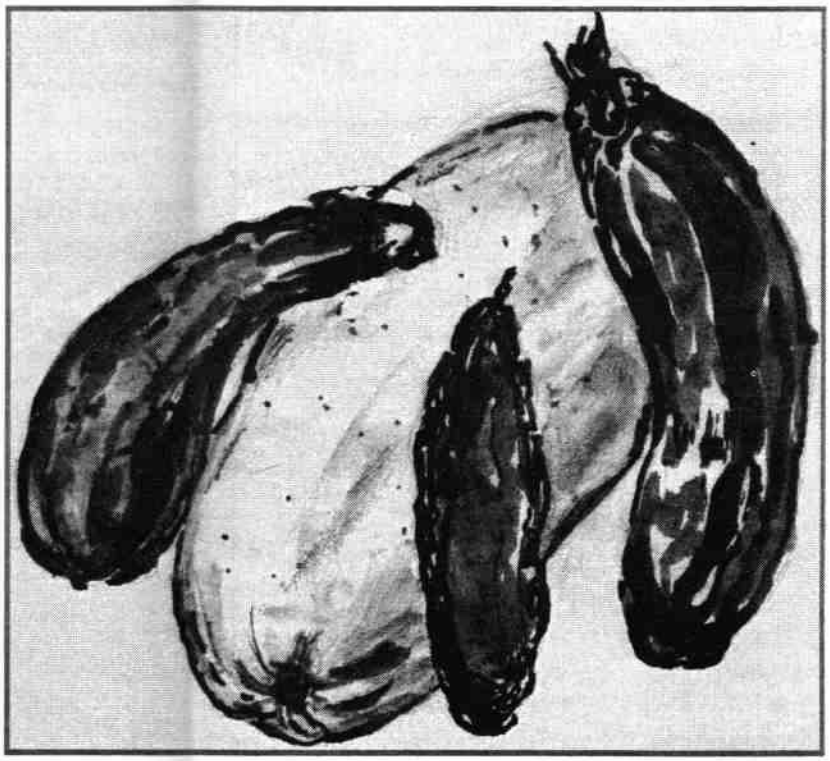
Canberra Organic

ORGANIC GROWING IN THE CANBERRA REGION

Quarterly publication of the Canberra Organic Growers Society Inc.

Inside! SLUG & SNAIL FAQ


Telegraph Cucumber



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EDITORIAL WORKING GROUP

Editor:
Margaret Allen

Production:
John Allen
Software: Microsoft WORD 97™
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Illustrations:
Joan Buckie
www.frog.simplenet.com/froggy/ www.barrysclipart.com/
www.greenpeace.org/~sweden/genteknik/genvagen/tomindex.html

Advertising:
Contact Jennifer Allen
Ph: 6278 4964 Email: jenatoz@telstra.easymail.com.au

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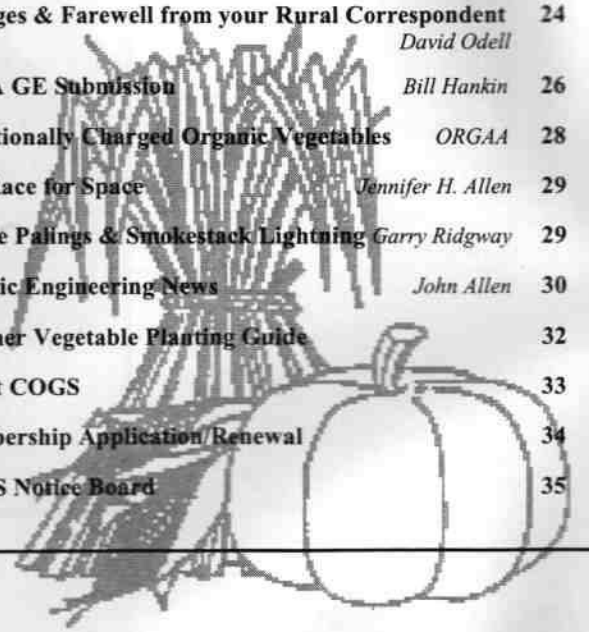

CANBERRA ORGANIC GROWERS SOCIETY INC.
PO BOX 347 DICKSON ACT 2602
E-mail: cogs@netspeed.com.au

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Membership Secretary	Jenny Waygood	6294 4221	
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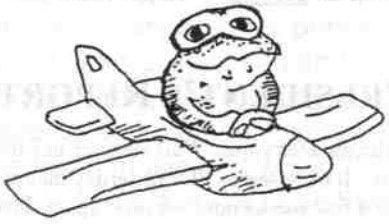

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cogs@netspeed.com.au	E-mail Coordinator: Gerard De Ruyter	

REMINDER

There will be no November meeting. An organic sausage sizzle for members will be held on Sunday 28 November at the Xeriscape garden - see Notice Board at the back of this publication

From The Editor

Hello readers.

We were sad to learn of the passing of long-time COGS member Mary George. David Odell has written a tribute to Mary in this edition.

This is the last edition which John & I will produce. We have enjoyed producing the magazine and hope that readers have enjoyed it and improved their knowledge about organics. We will continue to assist the new editor as much as we can from afar.

Jennifer Allen (Jennifer is no relation to us) has taken over the job, assisted by Nina Stahl. John & I wish them well and hope that you will support them as you have supported us in the production of local articles.

By the time you read this, John and I will already have left Canberra! We are living in temporary accommodation until our new house is finished on our 5-acre block at Malua Bay. We will then become full time organic growers. We have enjoyed being a part of COGS and will continue our membership. John will continue to dispatch the Flier by email from our new location for a while. We will miss all the friends we have made in COGS.

Thanks to David for his rural articles over the years - we shall miss them. Good luck with Rockyglen.

This edition features part one of the Slug & Snail FAQ (frequently asked questions), where there is a method for slug & snail control for everyone! Happy reading.

Margaret

President's Report

Welcome everyone. Well summer has finally arrived - I just don't know where the year has gone. It only seems like yesterday that we where sitting down to Christmas lunch and now it is only a few weeks until we do it again. The kids are already talking about holidays and asking what I have planned for them.

What a busy spring it has been around our house. With no community garden this growing season I have had to prepare more growing space at home. The Theodore Community Garden has now closed - for years, a small group of us have struggled, with people destroying produce and vandalising our garden shed. The final straw occurred recently when a small group of kids totally ransacked the garden and pulled the taps out of the ground. The police seem to be powerless to do anything as they don't have either the time or resources for such "minor" crimes.

At COGS BACKYARD we have had a very busy spring. The open days held on Saturday the 31st of July and Sunday the 1st of August bought about seven hundred people to the garden.

One person said that it was unusual to receive such useful information all in one place. On September 18th and 19th we provided weekend talks at the garden and I'm pleased to say that quite a number of interested people turned up. Some of them I recognised from having attended other talks which we have given at the garden. These people had come back to obtain more information and talk about what they were doing in their own gardens. Thank you to all the members who came along and lent a hand. I hope you got as much out of these talks as I did.

The winds of change have blown over COGS - as most of you know Margaret and John Allen have departed to settle on their few acres. Besides packing up house, they have also been finding COGS members to do their many and varied positions and tasks. They have contributed so much to our organisation. My many thanks for their support and we all wish them the best in their new endeavour.

I would also like to take the opportunity personally to thank those members who have volunteered to take on the positions vacated by John & Margaret.

It was very sad to be informed of the passing of Mary George. Mary was the supper convenor for many years and a regular at our monthly meetings. Her happy, helpful presence will be sadly missed.

I hope see you at the November barbecue. I trust that your gardens produce well for you this summer.
Have a wonderful Christmas and a Happy New Year.

S R Sutton

Steve Sutton

MARY ANITA GEORGE - A TRIBUTE

David Odell

The sudden passing of Mary George on 21 August came as a great shock to all who knew her. She was well known to COGS members for her passionate beliefs encompassing organic foods, the propagation and planting of native species and, of course, her contributions towards COGS activities especially the suppers.

Mary loved the gift of Nature, she learned its interdependence which resulted in its abundance of flowers, trees, insects and birds. Her joy was to witness the nesting of wrens, silvereyes and 'her' owl in her beloved garden at Binalong which she had created for them. This was not the first garden created by Mary - she also lovingly grew beautiful native gardens in Pearl Beach and Laurel Hill and was also instrumental in plantings at Rockyglen. These are known as 'Mary trees' - and are a reminder that wherever she went she always left a place better than she found it.

Mary cared deeply about the environment. One instance, which gave her particular satisfaction, was a campaign against the Gosford Shire Council determined to build a caravan park at Pearl Beach. It was chiefly due to her efforts that instead of a caravan park there is now established the Crommelin Arboretum - seven acres of native trees from all over Australia for all to admire. Her efforts never stopped with one project. Just recently she had applied for a Land Care grant for a project she had in mind at Binalong. In fact, the day before she died she had sent a further donation to the Australian Bush Heritage Fund which she staunchly supported. It gave her great delight to read in their newsletter of the acquisitions and bequests of private land to preserve unique areas of Australian flora and fauna and have them looked after by people who shared her passion. Just as passionate was her opposition to genetically modified foods.

Mary wasn't just interested in gardening - she was a very creative person as she liked to sew, knit and crochet, draw, and lovingly research and plan her gardens. She loved music and would often 'take in' a show. She loved reading, keeping up with correspondence and 'doing' crosswords. My memory is of her afternoon teas - almost ceremonial with the clean white cloth, the pot, and the special cake or Neemish tarts - so thoughtful of others.

Mary was not a rich person in the worldly, material, sense - she called gardening 'food for the soul' and lived her life by Christian principles - but she has left a huge legacy of trees and plants from the Central Coast to the Southern Highlands for future generations to enjoy. We can preserve her memory by planting 'Mary' trees.

Mary Anita George
Born 9 November 1943, Hobart, Tasmania
Died 21 August 1999, Binalong, NSW.

Backyard Bushfoods

From the editor of Australian Bushfoods Magazine - Sammy Ringer
This is a 4-part series on bush foods to appear in the Canberra Organic ... Ed

Part 3: Local - Wild - and Edible

I have become a purist. If it's not edible and it's not native, take it out. Rows of recently planted exotics bring out the latent 'chainsaw evangelist' in me and I have seriously considered making up little signs to hang on these EPs (exotic plants) - 'Wot's this doing here???"

On my own block, I have further reason to cull out the thoughtlessly planted foreigners - I need every square meter for bushfood species.

With our climate and soil here on the range, we're able to grow nearly all of the subtropical rainforest species and many of the tropical as well, but for now, I'll look at the local species only. I'll begin with the smaller plants and build up to such giants as the bunya and blue quandong.

I have an enduring passion for the delicate Midyim (Austromyrtus dulcis). This prostrate shrub or tall ground cover will grow to around 500mm high and a meter or more across. Its drooping habit makes it ideal for banks or along a raised wall and the coppery sheen of its leaves places it in the feature plant category. Best of all, the berries are one of the nicest 'bush snacks' to be found. This is an unusual looking fruit, being light grey with purple specks. When ripe, it is soft, with a creamy translucent flesh. The taste is a cross between apple, cinnamon and apricot, with a touch of pine. The seeds are very small and (having eaten literally thousands of them) I presume they're edible. In the warmth and sandy soils of Fraser Island, the berries can grow to close to cherry size but in the hinterland, they're more likely to stay pea-sized. Given a good location, the plants can bear in the second year and certainly by the third.

For good fruiting, they prefer a very sunny location and a light soil. I believe that the addition of a little lime (I actually use chicken grit) is beneficial. I didn't water mine once they were established and the plants with adequate moisture have done best. Those in drier spots have seemed quite happy but slower to fruit. Certainly, plants located in heavier soils have struggled.

Most of the established plants are heavy bearers - or perhaps I should say prolific bearers as you'd be lucky to get a kilo of fruit from even the best performing plant.

On the down-side - harvesting is a pain.

Once ripe, the berries will fall at the slightest touch. Once fallen, you've got a task to retrieve them.

I experimented with a cardboard 'skirt' which I pushed under the bush - it didn't work. I then tried a circular net in a wire frame but found that the maneuvering to get it in place made it impractical.

I am now trying out a number of different collars on young plants to encourage them to grow up off the ground. This has been reasonably successful but I am yet to find the ideal material for the collar, which has to be enlarged as the plant grows.

Midyim berries can be eaten fresh (but they deteriorate quite quickly after harvesting), dried (they look like small dark currents and taste less "appley" than the fresh fruit), or processed (to date, my only processing has been to preserve them in syrup - the taste's nice but they don't maintain their shape too well!).

