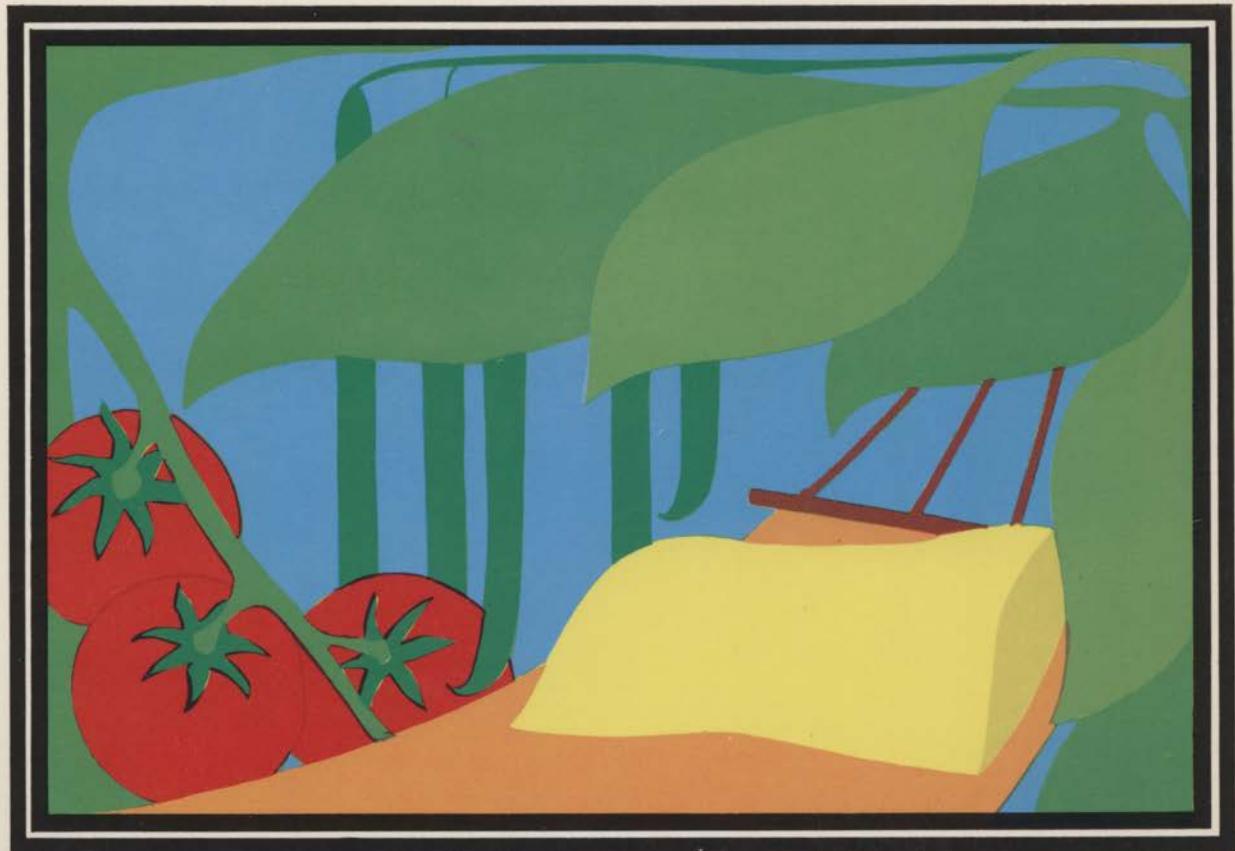




Indolent Kitchen Gardening

Libby Smith

Illustrated by Winifred Mumford



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Indolent Kitchen Gardening

A vegetable growing and cooking guide for the part-time Canberra gardener using minimum effort and organic gardening techniques.

