

COGS



Quarterly.

No. 2.

May, 1993.

# OFFICE BEARERS AND HELPERS 1993

## Canberra Organic Growers' Society Inc

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Produce Table	Dorothy Berndsen	
Book Sales	Murray Dadds	
Newsletter Poster	Oliver	

**NEXT MEETING:** Tuesday, May 25th, 1993 7.15 pm  
Room 4 Griffin Centre

**TOPIC;** John Raison - Soil Organic Matter: Formation and  
role in soil fertility"

### **VISITORS ARE MOST WELCOME**

*There will be the usual library, produce stall, seed bank and discount book stall, with a good supper and friendly talk afterwards.*

**Next Committee Meeting:** Tuesday 1st June, 1993 at  
7.30 pm. at the Environment Centre.

Articles in this Quarterly do not necessarily reflect the views of the Society, nor are the products and services offered by advertisers specifically endorsed by the Society.

### **ADVERTISING IN COGS QUARTERLY**

Size	One Issue	Three issues (consecutive)
Full page	\$20	\$45 (\$15 per issue)
Half page	\$10	\$22.50 (\$7.50 per issue)
Quarter page	\$5	\$11.25 (\$3.75 per issue)

Please contact the Editor to discuss the size and layout of advertisements.

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EDITORIAL NOTE.

Sue Pettersson, sadly, has resigned as Editor of the Quarterly, but this edition was prepared by her, and is the successful result of her aim to make the Quarterly applicable to local Canberra conditions, reflect members' needs, and to consist of original articles from COGS' members.

It has been a pleasure to work with Sue over the last 15 months creating an interesting and informative magazine; always I found her dedication and enthusiasm stimulating.

I hope your new Editor will enjoy the position and the demands it makes, and I wish her a happy Editorship in 1993.

Gay Baker.

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## YOUR PRESIDENT'S POINT OF VIEW.

It has been a glorious Autumn so far, my favourite time of year in Canberra. I remember when I first arrived from Sydney many years ago, I thought the Canberra climate was one enormously long winter followed by a brief hot summer. Only with time have I come to recognise the four distinct seasons here and appreciate the changes they each bring. My lack of vision in this regard may be surprising when you consider that I worked in the CSIRO in the climatology section for many years!

My increased awareness of the seasons is due in part to my interest in, and enjoyment of, gardening (the rest may be due to just the ageing process). It is very easy to quite unintentionally cut oneself off from nature in the city, but a garden is a wonderful link to the earth and the natural passage of time - as distinct from calendars and alarm clocks. You have to at least begin to notice what is happening around you.

However, I am conscious that I still do not give myself the time to observe the changes taking place, nor have I trained myself to see subtle differences from day to day. Yet I strongly suspect that the power of observation is a vital skill in a good gardener, and one I need to cultivate.

Apart from the joy such observation skills bring, they have practical spin-offs. For instance, I was interested in an article I read which gave the planting guide for vegetables in Spring in terms of the petal fall of various fruit trees. Do you know of any similar "markers" with our native vegetation? How do you use the garden itself to tell you when to plant your vegies? A simple calendar planting guide does not always give the complete story when seasons can be so variable. Let me know if you have any guidelines you use, I'd be very interested to year.

In the meantime enjoy the slower pace winter brings to us and perhaps join me in a resolution to give ourselves more quiet time in the garden. Time to "just potter around" as the saying goes.

Happy Gardening.

Michelle Johnson.

## NOTICES.

Discussion Evening: Video of the "Global Gardener" with Bill

Mollison (Permaculture).

7.45 pm. Thursday, 10th June, 1993.

Meeting Room 2, Upstairs

Tuggeranong Community Centre, Cowlshaw St.,  
Greenway.

## PRESIDENT'S REPORT, 1992/93.

Your Society has undergone considerable consolidation during the past year to set in place procedures to enable it to provide improved services and features for you as its members.

First, our Constitution had to be brought into line with the requirements of the ACT Government's Associations Incorporation Act and the time limits set under that Act and those of the Registrar of Associations. All Committee members were involved in one way or another if the statutory deadlines were to be met (and the rather considerable fines for non-compliance were to be avoided, but my special thanks are given to John Ross, John Robertson and Michelle Johnson for the detailed and dedicated work they undertook in this respect.

As an organisation matures and expands it must rely on agreed procedures when differences arise and for the first time an Extraordinary Executive Meeting was held to resolve differences which had arisen, initially, in the operation of Watson garden. That your organisation weathered this potential crisis is a credit to your Executive, the acceptance of its rules and the support which was expressed to the aims of the Society and to me personally.

Community gardens continue to be an expanding area of interest for the community and a forum for the input of expertise by your Society. During the year the Valley Community Garden was established in Tuggeranong to cater for the needs of residents in that area, and has got off to a good start. I envisage that in the not-too-distant future there will be a requirement for a part-time (paid) supervisor of Community gardens in order to provide advice and liaison responsibilities between the COGS members, the Executive Committee and the ACT Government.

Much work has gone on behind the scenes to re-organise and set in place policies for the use of the lending library - and for this I thank Jonathan Miller - as our library is a valuable resource which needs to be under constant review.

As Membership Secretary Michelle Johnson and her husband Richard have set up a data base to monitor our membership and this is proving to be a valuable tool in anticipating your needs - my special thanks to them both.

Andrew Collins took on the responsibilities of Treasurer at short notice and I greatly appreciated the assistance he has given.

After much thought and discussion your Newsletter has changed to COGS Quarterly for the months of February, May, August and November, with a Flier for the intervening months. These changes were necessitated

by the desire to make your Quarterly a well-researched journal pertinent to local issues, to take cognisance of increasing printing costs and postage charges and, very importantly, to recognise the law of copyright which requires the author's approval to reprint articles found in other magazines. Further, the Editor's job should be a pleasure, not a burden, and I thank Sue for the interest she has developed in promoting our interests and trust that being an Editor is 'fun'.

An expanding area of interest for your in-coming committee is in education. I have received many requests - as yet unrealised - for speakers to attend meetings of parents and students interested in agriculture and organic growing as part of a school's environmental studies. This is a very worthwhile activity but one which requires much thought and preparation before its launch.

A visit to Jackie French's farm at Araluen attracted an almost embarrassing response and in the event numbers were limited to 50 (plus) but all agreed this event was extremely worthwhile. A second visit is planned for the 20 or so people who missed out the first time. The intermittent rain did nothing to dampen the enthusiasm of members but did limit some of the planned activities.

This will be my last President's Report as I am not standing for re-election to this position. Naturally, there is some sadness in this as I have enjoyed the challenge of guiding your Society over the past 4 years through the many problems which beset an organisation which has diversified from its single interest, 'cosy' membership of 'fringe' people to one which now boasts a membership in excess of 300, controls 6 community gardens and is responsible for disseminating information on organic growing to an ever expanding audience. However, there is also an element of relief as my interests at Bungendore seem to be demanding more of my time - and that is the centre of my universe. Naturally, I will still be available to offer your new President assistance (should this be needed) and I will remain in contact with you through the Quarterly as your "Rural Correspondent".

My thanks, my special thanks, to all on the Committee who have assisted me in carrying out my duties as President as I am ever mindful that in a voluntary organisation they have all given freely of their time and of their talents to make your organisation the success it is.

David Odell.  
President.

23 March 1993.



CANBERRA ORGANIC GROWERS SOCIETY INCORPORATED

CONSOLIDATED BALANCE SHEET FOR THE YEAR ENDING 31 DECEMBER 1993

ASSETS

Shredding machine		
Opening Value	133.10	
Depreciation	20.00	
Total	113.10	113.10
Library Books		
Opening Value	752.10	
New Books	136.40	
Subtotal	888.50	
Depreciation	133.00	
Total	755.50	755.50
Garden Equipment		
Opening Value	2856.20	
New Equipment	6751.86	
Less Stolen Equipment	(86.95)	
Subtotal	9521.11	
Depreciation	1428.00	
Total	8093.11	8093.11
Cash Funds		
At Bank (Investment A/C)	2040.28	
At Bank (COGS A/Cs)	942.03	
Cash on Hand (COGS A/Cs)	1395.16	
At Bank (Grants)	3166.45	
	7543.92	7543.92

TOTAL ASSETS

16,505.67

LIABILITIES

NIL

Notes:

1. The Consolidated Balance Sheet includes all Garden Assets and unexpended Grant Monies.
2. All assets are depreciated at 15% per year of the reducing value.
3. Tools with a depreciated value of (say) \$86.95 were stolen from the Watson Garden during the year and have been written off.
4. The large increase in value of depreciable New Equipment is probably somewhat overstated in terms of realisable value, due to the inclusion of some (non-salvageable) building and plumbing materials.

