

THE COGS



QUARTERLY

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ORGANIC GROWING IN THE CANBERRA REGION

SUMMER 1996



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

WHAT ARE THE ORGANIC ALTERNATIVES?

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

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

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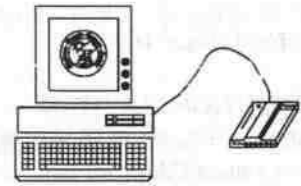
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on the inside back page
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The Internet Column

By John Allen

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Working Together to bring Organic Food to the WORLD

I have had an e-mail from Paul Lycett in Canada, who has put up a new International Home Page on the World Wide Web. I was impressed with the concept so thought that I would write up a review of the site. It offers an opportunity to help promote the consumption of organic food, and encourages the small-scale growers and retailers, both at the international and local level.

It is called WWW Certified Organic Food; and the URL is:

<http://www.gks.com/>

The site is run by certified organic farmers and, in summary, provides a location for organic farmers and organic businesses to have their own home pages on the web, and a place for consumers to find out about organic products. Their main aim is to get the individual involved in promoting organics. They are dedicated to provide:

- A location on the World Wide Web (WWW) where organic growers, processors, retailers, consumers from around the world can interact
- A service at an affordable price so that the individual can participate
- A communication location for certification agencies
- A communication location for related organizations

HISTORY

Paul is a certified organic grower (OCIA) who has his own private Home Page at

<http://www.gks.com/organic/kpfarms>

In 1993 and 1994, Paul was a director on the Canadian Organic Advisory Board (COAB). COAB was set up to help formulate Canadian national organic standards. He realised at the time that the organic industry was evolving into the same structure as the conventional agri-food-industry just minus the chemicals. The one to one relationship between the grower and consumer was being lost. The question he asked himself was - *How do we preserve and strengthen the grower-consumer relationship at low cost?* The Internet World Wide Web became the answer.

During the winter of 1995/1996 local internet access became available. So he made up a demonstration web site and took it to the 1996 Organic Conference at the University of Guelph. The consumers were delighted and,

as expected, growers were reserved. Fortunately a few growers saw an opportunity to keep their consumers informed and signed on.

The web site was launched March 31, 1996.

Paul financed the web site out of his own pocket. The [relatively very small] home page fees (see below) help pay for mail costs and the expenses of the volunteers who help create and update the home pages.

PURPOSE

The purpose of the web site is as follows:

To help create a financially strong organic grower base and an informed consumer base.

To provide a location on the WEB where

(1) Consumers can:

- find free organic food information and resources
- locate organic food close to home

2) Organic growers can:

- advertise at low cost (CAN\$5.00/month, CAN\$60.00/year) via their own home pages
- keep buyers/consumers informed of the produce they have for sale at any given point of time
- inform consumers of farm-gate sales (ie. pick your own, farmers markets, on farm store, etc.)
- add regional information to the library to help inform the consumer.

3) Where processors, retailers, etc. can:

- advertise at low cost (CAN\$10.00/month, CAN\$120.00/year), and search for product sources
- inform growers of their needs
- inform consumers of their product lines.

Organic growers should note that they do not need their own computer or Internet link to obtain their own home page at Paul's site. Only the buyers (consumers, etc.) need a computer/internet connection. Organic growers need only send him their information via mail or email, for example, by using a local public internet access point (usually a public library), [or via someone with an Internet connection] and Paul's volunteers will create their pages for them.

Growers do not need to be certified to obtain their own Home Page on this web site. They just need to think about

becoming certified or at least follow the certified organic standards when growing their produce.

Practically, not all consumers can buy directly from organic growers so we must help to build the organic infra-structure without destroying the local organic growers.

Home page service includes:

- unlimited number of pages, but they must relate to one's business
- free page design if required
- free updates
- free on-line newsletter

Paul also provides free home pages for annual organic events.

OTHER INFORMATION ON THE PAGE

International Organic Production Standards

There is a link to the on-line version of the 1995 OCIA International Organic Production Standards.

Home Pages of Sponsors

There are lists the Home Pages of sponsors/supporters of the site, these include Organic Growers, Processors, Distributors, Retailers, Restaurants, Organic Certification Agency/Bodies, Organic Services and Suppliers.

The Worldwide Certified Organic Food Marketplace

- How to become certified!
- Certification bodies

Organic Sector Lists

These are provided for farmers markets with organic vendors, non-certified organic growers, certified organic growers, processors, distributors, retailers, commodities/services, produce, products, and services.

FAQ's (Frequently Asked Questions) and HOWTO's

(a) Consumer Center

What is organic food?

What are organic standards?

What are national organic standards?

How do I tell if produce or a product is certified?

What can I as a consumer do to promote certified organic food?

(b) Grower Center

I am a conventional farmer; how do I become organic?

What is a certification agency/body?

What/who is a organic certification inspector?

What are organic standards?

Do I need to be really certified?

Other Information

Organic Food Question/Answer

Related Organizations

Calendar of Events

Resource Library

Resource Web Links

COGS is listed as a related organisation, along with the Canadian Organic Growers.

WHY IS THIS CANADIAN FACILITY OF INTEREST LOCALLY?

Some Internet Facts

The fact that the Home Pages for locals would be based in Canada is irrelevant. The cost to an Internet user of accessing a Home Page in Canada is no different to the cost of accessing a Home Page in Fyshwick. On the Internet you only pay for connect time to your local Internet provider (which in my case is less than \$1 per hour, including the 35 cents dial up charge). Once connected you can access any site world wide and there is no additional cost.

Also, the time difference in accessing and displaying a site in Canada compared to a local site is generally imperceptible.

What would it cost in Australia?

In comparison, the cheapest equivalent service from a local Canberra Internet provider which I could find would cost the following:

- Web space rental is AUD\$40.00 per month or part thereof
- A one-off set up fee of AUD\$50 is charged
- A fee of AUD\$20.00 is charged per batch of minor modifications
- In addition the grower would have to pay for the preparation of the page.

And a Home Page on a Cowleys Australian Farming site is AUD\$150 per 12 months per A4 page includes up to 2 images).

What can we do here?

This project can only be a success if it is used by growers, retailers and consumers. For our local community to benefit from this resource, we need to encourage local producers, retailers to set up Home Pages at this site and make the Internet-connected consumers aware that this information is available.

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WORLD ORGANIC CONFERENCE 1996

By Betty Cornhill

Many years ago when Organics was in its infancy and NPK ruled the agricultural world some far-thinking people decided that there should be an international federation of all the small groups of people worldwide who thought alike about the dangers of pesticides, largely alerted by Rachel Carson with her brave book "Silent Spring." Thus IFOAM was started.

From that time the International Federation of Organic Agriculture Movements has advanced, slowly, but surely. The 11th Scientific Conference was held in Denmark in August this year together with the first World Organic Exhibition held nearby, which COGS members will have read about in the Internet Column of their September Flyer.

Copenhagen is a good city, as cities go. I am not a city person myself, but for many people Copenhagen is a "Wonderful City."