I'm sure the Midyim berry is also good tucker for some of our native fauna, though to be honest I've seen neither bird nor four-footed friends dining on them. Perhaps some reader might know of some native which shares my delight in this local, wild fruit.

In the next article, I'll look at our native pepper.

Happy growing.

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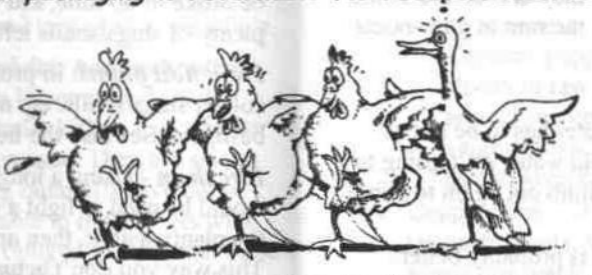

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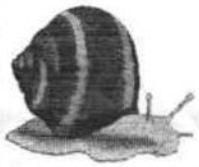

SLUG & SNAIL FAQ

Margaret Van Emmerik - www.powerup.com.au/~swimskins/slug_snail_FAQ.html

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PART 1

Slugs & snails are my bug-bear, and this must be true for many gardeners. Here is a compilation of slug & snail gardening experiences by a wide variety of people. There must be a method here to suit every garden and gardener! The article will appear in two parts - part two will appear in the Autumn 2000 edition ..Ed.

GENERAL

Slugs and snails are molluscs of the class Gastropoda which literally means "stomach foot". Gastropods form the second largest class in the animal kingdom, the largest being insects. Most terrestrial snails and slugs belong to the subclass Pulmonata, order Stylommatophora.

They are almost always hermaphroditic (containing both male and female reproductive organs). This allows them to mate with any mature animal of the same species. Some Pulmonata have the ability to self-fertilise.

In lieu of a shell, slugs have an internal horny plate overlying the respiratory cavity.

There is a school of thought that says that if there is a plague of a particular pest, it probably indicates that something is out of balance, ie. natural predators aren't doing their job for one reason or another. In conjunction with the vast number of suggestions that follow, I would suggest that perhaps this aspect of the problem also be considered. By bringing things back into balance, the problems associated with a plague may disappear. Some species of slug/snail may be indigenous to your area and therefore part of the ecology of the garden and should not be harmed.

COLLECTION

Feedback suggests that the most often used and most reliable method of reducing slug and snail populations is collection (and persistence!). Most recommend torch/flash light search and destroy missions whilst they are out and about, or enticement of the little creatures to rest peacefully under something whereupon they can be collected with ease during daylight hours. Another alternative is to seek out the nesting spots during the day. Methods used include:

Spot'n'squash - Either leave where they are, or add to the compost etc. One writer goes out in the rain in gum-boots and stomps on all she sees.

Spot'n'collect - into:

- a bucket of hot water. The water has to be hot as putting them into ordinary cold water isn't going to drown them. They will just climb out again to slime another day.
- a bucket of soapy water. Hot is probably better.
- a bucket/container and add salt liberally. The salt dehydrates them. Be careful not to get the salt on your soil though. A variation is to go on patrol with the salt shaker.
- a large plastic bag. Securely tie the bag shut and pop it into the freezer for several hours. Then throw the lot out with the garbage/trash or add the contents of the bag to the compost. One reader uses a large zip-lock bag for the purpose. It's up to you.
- a large container with firm lid (and holes) and donate to a nature park to feed their wildlife. Make sure they are still alive and fresh.
- a bucket containing fertiliser or wood ash making sure they get a good coating of wood ash or fertiliser. Dump slugs/snails into the compost the following day.
- a nicely cooking compost - at least 10 cm or so down (put them in alive).
- onto the footpath or road where the birds will come and clean up

Spot'n'slice - use slender nosed sharp scissors or a very sharp knife. Leave in situ for birds, ants, other slugs etc.

Elimination of possible hiding places - such as propping up big floppy leaves and cleaning up dead leaves etc. to reduce hiding spots. A good autumn/fall clean up and removal of frost bitten leaves is recommended.

Creation of possible hiding places: Strategically place upturned pots around garden, propped up by a small stone or stick. Upturn regularly, harvest slugs and snails and replace pots for the next haul.

Baiting them with a daytime resting place: Water in the late afternoon, place down some cardboard, plank or similar AWAY from your favourite plants. Collect during the day while they are sheltering. They will also take up residence on the underside of a tarp, plastic bags or similar placed out on the ground. Simply pluck off and dispose of them.

Pay the kids to collect them for you: Use a sliding scale of "x" amount per thousand, then as slug/snail numbers become fewer, "x" amount per 500, etc. In making such a deal, one must ensure that the entire garden is not annihilated in the process and suitable penalties should be applicable for unnecessary damage. Just be a bit careful of what value you assign to "x" otherwise your wallet may suffer. Don't fall into the old trick of 1 cent or 5 cents per slug/snail. You will be broke in no time, kid will be rich and you'll still have plenty of slugs/snails left over.

Plant host plants: In problem areas, monitor regularly and collect slugs/snails. eg. marigolds, dill, chamomile, regular basil, etc. See also the item on slug and snail resistant plants.

Fire them - Using a long disposable butane lighter, such as would be used to light a gas grill, knock them down out of the plants with it, then apply sufficient flame to sizzle them. This way you don't actually have to touch them. (Beware of fire hazards though! Don't use in bushfire/forest fire prone areas or if you're having a really dry spell.)

If you really can't touch them: Consider using rubber gloves, tweezers, chop sticks, tongs pointed stick or a hat-pin... Maybe slip a sandwich bag over your hand, and collect them up into a container where you might use some of the previous methods alluded to above, eg salt, wood-ash, soapy water etc.

Seek out the egg clusters and destroy: Check soil which is continually moist. A good spot is often at the base of plants. The egg clusters will be about 3-8 cm down.

PREDATORS

Ducks! (and other poultry to some degree, but ducks come highly recommended.): Khaki Campbells and Indian Runners are reputed to be the best at slug/snail catching but any ducks will do.

A famous Mollison saying is, "You don't have a snail problem, you have a duck deficiency". A variation on this is "There is no such thing as a surfeit of slugs, merely a dearth of ducks".

Poultry will also dig sufficiently to eliminate slug/snail eggs.

Small reptiles such as turtle), lizards (eg blue tongue), some snakes.

Amphibia: Frogs, toads (NOT cane toads), salamanders all love slugs and snails. Consider installing a pond.

Toad motels - the contributor used clay pots and broke them in such a way as to create a door. He/she then upturned the pots and set them out for the toads.

Birds: Consider installing a bird-bath to attract the birds into the garden. Planting of native species of flowering shrub also seems to be a sure way to get birds to arrive although nectar eaters may not be tempted by fat juicy slugs etc.

Beetles/insects: The larvae of some ground beetles eat slugs. They are easy to encourage. Maintain permanent pathways of sod, stone or planks and permanent planting of perennials here and there to provide refuge. A healthy amount of organic matter in the soil also helps increase their number. Centipedes will also eat slug eggs. The contributor also suggested digging a deep patch of garden with vertical sides so that ground beetles fall in and can't get out so they have to stay and eat the snails. If you install beer traps at ground level, you will also catch beetles so just raise the sides of the trap about 2 cm above the ground. The slugs will still find it but the beetles won't fall in any more.

Humans: Collect snails and have them identified. If suitable for escargot, feed on lettuce or bran (or even selected herbs) for a week or two, then cook according to favourite recipe and eat! It is also possible that some kinds of slug are edible.

Beneficial nematodes (Phasmarhabditis hermaphrodita): apparently, parasitise slugs and to a lesser extend snails, laying their eggs in the host, eventually killing it in time for the life cycle of the nematode to continue. They are said to last about 6 weeks. Quoted as being quite effective but at that time were only currently available in the UK. As with all biological control agents, I feel obliged to warn that these should NOT be used unless cleared by the relevant authority in your region/country.

BARRIERS

When snails and slugs travel they lay down a layer of slime which protects their foot and enables them to pass over all manner of things in their paths, including things like razor blade edges. Then how would a barrier such as sawdust or similar work? It is said that the loose particles in the barrier create a situation where the slug/snail loses its 'surefootedness' causing the slime track to lift up as it goes making travel somewhat difficult. It then heads for firmer pastures. Of course some of these substances have other effects too such as drying the slug/snail out. Barriers include:

- Crushed egg-shells. Keep in the refrigerator a day or so before using. They crumble better. Then place around plant/s to be protected. Another way is to microwave them a few seconds before storing - put them in a plastic bag and roll them.
- Wood ash absorbs moisture form their bodies. May also vary pH levels of the soil though. Very alkaline. Soot has also been suggested. A way of applying the wood ash is to use an old coffee-can sieve, ie. Coffee-can with multiple holes bored through the bottom.
- Bottoms of soft drink/soda/pop bottles placed over the plant will exclude slugs and snails. Watch it doesn't cook the plant though.
- Rings of PVC drain pipe (about 10 cm wide) cut into 5 cm lengths placed over plant and pushed lightly into dirt. Remove once the plant is strong enough to withstand attack and reuse year after year. A variation if you don't have PVC drain pipe try cutting 5 cm rings from the body of a soft drink bottle. Feedback suggests that this method has met with varying degrees of success/failure...
- Human hair adheres to their bodies. Cruel but works.
- Sprinkle the following substances either individually or in combination in a wide band of say 10 cm around the plant or around the circumference of the bed to be protected. It will be necessary to pick out slugs and snails and their eggs from the bed to be protected otherwise it won't be of much use:
  - coarse sand
  - sawdust - any will do but cedar was recommended for some reason, probably the smell.
  - bran, and possibly wheat germ. A contributor advised that red flaky wheat bran applied liberally as a barrier was very effective and quite cheap. It should be available at feed/produce stores.
  - garden lime - watch pH of soil here as lime is used to sweeten or increase pH. If you already have alkaline soils, adding lime to it isn't a good idea.
  - Cayenne pepper, ground ginger, ground chilli, slivers of raw garlic. Any of these sprinkled around susceptible plants are said to repel slugs/snails. Cayenne pepper (at least) is also is said to keep dogs and cats at bay.
- Copper strips, 10 cm wide. Place rings around favourite plants. Very expensive and only feasible for a very few plants. Slugs/snails supposedly get an electric shock when their 'foot' touches the metal and they can't cross the barriers. I have also been advised

Continued on next page .....

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that the copper is actually poisonous to the slug/snail. (I don't know which is actually correct.) Copper wire - strip electrical wire of its insulation or use plumbers' tape, looping the wire around the plants. A contributor suggested gluing copper coins, 1 cent pieces/'pennies', to the tops of pots as a deterrent.

- Another contributor advised that the copper stripping only lasted for about 9 months or so before becoming ineffective. I had an idea which might save your investment: Clean it by rubbing it with a paste of salt and vinegar. Rinse with clear water and dry. It should have regained the 'pink' look of new copper. It will tarnish again in time, so repeat the process.
- Aluminium foil wrapped around the stems of the plants you wish to protect.
- Diatomaceous earth (DE) sprinkled at least once a month, more if it rains. Have read where the sharp crystals cut the slug/snail's 'foot' and it therefore dies of its injuries. More likely that, like any of the other powders, its 'foot' gets all tied up in the loose surface and can't travel, together with the possible side effects of a chemical reaction between snail/slug and substance which might make the little animal awfully sick/dead/dried out.
- Sand paper cut into circles, cut a slit to the centre and another little circle at the centre to accommodate the plant stem. Place around plant, rough side up.
- Rope. Lay a thick hairy rope, presumably jute, around the perimeter of the area to be protected. Is said to work after picking out all the slugs/snails within the area.
- A band of Perlite sprinkled around plants is said to be effective.
- Rock dust. Encircle plants with liberal quantity. Plants will benefit as well from any trace elements in the rock dust.
- Granite grit used for pigeons doesn't break down and is said to be reasonably effective. Replace after a year or so.
- Crushed oyster shells are also said to be effective. Apparently these are sold as a poultry feed supplement.
- Pea gravel (1.5 cm) used as a mulch and/or placed around individual plants.
- Strips of aluminium fly wire/window screening made into a circle with sharp edges turned up. Place around susceptible plants.
- Boards angled up away from the garden bed at 45 degrees and propped up on stakes. Watch the corners. It may be necessary to cut the corners so they fit well enough together to exclude slugs/snails or find some other means of plugging up the corners.
- Coffee grounds or tea leaves placed around the plants most susceptible to attack seems to work. It is said that they don't like the caffeine.
- Inclusion of seaweed in the compost is said by one contributor to have been effective in that he says he has not had a problem with slugs since its inclusion.
- Where and if practical, using hanging baskets for non-resistant plants.
- Use of eucalypt mulch is reportedly effective but not scientifically tested. The type of eucalypt was not mentioned.
- Rosemary cuttings placed around vulnerable plants.
- Slug/snail resistant plants. Try surrounding the garden with plants that they don't like.