*Andrew Collins*  
ANDREW COLLINS, HON TREASURER

*G.V. Barrell*  
G.V. BARRELL, HON AUDITOR

21 March 1993

21 March 1993



## POISONOUS PLANTS IN THE A.C.T. and the surrounding region.

Dr. Robyn McEwan, Director of the Poisons Information Centre of the ACT, spoke at our meeting on 24th November 1992, on the topic of poisonous plants particularly those found in this region.

"POISON: any substance which, when ingested, inhaled or absorbed, or when applied to, injected into, or developed within the body, in relatively small amounts, by its chemical action may cause damage to structure or disturbance of function."

Robyn then went on to say that there are noxious weeds, and poisonous plants, and while they are not the same, many of the noxious weeds are poisonous. A noxious weed is a plant banned from certain areas, and each area - as well as the whole State - has its own list.

Of those on the New South Wales list, hemlock, Paterson's curse, St. John's wort, Rhus tree and sweet briar were particularly harmful. In Queanbeyan, and Yarrowlunla Shire, hemlock, sweet briar and Paterson's curse were included on their lists. Sweet briar causes tetanus. (Robyn said all gardeners should have up to date tetanus inoculations).

Because many of the poisonous plants and noxious weeds were introduced from Europe, it was necessary to follow European records and findings but very often the plants were not as poisonous in the Australian environment because conditions differed. Tables from Berlin and Zurich showed that the highest number of poisonings were from cotoneaster (recently discussed as an addition to the ACT noxious weeds list, it is not poisonous here because the climate is not cold enough, but it is very serious in Canada), honeysuckle, firethorn, nightshades, christmas cherry, privet, philodendron and berberis, with other plants showing fewer instances. In Great Britain, berberis, nightshade, thornapple, hemlock, cotoneaster, bulbs, honeysuckle, firethorn and winter cherry were offenders. All these plants have been introduced into Australia, and while not all may be of noxious weed proportions, they remain poisonous.

In the ACT the most common poisonous plants are arum species, cotoneaster species, dieffenbachia, firethorn nightshade, philodendron, potato and thornapple - all of which are common sources of poisoning in Europe. Capsicum species (the sweet capsicum or garden vegetable, has been bred without toxic principles), devil's ivy, dracaena species, Japanese bamboo, monstera deliciosa and thorn apple.

The capsicum species, such as hot chillies, can cause burning, but wash off with warm water and soap; it will penetrate rubber gloves but plastic gloves are all right. It is the unripe skin of the monstera deliciosa which is poisonous, but the fruit is perfectly safe when properly ripe. Arum lilies, if the bulb is eaten, will be painful but not fatal; daffodils, (not in the ACT) have a cyanide component. Honeysuckle berries cause vomiting in children; the thornapple has a high thiamine content, and causes hallucinations as well as other symptoms; green potatoes are a problem for stock, and humans. Oleander causes problems in the ACT where it has stronger toxic alkaloids. Wisteria seeds are also poisonous.

The main forms of poisoning are from eating berries or fruits from these plants, or from contact dermatitis. Children, in particular, are inclined to put a brightly coloured berry into their mouths, and it is the berries which - in most cases - are the poisonous part of the plants. For example, all ivy berries are poisonous if eaten, but there are varieties of ivy (uncommon in the ACT) which cause contact dermatitis as well. Hemlock, a plant of which Robyn brought to the meeting to show exactly what it looked like and how to identify it from wild parsley or wild carrot, is very common near waterways, creeks and wet ditches in the ACT, and its leaves and seeds are very dangerous if eaten. Bulbs cause trouble if the bulb is eaten.

**GARLIC** came in for special mention. Robyn displayed excerpts of research findings on the species as follows:

#### **Alliaceae.**

Most authors include this family as a tribe of the family Liliaceae. Some botanists (e.g. Hutchinson 1959) place it in the family Amaryllidaceae. Willis (1966) whose family groups are being followed in this book, regards it as a separate family intermediate between Liliaceae and Amaryllidaceae.

It is a family of about 600 species and has representatives native to all continents except Australia. It contains such well-known culinary plants as the onion, garlic, shallot and chives as well as some weedy species, several of which are naturalised in Australia.

#### **Alium cepa L. :onion.**

The cultivated onion has been recorded as toxic to livestock in the United States but no reports of onion poisoning have been noted in the Australian literature.

**Toxicity, symptoms and lesions.** Consumption of onions in moderate or large amounts can provoke severe anaemia. In experimental feeding with dogs, cooked or raw onions added too the diet in amounts of 0.5%

or more of body weight resulted in anaemia with rapid depression of red-blood-cell count, sometimes to less than 2,000,000/ml. Counts almost as low have been observed in cattle. Older animals are often more severely affected than young animals (Kingsbury 1964).

In the field, symptoms have appeared 1 to 6 days or more after livestock have access to large amounts of onions. They are haemoglobinuria, anaemia and jaundice, in severe cases followed quickly by death.

**Allium schoenoprasum L. : chives.**

This cultivated plant has caused poisoning of horses in Japan, producing a condition known as "Ezonegi-poisoning". Cases reported to occur mainly in early spring when the species is among the first to appear as the snow melts. Symptoms described are similar to those produced by onion-poisoning.

Kobayashi (1950) reported that Kokanawa produced this condition by experimental feeding of horses with chives.

In a table showing positive patch tests with various vegetables causing contact dermatitis of the hands, garlic tops the list with 44 patients having positive tests; onions accounted for 30; tomato for 10.

Raw garlic in large quantities causes bruising if taken frequently; it has an anti-coagulant and in India 15gms 3 times a day is used to stop blood clots; and smaller people are more susceptible than larger people. If animals eat too much garlic they bleed to death.

Euphorbia Peplus - better known as chickweed in the ACT - has been used for thousands of years to remove warts, but Robyn said it is very dangerous near the eyes, and very painful, and causes acute keratoconjunctivitis. It is the white latex sap which is used and which is very caustic. It is not a folk herbal remedy to be used casually.

Bracken may be carcinogenic in humans; the toxic agents are not well understood but livestock are certainly affected and it is no part of the plant is recommended for human consumption. In animals it depresses the bone marrow, has an anti-Vitamin B factor and has been known to produce internal tumours in sheep, rats and cattle.

Contact dermatitis may be experienced from several plants and shrubs. Rhus succedanea has a similar effect to that of poison ivy; some grevilleas are also known to produce dermatitis through probable toxic principles such as phenolic compounds similar to poison ivy. Hybrids commonly in gardens are Robyn Gordon and Ned Kelly.

St. John's Wort (*Hypericum perforatum* L., not the European variety used for commercial pharmaceuticals) causes photosensitisation -

dermatitis on the lighter parts of the skin in sheep and cattle, so that they are badly affected round their mouths from browsing the weed. It can kill stock, and it is advisable to weed it with gloves if you have sensitive skin.

The DEATHCAP "mushroom" was very thoroughly discussed and illustrated by Robyn, as this is quite common in the ACT and very dangerous. It is the 'mushroom' which grows under oak trees - probably imported in the roots of trees years ago - and is distinguishable from an edible mushroom by its white gills, the white ring on the stem, and its white underground cup. These should NEVER be eaten, under any circumstances.

There is a 50% mortality, with proper care, and 70% mortality without immediate attention.

Robyn ended her talk by giving examples of human epidemics caused by grain infected with weeds, for example, poison in bread. Sometimes thousands of people have been affected, with varying mortality rates. The epidemics occur throughout the world, and are not always well documented.

Honey contaminated through Paterson's Curse has caused stock deaths, but no human deaths are known in Australia. Paterson's Curse causes liver damage and copper poisoning in sheep's liver.

Throughout her talk, Robyn answered questions and discussed points which members raised. It was a thoroughly practical and informative evening.