Last year, I managed to include a free 3-day trip to Denmark, because I am not a young and bold traveller, and was hoping to attend the conference, but felt I needed to do a reconnaissance first.

I could not have managed this at all except for the two kind young women whom I met on the tour of New Zealand before the 10th Conference, Rikke Lundsgaard and Jane Brewer. They booked me in at one of the huge Copenhagen Youth Hostels, met me there the next day and gave me a day of sightseeing in Copenhagen, the Little Mermaid, the Queen's Palace, a Museum with wonderful artefacts from the days of the Vikings and earlier. These are our ancestors too, remember. They showed me a wonderful sculpture and fountain. They pointed out where the conference was to be. They took me to see Hamlet's castle at Elsinore, then back across the ferry to their home in Odense on the mainland of Jutland, where I spent two nights with them and their cat, whose kittens brought her total up to 70. They said she enjoyed having kittens, so why stop her?

They took me to visit a Biodynamic Farm, where we spent the afternoon, having cold drinks of raspberry juice under the apple trees, watching the children play, and conversing with many of the farm members who stopped work to have a cool drink and meet their guests. Such gentle kindly people! We had a lovely simple meal with them. Before eating they sang grace in Danish, the three-year old, who was Rikke's god-daughter sang with terrific gusto.

Her father had taken us over the whole farm earlier, and I was delighted to visit the farm again this year on the six day pre-conference tour which I had chosen out of the 7 tours offered.

On this tour we were given a comprehensive description of each place we visited, which we were able to read, either the night before at the motel or on the bus. Thus we had a fair idea of what to look for when we got there, so that we could ask intelligent questions of our guide (usually the owner.)

One of our two tour guides, Eric Fog, had been on the same tour as me in New Zealand, so it was nice to see a familiar face. However after 19 visits including accommodation, all faces were familiar, and we remained friendly throughout the conference, among the more than 1000 people from 92 different countries. We also met again many of the people who talked to us, such as the lady researcher from the Research Centre, Foulum, who had shown us a wonderful machine for looking at the crystals of vegetables and fruits to compare the quality of organic, biodynamic and conventional produce.

The tour took us to The Royal Veterinary and Agricultural University's research station west of Copenhagen, where many research projects on organic farming have been under way, some since 1985.

A poultry farm with 11,000 layers, and a feed mill, run by the same farmer and his wife, which processed organic grains, lucerne, etc into pellets to feed 35,000 laying hens, their own, and others.

We saw the eggs being sorted and boxed, and later saw the same boxes of eggs being retailed in Kviklys, one of a chain of supermarkets, which has a huge section devoted to Organic produce plus many places where Organic produce is next to conventional, but carefully marked with the logo, which is used country-wide in Denmark. This logo, unlike the various ones in Australia, is large and colourful and stands out prominently.

Other visits were to the Vikingship Museum in Roskilde. The organic commune Svanholm where they grow, sell and pack vegetables, Niels Erik Ericksen's Biodynamic dairy farm, the Research Centre Foulum, the Kvickly supermarket (co-op) in the town of Silkeborg. We wandered round the town of Aarhus, where we were impressed by the high prices of everything, including books, clothes, and electrical goods.

One of the most interesting visits was to the Narayana Greenhouse, 15 kms south of Aarhus in the Odder area, where they grow organic cucumbers. I have never seen cucumber plants with such huge leaves. It turned out they were grafted plants of a Danish variety I had not heard of. They use predators, which they buy in little packages, and a very knowledgeable young lady showed us exactly how it was done, from the monitoring of various insects to

the placing of the correct predator's eggs on the vines. They also use solar energy against fungal diseases.

Other visits were to an organic pig farm, the vegetable farm of Peter Bay Knudsen, Denmark's largest organic mill, Drabacksmolle, where they produce organic muesli and cornflakes, among other things, the BD collective farm I mentioned earlier, with vegetables and dairy produce supplied to 70 customers in boxes and paper bags. They even put bags out in supermarkets to tempt more people to buy organically.

One evening we met representatives of the Danish Association for Organic Farming, the Organic Service Centre and the School for Ecological Sales at our hotel. They described the work of their organizations and answered many questions.

After returning by ferry to the island of Sealand, our last visit was to the Research Centre Flakkebjerg. Here, besides traditional research on weed control, the researchers of the Department of Weed Control and Pesticide Ecology do a lot of research on non-chemical weed control. There was much to interest us here, including an electrical hand operated brush weeder, which might perhaps become the next project for Gundaroo Tillers!

Next day was the opening ceremony, and the opening of the World Organic Exhibition, and later the Organic Fashion Show, which was an entertaining lark, magnificently done.

I nearly forgot to mention the two walks, one to show Urban ecology in Copenhagen, during which we saw various ecological projects, such as a beautiful courtyard garden in the middle of a large block of flats with benches for residents, and compost bins for their kitchen waste. There were trees and shrubs and lovely brightly coloured flower beds, and a pergola, with a vine over it and a table and chairs underneath to sit with a cool drink in summer, (which some of us did!).

Later we saw a greenhouse being built in a school playground in the middle of a built-up area, using all natural materials, a green area between two streets, where old trees had been left, and grass and gardens planted, and some ecological houses (blocks of flats), where solar heating had been installed and rain water was being used for toilets. We asked why not for drinking and received the amazing (to me) reply that the rain water was too contaminated to drink. All Danish drinking water comes from underground, we were told.

Lastly we saw a wonderful Community Garden, where someone was hoeing his plot, but retired to an elegant little shed while we invaded his garden. There were about 20 beds full of lovely flowers and vegetables laid out in a rough circle with a central sundial and herb garden.

The other walk was to The Freetown Christiania, in Copenhagen where in 1971 a whole 85 acre area had been taken over by squatters, now numbering 900, who moved in when the army moved out, and after much trouble with the police and drugs, they evicted the drug dealers (one who refused to go, had his clothes taken away, and was put out on the streets of Copenhagen naked in November, He did not return!)

The members now have a truce with the police, who leave them alone, and they have set up their own government, and rule themselves, and can build their own houses. The woman who took us around the very large area had lived there twenty years.

We were not allowed to photograph in a certain area where there were pubs and shops, and where I was aware that many people were smoking marijuana. There were also, I noticed, many large dogs. They were well controlled, but I surmised that they might have helped to get rid of the hard drug dealers!

I went on both the walks, and was very glad to sit down in the big hall for the opening ceremony, and I slept well that night.

As the organising committee said in their welcome to the conference and Exhibition, "Organic agriculture is currently receiving a lot of positive attention in Denmark, from the farming community through consumers to decision makers. The exhibition could make the

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*Contact: Costas Kounnas
Shop 3 Jamison Centre, Bowman
Street, Macquarie A.C.T.*

Ph. 251 2670, Mobile: 0418 620811

achievements of organic agriculture known worldwide to the public which has taken the interests of organic farming very much to heart."