Libby Smith

Illustrated by Winifred Mumford

*I am sure that indolence – indefeasible indolence
is the true state of man, and busyness the invention
of the old Teazer.*

Charles Lamb

Australian National University Press, Canberra, Australia,
London, England, Miami, Fla., USA, 1981

First published in Australia 1981

Printed in Hong Kong for the Australian National University Press, Canberra

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National Library of Australia
Cataloguing-in-Publication entry

Smith, Libby.

Indolent gardening.
(Canberra companions)

Index

Bibliography

ISBN 0 7081 1824 0

1. Vegetable gardening. 2. Mulching. I. Mumford, Winifred, Illus. II. Title. (Series)

635

Library of Congress No. 79-55434

United Kingdom, Europe, Middle East, and Africa:
Books Australia, 3 Henrietta St, London WC2E 8LU,
England

North America: Books Australia, Norwalk, Conn., USA

Southeast Asia: Angus & Robertson (S.E. Asia) Pty Ltd,
Singapore

Japan: United Publishers Services Ltd, Tokyo

Designed by Winifred Mumford

Introduction

*For nought so vile that on the earth doth live
But to the earth some special good doth give*

Romeo and Juliet

When I moved into our Canberra house, the large vegetable garden was a daunting prospect. To neglect such a large and well-presented garden with its neat concrete paths and terracing would have been a shame, for the labour already invested in it would be wasted. The prospect of fruit and vegetable harvests made it seem worthwhile. So began the years of trying to tame the vegetable plot. Is it possible to have a reasonably well-organised, continually productive, minimum care vegetable garden and, at the same time, run family, house and job?

The first three years saw stormy battles with weeds and their allies the spades, with pests, chemical fertilisers and insecticides, poor harvests of some vegetables at the same time as absurdly large harvests of others, including weeds and more weeds. Frustration, impatience, unreasonably high expectations, a bad back during one season and an increasingly harassed family meant that the garden was not the pleasure it was supposed to be.

Hoping that knowledge would somehow reduce the actual work, I read the books: the seeders and weeders, the compost mulchers, the companion planters, the meditators, the diviners and the organic gardeners. I tried most of them. Finally I decided to stop worrying. My garden management program satisfies all the original hopes: the garden is under control and can be managed by one person with minimum time and effort, the fruit and vegetable harvests are good, the garden produces throughout winter, there is no need for chemical fertilisers and insecticides, and I can cope with the garden produce in the kitchen without hours of pickling, bottling or freezing.