LIKES/NOT RESISTANT		DISLIKES/RESISTANT	
ORNAMENTALS	**HERBS**	**ORNAMENTALS**	**HERBS**
Agapanthas	Basil, regular	Ajuga	Corn salad (Valarianella locusta)
Annual Salvia	Chamomile	Bearded Iris - marginal	Ginger
Calla Lilly	Dill	Bergenia	Lemon basil - marginal
Carnations		Camelia	Monardo (Bergamot)
Clematis	**OTHER**	Columbine	Nasturtiums
Cleome	Pine needle and pine bark mulch	Crocosmia (Lucifer)	Oregano
Dahlia		Geraniums	Pulmonaria (Lungwort)
Gerbera		Gladioli	Rosemary
Hibiscus		Hydrangea	Sage (most kinds)
Hostas		Iceplant - not eaten but a favourite hiding place	Thyme
Marigold		Impatiens	Wormwood
Melampodium		Jacob's Ladder	Mullein (Verbascum Thaspus)
Purple Coneflower		Liatris (Kansas Gay Feather)	Yarrow
Petunias			**VEGETABLES**
Phlox			Artichoke, both globe and Jerusalem
Ranunculus			Chilli, Corn, Cucumber, Leeks, Onions,
Snapdragon			Soy beans, Squash, Tomatoes
Zinnia			

Some of the feedback I am receiving indicates that cucumbers, squash and onions also seem to be being eaten quite happily by slugs. I guess it depends on the type slug and location etc. I knew that people would have differing experiences. Therefore, the above lists can only be considered as a rough, perhaps very rough guide.

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MICROBE HUNGRY FOR PESTICIDE

Acres Australia Vol 7 No. 7

A native Australian microbe that eats pesticide for breakfast offers new hope for a way to clean up contaminated soil and water.

The microbe was identified from a polluted site in Perth by University of WA researcher Amanda Tilbury, working with microbiologist Dr Peter Franzmann of CSIRO Land and Water.

The microbe, a new strain of the well known soil organism Pseudomonas, is equipped to degrade the world's most widely-used herbicide, Atrazine, Ms Tilbury said.

More than 300 tonnes of Atrazine are sprayed on broadleaf and grassy weeds on farms and in cities across Australia. It is highly persistent and can hang around in the soil or water for years afterwards. Although listed as a possible human carcinogen, the big problem with Atrazine is that it is highly toxic to water life. It has been implicated in a number of fish kills. "It can also get into groundwater, and in some parts of the country groundwater is used for drinking - so we wanted to find a way of purifying the water while it was still underground," Ms Tilbury said.

Examining soil from a site contaminated with Atrazine in the Perth metropolitan area, she found at least 40 different kinds of bacteria. From these she selected four which appeared to have the ability to di-gest and neutralise the pollution. But the standout strain, Pseudomonas AT2 (initialled after Amanda Tilbury), had the three vital genes that enable it to chomp through the Atrazine in a matter of hours.

"Normally the Atrazine would have a half life in the groundwater as long as eight years. In the laboratory, we reduced this to just five hours using AT2.

"We hope to be able to spray or inject AT2 into any big spill or contamination by Atazine and so render it harmless. It may also be used to clean a farmer's soil so the Atrazine residue has no effect on the next crop sown in the paddock"

RECOGNITION AND MANAGEMENT OF PESTICIDE POISONINGS

J. Rout Reigart, M.D., James R. Roberts M.D. M.P.H.

The Office of Pesticide Programs of the United States Environmental Protection Agency has sponsored the series since 1973. The purpose of the manual is to provide health professionals with recently available information on the health hazards of pesticides currently in use, and current consensus recommendations for management of poisonings and injuries caused by them. The 1999 edition is now available on the Internet at: www.epa.gov/pesticides/safety/healthcare/handbook/handbook.htm

Pesticide poisoning is a commonly under-diagnosed illness today. Despite recommendations by the American Institute of Medicine and others urging the integration of environmental medicine into medical education, health care providers generally receive a very limited amount of training in occupational and environmental health, and in pesticide-related illnesses, in particular. The updating of this manual is part of a larger initiative of the U.S. Environmental Protection Agency, in conjunction with numerous federal agencies, associations of health professionals, and related organisations to help health care providers become better aware, educated, and trained in the area of pesticide related health concerns.

This is a useful reference for people who suspect that they might be suffering from pesticide-related illness.

BLOOD STUDIED AFTER EATING MICROWAVED FOOD

Living Soil Number 6 Dec/Jan 1998/9

The following is taken with permission from Raum & Zeit Magazine, P.O. Box 1508 Vernon, WA 98273. The authors are Bernard H. Blanc, Swiss Federal Institute of Technology and University Institute for Biochemistry and Hans Hertel, Environmental Biological Research Consultation.

Since prior to W.W.II (1939-45) it has been known that microwaves are hazardous to biological systems. Therefore, threshold tolerances are in use, which may differ from country to country according to differing views and technical needs. Thus, threshold tolerances also exist for microwave ovens with the intention to limit the risk of exposure to leaking radiation. Microwave ovens have been used for decades. Their number is still expanding. In spite of these facts, the indirect effects of technical microwaves via irradiated food on the human body have hardly ever been discussed.

This study shall serve to clarify such indirect effects. Eight test persons - all on a macrobiotic diet - volunteered for this study. They committed themselves to a very strict regimen. At intervals of two to five days they received one of the food variants on an empty stomach.

These food variants were: raw milk from a bio farm. (No.l), the same milk cooked conventionally (No.2), pasteurised milk (No.3), the same raw milk cooked in a microwave (No.4), raw vegetables from a bio-farm (No. 5), the same vegetables conventionally cooked (No.6), the same vegetables frozen and defrosted in a microwave oven.

Immediately before, and at defined intervals after the intake of food, blood samples were taken from test persons and analysed for certain parameters. All food which was heated, defrosted or cooked in the microwave oven caused significant changes in the blood of the test persons. These changes included: decrease of all haemoglobin values, especially the HDL and LDL. Lymphocytes showed a more distinct short-term decrease after the intake of food from the microwave oven than after all the other variants.

There was a highly significant association between the amount of microwave energy in irradiated food and luminous power of luminescent bacteria exposed to serum from test persons who ate the food. This leads to the conclusion that the technical energies, such as microwave energy may indeed be passed to man inductively via irradiated food. This process is based on physical principles and has already been confirmed in the literature.

The measured effects of microwave irradiated food on man - as opposed to non-irradiated food - show changes in the blood of test persons indicative of an early pathogenic process, similar to cancer.

Taking all results into account, it can be seen that food prepared in the microwave oven - in contrast to all the other variants - causes abnormal changes in the blood of test persons, indicating disorder. These early and subtle changes, which can also be found in a cancerous process, deserve attention. The results correspond to the chemical physiological changes as well as damage to living cells caused by direct irradiation of microwaves.

The quality of food from the microwave oven has not been questioned officially as yet. It is assumed that food from the microwave oven is not better or worse than food cooked conventionally. The influence of food, defrosted or cooked in the microwave oven, on the state of man has still not been scientifically studied and clarified. Considering the current worldwide use of microwave ovens it becomes necessary to scientifically answer whether this food is hazardous or not hazardous to human life.

There is extensive scientific literature concerning the hazardous effect of direct microwave radiation on living systems. The literature is of such informative value that it is astonishing to realise how little effort has been taken to replace this detrimental technique of microwaves by a technology more in accordance with nature.

The destructive effects of microwaves include damaging cell membranes, enforced anaerobic breathing, disturbed cell division, hermolysis, leukemia, genetic defects and even full inactivation of the natural cycles. An impaired cell becomes easy prey for viruses and mycetes (fungi). As a result of prolonged stress influence, such as with microwaves, there is suppression of the natural cellular repair mechanism and the cells therefore are forced to adapt a state of energy emergency. In other words, cells switch from aerobic to anaerobic breathing. Instead of H_20 and CO_2 (aerobic breathing) the cell poisons H_2O_2 and CO are produced, exactly like a cancer cell. This is why leak radiation from microwaves is so hazardous.

From "Health & Healing, " May-July,1998.

Information courtesy Health Action Alliance International, PO Box 6385, Coffs Harbour 2450. Phone: (02) 6651 3410.

COGS SUPPER CAKE

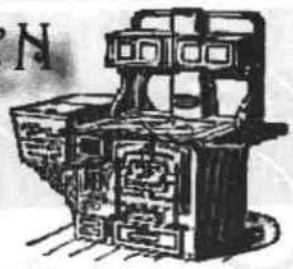
1 cup wholemeal S/R flour
½ cup sugar
1 cup coconut
1 cup sultanas
1 cup milk

Mix together. Top with brown sugar, cinnamon and sesame seeds. Bake in shallow tin at moderate temperature until done (about ½ hour).

This cake was served at the March 1993 COGS AGM (how's that for a bit of trivia!).

From COGS Quarterly, May 1993

FROM THE GARDEN TO THE POT



By Conrad van Hest

SUMMER SALADS

Warm lettuce salad

This salad goes well with chicken.

4 medium tomatoes cored, skinned and chopped
6 large Cos lettuce leaves chopped
1 medium onion sliced
1 clove garlic crushed
1 long radish sliced
1 tablespoon olive oil
season to taste

In pan heat oil add onion and garlic cook till onion is soft. Add tomatoes and radishes cook till soft and 1/4 of liquid has evaporated.
Season and add lettuce heat for one minute, serve immediately.

Freekeh fish salad

1 cup wholegrain freekeh
500g ling fish
4 tamarillos
1 small orange
1 lime juiced

Cook freekeh as per packet, pulp tamarillos and chop roughly, peel and segment orange and grill fish.
In a bowl break up fish add the rest of the ingredients and lime juice toss until mixed.

Raddiccho roll

Serve as an entree or main meal accompaniment.

10 radiccho leaves (red or green)
100g rice cooked
100g chickpeas cooked
100g broad beans cooked
100g sliced olives
2 tablespoon sour cream
2 tablespoon Vietnamese salad dressing (mild)
pinch pepper

In a bowl combine all the ingredients except the radiccho. Lay out the radiccho inside side up, spoon tablespoon of mixture to near one edge, roll up carefully and toothpick to hold. Can be heated in a steamer for 1/2 minute.

Caponata (sweet and sour eggplant salad)*

A picnic basket essential

4 - 5 medium eggplants cubed
3 ribs celery sliced
½ cup olive oil
1 large red onion diced
1 ½ cups tomato puree
¼ cup red wine vinegar
¼ cup water
½ cup green or black pitted olives
2 tablespoon capers (optional)
1 tablespoon sugar
2 teaspoon unsweetened cocoa powder (optional)
4 anchovy fillets (optional)
salt and pepper to taste

Put eggplant in colander, sprinkle with generous amount of salt and weigh down for one hour. Blanch celery in boiling water for four minutes. Rinse the eggplant drain and pat dry. In a large pan heat 1/4 cup oil add the eggplant fry until soft and brown in colour, add the celery and stir fry for minute or two, remove from the pan and reserve.
Add remaining oil into pan add onion cook till soft and lightly coloured. Add tomato puree, stir, cover and cook on low heat for five minutes. Next add vinegar, water, olives, capers, sugar and cocoa mix, add eggplant and celery mix well, simmer for five minutes or until sauce has reduced slightly. The vegetables should retain shape and texture, not mushy.
Add anchovies (optional), taste and season accordingly. To store put into preserving jars or cool and store in the refrigerator. Serve at room temperature.