The government in Denmark is backing organics in a very positive manner with funds, with research, with educational booklets, brightly coloured to appeal to the general public, and there is a school, the School for Ecological Sales in Aarhus, which has been focussing on organic issues and the environment, with their efforts being directed primarily at the retail trade, catering trade, childcare centres, and the education sector. Their activities comprise teaching, project development, communication and practical consultancy. These initiatives are financed by public funding, and are developed in close collaboration with relevant organisations, industries and public authorities.

This school was founded in 1992 by the Union of Commercial and Clerical Employees (HK) in Denmark, and their aim is to help strengthen organic development in Europe. They have put out 6 brightly coloured booklets to educate the public on various phases of organics. I brought one back with me, but they have not yet managed to translate them into English, and the way England is going with the EU they will probably do them in German, French, Dutch and Spanish first! Perhaps not, I put in a strong plea for English versions soon.

We, in Australia, have much to learn from the Danish handling of Organics. I was impressed by the co-operation between the various bodies and the Government. They have one logo which tells the consumer loud and clear, in the whole country, "THIS IS ORGANIC PRODUCE"

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ALTERNATIVE FARMING SYSTEMS OFFICER APPOINTED!

Robyn Neeson has been appointed the Alternative Farming Systems Officer in NSW Agriculture and replaces Michael Burlace as Organic Farming Officer, with a new title. We wish her well in her new position.

Robyn is based at the Agricultural Institute at Yanco, and can be reached at

Environmental Planning and Management Unit,
PMB Yanco NSW 2703

Phone: (069) 51 2611

Fax: (069) 55 7580

E-mail: Robyn_Neeson_at_Yanco@smtpgwy.agric.nsw.gov.au

After travelling to different areas of NSW talking to many people in the organic industry Robyn found that one issue that concerns many producers is marketing and sales of organic and biodynamic produce. Consequently she believes there is a need for further discussions on this issue and she is interested in running some marketing workshops for organic and biodynamic producers. This depends on government funding.

Questions and Answers

*Contributions by the Panel / Jeanetta Main, David Odell and Dick Windsor
Compiled by Michelle Johnson*

The October General Meeting of COGS saw the audience asking a wide range of interesting questions of our panel, Jeanetta Main, David Odell and Dick Windsor. While I was unable to keep up and record the whole gambit of questions and answers, I kept track of some of the general topics discussed and have recorded them here for the benefit of the wider COGS membership:

What about the use of sterilized soil in the garden?

Dick: If the soil has been sterilized by the use of steam, then adding some to the garden soil is no problem. If compost is added and the bed aerated, the effect will be negated with soil organisms quickly establishing themselves in the sterilised soil. If methyl bromide has been used to sterilise the soil, the soil will need to settle (for a few weeks if aerated, longer if not) before the effect of the methyl bromide is diluted.

A serious problem however is the usual practice of adding a small percentage of chloropicrin to the methyl bromide during sterilisation. This compound is an irritant with a powerful odour which is added to methyl bromide as an identifier - a warning, since methyl bromide is odourless - and chloropicrin itself is a pesticide which is quite long lasting in the soil and more toxic to humans than the methyl bromide. It is best to avoid the use of sterilized soil.

One way to test the soil is the so-called "bird seed test", where you simply throw some birdseed in the soil and see if it grows - if it does your soil is OK.

How do I get rid of the small black ants in the garden?

Jeanetta: Watch if the ants are bringing aphids to plants. Ants will do this to allow the aphids to feed so they can gather the sweet honeydew secreted by the aphids. If this is the case, the first task is to get rid of the aphids which can cause considerable damage to plants eg the honeydew can cause sooty mould. There are a number of ways of doing this: hand squash them on each branch or twig (close your hand around the branch and run it upwards squashing them as you go), use soapy water, perhaps a garlic spray. Ladybirds and parasitic wasps will help control aphids.

The ants themselves can be killed with a bait of borax and icing sugar put near their nests.

What can I do with a chook - an Isa Brown - that has started to peck me now that she has started to lay?

David: Isa Browns are usually a friendly breed, and do not usually do this - probably looking for attention (psychological). Don't scruff her head to frighten her as this may put her off laying.

David pointed out that the colour of Isa Browns is sex-linked:- the female is brown, the male white. This makes it very easy to sex the chickens.

On a later question on roosting perches, David reminded the audience that rooster and chooks will always sit on the highest roost.

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How can I be sure that the Blood and Bone I use is not contaminated?

All panel members: The only way to be absolutely sure is to use a certified organic brand.

Dick: If you already have some, you can usually tell from its appearance:-

"Good" Blood and Bone: It has a soft floury feel, not a harsh sandy feel or look. It is usually a yellow-brown colour or red-brown depending on the amount of blood present. It has a wholesome "vegemitey" smell. It will not dissolve in water.

"Bad" Blood and Bone: It often contains a crystalline urea which can be seen. It is a grey or grey-brown colour, and has an acrid chemical smell. Some of it will dissolve quickly in water..

(Editor's Note: A previous issue of the Quarterly (Spring 1994) reported on a study by Burke's Backyard into the content of various brands of blood and bone. They found that the only brands they could recommend as free from contamination were the Yates and Pivot brands. It is not known by the editor if the other brands have "cleaned up their act" in the last two years. No certified organic brands were tested.)

What can I do about curly leaf on my fruit trees?

Dick: This can be a problem if the fruit trees have been bought from a nursery which sterilizes its soil or if the trees were bare-rooted when purchased as they may not have the necessary mycorrhiza which are essential for the plant to extract maximum nutrients from the soil and exert a positive effect on the tree in terms of both deficiency diseases and resistance to pathogens.

When curly leaf appears you must pick off the affected leaves (don't defoliate the tree!). A Bordeaux spray can be effective - once after leaf drop, and once before bud swell.

Preventative measures include planting nasturtiums or garlic underneath the trees but be warned - you need a mass of garlic to be effective.

How can I get rid of snails and slugs in my garden?

This common question received a number of replies from the panel and audience as we recounted favourite control methods. These included:-

- * Ducks - but be careful of the breed. Use Khaki Campbells or Indian Runners, but not Muscovies.
- * Traps containing vegemite and sugar in water (if you don't want to waste your beer!)
- * orange halves with the inside scooped out, placed upside down in the garden. This will attract the slugs particularly and then you must regularly inspect the oranges and destroy them. Replace oranges regularly.
- * patrol the garden at night, particularly after rain and squash all that you find - gumboots are a good idea.

What is the small black "worm" I see in my strawberries?

Dick: This is most likely a flatworm, which has crawled into the cavity in the fruit after it has been eaten by slugs. The flatworm itself will not eat the strawberry.

How do I get sweet carrots? (Jeanetta asked this one, commenting that she had tried different varieties with no improvement)

We weren't sure of the answer to this one - if the problem wasn't linked to variety - except that David commented that they need to grow quickly to ensure the best flavour.