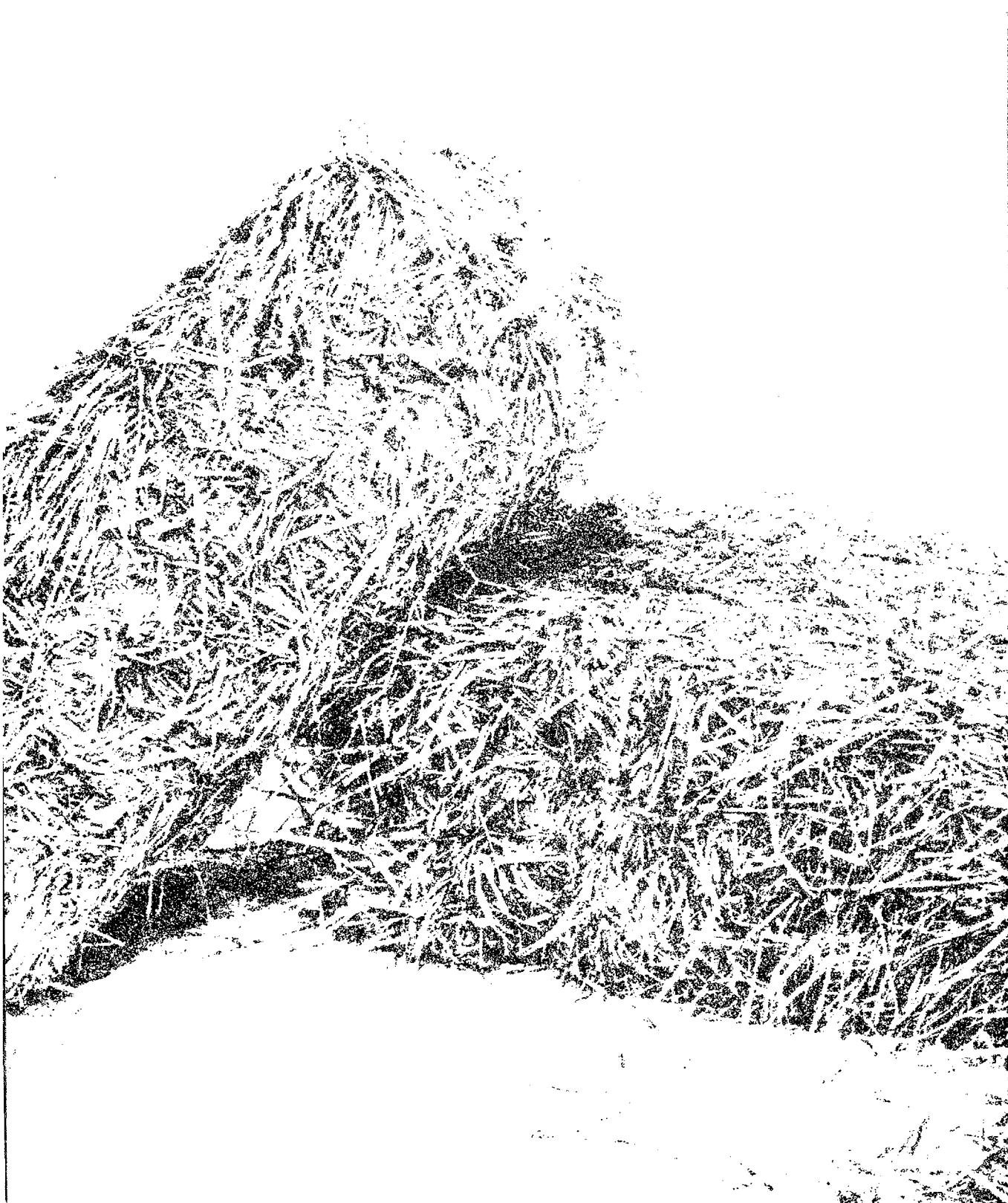
The garden now includes a chicken run. That solved a lot of niggling problems about gardens, soil fertility and food production. Battery eggs are not appealing and home grown eggs taste better. Long term soil fertility will depend on what goes back into the soil and chicken manure is quite a bonus. So the chicken run is movable and every six months or so, the chickens are moved to another garden bed. One of the delightful benefits has been the children's interest in them.

Don't make mistakes yourself — learn from mine. I offer my experiences to those in the Canberra region who want a productive garden without the backbreaking labour and the trying, repetitive procedures of intensive horticulture. From the garden to the table is not as simple as it seems either; most gardeners I know hand their harvests to the cook. So the recipes are included to help the gardener-cook prepare the vegetables for family and friends with little fuss, more variety and great pleasure.

I don't think the vegetable garden saves me money: the fruit and vegetables markets may well be cheaper than the combined cost of mulch, manure, seeds, seedlings, fertilisers and labour. However, I am often suspicious of the unblemished shape and shine of the market vegetables, perhaps they conceal more insecticides and chemicals than they ought.

Winifred's vegetable garden is a delight: intelligent planning, great diversity and incredible crops. Our gardens grew together, satisfying different needs but developing similar low maintenance techniques. Neither of us expects extraordinary crops of beautiful vegetables but what we do get from our efforts pleases us. Our gardens may not be the biggest or the best but they do produce what we want them to.

Nobody else's garden harvest can match your own, so try growing your own. Use the deep mulch technique but make the garden the way *you* want it and join the Organic Gardening and Farming Society of the A.C.T. in the meantime. There is always next season to try something else.