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**5% discount to COGS members, on  
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We in Canberra are lucky to be blessed with an abundance of deciduous trees and their glorious treasure of falling leaves. Humus building - they mean improvement for any type of soil, they aerate heavy clay soils and help to retain moisture in sandy soils. Leaves from fruit trees, oaks, and elms contain a high amount of calcium, phosphorus and magnesium.

If your heap seems to be getting too big, don't think you are gathering too many leaves, there is no such thing as too many autumn leaves. They can be shredded with a lawn mower by just pushing the mower back and forth over the pile. Mixed with grass clippings, sawdust and such, or shredded as indicated, they will not form a mat or be blown away. They can be used as a mulch around fruit trees, shrubs, especially on berries, camelias and azaleas etc.

This mulch can also be spread over garden beds or any area to be cultivated in the spring.

Besides composting in the usual way, this shows a few ways we can make the best of this rich and wonderful windfall.

#### N-P-K content of leaves.

LEAF	NITROGEN	PHOSPHORIC ACID	POTASH
Peach	.9%	.15%	.60%
Oak	.8%	.35%	.15%
Pear	.7%	.12%	.4%
Apple	1.0%	.15%	.35%
Cherry	.6%	.11%	.63%

Traudi K.

[You can also bag any surplus and keep it for summer mulch. It will probably begin to break down in the bags, which is even better. - ED.]

RECIPES. COG'S Supper Cake.

1 cup wholemeal S/R flour  
1/2 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 1/2 hour).

This cake was served for supper at the AGM in March this year.

Murrumbateman Scouts

Fund raising to send country scouts to the 17th Jamboree in January 1995.

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## SOILS.

At the February meeting Joyce Wilkie spoke about soils and said if our soil is not OK, nothing will be OK. The whole basis of organic growing is feeding the soil and not the plant. Chemical agriculture feeds the plant, not the soil. Soil is half way between the rocks and the vegetables. Some trees go deeper. Erosion washes soil down the hills, therefore deep soil is in the valleys or in the deltas of rivers. In Canberra we are on the hillside and the soil has all gone away. What we have under are sand, shale and slate, good for making clay. A darker layer shows there is more organic material in the soil. A very little soil is fragile. Dig a hole leaving one smooth side, cut in with a spade and cut a really firm slab which will show the condition and layers of the soil. It is important to know how deep your subsoil is. You cannot dig deep or you will bring clay to the top. Joyce then showed soil samples from her property to indicate what the layers of soil look like.

Globally there is massive degradation of our soils so it is necessary to know what to do, and what not to do, to soils.

**Physical classification of soils**, i.e. how much sand and how much air space there is. Plants need air and water so both must be able to get down into the soil. The minerals are too compressed in clay. Loam, the best soil = some sand, a bit of clay and a bit of silt. If you mix silt and clay, plus organic matter, it will stick into a "bundle", has passage for water so it will drain, and there are places for the plant roots to have nutrients, and it will hold water = good structure.

**Biological classification.** What makes the subsoil different from the topsoil is the microbial activity in the soil.

1. What are the roots doing in your soil? Do they go down, or sideways? = Soil too compacted.
  2. Worms. Do a worm count in the cooler weather. No worms = something wrong.
  3. Bacteria. Whenever you have any legume growing, check the roots. Rhizobia are very important, leave small balls on the roots; if under there, there is something wrong with the soil.
  4. Fungi. Near roots of plants. Work with the plant roots. Enable the nutrients to be broken down and given to the plants. Very important.
- Water.** A really important aspect of growing plants, and the soil's ability to manage water. Easy to overdo the watering in the backyard. Takes nutrients from the soils if too much is used. Good soil = (a) drains well, (b) holds water without getting bogged.



**Organic content of soils** = cycle of life and death. Return as much back to the soil as possible. Compost. Worms. Mulching. Different ways of achieving the same result. Nitrogen + carbon + water. Manure. Nitrogen + nutrients can take care of themselves. If there is something missing, put back the rocks. Rock phosphate, dolomite (ground up limestone + magnesium), limestone (no magnesium), ground basalt, very special, contains everything in the way of nutrients which plants need.

Use green manures to get N + carbon back into the soil. Plough plants back into the soil before they seed. Put in broad beans. Under sow legume with a crop. i.e. corn with soya beans. Put the whole lot back into the soil after picking the corn.

**Tillage.** The easiest and quickest way to improve soil is to break up the subsoil. Just break it open so everything can get down into it. No need to dig. Deep aeration will build soil much faster. Chisel plough. Disc plough to get rid of weeds, i.e. rotary hoe in the backyard. (essential for clover, or to get in rock dust), but the rotary hoe only goes a small depth, leaves a flat surface underneath = hard pan. To break the subsoil you must use a chisel plough, Wallace plough etc., to get a channel through the soil. (agropough). Do not go over an area twice with a rotary hoe or it will turn it to dust.

Joyce described her method as -

1. Slash.
  2. Goat manure.
  3. 1' deep hay. Leave for 5 months (over winter). All broken down by spring.
  4. Dig paths and put the soil onto the raised beds = 2 layers of soil.
  5. Hoe soil, then deep-dress with compost.
- Good results with green manures. e.g. 1. Slash. 2. Deep rip. 3. Green manure and rotary hoe. 4. Repeat green manuring.

Q. How often do you turn your compost heap?

A. We don't. The heaps are too big. We had to make large quantities without turning it, so we put agricultural pipe through the heap. We make heaps : a) sticks b) weeds 1' c) goat manure d) bales of hay or straw, up to 1/2 metre, then insert drainpipe, e) repeat layers, and pipe. 3 heaps: one in use, one closed, one being dug out. Takes 3-4 months (about 20 tons of compost).

Q. What green manures?

A. Oats, rye, planted with sweet corn. Winter green manure, use with cabbages, left as mulch round the cabbage. Broad beans. Put through a mulcher, quicker than using the whole plants. Put blood and bone etc., in the compost, not on the soil. Also worm castings. Compost is anti-fungal and anti-bacterial - if it is hot.

## KINDS OF GARDENS

After the AGM, Jackie French talked about different types of gardens. It means working out what you want from your garden. Gardens reflect the people who create them even more than houses do. Our garden is not the exterior decoration type of garden where flowers match the window blinds, it is a garden which very much suits our needs.

A wilderness garden is about creating a scene where the plants do the work, you don't have to weed, minimal fertilising, no pest control; harvest and every few years go out and cut the growth so you can get out of the gate.

Garden for privacy. Grow tall trees, keep lower branches pruned, grow other things under the trees.

Burglar-proof garden. No amount of gardening will keep them out, but you can deter them.

Magic garden. Popular two hundred years ago. Magic plants supposed to keep out evil influences.

Garden to keep dogs and cats in (or out). Catnip is supposed to attract cats: when the cat eats the young leaves the cat will get hallucinations, also the young shoots of kiwi plants. There is a thyme which will attract cats, but it is only good on a hot day. A hedge of wormwood is suggested. There is a whole range of plants which dogs and cats either like or hate.

Frost-resistant garden. Have a lot of paving. Concrete and paving attracts and stores heat. My Uncle has a garden without any grass in it, there are raised beds and the other areas are paved; plenty of fruit trees. Grow plants in among rings, also makes a less effort garden. Plant plants on the north side of the rocks. No mowing.

Edible garden. Foods eaten two hundred years ago are no longer eaten because they cannot be packaged for the supermarket. You must know how to use ornamental plants for food. Every common garden flower or shrub used to be eaten. There are many common things we grow which we have forgotten how to eat. Apple jelly with lavender flavour. Taste dahlia petals, each kind tastes different, with salads or on sandwiches. Vanilla grass needs a fairly sheltered spot. Dried, it tastes of vanilla.

Don't mulch at the moment. It will attract frost in the winter. Wait till the ground warms up in the summer. Mulch roots of things which die in the winter. Don't clean up the garden, the rubbish will protect the plants and soil from frost.

## A DUCK DIARY.

Another one of the little ducks is missing. Not one of my ducklings, but one of a family of Wood Ducks (*Chenonetta jubata*) which frequent my dams. This particular family was noticeable because it was much later than the normal batches (which had matured to become cannon-fodder for the open season) and the parents seemed so proud of their five ducklings one could imagine that it was their first hatching.