Warm chicken and mint salad**

This is quick and easy salad to make

400g diced chicken
2 medium red onion sliced
1 green capsicum diced
1 red chilli seeded and diced
1 bunch mint chopped roughly
1 tablespoon light soy sauce
1 tablespoon fish sauce
1 ½ tablespoon lemon juice
¼ teaspoon garlic chopped
½ teaspoon ginger chopped
½ teaspoon palm sugar
¼ - ½ teaspoon chilli flakes

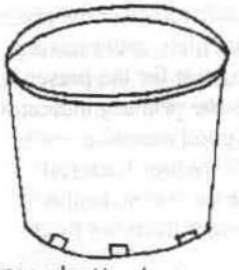
In a pan heat oil add chicken cook till it turned white. In a bowl add chicken, onion, capsicum, chilli and mint leaves. In another bowl whisk soy and fish sauce, lemon juice, garlic, ginger, sugar and chilli flakes.
Pour over chicken and toss lightly.

* (The Good Stuff Cookbook , Helen Witty page 49 - 51)
**(Thai Cooking, Jacki Passmore page 26)

D.I.Y. CHOOK FEEDER

By Morgan Kurrajong

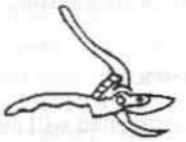
You will need -



Large plastic plant pot

Large plant pot tray

Tray must be wider than the TOP of the plant



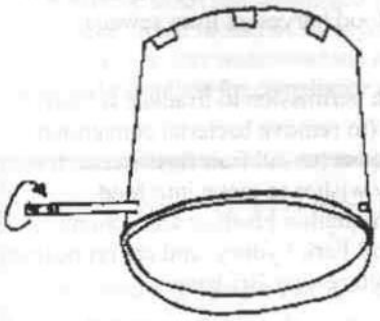
Secateurs

Sharp knife

Some strong wire (eg insulated electrical)

Step 1

Pierce 2 holes on opposite sides a little way up either side of the TOP of the pot.



Step 2

Pierce 2 matching holes on opposite sides of the pot tray.

Step 3

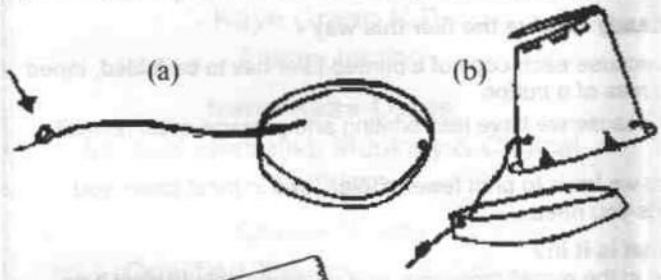
Cut around the bottom of the pot, leaving a tab to keep the bottom connected. This will act as a flap (ie the lid).

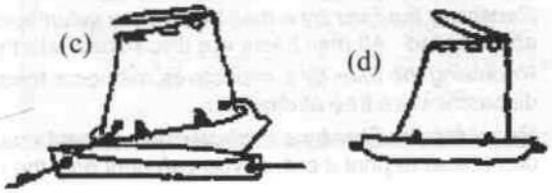
Step 4

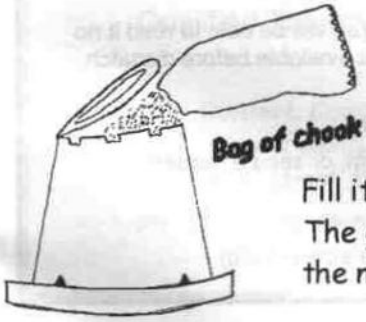
Cut out 3 V-shaped nicks, spaced evenly around the pot (this will let the feed out into the tray)

Step 5

(a) Tie a knot in one end of the wire. Thread the wire through one hole in the tray.
(b) Thread wire through one hole in the plant pot. Pull the wire so that the knot jams against side of the tray.
(c) Thread the wire through the other side of the pot then through the hole in the other side of the tray
(d) Tie a knot in the wire to secure the pot and the tray.







Fill it and feed them!
The grain will spill out through the nics into the tray

Your chooks will love you!

FOOD IRRADIATION

Dick Copeman, Consumer Food Network

The Health Ministers Council meeting on 3rd August 1999 approved a standard for irradiation of food. This standard has now been gazetted as Standard A17. Radiation will be allowed for the purposes of: extending the shelf life of food; destroying bacteriological contamination; or disinfesting food contaminated by pests.

Some foods will be able to be irradiated twice.

Individual foods that are proposed to be irradiated will need to be approved on a case-by-case basis. Each application will be put out for public consultation before being decided on by the Ministers. All irradiated foods on sale will have to be labeled but current requirements for the label print size to be at least 3mm on packaged food and 9mm for unpackaged food will no longer apply. Labels will merely have to be "legible".

There is no mention in the new standard of a previous requirement that there should be effective detection methods to enable Authorities in Australian to establish that a food has been irradiated. This is a critical omission because there are significant public health risks associated with the use of irradiation for the purpose of "destruction of bacterial contamination" on food, particularly if it is not known that the food has been irradiated

Irradiation does not completely destroy all pathogenic bacteria at the permitted doses. It can only reduce, not eliminate, contamination by bacteria such as Salmonella, Staphylococcus, and Listeria, the common causes of food poisoning. It is most effective in reducing the bacteria and moulds that warn consumers, through visual changes and smell, that food is going "off". Remaining pathogenic bacteria will continue to multiply more rapidly in the absence of the other competing bacteria and moulds. Re-growth rates for some bacteria such as Clostridium can be 50 times that prior to irradiation

Public health agencies will not be able to detect the presence of harmful bacteria using the normal plate count testing regime, which is used as a screening test for the presence of possibly pathogenic bacteria and as the primary indicator of wholesomeness and application of good manufacturing practice. Thus irradiation of food (to reduce bacterial contamination) will render obsolete the public health safeguards currently in place to prevent bacterial food poisoning

Irradiation will not remove chemical toxins created by some bacteria such as Staphylococcus in the earlier stages of contamination prior to irradiation. These toxins are, however, much harder to detect in the absence of the bacteria that produced them. Irradiation is also virtually ineffective in removing contamination by viruses such as Hepatitis, which can be a problem in seafood harvested from sewage contaminated water.

The first foods for which permission to irradiate is likely to be sought will be spices (to remove bacterial contamination) and tropical fruits for export (to kill fruit fly). Steritech is the company that apparently wishes to move into food irradiation. They have irradiation plants at Dandenong, Melbourne and Weatherill Park Sydney, and are proposing to build a plant at Caboolture near Brisbane.

COGS FLIER BY E-MAIL

If you are a COGS member and on the Internet then you should consider receiving the COGS Fliers by e-mail.

- One third of our members already receive the flier this way -

- ✓ *Receiving the Flier by e-mail* helps busy volunteers because each copy of a printed Flier has to be folded, taped and labelled. All-mail Fliers are dispatched with the press of a button.
- ✓ *Receiving the Flier by e-mail* saves members funds because we have less printing and postage costs (E-mail dispatches are free of charge).
- ✓ *Receiving the Flier by e-mail* can save paper because we have to print fewer copies, and in most cases you don't need to print it out, or you can print only the parts you need.

What format is it in?

The flier is sent as .doc attachment, and is also in-line text in the e-mail message, so you will be able to read it no matter what system you are using. Files are checked for viruses by the latest software available before dispatch.

How to register

New members - tick the "Send Flier by E-mail " box on the membership application form.

Current members - tick the "Send Flier by E-mail " box on the membership renewal form, or send a request to: cogs@netspeed.com.au

***Canberra Organic* magazine**

At this stage the magazine cannot be provided electronically due to its size (~3 Mb)

SEED AND SEEDLINGS/TRANSPLANTS

Reproduced from NASAA Bulletin 6 No. 3

Current National Standards now require farmers to use seed and seedlings/transplants from organic sources. This requirement is now enforceable and certified growers should be making moves to comply with this standard requirement.

The problem is that it is very difficult, and for some lines near impossible, to obtain either seed or seedlings that are produced organically. Some growers are making the effort to save their own seeds known to be reliable, or are having a go at growing their own seedlings. Results have been mixed and the reality is that at this stage commercial farmers, and the industry, are not yet in the position to be able to comply with this requirement of the National Standards.

So if you are affected, you must provide written records to verify your attempts to find organic seeds or seedlings. Records may be statements or telephone conversations from seed/seedling companies and should include the date and names of those to whom the inquiries were made. It is important that all efforts are made by certified growers to obtain organic seeds and seedlings and such inquiry is fundamental to our industries supplying its own needs in the future. NASAA does understand the issues regarding this ruling and a deadline for compliance will be set in the future.

When negotiating with seed and seedling companies requests you can make are as follows:

- Explain that you are certified grower.
- Request untreated seed.
- Seek seedlings grown without fungicides or other prohibited inputs.
- Note down chemicals used in production.
- Confirm as to whether genetically modified organisms have been used in the plants' development. Ask for written confirmation.
- Determine as to whether it is possible to provide special batches for organic requirements.

The more we badger these important people, the more likely they will be persuaded to grow organic. (Organic seeds and seedlings must be sourced by the 1st April 2005. Producers need to arrange their supplies so they have organic seeds/seedlings from that date.)

COGS members interested in growing from organic stock could also use the above guidelines ... Ed.

VOLUNTEERS NEEDED

Can you help to fold, tape, and label the *Canberra Organic* magazine? It takes about an hour.

We do it at the Environment Centre. It is fun and great opportunity to talk about gardening!

If you can help next session please contact Jennifer Allen on 6278 4964

FOOD PRESERVATION

by The Weimar Institute
Reproduced from Organic Lifestyle, Vol 3 No. 5

No matter where you are, you can prepare food for use in months when it is hard to get, or expensive. This paper has been adapted from a series used for many years in Nutrition classes. Weimar Institute, in the U.S., originally published the series, and made a set of video tapes covering the topics.

FOOD PRESERVATION

Economy

1) Select only high quality foods for bottling or dehydrating
2) Fruits and vegetables should be of optimum maturity
3) Fruits should be firm and without defects to avoid waste and aflatoxins.
4) Use your own, or buy fruits and vegetables on sale in season and bottle or dehydrate for year round savings
5) The most economical form of food preservation is dehydrating. No storage costs are incurred.

Electrical dehydrating units are easy to find. Instead of paying new prices, look in your local paper or Trading Post, where you often see them reasonably priced *(we use NARA, who have a distributor in Canberra ...Ed).*

Nutrition

1) The quality of fresh food such as green vegetables is best retained if processed as soon as possible after picking.
2) Dehydrated food loses less than 4% of its nutrients compared to 80-90% during bottling.
3) Dehydrated fruit makes a concentrate of natural sweeteners.
4) If you grow your own fruit, leave it on the trees until it is thoroughly ripe. Graft or bud different varieties, so that you get early and late crops.

Convenience

1) Home bottled or dehydrated fruits and vegetables keep a variety of nutrient sources conveniently available.
2) Dehydrated food is an excellent emergency food supply.
3) It is the most easily and least expensively stored of the food preservation methods.
4) Dehydrate chopped bell pepper, mushrooms, green onions, chopped parsley etc. for convenience cooking. You can dehydrate a very wide range of foods. Don't be afraid to experiment with any fruit or vegetable. You will be surprised and delighted at just what you can dehydrate.

Remember that dehydrating reduces the volume of the particular food dramatically, but it also concentrates its food value. For instance, if you like garlic, you will find that 20kg of fresh garlic, gives $4^1/_2$kg when dried. Very useful for making salt

BOTTLING

Why bottle?

For taste! There are some fruits and vegetables that seem to have a better flavour when bottled. One example is pears; another is plums.

Tip:

Don't use bruised or damaged fruit. A spoiled spot on the fruit would have permeated the fruit even if you cannot see it.

Bottling without using table sugar (sucrose):

You don't need to use table sugar (sucrose) for successful bottling. In fact sucrose is addictive and harmful, because it is a very concentrated, high-calorie, nutrient-lacking food. Here are two methods of bottling without using it:

1) Try using very fresh fruit, pressing it down until some of the juice "bleeds out", then fill with boiling water. The natural sugars will be sufficient sweetener.
2) Try bottling with fruit juices. Use white grape, pineapple or apple. White grape does not discolour the fruit but can be relatively expensive. Pineapple gives a good colour but changes the flavour somewhat. Apple juice is the least expensive and really does not change the colour very much. Choose your fruit juice according to the area in which you live, and its availability and price.

NEVER use open saucepan to bottle! You lose too many of your nutrients with this method. The best method is the hot water bath.

It is usually not necessary to process fruit as long as most books recommend. Try cutting the time by at least 5 minutes. You will find the flavour much better.

ALWAYS bottle vegetables under pressure, especially the green vegetables. Botulism is a deadly organism that forms easily in green vegetables.