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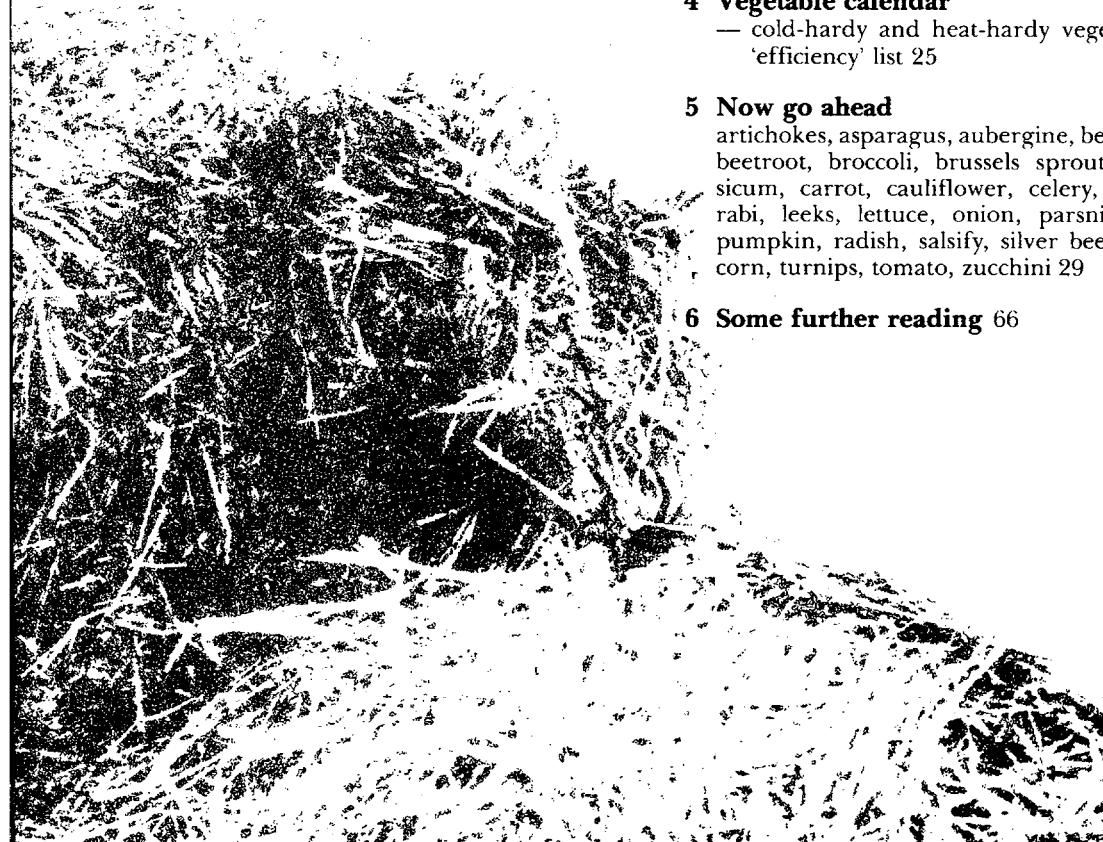
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Dedicated to our fathers whose work in their gardens
was the model for our beginning and continuing

*When Adam delved and Eve span,
Who was then the gentleman?*

John Ball

Read This First

ORGANIC GARDENING

Gardening, like medicine, science and education, needs demystifying. For the intending home gardener, particularly the part-time gardener, intensive horticulture is an intimidating, almost occult process bound by shadowy rules about bed preparation, cultivation, transplanting, fertilising and spray formulae for disease and pest control. Organic gardeners, too, must beware of unwittingly sliding into a similar state of confusion about companion planting, comfrey, the mysteries of compost and demanding cultivation practices.

There is no mystery about organic gardening. It merely means managing a garden by using fertilisers and mulches derived from 'natural' or 'living' matter. It means building up the fertility of the soil by returning organic material to it, through recycling the kitchen and garden wastes, animal manures, spoiled straw or hay, compost, seaweed, sawdust or pulverised rock, like rock phosphate. It means using management techniques like sheet or deep mulching, composting, companion planting, or creating a 'no-dig' garden; or it can be part of a larger scheme like permaculture.