But then there were four! So many predators - such a little duckling. Of course there may have been more hatched before they reached the safety of the dam as the Wood Duck is one of the family of perching ducks which make their nest in a hollow of a green tree and the babies, when hatched, launch themselves into space to tumble lightly to the ground to make the perilous journey overland - shepherded by their watchful parents.

When danger threatens, the ducklings 'freeze' to the ground and are quite indistinguishable with their camouflaged plumage - but often this is not sufficient to save them. On one occasion, some years ago now, I was quick enough to catch one by hand for a closer inspection before releasing it to join its siblings.

The parents and their four offspring of this particular family were doing well, with the little ones growing quite rapidly on the young grasses I had sown to protect the dam wall, and each time I observed them I made a quick calculation as to their numbers. Usually all six were present, but as they got older the young became more independent (or the parents were letting them become so) so it needed a sharp eye to pick them out if they happened to be foraging on the bank of the dam ready to follow-the-leader to the safety of the water. Flora, my dog, has a fixation with poultry and continually tries to round them up. She thought she had the answer to rounding up the wild ducks by swimming out around them - she tried not to look foolish as they flew away.

But now there were only three babies. By now they were much too large to have been taken by a predatory crow (or Australian Raven (*Carrus Coronoides*)) and I can only assume that a fox had found a duck dinner. The scene had been rehearsed with my Kelpie pup Rocky a little time previously, as I watched him play around the slopes of the lower dam. Suddenly he made a rush forward and I could see he had something in his mouth but he was too far away to tell what he was happily playing with. At my call, he came rushing up to proudly show off his new toy and I could see then it was one of the ducklings that hadn't escaped notice by using its 'freezing' technique. I was worried that the duckling had been

damaged because Rocky's youthful exuberance was all too obvious, but he must have remembered the last time he had caught one of *my* ducklings (that hadn't survived the encounter) and the scolding that he'd received on that occasion. Happily the duckling was unharmed (Rocky had been very gentle) and after a careful examination it was returned to the safety of the dam and the rest of its family. But now there are only the three young ones and their parents, who seem quite unconcerned at their diminishing family - ah well - there is always next Spring!

Your Rural Correspondent.

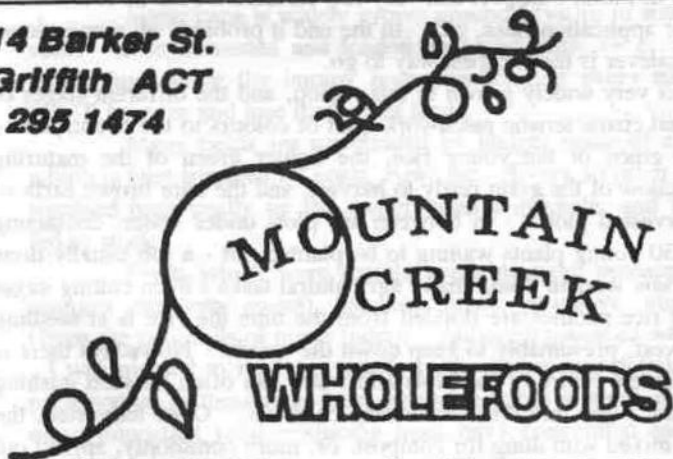
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## THE INDIAN WAY OF DOING THINGS.

As the plane descended quickly and we began circling Madras, it seemed that all I could see in every direction was water - flooded fields and pastures, with occasional patches of green. Such was my first impression of India on returning after 16 years. Indeed, I was quite correct as they had just experienced torrential rains and it was still raining. Strangely enough, this was the only rain we had in the whole 9 weeks we were there.

We went primarily on a spiritual trip, in southern Andhra Pradesh, Karnataka, and northern Tamil Nadu. However, it was not hard to observe farming/gardening practices as we travelled around. One thing that was difficult to determine was the extent of organic versus chemical farming. There were plenty of animals around - cows still wander village and city streets, as do goats, pigs, donkeys, oxen, water buffalo, chooks and dogs - so there was no shortage of animal dung, and in many places I saw this combined with straw to form a sort of rough compost heap. On the other hand, one hears stories of multi-national chemical companies dumping agricultural chemicals in Third World countries, and although English is widely spoken in India, I suspect that very few farmers would be able to read instructions for application rates, etc. In the end it probably all comes down to money - whatever is the cheapest way to go.

Rice is very widely grown in this region, and the different stages of growth give that characteristic patchwork quilt of colours to the countryside - the lush dark green of the young rice, the lighter green of the maturing paddies, the yellow of the grain ready to harvest, and the bare brown earth of the freshly harvested plots. In between are plots under water, containing clumps of 20-30 young plants waiting to be planted out - a job usually done by women (I saw women doing many agricultural tasks - even cutting sugar cane!). Most rice paddies are flooded from the time the rice is at seedling stage until harvest, presumably to keep down the weeds. Nowadays there is often a pump in the centre of the plots and water can often be seen gushing from 75-100mm. pipes into the surrounding channels. Once harvested, the straw is either mixed with dung for compost, or, more commonly, spread out in a dry area such as along the sides of roads, then piled high on ox-carts which are driven home in the evening where it is used to feed the stock.

Other crops such as young beans and cucumbers are grown in small fields - about 20 x 10-15 metres seems to be the standard size for most plots.

Other cucurbits such as pumpkins and marrows are grown over the thatched roofs of rural huts and small houses - often right beside busy thoroughfares where they not only get plenty of sun but get covered with dust as well!

Eggplants are quite widely grown, and used for "Brinjal" pickle, or as the basis of a sauce for rice and other dishes. The high year-round temperatures (day temps. averaged 20-28C, dropping down to 12-15C at night) allow for a range of our "summer" vegetables to be grown in winter. Tomatoes are popular as are, of course, chilli peppers, and sometimes sweet capsicums. A whole range of leafy greens is available, although these are not much use to Westerners unless well-cooked. The only vegetables we were game to eat raw were cucumbers and onions, after peeling.

Other vegetables widely grown in this largely vegetarian country are lentils, kidney beans, chick peas, soy beans and peanuts. Despite the latter crop being widely grown, peanut butter is almost impossible to obtain, the peanuts being invariably roasted and sold by boys sporting cane baskets on buses, trains and everywhere else either shelled or unshelled. Cashew nuts, grown in south-west India, are sometimes available, but are relatively expensive.

Sugar cane is widely grown around Mysore in southern Karnataka state. It is harvested and loaded on to ox-carts, or open-topped lorries which hurl along the bumpy highways looking every minute as though they'll tip over and lose their giant loads.

Many fields are surrounded by hedges made of a thorny legume, which is kept trimmed by goats, cows etc. Every so often these hedges are trimmed back neatly by the owner, with a machete, and the prunings are fed to stock.

Fruits which were readily available were pineapples, mandarins, oranges (not very sweet), bananas, limes, pawpaws, guavas and apples (from the cool hills of north India). Although mangoes were not in season, I was pleased to read one article in the newspaper detailing the fight for preservation of these large trees by native tribes in some areas, as they and other important food-producing trees have constituted sacred groves for hundreds of years.

The Indian diet, largely or totally vegetarian, often achieves a good balance by combinations of grains/pulses e.g. chapatis (flat wheat pancakes) or rice combined with dahl (lentil sauce) or subjee (vegetable sauce of beans, peas, carrots, potatoes etc.). Two of my favourite dishes, eaten with plain rice or roti (bread) were Palak Paneer, a thick spinach and



curd cheese sauce, and Aloo Matar, a pea dish in a thick gravy sauce. Often curd (yoghurt) or buttermilk is added to the above meals.

Dosai (lentil flour pancakes) or Iddlys, flat steamed rice cakes with a sauce of chilled vegies or a white 'horseradish' type sauce. Our children preferred them with sugar - a prominent component of most Indian diets! - honey or "mixed fruit" jam.

Milk products are quite widely available but not advisable, except that they were safe in both Ashrams we stayed at. A delight in the midst of a (to us) very austere existence was the delectable ice creams at Sai Baba's Ashram. Curd or yoghurt can be bought almost everywhere, and we found ourselves eating more and more of this in the better restaurants as we got used to conditions in India. Buttermilk, another excellent protein source, is much runnier than in Australia and usually salted - it's very tasty. Cheese, one of our most missed foods, was available only sporadically, as a processed cheddar.