Subsequent reading has come up with the following suggestions from "Grow your Sweetest Carrots Ever!" by Eric Rosenthal in Organic Gardening July/August 1995:

- * Growing conditions can influence sugar content. A cold damp summer won't produce as sweet a carrot as a warm summer followed by a cool autumn.
- * The cooler the soil at maturity, the sweeter the carrot. Thus planting time can be a major factor in carrot sweetness. Planting late in spring- early summer rather than early spring can mean sweeter carrots. Seeds also germinate more reliably when the soil has warmed up.

Nutrient Deficiencies in your Plants:

How to Identify and Correct them - Organically

By Michelle Johnson

All organic gardeners should be building up a healthy soil full of nutrients available in a balanced form, well aerated and of a good crumbly texture. Plants grown in such a soil will grow strong and healthy.

However, it can take time to create this soil, and in the meantime problems can occur due to nutrient deficiencies in the soil and subsequently in the plants grown in that soil. This article gives guidelines on how to identify the common deficiencies that can occur in some of our favourite vegetable plants and offers some advice on how to remedy them.

The remedy in the longterm is often to add compost regularly to the soil, and the importance of this fertiliser cannot be over-emphasised. Remember to make plenty of this wonderful stuff from a variety of ingredients and problems will rarely arise. There are many articles in previous COGS Quarterlies on making compost, and compost-making features in almost all books on organic growing.

Check your soil pH

If you think there is a possibility of a nutrient deficiency in your soil, first a word of warning: **before** you start adding admendments to correct the supposed imbalance **test your soil pH!**

If the pH is outside a range of about 6.0 to 7.0, which the best range for growing most vegetables, certain nutrients **although present in the soil will not be present in a form that is accessible to your plants**. Adding more is unnecessary. You need to correct the pH.

pH is a measure of the acidity or alkalinity of a substance. The scale ranges from 0 to 14, with a pH of 7 as neutral ie neither acid or alkaline. pH values below 7.0 are acidic, above 7.0 are alkaline. It is important to remember that pH is not a linear measure - each unit change in pH corresponds to a ten-fold increase in acidity or alkalinity eg a pH of 6.0 is 10 times as acidic than pH 7.0, and pH 5.0 is 100 times more acidic than 7.0.

If your soil is too acid (as it often is in this region, and many parts of Australia) add some Dolomite (contains calcium carbonate and magnesium carbonate) - in Autumn. It is a slow release substance which will raise the pH over winter ready for next Spring's planting.

Usually you will only have to correct your soil pH every 3 or 4 years. Never apply fertilisers at the same time as dolomite, as unfavourable chemical reactions can occur. Wait a few weeks or a month if possible.

The Big Three: N:P:K

Nitrogen (N):

Nitrogen is an essential component of chlorophyll which gives leaves their green colour. It improves the quality of leaf crops and is very influential in determining the size of the fruit. Deficiencies in this nutrient show up clearly in the overall slow growth of the plant and the colour of the leaves which are typically light green to yellowish.

See Table 1 for possible solutions. Be careful however correcting any imbalance as an excess in nitrogen can lead to lush foliage but little or no fruit on your plants.

Particular symptoms, in addition to leaf colour and slow growth, for common vegetables are:

Tomatoes:- Flower buds turn yellow and drop off. Fruits small.

Corn:- leaves have yellowish centre streaks. Lower leaves affected first, gradually become brown and drop off.

Potatoes:- Young top leaves may curl upward. Tubers will be small.

Cucumbers:- Fruit light in colour and pointy at blossom end ie part furthest from the vine.

Phosphorous (P):

Phosphorous is important for the hardy growth of the plant, playing an important role in root development and cell activity.

When a deficiency in phosphorous exists, particular symptoms can include:-

Tomatoes:- Leaves dark green, purple underneath. Very slow growth.

Corn:- Stalks small. Leaves purple at the tips and along the margins.

Potatoes:- Stunted plants. Leaves may curl upward. Tubers may have brown specks inside, often radiating out from the core (note extremes of temperature or viruses can cause similar effects).

See Table 1 for ways to overcome this deficiency.

Potassium (K):

Potassium is an essential element for plants, and is involved in a wide range of physiological and biochemical functions. Some of these are

- * strengthening stems and stalks
- * controlling the turgor pressure within plants to prevent wilting.
- * contributing to a thicker cuticle which guards against water loss and disease
- * starch formation and sugar transport from the leaves to the roots.

Specific symptoms of a deficiency in this nutrient are:

Tomatoes:- Leaves dark green, leaves bunched together. Older leaves become yellow, then brown at the edges. Fruits fall off soon after ripening, and often have hard white "core".

Corn:- Lower leaf tips become scorched and brown. Poor root system. Stems can become so weak that they snap off.

Potatoes:- Leaves very dark green, may turn brown at edges and die.

Other Macronutrients:

Calcium:

Calcium is a component of cell walls, and stimulates root and leaf development and activates enzymes involved in plant metabolism.

In *tomatoes*, calcium deficiency is exhibited as "blossom end rot". This is also associated with uneven watering, which means that calcium does not reach the flower in time for fruit set. Tips of new growth are stunted.

Calcium is not usually deficient in soil as most gardeners apply dolomite to raise the pH. If the pH does not need raising and a deficiency exists it can be corrected by adding gypsum - calcium sulphate. Note that natural gypsum is usually grey in colour, while synthetic gypsum is usually white and may contain impurities.

Calcium can also be added by crushing eggs shells and adding to the compost.

Magnesium:

This element is needed for photosynthesis to occur. It also stimulates the uptake of phosphorous.

In plants such as *tomatoes* and *beans* a deficiency causes older leaves to turn yellow while the veins stay a bright green. They eventually turn brown and die. Only a few flowers and fruit form.

The fastest solution to a deficiency is a foliar spray of kelp or other seaweed extract. In the longterm a deficiency is usually corrected by adding dolomite. If the soil pH does not need to be raised however add Epsom Salts (magnesium sulphate).

Trace Elements:

Generally to know if you have a deficiency in any of the trace elements you will need to have your soil tested, as deficiencies cause a wide range of problems which vary from plant to plant.

Two deficiencies which can be easily identified by visual means are boron and molybdenum.

A deficiency of boron shows clearly as a brown discolouration of the heads in broccoli and cauliflower (and the stem of broccoli too). Use a liquid seaweed foliar spray for immediate results. Be cautious about adding boron to the soil as it can be toxic to plants. Use precise measurements after a soil test.

A molybdenum deficiency in cauliflowers shows as stunted growth and yellow colouring. Spray with a liquid seaweed product. In the longterm add compost, organic mulch or green manure. Make sure the soil pH is right.

Liquid manures or foliar sprays from seaweed products are extremely useful for correcting deficiencies in micronutrients eg deficiencies in iron, manganese, zinc and copper in tomatoes.

Make sure your soil is at the right pH as the supply of micronutrients can be restricted if the soil is too acid or alkaline.