Improving soil fertility is of fundamental importance to organic gardeners, it is the common thread among them, whether their commitment is intellectual, pragmatic or spiritual, whether they are at one with the Divine, with Mother Nature or the fairy ring, or whether they are advocates of scientific ecology, conservation or self-sufficiency.

Since Adam delved all gardens were organic and most of the world's gardens are still organic. Only in the industrialised countries has the scientific

revolution brought the magic formula of NPK, nitrogen, phosphorus and potassium, to agriculture and the suburban back-yard. It seemed that if these chemicals were applied regularly to the soil in their convenient powdered form they would meet the needs of growing plants and achieve indefinite soil fertility. Plant growth can be remarkable in response to the added chemicals but long term soil fertility has declined because the complex structure and micro-organic life of the soil has been disrupted and, unless revived by fallowing, destroyed.

Organic gardening in its modern guise was a reaction to 'scientific agriculture'. It was first popularised by Sir Albert Howard, an English agricultural adviser to the Indian state of Indore. He developed, partly from necessity, animal husbandry and agricultural techniques without the use of expensive chemicals. He argued that chemical farming was 'fragmentation', that soil fertility was more than the sum of its minerals and chemicals, that it was possible to preserve long term soil fertility by returning plant or animal wastes to the soil, that insects could be controlled by non-poisonous means, and that good soil would have enough nutrients for growing plants without concentrated chemical fertilisers and their toxic residues.

Winifred and I use organic gardening techniques because they have worked best for us. Early experience in the garden using traditional cultivation practices with chemical fertilisers and insecticides did not produce perfect vegetables. The expense of fertilisers, a deep suspicion of insecticides, backbreaking labour and our failures made us consider alternatives that would increase the chances of good harvests without great effort.

Our early solutions were similar: summer gardening with its watering problems meant using mulch. But we found that all types of mulching were not effective. Green mulching with grass clippings was inadequate, compost mulching took too much time, a lot of effort with never enough compost, while straw mulching produced crops of weeds and grass. Our final solution came with that

great incentive, lack of time, and deep mulching with spoilt hay or straw has solved weeding, fertility, watering, time and heavy labour problems.

The part-time gardener should convert lack of time into a virtue so that the guiding principle for the garden should be *benign neglect*: prepare the garden, plant the seed, do a little prudent maintenance and leave it be. The part-time garden will do the rest.

Humus

Organic gardeners concentrate on improving soil fertility. This depends on a complex interaction of minerals, microbes, fungi, algae, earthworms and plants. But mostly it depends on humus.

Humus is decomposed organic matter: compost is humus, decomposed leaf litter on the forest floor

is humus. The animal and microbe populations in the soil are responsible for converting the organic matter to the dark and crumbly mixture which improves the soil's water-holding capacity and increases the supply and availability of nutrients during and after its decomposition.

It used to be thought in the eighteenth century that humus was the source of all plant food. Modern chemistry proved that plant growth was dependent on inorganic compounds but the humus theory still holds, with some modifications: those necessary inorganic compounds *are* in the humus after microbial action has broken down the organic materials, and in the humus medium they are available to the plants. For long term soil fertility, gardeners have to rely on humus, not the formula fertilisers because they do not have organic matter in them.



DEEP MULCHING

Gardening by deep mulching is a balanced and conservative method of gardening because at the same time as growing plants are using the soil's fertility, that fertility is replenished by the decomposing mulch.

Mulch is, simply, any protective ground covering around plants. It has been a technique used for hundreds of years for crop and tree protection but its use in domestic gardens is relatively recent.

Provided the mulch is *deep* enough to baffle weed seeds, there are very distinct advantages in

deep mulching for the gardener, particularly those with little time.

They are . . .