Meat products - not tried, but of somewhat dubious safety, given the lack of refrigeration facilities for carcasses.

Fish products - only tried twice, both times were disappointing. They weren't properly filleted and therefore what little flesh there was had to be picked off the bones bit by bit. It invariably takes so long to prepare that by the time your meal arrives you may well be too old to enjoy it. After I found out at Mahebelipuram that the local fishermen bring in the fish and dump them straight on the beach, which is also the local turd deposit, I stopped eating it!

Another food that is invaluable for the (often) upset stomach, is a substitute for drinking milk, is found everywhere and is cheap, is coconut milk. You can get young coconuts entirely filled with milk, or "Mattai" - those where the flesh has just begun to form. After drinking the milk from these, the vendor will cut open the nut with his machete and you can scoop out the soft white flesh - quite delicious.

Rice itself is also a stomach soother taken plain. In south India it is always white, although when I was in the north in 1976 a red-hulled variety was also sold. The plain rice readily absorbs sauces and the other dishes which often tend to be mushy. It is the basis of the south Indian "Thali" plate meal, surrounded by a small quantity of all sorts of side dishes - chutney, yoghurt, dahl, vegetables, pickled lime, beans (soy and red kidney), raita (cucumber and onion mixed with yoghurt), served along with a couple of puris (deep fried pancakes) and/or pappadoms if you're lucky, and is followed by a small, rich Indian sweet, made from milk and sugar, or semolina halva.



Tea and coffee is always served with (boiled) milk and lots of sugar unless you say otherwise. They are all boiled up together with a touch of spices such as ginger, cardamom, cloves, - very tasty and refreshing.

The Indian lime/soda drink is recommended too. A fresh lime is squeezed into a glass with a teaspoon of sugar. Then you add bottled soda and stir.

Papaya (pawpaw) is great with banana chopped on top and a squeeze of lime juice all over.

Bread is always white, can be bought sweet or salted, great for blotting up in stomachs full of excess curry, or with jam, honey or Marmite (brought from Australia) for kids to eat; otherwise for a cushion in the meditation hall where the floor is hard, cold concrete, i.e. nutritional value - very limited!

Another aspect of Indian life I found interesting was their way of building, use and conservation of available resources and energy. Concrete is used extensively for building many structures - houses, porches, verandahs, suspended slabs, etc. Steel reinforcing rods not always used. I saw huge concrete troughs for flowers being constructed on top of the walls around Sai Baba's V.I.P. guest house. Strong wire mesh was formed up on top of the walls in sections about 2 metres long protruding outwards and upwards 150-200mm. either side of the walls. Cement was then laid on this and painstakingly sculpted to the required shape. Next day when it was dry, small corrections were made by workers who obviously had a real love of their work as well as of Sai Baba.

Many other structures were build of stone. Even "fences" were made of huge slabs of stone measuring up to 1 metre x 1/2 metre x 50mm. thick. These were embedded upright to act as a barrier to the numerous animals and people wandering by one's prize paddock of vegies or orchard. Some houses were also of stone, - especially the older ones from the years of British colonial rule. Dry stone walling can be seen in many parts, including around the perimeter of many of the famous temples.

Almost nothing large, apart from the entrance doors of temples, is made of wood, which is obviously at a premium. It is confined to desks, chairs, tables, doors of houses and small sets of steps. On building sites, crooked poles, 50-75 mm. in diameter, and up to 6 metres long, are used as reinforcements to support formwork before concrete is poured.

In rural areas, small red unfired clay bricks (about 275 x 75 x 50 mm) are made on or close to the building site. These are laid with a mud mortar, rendered afterwards with mud, then usually painted in bright hues.

Where not rendered and unprotected by eaves, they show signs of deterioration as mud bricks, however high the clay content, need protection from the weather. The whole structure is then thatched with reeds or palm leaves placed on top of a frame of thin crooked timber all lashed together with rope or string. No windows, only shutters, making for natural air conditioning and plenty of light. The roofs of these houses are apparently permeable to smoke (they are often used for cooking in) but not to rain.

Cooking, by the way, is often done these days on a single primus burner attached to a small tank of gas. Otherwise fires are made from burning dung (collected and dried in pats stuck on the sides of houses or on a concrete verandah etc.), coal or dried coconut husks (again, very little wood to spare for burning).

Very little is, or can afford to be, wasted in Indian society. Food is often served on palm leaves which have been intricately woven together to make a large plate. These are then thrown away but of course break down in time to form organic matter. As there are very few supermarkets outside of the larger cities, the plastic bag is not nearly as ubiquitous as in Australia. Paper bags are used, but more often items such as nuts and fruit are cleverly wrapped in a newspaper "parcel" which is they expertly tied with a very thin string and handed to the customer. Other things such as soap are usually pre-wrapped in a thin paper cover, a minimum of packaging.

Transport is overwhelmingly public (no doubt due to the high cost of private transport, taxis costing 6 to 8 times the cost of buses. Even the President of India, when he visited Sai Baba's Ashram, came in a fleet of Ambassadors, the only slightly updated version of the old Morris Oxford! People also walk a good deal more than in Australia. Not only do they walk (or ride a bicycle) to and from work, but the morning or evening stroll is very popular. The record for crowding must surely to the (private) mini-bus driver coming back or Mahebbelapuram who managed to cram 29 people (including us) into his 9-seater bus!) - being by bus or train mostly. The Indian Railways are reputed to carry 20 million passengers daily. The buses (which we mostly took for long distance trips) run just about everywhere. I was pleasantly surprised to find them much more efficient and less crowded than when I was in India 16 years ago.

However the roads were not at all good. I saw no heavy equipment (graders, bulldozers etc. at all in 2 months of travel, only several steamrollers and one tar-making machine. Instead, gangs of coolies were hard at work breaking up into "jelly" the large rocks dumped at intervals along the road. The hot mix (tar) was usually dumped in a pile

then spread by coolies carrying it in flat baskets to the site. Both men and women did this work.

Another significant saving of resources was the use of water pitchers to carry water, and plant pots, all of which were made of terracotta rather than plastic. The latter are often cleverly arranged with colourful plants in them - such as coleus and begonias - indoor plants in Canberra - in the small domestic front yards to form a garden within a garden.

Plant nurseries are not popular in India. I recall seeing only one, in the Botanical Gardens in Bangalore, with row upon row of terracotta potted trees and shrubs, and no bulbs or seedlings at all.

Forestry on the other hand, is very important to India. Many semi-arid areas such as on the border of Karnataka and Andhra Pradesh were planted with young eucalypts, whilst coastal areas of Tamil Nadu were planted to Casuarinas. They were a welcome reminder that although we had had a colourful 2 months in India, in a few days we would be happy to take the plane home to a more fortunate and less austere Australia.

Peter Cornhill.



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## BIODYNAMIC TREATMENT OF FRUIT TREES.

To have wonderful healthy fruit trees that produce an abundance of fruit each year is a goal I think many of us are working towards.

But, as I have come to realise, this takes a lot of patience and understanding especially, if it is to be done without resorting to the spray gun.

I planted my fruit trees shortly after moving into my house and before I really understood what was involved in growing trees under organic conditions. I have had a variety of problems, some of which could have been avoided if I had first prepared the ground properly and purchased trees that are fairly resistant to the diseases we often see in this area. Over the last few years I have noticed differences in the trees' susceptibility to pests and diseases.

he Red Delicious is usually fairly resistant to the apple scab fungus, but loses a good proportion to the codling moth.

The Golden Delicious seems resistant to both the fungus and the codling moth. Every year it has a good quantity of beautiful apples.

It seems that some varieties of trees available in the nurseries aren't as suitable to organic growing as others. It would be good to hear of other people's experiences in growing trees under organic conditions. We would then be able to compile lists of suitable trees for this area. Especially those that are more resistant to the more prevalent pests and diseases we have here.

All trees will benefit if the ground is properly prepared before planting. The area to be planted should be well drained and aerated and also the fertility of the area should be improved to ensure a high level of humus: green manure crops of vetch, rye or soya beans could be planted and lots of well composted material added to the soil.