The visual descriptions given above can be used fairly reliably to detect obvious deficiencies of the macronutrients in your soil. For most organic gardeners who regularly use compost and other organic fertilisers it would not be necessary to worry further. However, if you want be sure a soil test would be necessary for these as well as the trace elements.

References

- "Rodale's Chemical-Free Yard and Garden: the ultimate authority on successful organic gardening", Rodale Press 1991.
- "Visual Guide to Nutrient Deficiencies" by Joanna Poncavage "Organic Gardening" May/June 1995.
- "LaMotte Soil Handbook"
- "Peter Cundall's Organic Gardening" Gardening Australia Collector's Series No. 1

TABLE 1: SOLUTIONS TO NUTRIENT DEFICIENCIES

NUTRIENT	SHORTTERM	LONGTERM
Nitrogen	Water with fish emulsion made up to a weak "tea", or another high nitrogen liquid manure eg one based on animal manures.	Add plenty of compost, well-rotted animal manures or Blood and Bone. Grow a green manure crop high in nitrogen eg legumes such as hairy vetch.
Phosphorous	Use a seaweed foliar spray or liquid manure made from fish extracts for immediate results. These products stimulate the enzyme system of plants, making them more efficient at absorbing phosphorous from the soil. Alternatively, work Blood and Bone or rock phosphate into the soil where it can be reached by the roots. Water well.	Remember phosphorous in the soil may be unavailable to plants if the soil pH is not between 6.0 and 7.0. Add blood and bone or rock phosphate to your soil. Peter Cundall advises that in cold climates there is no point in adding blood and bone after the end of April and before the end of July as it cannot be used. Adding rock phosphate to your compost in Autumn and spreading the finished compost in Spring will make the nutrient available faster as the microbial activity converts some of the phosphorous to soluble form readily absorbed by plants.
Potassium	Use a foliar spray based on a kelp-extract. Apply wood ash around the plants, water in well. Comfrey liquid manure can be very beneficial.	Add compost regularly to the soil, or aged manure or ground kelp.

Note:-

1. Seaweed can be applied as a liquid manure to the soil surrounding the plant, or sprayed as a foliar spray. Foliar sprays can be beneficial if the roots of the plant are stressed and cannot take up nutrients well. However, applied to the soil it can also stimulate soil bacteria which will indirectly benefit the plant.
2. Other liquid manures are best used carefully to water the soil (after it has been watered well with plain water!). Foliar spraying can burn the foliage although this should not be a problem if the "tea" has been diluted enough. Remember the important words with liquid manures are **DILUTE** and **FREQUENT**.
3. Although this article is discussing nutrient deficiencies, it is worth keeping in mind that liquid manures can be useful applied at certain critical stages of plants growth to give it a boost eg tomatoes at fruit set with a comfrey liquid manure.
4. Be careful with the blood and bone product used. Some contain impurities. To be sure that the product is not contaminated use a certified brand.
5. There are a number of certified fertilisers coming on to the market now eg some Dynamic Lifter, Alroc. Check the relative composition of the products to see which nutrients they supply and then use as directed.

Permitted Materials for use in Soil Fertilising and Soil Conditioning.

From the National Standards for Organic and Biodynamic Produce" Annex 11 produced by the Organic Produce Advisory Committee, 1995

- *aerobic compost
- anaerobic compost
- "compost" is the conversion of organic ingredients into humus colloids
- *approved microbiological and biological preparations¹
- *basic slag only after residue testing for heavy metals
- *blood and bone, fish meal, hoof and horn meal, or other waste products from fish or animal processing¹
- *bio-dynamic preparations 500-507
- *calcined or rock phosphate and other crushed mineral bearing rocks (excluding those minerals which are more than 20% soluble)
- *clay, bentonite
- *dolomite and lime from natural sources
- *fish products
- *gypsum (calcium sulphate) from a natural source
- *homeopathic preparations
- *mined organic products such as peat, or coal subject to approved testing.
- *naturally occurring biological organisms (eg worms) but excluding products derived from genetic modification technology.
- *organic by-products of the food and textile industries
- *rock potash and sulphate potash
- *sawdust, bark and wood waste from untreated sources
- *seaweed or seaweed meal¹
- *slurry from certified sources
- *straw
- *sulphur
- *trace elements (including materials such as borax, Epsom salts, but not synthetically chelated elements). Natural chelates are acceptable, eg ligno sulphates and those using the natural chelating agents such as citric, maleic, tartaric and other di- and tri- acids
- *wood ash from untreated sources

¹Some of the available commercial products identified above by ¹ have added nitrogen or other chemical fertilisers which are unacceptable in organic farming and therefore such products must be selected with care.

It must be stressed that organic growing involves far more than simply substituting organic fertilisers for chemical ones, and other sound organic practices including composting, use of green manures and crop rotation should also be used.

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ORGANIC TREATMENTS FOR THE CONTROL OF PLANT PESTS AND DISEASES

By Michelle Johnson

The following products are among those used by organic gardeners as organic measures against severe attacks by pests or diseases. In some cases the sprays need to be repeated at regular intervals.

DISEASES:

Stinging Nettle Spray

This spray is not a fungicide or bactericide, but rather an effective growth enhancing spray which helps the plant grow more vigorously even if affected by disease (particularly fungal diseases such as powdery mildew). It contains nutrients and hormones which strengthen the plant.

To make: Collect the whole plant or leaves - wear gloves for this exercise! - Crush the leaves and put in a bucket. Cover with water. The quantities for this mixture do not need to be precise, but roughly 500g of leaves to 5 litres of water makes a good strength brew. Leave for at least a week, by which time it will have a very strong smell. Strain the mixture, and store the liquid concentrate for up to one month.

To use: Dilute the concentrate by adding 5 parts water to 1 part concentrate. Spray once every two weeks to once a month depending on how serious the problem is.

A seaweed spray is also a good growth enhancing spray.

Ref: 1. "Chemical-Free Yard @ Garden The Ultimate Authority on Successful Organic Gardening", Rodale Press

Baking Soda (sodium bicarbonate)

This is reputedly a useful spray against fungal diseases including black spot on roses.

To make: Dissolve 1 teaspoon of baking soda in approximately 2 pints (1200ml) of water. Add a few drops of liquid soap to the mixture to help spread it more evenly.

To use: Spray plants thoroughly, including undersurfaces of the leaves.

Ref: 1 as above

Sulphur

Sulphur does not kill fungal spores but it prevents infestations because the spores cannot germinate in the sulphur film. Therefore the sulphur must be on the leaf before the spores land. In wet weather repeated spraying must be carried out to maintain the protection.

It helps outbreaks of powdery mildew, brown rot and leaf spot.

To use. Sold commercially as a dry dust or as wettable sulphur. Spray evenly over plant. Do not use in conjunction with oil sprays or in hot weather.

Ref: 1. as above

2. "Organic Gardening", Peter Bennett

Condy's Crystals (potassium permanganate)

A powerful fungicide with advantages and temporary disadvantages. Its' advantages are that it is easy to apply, not dangerous to handle and ends up as a fertiliser (potassium and manganese). However its' disadvantage is that it kills earthworms in the localised area where it is applied.