Never use bottled vegetables that are discoloured or have a peculiar odour. Discard at once.

Bottled vegetables should be used within the year. Never keep them longer than two years.

DEHYDRATION

Why use dehydration?

It's easy to do, cost less and loses less nutrients.

An electric dehydrator is the obvious choice in the winter months. On sunny days, you can dehydrate food by putting under old windscreens, or windows.

Dehydrated foods take up one third of the space of bottled or frozen food, so storage is much easier.

Tips

- Bananas should be dipped in pineapple juice for 5 minutes to maintain colour. Slice for chips or split lengthwise into thirds by inserting finger in the end and pushing downward. Dry to the consistency of liquorice.
- Apricots should be split in half and seed removed then dropped into boiling pineapple juice for 1 S minutes. Drain and dehydrate. Apricots are the only fruit that requires boiling pineapple juice.
- Peaches should be blanched in boiling water 2-4 minutes to skin. Slice and dry. Lemon and orange rind can be grated onto fruit leather sheet before serving the fruit. Dry and store in covered jar for convenience.
- If fruit is dried too long and becomes brittle, you can rehydrate it to chewy consistency by spraying a small amount of water into a plastic bag containing fruit.
- Candy replacement -- any combination of fruit can be blended and spread onto fruit leather trays that have been lightly sprayed with Pan preparation. Removing the moisture makes a sweet treat.
- Quick Soup: Dry any leftover vegetables and blend. Store in covered jar. To use, stir two tablespoons into a cup of hot water.
- Zucchini sliced and sprinkled with seasoned salt may be dried and used as chips with dip.
- Parsley, onions, green pepper, garlic, etc., can be dried and blended to make inexpensive seasonings.
- Leftover bread can be cubed & dried. Add seasoning for dressing, or blend into crumbs for seasoned breadcrumbs.
- Zwieback (twice baked bread) is so simple, easy, and never burns. Just dry your thinly sliced bread.
- Flowers may be dried on fruit leather trays for sachet packets. They make lovely and inexpensive gifts when wrapped in an attractive gift-wrap.
- Backpackers love any leftover that can be rehydrated by adding water.
- Leftover vegetables can be dried and added to a bag. Add seasonings and water for soup.

Bushfoods STARTER KIT

Reprinted from Natural Growing Summer 1998/99 No. 117
Compiled by Sammy Ringer of Bushfoods Magazine, Reviewed by Mark Snodgrass

This is a great resource guide and should be looked at by those interested in Bush foods. It is not a book that will make you an instant expert, but without a guide like this it would be harder to successfully enter the industry. The kit comprises a series of individual papers and topics housed in a ring binder so that you can add more information easily. Updates will be available from the publisher. A ring binder folder was used with a view to continually building on the amount of information contained. "An updateable reference guide for bush food growing around the country".

The first part is general information. The second is profile sheets on individual bush food species. The third is a series of appendices loaded with sources of further information. Lastly there are examples of various types of forms that are used in record keeping, in business transactions and experimentation. I will not be reviewing the forms, but they look okay. The kit contains a catalogue of publications that are available from the editors - 'Bush Foods'. There is an industry overview. Some management and analysis techniques are mentioned, but you would need more guidance to implement these procedures. Just a few pages are devoted to SWOT analysis (Strengths, Weaknesses, Opportunities & Threats), DOOR (Do Our Own Research / Marketing), Record keeping and associated issues.

There is a small chapter (3 pages) on Site Selection & Preparation. A detail of this section would give a guide to the amount of information in most of the kit's layout. There is not a lot of detail throughout this section of the kit. The topics covered seem to be very comprehensive, but there is usually just one concise paragraph (or two) and other references on most subheadings. Site Selection & Preparation has subheadings on Weed Control, Ripping & Mounding, Water Supply (source, irrigation & extras), Fencing & Mulches.

The next chapter is on Harvesting & Handling. It talks in general terms of the issues such as timing, transport, cleaning and how to avoid problems. It cannot be, and does not try to be, a complete reference for every situation in the bush foods industry, but as general information it is very good and covers the topic well.

Yes! There is a whole page (no sarcasm intended) on Organic Certification. Again there is information on the What, Why, How and Who of Certification. Details of the four main Certification organisations are given.

The second third of the kit contains plants profile sheets for established Bush food crops. This section is divided as to the part of the plant that is used; Fruit, Seeds & Nuts, Leaf & Bark and Calyxes & Rhizomes are grouped together. These profile sheets give a lot more information on each species than the kit generally does on topics. A lot of the selection and elimination process, for Bush Food Crops, could be done based on the profile sheets in this Starter Kit, but I would definitely recommend that crop selection not be based on this kit alone. This section ends with an appendix list of a lot of other species with bush food potential that are not covered by profile sheets in this kit.

There are appendices on Buyers & Sellers, Magazines & Periodicals, Government Publications, Associations and a list of value-added items and their recommended retail price.

$38.00 including postage and handling available from; Bush Foods, 38 Mountain View Road, Maleny, Queensland, 4552. Phone (07) 5494 3812

MORE FOOD ADDITIVES

Media statement from the Food Intolerance Network of Australia (FINA)

"The use of food additives known to affect health, behaviour and learning is about to be considerably extended with the approval of the Australian New Zealand Food Authority (ANZFA), the body that is meant to protect consumers" claims Sue Dengate, popular author and coordinator for the Food Intolerance Network of Australia (FINA). Over the last year there has been a review of Australian Standards for Food Additives. ANZFA's recent report considerably widens the range of foods which contain additives.

"Of over 300 permitted additives, there are nearly 60 which are known to have effects on people on a daily basis, especially on children. These include some natural and artificial colours, a range of preservatives like benzoates, sorbates and propionates, some anti-oxidants and flavour enhancers. Safe alternatives exist for most of them, either in the form of other additives or improved technology."

"Most people don't realise they are affected by food additives. If you eat them every day, how can you notice the difference? The main effect is a short fuse, like over-reacting when things go wrong, and restlessness, as when children go to bed like jack-in-boxes. Other daily symptoms that can affect the 5-10% of the population who are food intolerant include itchy skin rash, irritable bowel, asthma, tinnitus, 'restless legs', headache, migraine, lethargy, irritability, restlessness, sleep disturbance, anxiety, depression, impairment of memory and concentration, and hyperactivity" warns Sue.

An example is the additive number 282, calcium propionate, which is now used widely as a mould inhibitor in bread. Its known effects on children's learning and behaviour are not obvious because it is eaten every day by nearly everybody. Now, ANZFA is proposing to allow this additive to be used in "the preparation of food additives; cheese and cheese products; fat emulsions (>80% oil); dried fruits and vegetables; fruit and vegetable spreads including jams, chutneys and related products; fruit and vegetable preparations including pulp, fruit and vegetable juices and fruit and vegetable products; water based flavoured drinks; alcoholic beverages (including low and no alcohol); mixed alcoholic drinks; and mixed foods".

"Genetically engineered foods might some day affect people, but these additives are seriously affecting many people now. Tell your Health Minister that you don't want any extension of the use of harmful food additives," urges Sue Dengate.

Further information from Sue Dengate, Food Intolerance Network of Australia. Phone (08) 8981 2099 Email: sdengate@ozemail.com.au Website: www.ozemail.com.au/~sdengate

SEED SAVERS

www.seedsavers.net

Each issue we feature an extract from *The Seed Savers' Handbook* by Michael & Jude Fanton, from the Seed Savers' Network in Byron Bay. This issue looks at cucumber. The handbook can be purchased from COGS for $20 per copy plus $2.50 postage. You can order a copy at the monthly meeting or send an order with cheque to COGS. *.. Ed*

"Without seed savers' networks, seed exchanges and local seed banks, we gardeners would have lost most of the seeds developed by our ancestors. It is a public scandal that these seeds have now been patented or subject to legal controls. It is also scandalous that large multinational corporations have gained control over our main food plants by seed patenting" *Bill Mollison*

CUCUMBER *CUCURBITACEAE*

Cucumis satfvus - cucumis was the name used by the Romans for cucumber and sativus meant "cultivated".

Origins: From northern India, its centre of diversity, the cucumber was transported to China in the 2nd century BC, and also to the Middle East at an early stage. The bible records that the Israelites complained to Moses in the wilderness about the lack of cucumbers; they had become accustomed to them during their stay in Egypt.

The Roman Emperor Tiberius was said to have taken pride in his out-of-season hothouse cucumbers. The Romans were well aware that a rich soil, warmth and moisture are essential to their growth. It was a common practice to grow them in large baskets filled with horse manure and rich soil. Thin sheets of lapius specularis (mica) were placed over the baskets and admitted light nearly as freely as glass would have done. The ancient writer Pliny informs us that cucumbers were grown in mobile boxes that were moved indoors at night in order to keep them warm.

Charlemagne had them in his gardens in the 9th century, but it is said that the British had to wait until the l4th century to have a first taste of them! As a fitting exchange for the botanic wealth of the Americas, it was Columbus who introduced the cucumber to that continent.

Description: Cucumber plants are vines that fruit during the warm time of the year. The little pickling gherkin is more suited to cooler climates than most other cucumbers.

Cultivation: To have an early and large crop, organic market gardeners fill the bottom of large holes with straw and manure then plant the seeds in a layer of topsoil with compost on top. When watering the young plants, avoid wetting the leaves so as not to encourage fungus. For easy harvest, train the vine to climb a trellis. Cutting off the growing tips encourages branching and a better production.

Saving the Seed: A cucumber will not cross with anything else but another cucumber. Half a kilometre separation is needed between different varieties that are flowering at the same time. If you grow more than one, you will have to hand pollinate each variety.

Leave a fruit to fully ripen on the vine. White spine varieties turn pale yellow, green ones turn golden to brown. The size can be astounding: we have had cucumbers kept for seed grow to seventy centimetres long and of considerable weight. Ken Hanna a foundation member from Middle Pocket near Mullumbimby, NSW arrived at Seed Savers with half a ute load of Richmond River cucumbers harvested for seed, some of them whoppers weighing four kilograms.

Gherkins enlarge and become a whitish-green colour. The colouring at maturity is an indicator of trueness-to-type. Hence off colour individual cucumbers can be rogued out at this stage. The mature cucumber can be stored for a while before extracting the seeds. Scoop the pulp and seeds out into a bowl and leave to ferment for a few days so that the jelly around the seeds dissolves. This procedure will also kill off any seed-borne diseases.

Wash well in a sieve under running water. Spread seeds out thinly on wax paper or a sieve to dry for a week to ten days. They will need to be moved about the first day or so, so that they do not stick together when drying.

Storage: The seeds will last four years in the open air if you are in a dry climate and up to ten years in ideal closed storage conditions. There are forty seeds to the gram.

Usage: The home gardener knows the superior crisp texture and taste of fresh young cucumbers from the garden. Milk products like cream and yoghurt complement cucumber and are used in dressing for Indian raita (cucumber and yoghurt salad).

Old cucumbers can be cooked up in a quick curry or stir fry, although it would be hard to endorse the recommendation made by Eliza Acton in her l9th century cookbook. Typifying the less appealing side of English cuisine, she advised boiling cucumbers at length!

Excellent natural diuretic, promoting and regulating the flow of urine. Good for the kidneys. Milk which has had cucumber soaked in it is used to fade freckles! A well-ripened cucumber can be rubbed on burns and inflammations to relieve them. Spanish Gypsies use a slice of cucumber on bruises. A cooled slice placed over each eye relieves strain and fatigue.

On the Lookout: The favourites are Apple and Lebanese. Early Fortune is an old variety used mostly for slicing as the fruit remains firm after it is ripe.

In the Northern Rivers of New South Wales, local farmers and market gardeners are growing a cucumber that has several names, including Richmond River, Easter and Great American cucumber. It is a whitish-yellow cucumber that

grows to thirty centimetres (one foot) in length, and remains very crisp and does not get bitter.

At this stage it divides itself into five long sections with a cavity in its centre. It is not to be confused with the soft white cucumber sometimes sold in the supermarket. Joe Connolly a Casino, NSW, farmer was given the seeds at Casino railway station by an American soldier in 1945. He grew it and passed it on to many friends in the region. It is now seen on numerous market gardens stalls and in local greengrocers. The particular value of this cucumber is its ability to produce through the wet season at the end of summer.

In New Zealand, Straight Eight is well remembered for its earliness-Fifty five days, from seeds to picking-and may still be available. Telegraph is an old and good glasshouse variety suitable for the South Island.