Because the biology of the tree is different from that of an annual or biennial plant both the top layer and deeper subsoil layers need attention. The tree grows two root systems, one with feeder roots near the surface, the other sending mechanically supported feeder roots into the deeper layers or subsoil. Trees dislike raw manure or raw organic matter so always add only well composted material.

All fruit trees are sensitive to over fertilisation with nitrogen. It is true that trees may develop more foliage because of an excess of nitrogen and even have more fruit; but because of the imbalance the blossoms may drop, diseases and pests may be fostered and the fruit may not keep as well because of a reduced sugar content. It is helpful to know the nitrogen ratio of manures used in compost making to avoid having a compost too rich in

nitrogen. One year I fed my apple trees with a high nitrogen compost made primarily from chicken manure. The following year I noticed the trees grew very quickly but failed to produce a quantity of fruit.

Below is a table of the nitrogen content of the different animal wastes:

Cow	1.7
Horse	2.3
Human	5.5 - 5.6
Pig	3.75

I have found cow manure to be the best source of manure for compost making, and it creates a balanced food for all my trees. Always avoid adding raw manure to any trees.

Nutrients, therefore, should not necessarily be offered in the easiest and fastest available form. It is better to use well rotted compost which is important for the ready availability of nutrients and lasting fertility.

Here we are working towards a balance between the soil and the plants which will help create healthy disease-resistant trees. Good air circulation is also very important. Avoid planting trees too close to walls and allow the wind to strike freely through the orchard. The danger of many fungus diseases can be reduced if the trees have good air circulation.

Once a problem is encountered it often takes a slow, long term approach to remedy. There are no quick-fix solutions, and running to the spray gun every time a problem is encountered will do nothing to improve the strength and vitality of the trees. Often one needs to gain more insight into the processes going on.

This year we had a very wet spring and early summer, with many overcast days. This has resulted in a high rate of fungus diseases. During the early spring period trees grew quickly but produced soft watery growth. To help combat this problem sprays which help harden this growth and allow the trees to absorb more light would have been most beneficial in preventing many fungus attacks. Two sprays which could be used are BD 501, and Equisetum Tea (BD 508). Results, therefore, should be considered in the longer term and often once a problem has occurred it cannot be remedied until the following year through the carrying out of treatments during the following seasons.

Over the years, I have noticed a slow improvement in the strength and health of my trees and I now feel I am combating many of the problems I first encountered.

If time is a problem, choose varieties which grow easily here and need minimal care. Listed are ideas to help combat some of the more common problems we experience here. I have categorised a yearly program to help with the management of the trees. Following these guidelines will greatly assist in the growing of healthy trees once more.

#### YEARLY PROGRAM TO HELP STRENGTHEN ALL TREES.

- SPRING** - Spread compost made during Autumn.  
Spray BD 500.  
Use liquid seaweed as a foliage spray  
Make and use stinging nettle spray  
Hang codling moth traps  
Use equisetum tea regularly and garlic spray when needed, and spray BD 501  
Cultivating around the base of trees in early spring is also good as it disturbs any emerging larvae.
- SUMMER** - Continue to spray with liquid seaweed and equisetum tea.  
Continue to use garlic spray when needed  
Use BD 501 when fruits are forming  
Remove and dispose of all fallen fruit
- AUTUMN** - Spread compost which was made in spring  
Spray BD 500  
Use liquid seaweed as ground and foliage spray
- WINTER** - [When trees are dormant]  
Prune trees where necessary and remove all dead or broken branches  
Apply tree paste  
Spray sodium silicate solution before bud burst  
Continue to use liquid seaweed **ESPECIALLY** during winter

**PEAR AND CHERRY SLUG** Use diatomaceous earth as a powder to control this slug. Other effective sprays are derris dust and I have also heard of people using talcum powder. I find these expensive to use so I



have used the dust from my vacuum cleaner. Shake the contents of the bag over the foliage of affected trees.

The slug cannot move over the leaves when dust is present.

Dusting needs to be carried out two or three times during the growing season as the larvae will pupate in the soil and emerge two or three times during each season.

**LEAF CURL ON PEACHES AND NECTARINES** Use sodium silicate solution in mid-winter and just before bud burst. If the problem persists equisetum tea could be used. I have found this solution to be good at preventing an attack, and I remove the odd leaves if affected.

**CODLING MOTH & OTHER INSECTS** Hang up traps which are easily made using fruit jars covered with a quarter inch screen in order to shield off bees etc. These traps are hung into the branches of the trees and it is advisable to have them in place at blossom time. The bottom of the jar is filled about 5-6cms. deep with a brown sugar or molasses solution. This solution needs to be "spiced" with an attractive aroma. For codling moths a few drops of oil of sassafras has been recommended.

**LEAF SPOT ON CHERRY & PLUM TREES, & BLIGHT ON STONE FRUITS** Leaf Spot on peach trees will be angular spots. On plum trees a yellow halo usually occurs around each spot and the centre may fall out. This disease is characterised by an oily sheen on the spots. Can be combated with the tree paste and equisetum tea.

**CANKER ON APPLES AND PEARS** Severe infection causes wilting and death of branches. Gum exudes from the trunk and branches and cankers are produced. New shoots may wilt and die back. Buds may die and leaves show brown spots. Use tree paste.

**APPLE SCAB** The symptoms of this disease are usually first seen on the leaves. The spots are usually 3mm. in diameter and gradually darken and become black. Fruit develops black spots which go brown and corky in the centre. Fruit infected when small develops deep cracks and becomes misshapen. This disease is more prevalent in wet conditions as the surface spots are splashed from leaf to leaf and fruit to fruit in showery conditions. Use the tree paste in winter and spray equisetum tea regularly during wet weather. Remove all infected leaves and fruit. Poor and unprotected pruning cuts and any back lesions are particularly susceptible to fungus invasion and rot and should immediately be covered with tree paste.

**HORSETAIL TEA** (*Equisetum aruense*) BD Spray 508. This is used to counteract the influences which tend to favour fungus development. This is a mild tea and can be used frequently. It can be made from the dried herb or freshly picked plants. When the tea is prepared from the



dried herb use 120gm. of the dried herb per 10 litres of rain water and boil slowly in a covered vessel for about 20 minutes. Let stand for 24 hours. When using the fresh plants, cover freshly picked leaves with water and allow them to ferment for about 10 days. The liquid is then diluted before use. When diluting Equisetum tea always stir the solution for 10 minutes before spraying. Spray as a fine mist on both the upper and lower surfaces of the leaves until they are well covered.

The soil should also receive some spray. Spray when hot, humid or changeable weather conditions are conducive to fungus development. Can be diluted for subsequent sprayings - solution should always have a pale yellow or brown colour.

**GARLIC SPRAY** Use for cockchafers, wireworms, aphids, cabbage butterfly and codling moth. 90grams of chopped garlic mixed with 2 teaspoonsful vegetable oil. Leave to soak for 48 hours. Dissolve 10grams soap in 1 litre of hot water. Mix together, strain and bottle. Use 1 part solution to 99 parts water. Increase strength if needed.

**STINGING NETTLE LIQUID MANURE** Cover 1 kg. of nettles with 10 litres of rain water. Use as a foliage spray one week after fermentation has started. This can be mixed with Equisetum Tea and liquid seaweed.

**TREE PASTE** Paint all trees during winter, when trees are dormant, with tree paste. This is needed for its beneficial influence upon the health of the tree - its cambium, sap circulation and therefore its proper nutrition. The trunk of the tree must be treated as an extension of the soil - facilitating the two-way exchange between foliage and roots.

The BD tree paste is a most effective way of getting healthy trees with a smooth bark, healing lesions and protecting the tree as much as possible against pests, especially those which hibernate underneath the bark or in crevices - sucking insects, scale, aphids, woolly aphids etc. That is providing the job is done right. The entire tree - trunk, branches, twigs and buds are thoroughly covered with the paste. Holes in the trunk should be cleared out and filled with the paste. Since this paste is entirely non-toxic it is an ideal way to protect the tree and avoid poisonous sprays.