Peter Bennett² believes it is effective against wilt in tomatoes if applied to the damp soil the day before planting out the tomato seedlings. He recommends a rate of 35g to 10 litres of water.

Bordeaux Mix

This is a very potent fungicide. Try other options first before using this. Never spray at rates higher than those recommended, and try to avoid repeated use. It is best to buy the ingredients and make up yourself, so it is fresh when you spray (use within an hour of making up).

A description of the making of Bordeaux is given by Jackie French:

"³Bordeaux is made from copper sulphate (bluestone) and calcium hydroxide (hydrated or brickies' lime). Calcium carbonate or agricultural lime (the sort you would normally use in the garden) doesn't work at all. Both can be bought quite easily from hardware stores. Try to get fine crystals of copper sulphate. They dissolve more easily than the coarse ones, which need a lot of stirring.

Make sure the hydrated lime is from an unopened bag. Once the calcium hydroxide is exposed to air it becomes carbonated to calcium carbonate, and won't neutralise the copper sulphate. The resulting spray may severely damage your trees.

Mix 90g of blue copper sulphate with 6.5 litres of cold water in a non-metallic container: plastic, glass, wood, earthen ware. Never use iron or galvanised iron for Bordeaux. In a second non-metallic container, mix 125g of slaked lime (brickies' lime, not agricultural lime) in another 2.5 litres cold water in a non-metallic container. If either is lumpy, put it through a strainer. Lime may also be mixed with bits of sand, and unless strained may block the spray nozzle. The copper sulphate must be thoroughly dissolved in sufficient water, or it may form a suspended precipitate that will sink to the bottom and not stick so well to the plants. Mix the two together. Stir well.

Test with an old nail. Dip it in the mixture for thirty seconds. If it comes out blue, you need more lime, or more mixing to dissolve the lime. Don't use it until you have corrected the problem - you may burn your plants."

Ref: ³ "Natural Control of Garden Pests" by Jackie French

PESTS:

Pyrethrum (Chrysanthemum cinerariifolium)

A homemade spray can be made from the leaves of this plant. It is useful against many chewing and sucking insects, but is not toxic to birds or mammals. It will however kill lady beetles, fish and aquatic insects.

It is a contact insecticide, and repeated sprays may be necessary as it is quickly broken down by light and heat.

Do not confuse pyrethrins (the insecticidal chemicals in the plant) with pyrethroids, the term for a new class of synthetic pesticide.

To make: Pick the flowers in full bloom when the concentration of pyrethrins is at their peak, and dry them.

To use: When you need the spray, grind the dried flowers to a powder. Mix with water and add a few drops of soap. The amount of water needed can vary as the concentration of pyrethrins in the flowers is unknown. Jackie French³ suggests about 1 tablespoon of the powder in a litre of warm water.

Garlic Spray

This is an insecticide which can be used against a wide range of insect pests, and may also have some effect as a fungicide. It appears to work well against aphids, many caterpillars, and squash bugs.

Recipes for this spray vary widely and you may like to experiment for yourself with quantities. The following recipe is taken from Reference 1 p217, a Rodale publication which is normally very accurate (NB quantities are converted to metric):

To make: "Soak 90g of minced garlic cloves in 2 teaspoons of mineral oil for at least 24 hours. Slowly add 600ml of water that has 7g of liquid soap or commercial insecticidal soap mixed into it. Stir thoroughly and strain into a glass jar for storage. Use at a rate of 1 to 2 tablespoons of mixture to 600ml of water. If this is effective, try a more dilute solution in order to use as little as possible."

Spray plants thoroughly. However, if you are concerned some ornamentals may be sensitive to the spray, test by spraying a few leaves first and then wait a few days and examine the leaves for any possible damage.

Ref: 1

Rhubarb Spray:

This is useful homemade insecticide.

To make: Boil about 1kg of rhubarb leaves with 2-3 litres of water - this leaches out the oxalic acid content. Simmer for about 30 minutes.. Add about 30g of soap to form a permanent lather.

To Use: Dilute with water before spraying.

Ref: 1. @ 2.

Diatomaceous Earth

This is a commercially available insecticidal powder made from silica. It acts on most soft-bodied pests eg aphids, thrips, mites, snails, since it scratches their skin and they ultimately die from dehydration.

Do not dust it widely over crops, use judiciously around the stems of plants needing protection, or dust the leaves.

Ref: 1

Dipel (BT):

This is commercially available.

It is a biological control - which must be eaten by the insect pest in order to be effective. When eaten a bacteria causes an insect disease which is not harmful to humans and other mammals, including most pests and most beneficial insects.

It is very effective against moth and butterfly caterpillars and some beetles and flies. It is most often used for the control of cabbage white butterfly.

Use only when the pest is in plague proportions as there are concerns that the pests may build up a resistance to this extremely useful control.

Ref: 3

Derris (Rotenone):

This is a commercially available broad spectrum insecticide which paralyzes insects by a nerve poison. It works well against aphids, plant bugs, spider mites and most chewing insects.

It is very potent so use only if absolutely necessary. It is very toxic to fish, birds and pigs. Take precautions when spraying as it can cause skin irritation and other effects on humans.

Ref: 1

Ryania:

The roots, leaves and stems of *Ryanis speciosa* contain ryanodyne the active ingredient of this botanical insecticide which is commercially available as a dust (but unfortunately not very easy to obtain). It is a contact and stomach poison.

It is more stable to light and air than derris or pyrethrum and hence has a longer residual effect. However it is very water soluble and washes away easily in rain.

It is reputedly effective against codling moth in apple orchards and on other caterpillars such as corn earworms, European corn borers and cabbage loopers. It helps control many chewing and sucking insects.

Ref: 1

LOOKING AFTER YOURSELF IN THE GARDEN

While gardening is an excellent recreational activity, as well as providing a wonderful bounty, there are a few occupational hazards we need to keep in mind:-

* One of the most common complaints of gardeners is a **bad back** - if you don't have one when you start, you have a good chance of having one when you finish - so read John's article opposite for some practical advice.

* Our plants love to soak up the Australian sun in summer, but we don't have to join in and end up with skin cancers! Try to avoid gardening in the middle of the day - plants are better watered in the early morning or evening anyway. If you must be out in the garden then **remember the slip slop slap!**

* If you handle manure or soil containing manures don't forget there is a possibility the tetanus germ (tetanus bacillus) could be present and could enter the body through open wounds. Tetanus can be a serious disease, so be on the safe side and make sure your tetanus injection is current.

* For protection from tetanus and some of the other nasties that cohabit the garden it can be wise to wear **gloves** when working in the garden. Always wear them when handling unfinished compost.

LOOKING AFTER YOUR PLANTS

One of the simplest ways to protect your plants from disease in the garden is to practice good garden hygiene. Then you may not need to reach for any sprays, organic or not.