Christa Sullivan from Watervale, SA grows a German pickling cucumber which she obtained from an old gardener who said that it had been grown by his father and grandfather, and was brought in by German settlers in the Barossa Valley. It is accession number one in the Seed Savers records. These cucumbers tend to be late maturers but are most suitable for pickling.

Cucumis metuliferus is known as the African Horned Cucumber in Australia but called the Bitter or Jelly Cucumber in Africa. It is called Kiwano in New Zealand, and is often kept until fully ripe, when it is eaten as a fruit. A native of southern Africa, where it is mostly bitter and even toxic in its wild form, the Australian version has a sweet taste. When the Seed Aid Trust sent seeds to Botswana, it was widely accepted by the local people who recognised it as an improvement over their local bitter ones. It has the unusual characteristics of having sharp spikes-don't go harvesting in bare feet - it also has irritating, prickly leaves. Not a "user friendly" plant until you taste its flesh!

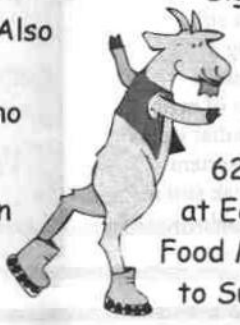
Boer Goat Profile

By Amelia Efkarpidis

I have a property running 40 breeding does comprising Full blood Boers, Cashmeres, Angora and Dairy goats. All the goats I have for meat are Boer crosses with the various above breeds. The reasons I have bred Boer goats for meat is that they are the leanest, most flavoursome, tender and very tasty meat. Also low in cholesterol. Goat meat is also the world's most popular meat eaten, as it has no religious limitations.

My goats are free-range with the exception of supplement feed of lucerne hay and lupins in winter. The property has never been chemically fertilised nor the goats injected with any steroids or artificial growth hormones.

We are actually in the process of obtaining our "Organic" farm status. I also encourage other Goat meat producers to contact me as I feel the market in our area is so demanding yet untouched. I really believe this will happen in a big way in time.



The meat is available from Eco Meats, Belconnen Markets, please feel free to contact me on 02 62993143 anytime, or Gino D'Ambrosio at Eco Meats (at the Belconnen Fresh Food Markets) on 02 6251 9018 Wednesday to Sunday.

email: info@boergoat.com.au
web: www.boergoat.com.au

COMPANION PLANTING TIPS

sunsite.unc.edu/london/orgfazm/companion-planting/pointers

- Grow plants that need good pollination close to aromatic plants that attract pollinating creatures.
- Plant tomatoes by your asparagus. A substance called asparagin in asparagus repels tomato pests.
- Don't plant carrots near dill. They will be smaller and fewer the closer they are to it.
- Radishes planted near leaf lettuce are tenderer.
- Garlic and yarrow enhance the production of oils in herbs.
- When starting seeds indoors, water periodically with a weak solution of chamomile tea to avoid damping off.
- For hotter radishes plant chervil nearby.
- When planting carrots do not sow seeds too thickly.

CHANGES - AND A FAREWELL FROM YOUR RURAL CORRESPONDENT

David Odell

As I reflect upon the changes which have taken place at Rockyglen it seems we have gone from 'furthest out' pioneering to outer-suburban gardening. My efforts at rationalising activities have been so successful there is now only the token cow and the grass-mowing sheep and even the chooks are on extended notice that their services may no longer be required. Keeping faith with my customers has seen two batches of chickens reared to fulfil orders taken last season and these have proved very popular with those who want a few backyard chooks without the problems of rearing them from chicks. But that activity, and the over-large garden, has been the extent of my 'rural ruminations', so after some deep thought and not a little agonising I have decided to make this my last regular rural correspondence. There are so many changes taking place of greater import that this may not be of earth-shattering importance, but some people have been so kind as to say that they have looked forward to my observations on country life. I thank them for their kindnesses but I feel that now the topics would not be as fresh as they once were and I would rather stop now before the palate becomes jaded.

This is not to say that should an occasional topic take my fancy or a cause needs to be publicised and shared with a wider audience I may feel the need to submit an article as an 'occasional correspondent' and I look forward to your indulgence in this respect.

Instead of farming (or attempting to farm on soils still emerging from their rocky origins) I am becoming a landscape gardener in starting to beautify the grounds around the new house. This is becoming a project of major proportions - only now becoming evident since initial works have taken place in preparation for the irrigation system (which needs to be installed first) as part of the plan still in the process of being drawn up. Then there is the selection of the plants .. . . I may not be farming but I will still have my fingers in the soil.

Thank you for the times we have shared together as I have found this an enriching experience not only through these articles but also through the honour of COGS life membership.

HSCA SUBMISSION TO THE STANDING COMMITTEE ON PRIMARY INDUSTRIES & REGIONAL SERVICES INTO "PRIMARY PRODUCER ACCESS TO GENE TECHNOLOGY"

W A Hankin

Introduction

Heritage Seed Curators Australia (HSCA) is opposed to the introduction of genetically engineered (GE) crops and foods.

The only organisms that swap DNA between species are bacteria via the plasmid process - no other living species naturally swap DNA with organisms of other species - yet scientists who promote GE technology, presume a right to violate this fundamental natural process.

There are major potential problems associated with this technology in the spheres of health, the environment, agro-biodiversity and in society generally; and the moral and ethical aspects need to be examined.

The HSCA also believes that the food regulatory system in Australia is not adequate to protect the community and the environment from these impacts. We therefore request the following actions by government in relation to GE:

- Impose a moratorium on the import, sale and growing of GE foods.
- Government funded research into the nutritional and environmental effects of GE foods.
- Support for Seed Banks and Germ plasma centres to protect our shrinking crop bio-diversity
- A policy of support for "GE-free" farming, certification and labelling.
- A policy of support for organic, bio-dynamic or sustainable agriculture in Australia
- Hold community forums around the country (both rural and urban) to debate the issues.

Other major questions which should be addressed are: *Who will benefit from this technology? Who will take the risks? Who will pay if there are problems?*

This technology is being introduced by transnational companies. GE crop varieties have been patented by these companies, and are sold at monopoly prices. There are risks to the environment, to people's health, and to the farming community. The costs of these risks and social changes will be borne by the Australian taxpayer, not the large companies profiting from its introduction.

Significantly, insurance companies are refusing to provide coverage to the corporations introducing this technology. It makes sense for our government to be equally cautious, otherwise it could face liability claims.

The Ethical Issues

Transnational corporations like Monsanto, Zeneca, Novartis, and some Australian companies have invested heavily in the development of GE crop varieties. Australian taxpayer-funded research bodies such as CSIRO, have also conducted similar research.

For the first time ever in human history, humanity has the capacity to directly modify the very DNA building blocks of life. This raises significant ethical and moral issues.

Does the development of GE organisms offend the religious & moral sensibilities of Australian people? Many Australians have ethical views based on religious beliefs. A fundamental aspect of these beliefs is the view that the universe and life are the creation of God. The Prince of Wales recently commented on this issue, saying that we should not be meddling with the building blocks of life in this way.

Environmental Concerns

Australian history offers examples of how the haphazard introduction of new living organisms can effect the environment. Over the past 200 years settlers brought with them rabbits, blackberries, thistles, cane toads and other living organisms. These species were released into our environment with devastating affects, and our farmers are still paying to control some of them. Because of this, the Australian Quarantine Inspection Service (AQIS) was formed, with the aim of preventing the introduction of more pest and weed species.

We need to be just as vigilant toward GE organisms.

For example, recently in the USA, Monarch butterfly larvae exposed to the pollen of the GE altered corn and cotton died. What will be the impact on our native insect populations if these crops are grown here? What will be the consequences in the ecological web of life in the wider environment?

It is claimed that GE will reduce the use of chemical sprays by farmers, so improving the environment. However the most common development to date has been soy or corn crop varieties that are resistant to herbicides such as Roundup, so that farmers can use more of the herbicide. Over the past 20 years many weed species have developed tolerance to Roundup at the recommended safe 'dose' - they are not being killed, and crops are becoming weed-infested.

Much GE development has resulted in an increase in the use of Roundup and other herbicides - not to improve quality, palatability, productiveness etc. There is an application to increase the maximum recommended level for Roundup before the Australian & New Zealand Food Authority. Roundup can build up in the soil; it is toxic to many species; and its surfactant is even more toxic.

Herbicide resistance in weeds is another environmental issue. Many of the GE crops - Canola and sugar beets for example - have wild weedy relatives. Pollen from GE herbicide resistant crops could spread with the wind or insects to these weedy relatives, producing 'super weeds' - more of a problem for farmers. This is already happening to a limited extent with Brassica weeds in the UK.

The Monsanto GE 'Bt cotton' deals with cotton stem borer insect pest, by killing it via the Bt expressed in the plants. However the widespread use of this cotton variety increased Bt insect resistance (in the USA), forcing the pest to evolve rapidly. As a result, Bacillus thuringensis, a good organic, natural pesticide widely used for generations, is now useless in some districts of the USA against these pests.

Sir William Asscher, Chairman of the British Medical Association 's Board of Science and Education, said: "Once the GM genie is out of the bottle, the impact on the environment is likely to be irreversible. That is why the precautionary principle is so important on this issue. It is even more serious than the licensing of medicines, which can, if necessary, be withdrawn. That is why the BMA is pressing for an open-ended moratorium until there is much greater scientific certainty about the risks and potential benefits of GMOs."

Agro-biodiversity Concerns

HSCA views this particular problem with alarm. Our primary role is to help stop the loss of crop diversity that has occurred over the past 100 years. Continuation of this loss threatens our mutual survival. As the gene pool of plant species becomes impoverished, humanity has become more vulnerable to famine and environmental problems.

It is clear that the processes of global agribusiness, genetically engineered crops, & "Terminator Gene" crop, all threaten our world's plant genetic diversity. These processes are creating an unnatural planet-wide agribusiness monoculture that is reducing the Earth's plant diversity.

Health Concerns

We do not know the long-term health effects of eating genetically engineered foods. We do know of a few instances where GE foods have proved quite dangerous. One example was in the USA in 1989 - genetically altered bacteria were used to produce Triptophane, which was contaminated with tiny amounts of a by-product of the process. Twenty-seven persons died and 1500 suffered toxic reactions requiring medical treatment.

The Roundup Ready soybeans are having affects on health. Soy allergies in the UK have been reported up by 50% in one year. The Swiss Federal Institute of Technology has discovered that if industrial enzymes (many of them genetically engineered), are eliminated from the diet, there is significant relief or cure to 90% of asthma and 80% of allergy sufferers.

Monsanto has recently admitted that the nutritional testing done on the Roundup ready soy beans was on laboratory soy beans that had not been exposed to recommended field levels of Roundup. Testing involved only small numbers of rats (10 for Bt cotton) for a number of weeks.

The use of antibiotic resistant marker genes in GE crop varieties is very dangerous. The British Medical Association has called for "a ban on the use of antibiotic resistant marker genes in GM food as the risk to human health from antibiotic resistance is one of the major public health threats we face in the 21st century."

In Australia in March 1997, researchers at the CSIRO announced that they had developed a GE potato - its flesh does not brown when cut and left exposed to the air. It was claimed that this would reduce the amount of potato waste by Commercial potato processors. How odd that a natural "warning signal" that tells food handlers that sliced uncooked potatoes have sat around for an extended period, exposed to the air and possible contamination, should be chosen for 'deletion'!

Social Impact of GE Crops

Most of the members of the HSCA live outside the metropolitan areas. Many farms no longer provide a reasonable income and many farmers depend on off-farm income, working spouses, or leave farming altogether. This crisis is being caused by the drop in value in agricultural commodities over the past 20 years, and has been accompanied by increases in the cost of conventional farming inputs. Industrial farming for global agricultural markets is driving our farmers off the land.

Genetic engineering technology is just another step along the path of global agribusiness. Such crops may bring some short term economic benefits to those farmers who use them. But lower commodity prices for these crops will probably follow on over the next few years just as they have for the past 20 years.

It would make far better sense for our farmers to produce crops that attract a premium on the world market or do not sell into overseas markets corrupted by tariffs or subsidies. Consumers in Europe, the USA and Asia are increasingly conscious of food contamination. Australian farmers could sell Australian grown food exports into these as "clean and green" and gain a premium while doing so.