**TO MAKE BD TREE PASTE** Carefully mix equal parts of fine clay (loam type clay) and fresh cow manure. Dissolve this with 1% Equisetum Tea and one portion stirred BD 500, until such a consistency is achieved that one can paint the material on with a brush. Before the paste is painted on, the bark should have been scraped or brushed to remove dead and loose parts. Other ingredients that can be added are wood ash and diatomaceous earth.

To cover a small number of trees the paste should be mixed to a consistency which will allow it to be painted on with a brush. For a larger number of trees this paste can be strained and diluted in order not to plug the hose, pump and nozzle of the spray equipment.

Always keep in mind that all plants, including trees, are intricately linked with the soil. Adding lots of well made compost will result in a living soil which will help to create strong, healthy plants.

Positive, constructive action, timely soil cultivation (aeration), the building up of humus levels and the employment of full biological measures will result in healthy trees once again being grown.

Lynette West.

#### Sources.

- Pfeiffer, E. E. *BD Treatment of fruit trees.*  
Keogh, H. H. *BD Sprays.*

#### NOTES:

1. BD 500 This is the prime starter used in Biodynamic gardening. It is the most important of all the preparations. It contains the basic 'life force' and a wide range of bacteria. Preparation BD 500 is used twice a year, in spring and autumn.

2. BD 501 The silica spray, is made from finely ground silica quartz crystals. Silica helps with the photosynthesis of the plants but especially helps to build a strong skeleton and cell wall. This makes the plant less susceptible to attack by fungus diseases.

The Biodynamic preparations are available upon joining the Biodynamic Farming and gardening Association. Memberships is \$50.00 per year and entitles the member to the full range of preparations. You will also receive both the Australian and New Zealand newsletters (quarterly) and the Antipodean Astro Planting Calendar.

Address is: Box 533, Armidale, N.S.W. 2350.

3. BD 508 - Equisetum Tea. Available from:

Southern Light Herbs, Box 227, Malden, Vic. 3463. (Phone: 054-752 763)

Price - \$3.00 50g pkt + \$1.80 p & p.

\$23.00 500g pkt + \$6.25 p & p.

\$44.00 1 kg pkt + \$6.95 p & p.

Orders under \$40 add 30%

4. Biodynamic Liquid Seaweed is available from : Biodynamic Quality Fertilisers, Box 179, Queanbeyan. Phone: (06) 2972729

Price: \$15 per litre (1 litre covers 1,000 sq. m. or approx. 1/4 acre)

5. Sodium silicate (also known as waterglass). Available from chemists.

Price: \$10-\$12 for 500 grams.

I will be making equisetum tea, garlic spray and the tree paste for use on my trees over the next year.

I will make larger quantities on order if anyone would like me to make them for them as well.

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Lynette West.



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A Visit to Jackie French's farm, Araluen, 29 November 1992

Araluen isolation formed

By encircling hills

rain-capped

mist-topped

sun-touched

Redolent with history

More ancient than time.

Enfolding all the valleys

With their smells of

blossom-scents

earth-tangs

decay-moulds

Where Man has changed

Those ancient patterns

From Aboriginals meeting

For their ceremonies

lily-seeking

placid-swamps

gentle-streams

Would take enough but

Leave for their return

To gold-struck miners

Eager-greedy to enrich

wood-plundered

pit-ravaged

dress-left

Deserted when those hills

No longer yielded gold.

Legacy of the miners  
Is there for one to see  
    hillside-clearings  
    racing-waters  
    granite-boulders  
Slowly healing with the aid  
Of those in kindred with the soil.

A different kind of gold now  
Is worshipped and adored  
    blossom-gold  
    peach-gold  
    orange-gold  
Whose high priests cultivate  
With the seasons and the times.

Nature's ways recorded  
Written and observed  
    Voluble  
    Valuable  
    Vegetable  
This golden seam of knowledge  
Renews those worn out hills.

Disciples surge and scurry  
Pass lightly through the day  
    question-ask  
    note-take  
    time-waste  
But will carry with them gold-dust  
To plant in gardens of their own.

David Odell  
Bungendore.

## AUTUMN ON THE ORCHARD

### THE HARVEST.

**Orchard Hygiene** The time approaching winter requires plenty of clean-up work. Pests and diseases that are allowed to over-winter in an orchard will be a problem in the following season. We will remove the following:

- \* Remaining mummified peach/nectarines. We may have missed them before, but when the leaves fall it is easy to see any remaining ones that carry the brown rot disease.

- \* Undersized or windfall apples. If you have a problem with codling moth or other insect pests, remove the habitat that allows a breeding ground.

- \* Leaves. Where there is no disease problem - compost. For the apples, the leaves that carry the black spot spores should be raked up and burned.

The major problem of 1993 was the extremely wet conditions that provided an ideal environment for the spreading of fungal problems, including brown rot and apple scab (black spot). One can never eradicate these spores completely; however the removal of all leaves carrying the disease from last year will minimise the potential for a build-up next season.

- \* Removal of prunings (Reason as above)

**Watering.** During the later months of the harvest, the daily requirements change. This is the first year for a while when we have had to water the fruit trees. Normally, fruit trees do not require any supplementary water in the "fall". The long dry spell has led to some water stress. One above ground signal is if the tree starts to flower. One adviser put it this way: "When a fruit tree is under real stress, it tries to reproduce itself before dying - hence the flowering". Of course, Canberra residents will remember the times when the day after a thorough soaking, the heavens opened. Good drainage is therefore the accompanying message.

Some of our early planting of apple trees have turned out to be in a depression. Looks deceive, as the general area is on a slope. The long wet winter shows up any shallow depression. That is dynamite for a fruit tree. The new spring roots cannot handle being literally drowned. To overcome this, some physical work is necessary - create a mound or a hilled-up row. Make it wide enough for the developing roots to run above the 'water level'. You would do well to mulch this hilled up area in the spring. Also contemplate the use of ag. pipe to achieve drainage out of a low lying spot; just dig the trench about 1/2 metre deep and fill with the drainage pipe and rubble/small rocks and stones.

**Pruning.** One point to follow is that propagators are now using many types of rootstock. The type of rootstock will also influence the height of the final tree. As a rule of thumb, the more dwarf type of rootstock are less hardy in dry times.

Winter is the time to consider a new variety or a different fruit. Here are a few thoughts.

**Apples:** the back garden is suitable for the good tasting varieties. Some of the varieties I have found grow well are Abas (Aust. -Feb), Bonza (Aust - late Mar), Mutzu (Jap - Apr) and Fuji (Jap - late Apr). Try growing Granny Smith for eating - by late May they have begun to mellow and take on a yellow flush. We have planted several ANFIC varieties of apples. These have been brought to Australia by the Nurserymen's Association to improve the range of good varieties. To purchase, you are required to buy in bulk and to sign a non-propagation agreement. We have planted the N.Z. Royal Gala, the U.S.A. Earligold and the Blushing Golden under this scheme, (the last two are variations of the Golden Delicious - one early and one firmer late variety).

Given the interest of local people for other international varieties, we are also in the middle of a planting programme for the famous historical varieties from many European countries. The numbers will be small but the range includes Cox's Orange Pippin, Lord Lambourne, Bramleys, Tydeman's Early and Beauty of Bath (U.K), Boskof (Neth), Reinette du Canada and Spartan (Can), Empress (Russia), and some good Australian varieties with flavour. Good cooking and good eating.

**Peaches:** There are many varieties on the market. We have enjoyed growing the juicy white flesh peaches (Anzac and Fragar) that you seldom see in the shops. For the reds, the Redhaven and the Elberta have produced quality fruit for us.

**Nectarines:** As with peaches, if you can get past the frost period with fruit set, the chances are that the flavour of a home grown nectarine will stay with you for days. We have Independence (Jan).

**Nashi:** These are relatively easy to grow but require much thinning of fruit to produce a large final pear. They are soft skin, so do not like hail storms. The flavour and juice really come in the last two weeks of ripening - early shop supplies inadequately give the real flavour. The Nijjiseiki and the Kosui seem to give better flavour. But if you are mad keen for alate variety as well, plant Chojuro.

Owen Pigeon.

"Loriendale", Springrange Road, Hall.