* Remember that you can be responsible for carrying disease organisms from one part of the garden to another on your shoes, clothes, hands or tools. Make it a regular practice to work in those parts of the garden where you know there are already diseased plants, at the end of your gardening session. To further prevent the spread of soil-borne diseases, **mulch** around affected plants.

* Always clean your tools at the end of your gardening session (or at least before the start of the next one!). One way is to wash them in a bucket with a 10% bleach solution (9 parts water, 1 part bleach). Wipe off and dry. Apply a coat of a light oil to all metal parts.

* Just as you clean your tools it can be a good idea to wash your clothes between gardening sessions if diseases are present in the garden. Scrape off any soil on your shoes (not into the garden!) and wash if possible in a weak bleach solution.

BACK STRAIN IN THE GARDEN

John Allen

I suffer from a lower back problem which means that I have to be careful that I do not do too much bending. Most work in the garden requires bending, so I have had to develop some new habits.

The two main things that help me are a special kneeling device and long-handled tools.

The kneeling device is a padded surface with handles that I can kneel on. I can then do many gardening activities like weeding, ploughing and planting without strain. These devices are available at hardware stores and garden centres. I noticed a good one in a mail order catalogue for \$49 (Innovations) which doubles as a low seat as well.

The long-handled shovel and fork are also much easier to use as they require less bending. There is, of course, extra weight to handle though which may cancel out the benefits with some people.

My Chiropractor - Dr Mark Tapper - has offered to write an article for us on good back practices in the garden. That should appear in the Autumn Quarterly.



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VEGETARIAN FARE

Recipes supplied by Michelle Johnson

ASIAN STYLE

Sometimes in Summer we want a change from cold salads for dinner, but do not want to spend much time in a hot kitchen, or have a heavy meal. A stir-fry can be an excellent solution to this problem, providing a hot meal which is quick and easy to prepare and which retains the freshness of the vegetables added. I have given two favourite recipes for tofu stir-fries below, along with a stock recipe. The stock is wonderful to have in the freezer to use at any time. The recipes are vegetarian to suit my family.

TOFU CURRY

(based on a recipe from "The Vegetarian Gourmet" by Roz Denny)

INGREDIENTS

350g block of firm tofu, cubed
2tbsp tamari (wheat-free light soy sauce)
2tbsp vegetable oil (peanut or corn are good)

paste

1 small onion chopped
2 garlic gloves
1tsp grated fresh ginger
1tsp grated lime rind
2tsp coriander berries
2tsp cumin seeds
1tbsp tamari
juice of 1 lime
1tsp sugar

1 oz creamed coconut dissolved in 2/3 cup boiling water
optional: 2 fresh green chillies, 3tbsp fresh coriander chopped

note: lemon can be substituted for the lime, but it is not as delicate - if you do use lemon check that it is not a strong flavoured one and reduce the quantity if it is.

1. Toss the tofu cubes in tamari and leave to marinate for approximately 15 minutes while you prepare the paste
2. Put all the paste ingredients into a blender or food processor and blend till smooth.
3. To cook: Heat the oil in the wok, stir fry drained tofu cubes until browned. Drain on a kitchen paper towel. Pour the paste into the wok and stir well. Return the tofu to the wok and mix into paste.
4. Serve with rice - preferably fragrant or jasmine rice. Serves 4.

Variation: I find this meal excellent as is in Summer. However, sometimes in winter when we look for a more substantial meal, I also add cooked peas and steamed potatoes (diced) when I reheat the tofu in the paste. If you wish to add a good quantity of these ingredients then it is best to increase the paste quantity (half as much again should be sufficient).

RED COOKED TOFU

(originally taken from a recipe in an old "Simply Living" magazine)

INGREDIENTS

1 large or two small cucumbers, sliced
1tsp sesame oil combined with 3tbsp vegetable oil
block of tofu, cubed
2tbsp tamari
1 red capsicum, cut into strips
2 tsp fresh ginger grated
2tbsp hoisin sauce
2tbsp rice vinegar
1/2 cup vegetable stock (see below)

To cook:

Sprinkle cucumbers with salt, stand in collander. Saute the tofu in the wok in 2tbsp of the oil until brown. Remove, sprinke with tamari. Set aside.
Rinse cucumbers and dry. Add remaining oil to wok and saute cucumber, capsicum and ginger for about 2 minutes. Do not overcook!. Remove from pan. Place hoisin sauce, vinegar and stock in wok and bring to the boil. Add the cooked tofu and vegetables and simmer, very gently for 5-10 minutes. Serve immediately with rice or noodles.

CHINESE VEGETABLE STOCK

(sourced from the same magazine mentioned above)

INGREDIENTS

2tbsp peanut oil
4 leeks
250g shallots, chopped
1kg onions
1kg carrots chopped
4 sticks celery chopped
small knob ginger finely chopped
8 cloves garlic
30g dried chinese mushrooms soaked in warm water for 20 minutes
1tbsp black peppercorns
4 bay leaves
2tbsp sea salt
3tbsp tamari

Note: Make the effort to get the dried Chinese mushrooms. They make an enormous difference to the flavour of the stock. Do not substitute ordinary mushrooms.

To cook: Heat the oil in a large saucepan, add vegetables, ginger and garlic. Cook on a low heat for 5-10 minutes, stirring occasionally. Add remainder of ingredients, cover with cold water. Simmer the stock for about 2 hours. If it tastes too strong, dilute with more water. Strain, freeze in small quantities eg 1/2 cup for future use in stir-fries, or soups.

CASUAL EATING

VEGIE BURGERS

Great for the kids on a fresh bun with lots of salad. The recipe is for 10 people, so halve if necessary or freeze some for later.

INGREDIENTS

2 onions, chopped
1 clove of garlic, crushed
1tbsp oil
175g cooked weight brown rice
175g ground walnuts
100g ground almonds
100g breadcrumbs
2 carrots finely grated
2 eggs
1tbs tomato puree
1tbs worcestershire sauce
2 tsp dried basil

Note: Other nuts can be substituted eg cashews instead of almonds, pecans instead of walnuts.

To cook:

1. Saute onions and garlic in oil.
2. Add to lightly beaten eggs, tomato puree and worchestshire sauce.
3. Mix together dry ingredients: rice, nuts, breadcrumbs, carrots and basil.
4. Add wet mix into the dry ingredients. Mix thoroughly.
5. Shape into burgers. Grill, fry or barbeque.

CHILLED CREAM OF LETTUCE AND PEA SOUP

Don't be put off by the sound of the ingredients, this soup is delicate and delicious!

INGREDIENTS

1 cup frozen peas
2 large potatoes chopped
1 onion, chopped
1 lettuce, broken up
3 cups vegetable stock
2tbs chopped chives
300ml cream
Juice of 1/2 lemon

Note: the vegetable stock opposite is not suitable, use a good vegetable stock cube if necessary eg Massel's Ultracube Vegetable Style Easystock. Chicken stock can be substituted.