For the gardener

- digging and cultivation are now unnecessary; weeding is reduced to an incidental chore as
- the few weeds that do emerge can easily be pulled out;
- watering the garden is not such a hit and miss business;
- using fertilisers is unnecessary after the deep mulch system is established.

For the garden

reduces the number of unwanted plants.

protects plants in summer and winter;

reduces evaporation and prevents crusting of the soil's surface;

improves the soil structure by providing a continuous source of humus as the hay or straw decomposes;

improves the soil's fertility by adding nutrients as the mulch breaks down;

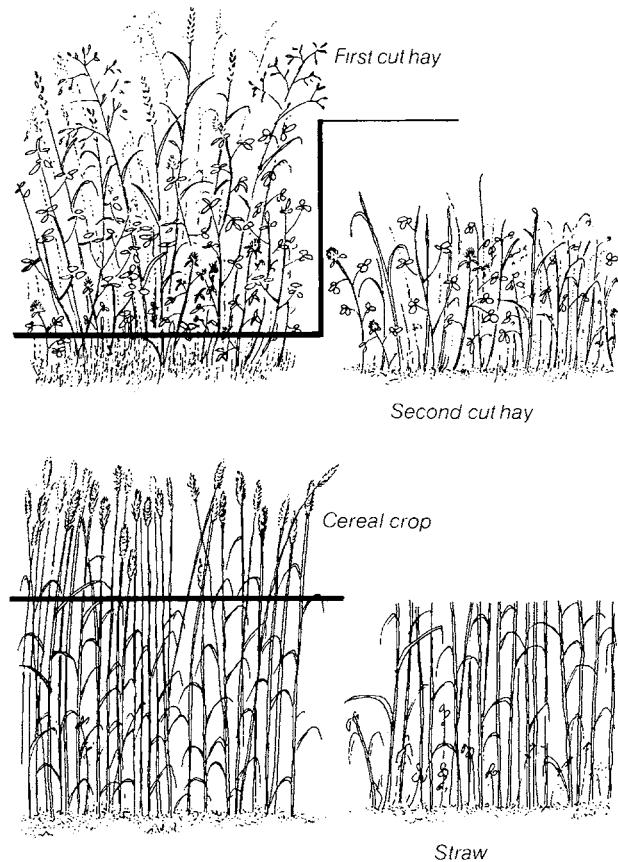
encourages the real garden workers, the earthworms;

The Mulch — Spoiled Hay or Straw

The most effective deep mulch is spoiled hay or straw.

Hay: Any grass or other plant like clover or lucerne that is cut and dried for animal fodder. The first cut is the superior cut with higher nutrient value than subsequent cuts and it may be seed free, both of the crop and of weeds. First cut hay is relatively expensive (\$1.00 to \$3.50 or more per bale).

Straw: The stubble or stalks left after a harvest of cereal crops, baled for use as fodder. There are likely to be seeds in the bales. Straw is cheaper than hay (\$1.00 to \$1.50 per bale).



Nutrients in Sawdust, Wheat Straw, Lucerne Hay

1 kilo per tonne dry matter approximately

	Sawdust	Wheat straw	Lucerne hay
Nitrogen	8	20	96
Phosphorus	1.8	2.6	8.8
Potassium	6	20	46
Calcium	8	6	40
Magnesium	0.6	1.4	8.4

Use hay or straw according to the state of your pocket, their availability, and the condition of your soil.

Hay and straw bales, and sometimes spoiled bales, are available in Canberra either from produce merchants or from local farmers advertising in *The Canberra Times*. Look in the pets and livestock or garden supplies columns. Prices are lowest in late summer.