## WATSON COMMUNITY GARDEN NEWS

I'm sure a lot of the Watson Garden plot holders are wondering what's been happening regarding the North Watson development. Well, I was advised by the Planning Authority at the beginning of this year that the Section of Land we presently occupy would be developed for residential use if the variation to the Territory Plan is agreed. I was also asked to liaise with a representative from Parks and Conservation Dept. re looking for an alternate site. As a consequence Miriam Nauenberg and myself spent an afternoon with the P&C representative looking at their proposed sites, but nothing they showed us would match up to some basic parameters set. So as not to be completely despondent to their requirement, just in case they decided to pan us off with some unworkable piece of land, we decided to look around the area by ourselves, but we could only come up with one site that may serve the purpose. The Planning Authority is still to advise us of its acceptability, although it sounds promising. While we're awaiting their answer, I would still appreciate any other ideas of alternative sites from plottolders.

On the 18th April 1993, a Public Notice was placed in the Canberra Times, for public comments to be passed on the Draft Variation to the Territory Plan for North Watson by the 17th May 1993. The Draft Variation now indicates that our section has been selected as a mixed site, which may include Commercial Accommodation and/or Residential uses.

From discussions I have since had with the Planning Authority, I believe that there is now no chance of us staying in our present site, unless you are all prepared to fight for it. But, before anyone does anything rash, remember COGS Community garden grants come from the ACT Government. We only have a licence to use unleased land and the free water supply is currently supplied by Parks and Conservation. Some assurances have been given that any move would be a gradual process, and that it is anticipated that we would get at least another growing season. Every assistance will also be forthcoming from the Land Development and the Parks and Conservation Departments, and there is a high probability of obtaining funding and a lease on a future site.

The Garden Committee would like to hear plottolders' views on the above, (written if possible), and if plottolders would like, we are willing to hold a meeting to discuss these issues.

John Ross. 2414063

Miriam Nauenberg 2489272.

## OAKS ESTATE COMMUNITY GARDEN

Hallo, fellow mini-horticulturalists! It's about time to let you know that we still exist. In short, our little lot has been successful, so far. The whole of the garden is, more or less, under cultivation. Some of us are tending more than one block, which means we are still looking for more local people to join. If I'm not mistaken, there are now 12 or 13 of us. Ten of the blocks are 13m x 3m, minus allowance for paths in between. The second half did not work out that way. They are still 3m wide, but vary from over 9m to less than 7m long, because of the garden boundaries. Some people are quite happy about having a smaller portion, - less work I suppose.

We have 20 blocks altogether, plus a couple of odd pieces of ground, classed as common. This season, I am looking after that lot. Planted pumpkins and squash along the fences, hoping they will not spread all over the place, making navigation difficult.

Crops are manifold, everybody has got his own ideas of what's best, of course. Most of our tomatoes are not doing too well this season. Mine look downright shabby. If I knew that it was my own fault, I'd be ashamed to show them and tear them out. As it is, we put it down to excessive rain. Something that applies also to the potatoes, they started to rot in the ground; I dug them all out, and some of them were well over fist-size.

To tell you about my own plot: I put secondhand metal cabinet shelving around it, which made it about 2.8m wide. Last autumn I added 2cu.m. of well composted chicken manure-mulch, worth \$30, as well as one trailer-load of horse manure (free). Dug it all well through, which raised it to about 30cm above the path; left it all fallow for the winter. Everything grew quite well except the afore-mentioned tomatoes.

We now have got a shed and a hothouse (which came a little late to be of use last winter), but we hope to use it later in the year. Garden tools, barrows and hoses are all stored there. At the moment, we are waiting to buy a lawn mower as well as a cultivator.

In general, we have so far had no trouble with vandals or major theft, touch wood! Let's hope that it will continue that way! Most people will gladly give things, if asked. I, myself, have had over-production of some items for a while and have handed quite a few vegies (spuds, peas, zucchinis, carrots, beans) out, left, right and centre - as have other plottolders.

Georg.

A word from the flower growers. We have marigolds, calendulas and snapdragons keeping some of the garden insects at bay - they look good, too, amongst the vegies. Lebanese cucumbers are doing well this year and so are rockmelons, so far - but will then ripen?

Helen & Musa

Wonders never cease! Our Convenor, Carolyn, handed the newly arrived cheques to me yesterday. I took one around to BBC Hardware, Q'bn this morning, so now we've got our very own mower - LUCKY US. The other one for the rotary hoe will keep a couple of days, until I see the vendor-mechanic over the weekend.

23.4.93. A few words to bring things up-to-date. I have already told you how I built my plot up. My neighbour in the garden did his in a similar fashion. In addition, he also had enclosed his second (smaller) plot and built it up to a thickness of at least 2'. Different layers of mulch, manure, compost, sand, soil and sawdust in succession, it should give him a good foundation for a few years, I reckon.

At the moment, I'm digging my plot right through, everything has been harvested and I put plenty of green manure deep down, hoping it will compost there at its own leisure, and I'm waiting for more leaves to fall off the trees to further endear myself with my worms.

We took possession of our cultivator some time ago. So far it has done a good job in hard ground, though I have doubts about it in soft soil - it might not propel itself forward fast enough - well, we shall see. Our new mower keeps the grass from growing over our heads. We got it because I could not see why some should wear their own equipment out while others put nothing whatever in for the community.

A couple of new members have joined us in the meantime, and we hope that more will do so. Some people have made enquiries about how to get a plot and we advise them to first become members of our association and then just request a bit of ground as there are still several blocks available. Actually, we had hoped that more of the flat dwellers would be interested, but - to our sorrow - we were wrong!

Georg.

#### CHARNWOOD COMMUNITY GARDEN

The grant is finished, and we have put in the irrigation for Stage 2, so there is a new section of plots ready to be allocated.

We now have 17 members gardening, but like other gardens the tomatoes haven't done as well as we hoped. Some people have had rock melons and corn stolen, and also tap fittings. We usually inform the police of equipment or serious theft.

We may be lucky with the new housing development on the fringe of Charnwood and Macgregor in that it will not affect the garden.

To reduce/avoid the mowing problem many people have put down carpet for the paths, getting it from anyone who is having carpet put down (or just moving into a new house), and we have even advertised in the local paper - but the problem was getting someone to volunteer to pick it up. The carpet pieces seem to last a few months and then we add more carpet on top. Generally it has been a good season and we are hoping for a better one next year.

Kay White.

### COTTER COMMUNITY GARDEN

In April we had an informal Open Day at the Garden for a visit by the First Canberra Club members; the ACT Minister, Bill Woods, and the well-known garden broadcaster David Young were also among our guests. As the occasion was an informal one, the Minister looked round the garden and talked to ploholders and visitors, instead of making a formal address. David Young also spoke informally with everyone and his comments were much appreciated. It was a very successful day and we all enjoyed it as the garden was looking particularly well too.

After an unusually wet summer when everyone was waiting for their tomatoes to ripen, we have harvested most of our summer vegetables and are waiting for the first frost after which we will gather in our pumpkins.

Early February we had a working bee when we rejuvenated and composted our herb bed and perennial border, both of which are a great source of pleasure to ploholders, and since then have been planting our brassicas, leeks, swedes, carrots and parsnips, all of which are flourishing.

One of the things ploholders have been asked to be specially careful about is the use of water, as a leaking tap or a hose left running can make a large difference to the annual water consumption for our garden.

This is the time to be spreading compost on our beds and remaking the compost heaps. My reading tells me:

- The Chinese have been composting for 3000 years
- The Dutch Government, which formed a company for the conversion of municipal garbage into fertilizer as

early as 1932, is now producing well over 100,000 tonnes of compost a year

- Organic gardeners should be concerned with the production of humus, the key to the whole cycle of fertility, providing an important link in the complex chain of biological events that we call "plant nutrition".

John Flowers.

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## WHAT IS ORGANIC GROWING ABOUT?

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

## WHAT ARE THE ORGANIC ALTERNATIVES?

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

### MONTHLY MEETINGS.

4th Tuesday of the Month

February	23rd	July	27th
March	23rd	August	24th
April	27th	September	28th
May	25th	October	26th
June	22nd	November	23rd

December - Christmas barbeque.

### BENEFITS TO MEMBERS

- \* Access to Community Gardens at Curtin, Watson, Tuggeranong, The Valley, Charnwood and Oaks Estate for growing organic produce.
- \* Quarterly magazine, with monthly Newsletter updates.
- \* Excursions, social activities and seminars.