Mad Cow disease in the UK, and the recent dioxin contamination in Belgium, have acted to make consumers aware that food can be dangerous. In Europe there is substantial resistance to GE Foods and crops. If Australia does not adopt such crop varieties, I suggest that we would have a substantial market advantage over other countries like the USA, Canada, Argentina, whose farmers and food processors are already growing and selling genetically modified crops and are losing market share as a result.

Recently consumer pressure in Europe has seen every supermarket chain in the UK go "GE-free" for home brand products. Also Unilever, Nestle (UK) & Cadburys have adopted the same policy. Supermarkets and processors across Europe have also stopped purchasing GE foods. Japan is likely to see the same process develop.

Australia could take advantage of this opportunity, however it will mean banning the sale or production of GE crop varieties. The best way to achieve this is via organic farming. The overseas market for organic produce has grown substantially for the past decade. It will continue to grow in response to demand from health conscious consumers in the developed countries.

The above is an edited version of what Bill provided. There are a number of additional supporting documents which were in the original text. Bill can send copies of the full submission to any readers who request it.

W A Hankin, Heritage Seed Curators Australia Inc.
P O Box 1450
Bairnsdale, Vic. 3875
(03) 5153 1034
E-Mail: han.HSCA@b150.aone.net.au
Web site: www.ozemail.com.au/~hsca

Nutritionally Charged Organic Vegetables-The way to go!

Organic Retailers and Growers Association of Australia (ORGAA) - Press Release

Does the food that we purchase today from the supermarket contain adequate nutrition to optimise our health? Many factors in the production process can affect the quality of our food. It may be grown in many parts of Australia and overseas, picked in an unripened condition, subject to on-farm and post harvest chemical treatment, and often stored for long periods of time before being marketed.

Recent research by the Organic Retailers & Growers Association of Australia (ORGAA) indicates that many of our vegetables may not be as high in mineral elements as we might expect.

Four vegetable varieties, tomatoes, beans, capsicums and silver beet were grown on a certified organic farm using soil regenerative techniques and were later analysed for vitamin and mineral elements. A similar range of vegetables grown conventionally were sampled and analysed from a supermarket.

Results indicate significant differences in mineral levels in favour of the organic produce. Calcium levels in some produce increased by eight times, potassium by ten times, magnesium by seven times and zinc a vital trace element by five times.

Spokesman for ORGAA, Mr Chris Alenson, who supervised the study, said the results were very exciting and clearly demonstrated a need for further and more detailed follow-up research on how soil fertility was managed, to ensure food production was not only maximised in quantity but importantly in quality.

Mr Alenson said, "that Australia, being an old continent, contained soils leached of many important nutritional elements. Production processes over many decades had not only lowered the soil's fertility base but had concentrated on supplying only a few major elements while neglecting other important nutritional elements".

"Nutritional surveys of Australians", Mr Alenson said, "indicate a move towards increased reliance on fast foods and snacks high in fat, and low in fibre and certain nutritional compounds. The consumption of an ample amount of fresh fruit and vegetables high in nutritional components is seen by nutritionists as a most necessary factor in disease prevention and health maintenance".

Fruit and vegetables produced by 'high tech' agricultural systems fed by synthetic fertilisers, protected by pesticides and fungicides, picked prior to maturity in reality may not be delivering the nutritional benefits that consumers believe.

For further information contact ORGAA on (03) 9737 9799 or the Organic Advisory Service on (03) 59683040

YEAR'S SUPPLY OF ORGANIC CHOOK FEED WON!

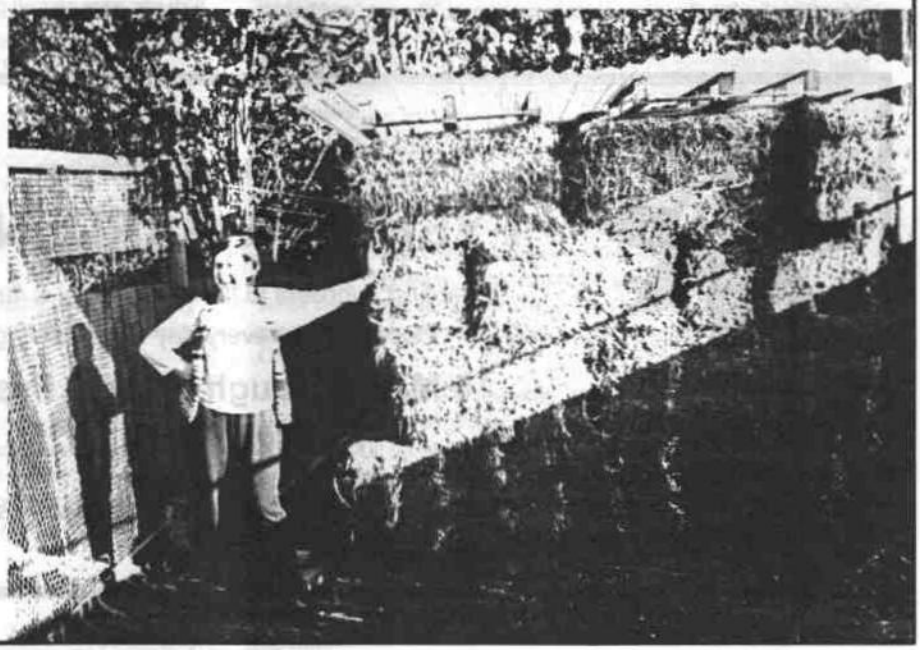
The competition to build the best and cheapest chook house has been won by Anna of O'Connor with her straw bale 'Chook Mansion'. It was "A lot of fun", "It's a groovy thing to do" and "Everyone should build a chook house" commented Anna as her Mansion was assessed for the competition. Anna's Chook Mansion took 3 people 1.5 hours to build while minding small children. It cost $143 for 26 Pea straw bales, $30 for roofing from Revolve, $40 for two rolls of chicken wire, and $30 for 4 pine posts from a hardware store. So the total cost was $243.

A special innovators prize of 50kg of feed has also been awarded to Greham, also of O'Connor with his 'Rat proof' chook feeder, made from recycled materials. Leonard of Downer also put in an entry of a chook house made from recycled fence palings, as did Nikki of Macquarie.

It was considered that although the recycled fence paling chook houses were cheaper to build (>$120) including fencing wire and star pickets, the amount of space provided for roosting hens was insufficient. Also dogs and foxes are the major cause of chicken mortality in Canberra, so Anne's entry with a solid 2.5m high fencing was favoured.

Anna said that she is happy to show her creation or give people advice on chook house building. Call me on 6230 4846 and I will put you in contact with her. Designs of chook houses etc will be published in the next edition of *Canberra Organic*.

Morgan Kurrajong



THE RACE FOR SPACE

Jennifer H. Allen

I have a small raised garden bed. It is attractive enough, accessible and functional. But it is in a shady area and very small, or did I mention that already? Summer is here and I have outgrown my designated patch of earth. While the garden is small, the yard is large. I glance at the useless lawn with a menacing eye. Large, open spaces are most seductive to the eager gardener. It is easy to dream of large, raised beds, complex garden design and abundance. But the reality of transformation is never an energy efficient process.

Being chronically lazy does have its advantages and in this case it inspires me to think more creatively. The strip of dirt between the path and the patio is perfect for fast growing radishes or hardy, creeping herbs that don't mind the occasional crush. The patio pavers themselves can be removed, every other one looks nice, and fitted with several varieties of thyme. Splendidly spilling over the warm brick, they aren't averse to trampling and emit the most delicious scents.

The ornamental "wooded" nature strip contains bottle-brush, eucalyptus and plum trees. There is little undergrowth and rich, loamy soil. This becomes the perfect spot for those yummy space-hogging creepers like cucumber, zucchini and pumpkin. Every fence and empty wall can support a myriad of delicious climbers like beans and peas, luffa, chokos, or even rockmelon. Hanging baskets filled with summer blossoms can also become the home of peas and beans. They can hang *down* instead of me going to the trouble to stake them *up*. Organic gardening is all about working with the laws of nature, I don't see why gravity should be exempt.

Who knows what crazy ideas the continuous race for space will next inspire in the suburban gardener. Those clogged gutters are beginning to look much less like a chore and more like an opportunity.

PURPLE PALINGS AND SMOKESTACK LIGHTNING

or The latest working Bee at Northside Gardens

Garry Ridgway

After the latest buzzing bee at Mitchell the gardens are entering Canberra's early spring nicely spruced, mown, and manicured.

Democratic and Australian, there were no penalties if you did not attend but it was a scrumptious Spring day on Sunday September 12th, and you missed the hat parade.

No official milliner was on hand but the undemocratic committee awarded first prize to Morgan's sombrero with Red Therkelsen's rakish Queensland number, from his white shoe brigade era, taking out second.

Red Rod was whipper-snipper king for the day -- "I hate these things" -- and in the snipped joy of grass unilaterally declared plot-fee discounts for attenders and penalising surcharges for absentees. In all seriousness, this decree will not be enacted, so don't bother to get a dodgy sick certificate, but fees are due in September under threat of being put in the Mitchell stocks and pelted with a discarded kilo of Rose's heritage potatoes.

It could be suggested that if anybody merited a discount then it would be Richard, Lord Silverbeet, who possesses that Australian icon -- a UTE -- to take away rubbish. The ute, at last count, had rubbish of all sorts including ceramic tiles, sox from the Whitlam era, twine from the rodeo, stones, tvs and very little recyclable material.

Prize for most diligent maintainer must go to the MAN -- David - who practically had cleaned up the whole block before 9am while mother Margie weeded.

It is proving very difficult to award prizes for Bee behaviour because nobody wants to go to the Gold Coast after seeing Red's hat and, anyway, Maura holds the purse strings very tightly.

SODIUM LAURETH SULPHATE

Articles are circulating about this chemical which may be based on a hoax email. See the following statement from Health Canada. ..Ed.

www.hc-sc.gc.ca/ehp/ehd/psb/cosmetics/sls.htm

A letter has been circulating the internet which claims that there is a link between cancer and sodium laureth (or lauryl) sulphate (SLS), an ingredient used in shampoos and toothpastes. Health Canada has looked into the matter and has found no scientific evidence to suggest that SLS causes cancer. It has a history of safe use in Canada.

Upon further investigation, it was discovered that this **e-mail warning is a hoax**. The letter is signed by a person at the University of Pennsylvania Health System and includes a phone number. Health Canada contacted the University of Pennsylvania Health System and found that it is not the author of the sodium laureth sulphate warning and does not endorse any link between SLS and cancer.

GENETIC ENGINEERING NEWS

If you are a COGS member and would like to receive the latest news in the organic industry as it happens, then send a request to cogs@netspeed.com.au

SECRET TESTS ON GE SALMON IN UK

Thursday, July 29, 1999 UK

Scientists have created Britain's first genetically-modified fish through a series of secret experiments on salmon. Atlantic salmon grew at four times their normal rate during the research project at a salmon farm in Argyll on Scotland's west coast. The Secretary of State for Scotland, Dr John Reid, said all the fish were destroyed when the study finished three years ago.

SPANISH CHAIN REMOVES GE FOODS

Biotech News, by Richard Wolfson, PhD

Spain's largest supermarket chain, Pryca, is pulling GM ingredients out of its own-brand food products by the end of 1999, in response to public concerns.

AUSSIE CANOLA CANNOT CLAIM "GE FREE"

OFA Media Release - 12th August 1999

The Organic Federation of Australia has revealed that thousands of hectares of genetically engineered canola is being grown throughout Australia. This threatens Australia's new markets in Europe and Japan for organic and "GE free" canola at record levels this year. "These so called "trials" are more like a general release", Mr Scott Kinnear OFA Chairperson said. "It is well documented that canola pollen can transfer via bees for least six or more kilometres. The buffer zones of 400 m required by the Genetic Manipulation Advisory Committee are a joke! ", he said.

"We expect there is already contamination of Australian canola, including organic canola. Organic food worldwide is required to be "GE free". The size, number and purpose for these trials appears to undermine Australia's "GE free" status", Mr Kinnear said.

GENETICALLY-ALTERED BABY FOODS ARE BEING REJECTED - BY ADULTS

From Wall St Journal, July 30, 1999

H.J. Heinz Co., the maker of the *Earth's Best* line of baby food, says it has just decided that this line and all other baby food it produces will be manufactured without using GM crops.

A private manufacturer in Poway, Calif., called Healthy Times Natural Foods has switched from Canola oil, which sometimes is genetically altered, to safflower oil after facing questions from Greenpeace.

Gerber, plans to use corn flour and soy flour that are "organic" (ie no GM or chemicals).