NACHOS WITH SWEET POTATO

INGREDIENTS:

1 medium-sized sweet potato, cubed
2 tbs olive oil
2tsp cumin seeds
2tsp coriander seeds
1 onion, chopped
1 clove garlic, crushed
1tsp paprika
large can tinned tomatoes
1 capsicum, preferably red, chopped
small can red kidney beans, drained and rinsed
200g packet of corn chips
250g grated cheese

Note:

A small chilli can be added to the sauce with the onions. Please do not use the canned tomatoes with sugar added - it spoils the taste. The tomatoes can be blended to a pulp before adding to the mixture (my preference), or they can be added undrained.

To cook:

1. Put sweet potato in oven dish, drizzle 1 tbsp oil over the top along with cumin and corriander seeds. Cook in moderate oven for 30 minutes, until tender.
2. Prepare sauce. Heat remaining oil in pan. Saute onion, garlic and paprika. Add tomatoes and capsicum. Simmer until liquid is reduced. Add beans, heat through.
3. Divide corn chips between 4 ovenproof dishes. Top each with sauce, then sweet potato, sprinkle with cheese. Heat in oven until cheese is melted.
4. Serve immediately with sliced avocado and sour cream.

To cook:

1. Combine peas, potatoes, onion, lettuce, stock and chives in a large saucepan. Bring to the boil and simmer for about 1/2 hour.
2. Cool a little, the puree in a blender or food processor until the mixture is smooth.
3. Add the lemon juice and cream. Season if necessary. Add more stock if soup is too thick.
4. The soup is delicious served chilled like a vichyssoise, garnished with chives or shallots. It can also be served warm.

Community Garden News

Charnwood Community Garden

After a working bee to give the garden a much needed clean up, an open day was held on September 14 to attract new members to the garden. It was disappointing that advertisements sent to the Canberra Times Fridge Door column were not published, so we were dependant on letter drops and notices posted around the shopping centres and libraries. The weather on the open day was windy and cold and we only had a few interested people turn up. We are pleased to welcome two new families to the garden. There are currently only 11 families involved, so we would be happy to welcome any interested parties, there are two established plots that are vacant plus lots of land that can be turned into productive growing plots.

Margaret Allen
Convenor

Cotter Community Garden

Plotholders at the garden will be relieved to hear that the question of our security of tenure at the site has been resolved, and we will be staying for an indefinite period. The whole area is being transferred to the Department of Sport and Recreation and the Equestrian Association will have the use of the area outside our space, provided the valuable trees in the area are safeguarded. A Management Plan for the whole area is being drawn up and we hope to participate in this in a minor way to keep abreast of developments there.

Michelle Johnson

Community Gardens as Seed-Saving Hubs

COGS, via John Allen's home page, has recently received an E-mail from Russ Grayson and Fiona Campbell of Pacific Edge Permaculture in Sydney.

They are involved with the Kaston Garden Project in the Solomon Islands with APACE. Jude and Michel Fanton, of the Seed Savers Network, ran workshops in the Solomons, funded by the Project.

They are liaising with Michel and Jude and are interested in community gardens becoming seed saving hubs for the growing out of quantities of non-hybrid seeds to return to the network.

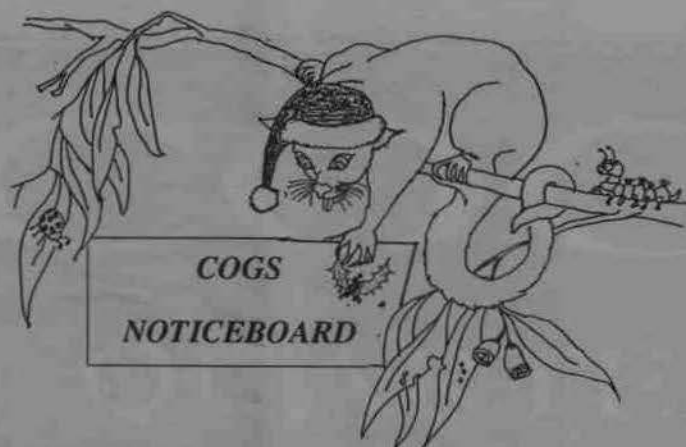
The Glovers Community Garden in Rozelle in Sydney is already doing this. This garden is in the Rozelle Hospital Grounds and was established in 1985. According to the Australian City Farms, Community Gardens and Enterprise Centres Inventory, "this garden is concentrated around a small group of people focused on growing, flowers, herbs and fruit by organic methods, who all share in the resulting produce....Permaculture classes use the garden as a resource for field excursions".

The UNSW Community Garden has expressed an interest if they can be taught seed saving techniques. The Northey Street City Farm in Brisbane is also interested.

Are any of the COGS Community gardens interested? This could be a very worthwhile project for a Garden to undertake and could at the same time help the COGS seed bank. The loss of diversity in seeds has been enormous this century and to keep the old varieties that are left seed savers needs gardeners to grow out seed and return to the network for distribution to other growers.

If any garden is interested, contact the COGS Committee or E-mail Russ and Fiona directly if you would like more information. Their address is:-

pacedge@magna.com.au



NOVEMBER GENERAL MEETING: Tuesday, November 26th, at 7.30pm in Room 4, Griffin Centre, Civic. Julia Veitch and Phil Moore will talk on the **Agro-Ecology Program at Santa Cruz** in California and present slides of their trip.

The library, seed bank, book sales and produce table will be available.

FEBRUARY MEETING: Harvest Night. This year's Harvest Night in February was so successful and interesting we would like to repeat this at our next meeting after the Xmas Break. Please think ahead to what you could bring from your garden to show to other members.

MEMBERSHIP SUBSCRIPTIONS FOR 1997: Members are advised that subscription rates for the coming year will remain the same as this year ie \$20 (or \$10 concession). The joining fee for new members will also be unchanged at \$5 (or \$2.50 for concession members).

HELP! MORE RECIPES NEEDED! The COGS Cookbook is underway but we need more recipes for everyday meal, snacks etc using fresh garden produce. If you can contribute please contact Joan Cordeaux ph 201 5105(w).

Mulcher: This is available for use by COGS members. Ring Richard Blyton on 231 6219 for information.

COGS Stall at CIT Plant Sale and Clinic: COGS ran a very successful information stall at the CIT Plant Sale and Clinic. Thanks to all who came along and helped on the day.

Seed Bank: We have been running the COGS Seed Bank at General Meetings for some time now. Marjatta Asa, our Seed Librarian, would appreciate some feedback on the viability of the seeds sold, and also any other comments on the growing success of these seeds. She would also welcome any donations of seeds from your seeding saving this coming summer/autumn and is willing to clean the seeds if you do not want this task.

Xeroscape Garden: Don't forget this garden is open in Weston in Heyson St., each weekend and demonstrates some excellent ideas on water-saving in the garden. They also run a series of workshops so look in your local paper for details on these.

The COGS Committee wishes you a happy and safe summer holiday, and bountiful gardening



MERRY XMAS
and
A HAPPY NEW YEAR!