Spoiling Bales

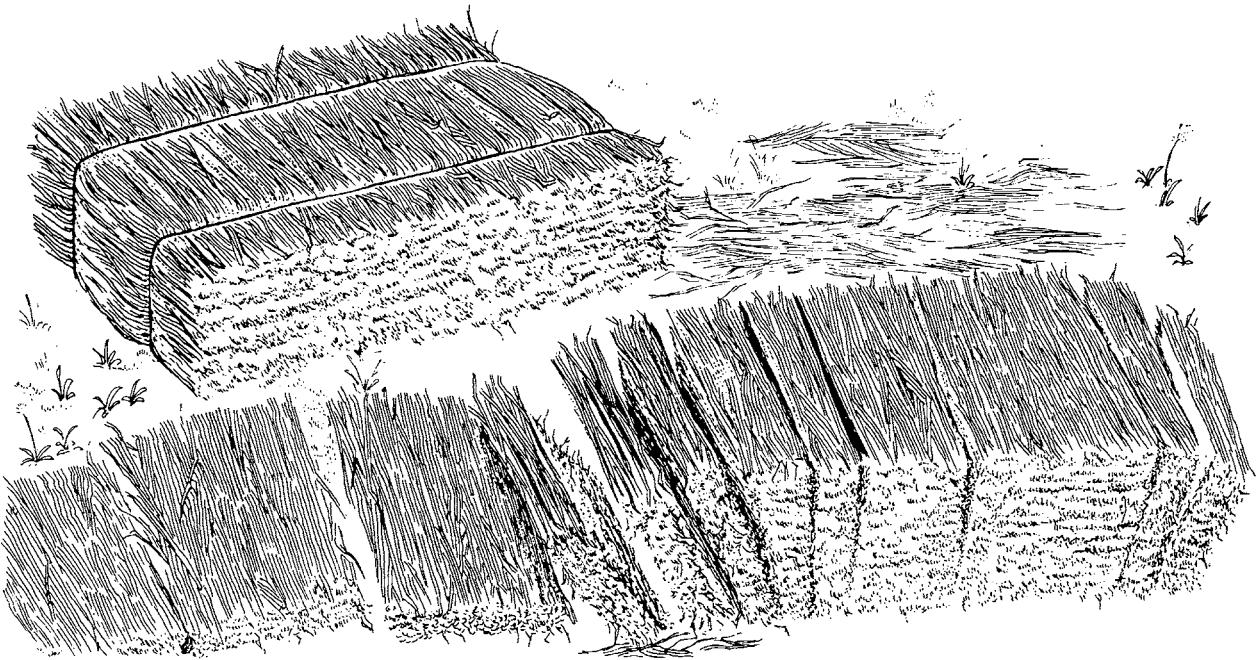
Leave the new bales in the open for a couple of months, turning every now and then so that each surface will be exposed to sun and rain. Leave them on a garden bed that is not in use or is being prepared so that the earthworms can begin their work immediately.

There are two good reasons for spoiling bales:

1. Germination or seed spoiling is encouraged and any grass that does grow on the bale is killed as the bale is rotated.
2. During the first few weeks of rotting, the hay and straw produces toxins that inhibit plant growth including the growth of weeds. The toxicity can last a few weeks.

How to Use the Mulch

Spread spoiled straw or hay over damp soil in thick layers. You do not have to dig. Ignore weeds, just spread the straw or hay over them. To begin with, make the layers about 15 to 20 cm (6 to 8 in.) thick. As they rot and pack down they will need building up once a year.



Do not dig the straw or hay into the soil . . . it is quite unnecessary work, the earthworms will do a better job.

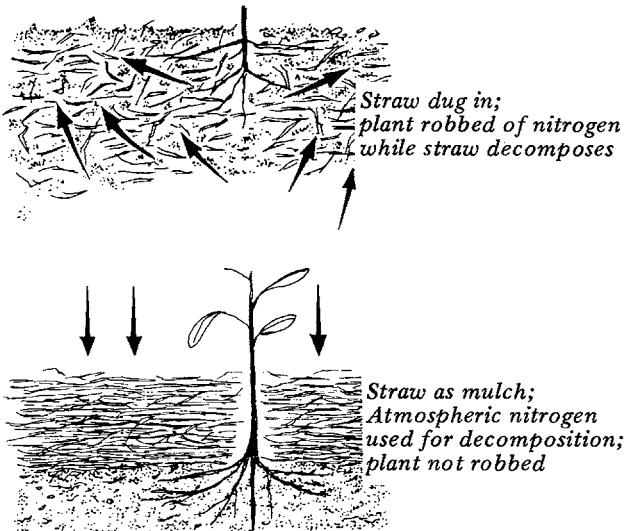
If the organic material is incorporated into the soil, bacteria in the soil will use the available nitrogen in the fresh or partly decayed material to break