MARKER GENES IN GM PLANTS

By Chakravarthi Raghavan

The UK Joint Food Safety and Standards Group, which comes under the UK Government's Ministry of Agriculture, Food and Fisheries, has warned of the risks involved in the use of antibiotic-resistant marker genes in transgenic plants and seeds in genetic engineering.

LABELLING IN AUSTRALIA & NZ

Summarised Media Statement from ANZFA - Tuesday 3 August 1999

Australian and New Zealand Health Ministers today agreed on a number of issues about the safety of our food supply.

There will be ongoing safety assessments of all GM products as required under the current standard.

The following important decisions were made regarding consumer information on genetically modified food

ANZFSC has agreed to require mandatory labelling of GM foods produced and foods containing GM ingredients.

ANZFSC will strengthen the decision of December 1998 by requesting ANZFA to further address the following issues:

- Methods of labelling and supporting information that are practical, meaningful, and have low compliance costs
- Other methods to provide consumers with meaningful information where the food is of uncertain origin
- Identification of the true compliance costs to industry and governments of implementing the Standard
- Implications of the Standard for Aust./NZ obligations under the WTO agreement and Codex
- Threshold levels for labelling for general food use; for refined substances;
- Food marketed as containing no GM ingredients; claims must be able to be substantiated to ensure truth in labelling; a clearly identifiable and auditable food trail
- Means of testing of foods for compliance and enforcement of the Standard;
- Reasonable steps to be taken by manufacturers to establish the origin of food ingredients
- Incorporate review provisions to account for rapid GE advances and changes in consumer information needs;
- Measures to apply initially to package foods, fresh and other whole foods to be dealt with later
- Timing of Implementation.

Health Ministers will oversight the preparation of the Standard as a matter of urgency and report to the next ANZFSC meeting in October 1999.

MONSANTO REPRIMANDED

As a result of complaints made by environmental organisations and concerned members of the public, gene technology giant, Monsanto has been rapped over the knuckles by the British Advertising Standards Authority. Six claims made by the company during its recent national newspaper advertising campaign have had complaints upheld against them.

GM MILK RULED UNSAFE

Samuel S. Epstein, M.D., Professor of Environmental Medicine, University of Illinois School of Public Health, Chicago:

The Codex Alimentarius Commission, (the U.N. Food Safety Agency representing 101 nations worldwide), has ruled unanimously in favour of the 1993 European moratorium on genetically engineered hormonal milk (rBGH). This unexpected ruling is a powerful blow against global trade policies strongly influenced by multi-national corporations. The ruling represents the first large-scale defeat of genetically modified foods on unarguable scientific grounds, apart from ethical and ideological concerns.

SOY PROBLEMS

Daily Express (UK), 12 March 99

New research has revealed that food allergies relating to soya increased by 50% last year. A study by Europe's leading specialists on food sensitivity found health complaints caused by soya - the ingredient most associated with GM foods - have increased from 10 in 100 patients to 15 in 100 over the past year. Researchers at the York Nutritional Laboratory said their findings provide real evidence that GM food could have a tangible, harmful impact on the human body.

LESS DEMAND FOR GM FOOD

Summarised from The New York Times, August 29, 1999

American farmers paid premium prices this spring to sow many of their fields with genetically engineered corn and soybeans. More of the international buyers they depend upon are saying they do not want those crops.

Consumers and food companies in a growing number of countries are shunning the new crops created by genetic engineers. Foreign consumers say they do not wish to eat the new foods, like corn that have been altered to produce its own pesticide. Some companies are reacting quickly to consumers' desires even though no clear evidence exists that the crops are unsafe.

TERMINATE TERMINATOR SEED TECHNOLOGY

Australian Gene Ethics Network News Release 5 October 1999

The GeneEthics Network calls on farm chemical giant Monsanto to stop forever all research and patents on its Terminator seed technology. "Monsanto's claim that it will not commercialise the Terminator does not go far enough," said GeneEthics Director, Bob Phelps.

"When Monsanto acquires Delta and Pine Land company, we want it to stop all research and withdraw all patents on Terminator technology," he said. Patented Terminator technology makes plant seeds sterile, forcing farmers to buy seeds and chemicals year after year.

"Monsanto already has a monopoly, selling engineered seed under contracts that charge royalties and prohibit seed saving," he said. "Enforcing monopoly control by sterilising the essence of life is an assault on human rights, especially in Less Industrial countries where Terminator threatens food security" Mr Phelps said.

"Monsanto is experiencing a public relations disaster, with people in Europe and Asia telling Monsanto to 'go home'. It is merely responding to public pressure, but the real issue of monopoly control over all of agriculture and the food supply will not so easily go away," he said.

Agri-chemical giants now own 40% of seed companies and their domination is growing. Three quarters of farmers globally depend on farm saved seed, developed over millennia by peasant farmers.

"The wonderful variety of locally adapted crops are the common heritage of humanity, and should remain publicly owned. By adding one gene into highly developed crop varieties, then patenting them, companies hijack biodiversity. Development of the Terminator, Monsanto's biopiracy, and patents on life, must all stop now," Mr Phelps concluded.

When spiders unite,
they can tie down a lion
Ethiopian Proverb

SUMMER VEGETABLE PLANTING GUIDE

In summer, it is a good idea to mulch your garden to help keep the soil cool and moist. One experiment has shown that a 4cm layer of straw reduced evaporation by 73%! Be careful, however, not to lay down a thick layer of sawdust or lawn clippings which can pack down to form an impenetrable barrier to water.

Soil with lots of compost will contain all the nutrients your plants need for strong, healthy growth. In addition, it will retain water and act like a sponge to keep your plants moist through the dry summer days.

On days of extreme temperatures, your plants may need to be physically protected from the heat. This can be achieved by covering the plants with shade cloth secured on a frame, for example 'weldmesh' bent over to form a tunnel (secure the shade-cloth with some pegs).

Try not to leave water on the leaves of plants which are susceptible to fungal diseases, for example tomatoes, cucumbers, pumpkins, zucchinis. Preferably water with drippers, or if you must use overhead sprinklers, water in the cool of the morning so that the water can evaporate during the day.

Remember to leave space in your vege patch for those winter vegetables which must be planted in late summer to early autumn. Brassicas and other winter crops need time to mature before the extreme cold of winter sets in.

Keep those weeds down! They compete with your plants for food, water and sunlight. It is best to tackle them when they are small - before removing them becomes a back-breaking and exhausting exercise.

Pests can multiply rapidly over summer. Don't reach for the pesticides! Observe if there are natural predators present, remembering that there will be a delay between the appearance of the pest and the subsequent build-up of its predators. If you must spray, then use an environmentally benign spray. Read books on this subject such as Jackie French's *Natural Pest Control*.

Make sure that you harvest your crop regularly - in most cases this will encourage your plants to continue cropping, and you get to eat your produce at its peak.

Summer Vegetable Planting Guide

	December	January	February
French Beans	S	S	
Beetroot	S	S	S
Broccoli	ST	ST	T
Brussel Sprouts	ST	ST	T
Cabbage	ST	ST	T
Cauliflower	ST	ST	T
Carrots	S	S	S
Celery	T	T	S
Chicory	S	S	S
Chinese	S	S	
Cucumber	ST	T	
Endive	S	S	S
Kohl Rabi	ST	ST	T
Leeks	S	S	
Lettuce	ST	ST	ST
Marrows	T		
Parsnips	S	S	S
Potatoes	S	S	
Radish	S	S	S
Silver Beet	ST	ST	T
Squash	ST		
Swedes		S	S
Sweet Corn	ST	T	
Tomatoes	T	T	
Turnips		S	S

S = Seed sowing
T = Transplant

Notes:

(1) This table is a guide only, please observe the seasonal weather patterns before deciding when to plant, as there will often be distinct differences in summer weather from one year to the next.

(2) Planting times will vary for different varieties of the one vegetable, for example, December plantings of Heading Lettuce should be successful; in February, plantings should be the Butterhead variety.

About COGS

General Information

The Canberra Organic Growers Society Inc. is a non-profit organisation started in 1977 with the aim of providing a forum for organic growers to exchange information and encourage society to adopt organic growing methods.

COGS is part of the broader organic movement, which 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.

The alternative is to enrich the soil with compost, manure, green manure and mulches, so avoiding disease; and to 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.

Monthly Meetings

Meetings of members are held at Room 4 at the Griffin Centre, at 7.30 pm on the fourth Tuesday of the month, (except in December and January). Each month a different speaker discusses organic growing or related issues. For example:

- Marketing Organic Produce
- Backyard Self-sufficiency
- Bees and Worms
- Natural Control of Insects
- Permaculture in the ACT

After each talk a light supper is available. At all meetings, there is a produce and seed exchange table, information table and a bookstall. Members may also borrow from the COGS library (currently two books may be borrowed each month).

Visitors are welcome (donation).

Flier and Quarterly Publications

Each month, all members are sent either a *COGS Flier* or the quarterly *Canberra Organic* magazine (except December and January). These publications inform members about the speaker at the next meeting, and any other activities coming up. They also contain articles on organic growing as well as tips specifically for the Canberra region, such as a monthly planting guide.

Community Gardens

COGS currently operates 5 community gardens in the Canberra area at Mitchell (called the Northside Garden), Curtin (called the Cotter Garden), Erindale, Charnwood and The Oaks Estate. Members may obtain a plot at one of these gardens to grow organic produce for home-consumption.

These gardens provide a wonderful opportunity for people to garden with other organic growers- to share their expertise and hopefully learn something new at the same time!

The ACT government has supported the establishment of these gardens through giving us licences to use unused government land, and the setting up of these gardens has been greatly assisted by grants obtained from the ACT Office of Sport and Recreation.

Each garden is administered by a garden committee, which is elected annually by the plot-holders at the garden. At each garden, plot-holders may be required to contribute to the cost of water for the garden, and incidental items such as bulk purchases of straw, or hose and tap replacements)

Internet

COGS has an extensive web site devoted to organic growing. The site contains many of the COGS papers on organic growing, certification information, a page for children, links to related organisations and information sources, picture gallery, the latest on genetic engineering, about Canberra, and much more.

Email: cogs@netspeed.com.au
Web site: www.netspeed.com.au/cogs

Other Activities

From time to time COGS organises other activities for its members. For example we arranged an open day at an organic farm at Gundaroo and a visit to Jackie French's property in Araluen. Seminars and workshops are also conducted.

NOVEMBER MEETING

Organic Sausage Sizzle

Sunday 28th November

Time: 3.30pm

Place : COGS BACKYARD at the Xeriscape Garden Weston.

Access will be through the back gate off Unwin Place . Turn off Streeton Drive into Unwin Place. The gate is on the right hand side, after the police training centre.

Organic tea, coffee and juice will be provided along with the food. Last year we had paper plates and throw away cups. What a waste! This year, please bring your own cup, plate and utensils that you can take home and wash. Don't forget to bring a chair.

It will also be an occasion to say farewell to John and Margaret Allen, who will be coming to Canberra for the weekend.

PLEASE NOTE:
THERE WILL BE NO MEETING AT THE GRIFFIN CENTRE THIS MONTH

AT COGS BACKYARD

Xeriscape Gardens, Unwin Place, Weston

Date: Saturday 27th and Sunday 28th of November.
Subject: Preparing gardens for the hot summer & saving water
Time: 1pm and 3pm.

PERMACULTURE ACT (PACT)

PACT meetings are on the first Tuesday of the month
7.30 pm at PCHQ Kingsley Street Civic.
(South east corner of the building that the Environment centre is in)

ENVIRONMENT CENTRE SHOP

The Canberra Environment Centre Shop offers products that are environmentally friendly and safe for you to use.

- Bulk biodegradable household and personal
- Care products (bring your own containers)
- Wood products made from recycled or reject timber
- Natural dental care products
- Re-useable sanitary pads and organic tampons
- Natural cosmetics
- Natural insecticide
- Books on environment & sustainable technology
- Children's books
- Educational toys
- Games
- Calendars and diaries
- Australian made fashion clothing and
- Gifts for the whole family

The shop is at Kingsley Street Acton
Ph/Fax: 6247 3064
Open Tuesday-Friday 9 - 5, Saturday 10 - 1

BACK TO THE GRIFFIN CENTRE!

After moving our meetings to the Civic Youth Centre, we have now been informed by the new management of the Civic Youth Centre that we have to move out! Future meetings will be held at our original meeting place (just opposite the youth centre) in Room 4 at the Griffin Centre