that material down before making nitrogen available to plants. There is, therefore, a temporary shortage of nitrogen for plant growth.

Use any organic material to build up the mulch such as grass clippings, newspapers, pine needles, cotton rags, autumn leaves, sawdust, animal manures, kitchen waste, garden refuse and compost. It's an aesthetic decision that determines whether it will go on top of or under the mulch.

When you are familiar with the procedure you can juggle the equation to suit your own situation — if a garden bed is to be fallow over winter, fresh straw or first-cut lucerne can be laid very thickly over the bed provided they are relatively free of seeds. If you get a good crop of lucerne, chop it with a spade and cover it with spoilt bales — it will be useful as a green manure.

Remember:



- seeds in the mulch mean trouble, germinate them in the bale;
- mulch must be thick;
- fresh straw has a short-term toxicity for growing plants;
- use only organic materials for mulch.

Other Mulches to Use with Spoiled Straw or Hay

Grass clippings are rich in nitrogen and potash. They convert quickly into humus but spread them thinly otherwise they will become a slimy mess.

Leaves are useful in mulch and compost, but they need some added blood and bone to increase the nitrogen level. In autumn and winter the Department of the Capital Territory allows the public to collect fallen leaves from public parks. '*Composted*' straw from poultry farmers, horse stables and dairy farms has the benefit of a straw or sawdust litter mixed with the animal manure, an invaluable fertiliser for the garden. The manures are not truly composted, they are merely aged, and may contain seeds.

Pine needles are easy to collect from the pine forests. They are acid so they need some lime.

Sawdust is a good mulch but be careful not to apply fresh sawdust too thickly to the vegetable patch. Use old sawdust and collect it from timber millers in Queanbeyan. Some people add a couple of handfuls of blood and bone to every square metre of sawdust mulch for extra nitrogen.

Paper and newspaper are good mulch materials if other sources of mulch are not very productive. Lead is not used in newsprint ink but there are lead components in coloured inks. As paper is quite slow to break down, it is very effective in layers of three or four sheets over weeds and under the mulch. The layer should not be too thick or it may prevent water penetrating to the soil.

Wastes from the kitchen and garden. Put them straight under the mulch. Be sensible about whether they should rightly be in the indolent compost (p. 16) for there may be bones or very large things in it that may take a long time to break down.

Does all this seem too complicated with seed germination, straw toxicity and early nitrogen deprivation?

In practice deep mulching is remarkably simple garden management with three great virtues: low labour gardening, low maintenance gardening and self-fertilising gardening.

In Chapter 3 there are ways of converting your vegetable garden and starting your garden from scratch.

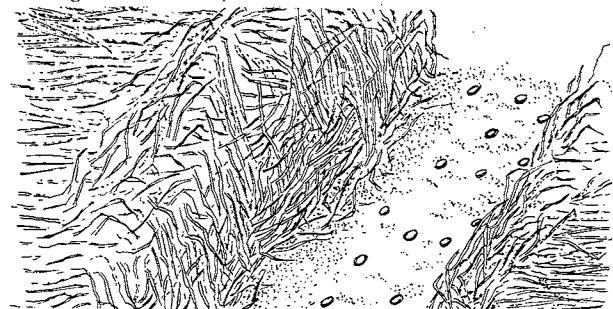
MANAGEMENT AND MAINTENANCE

Management and maintenance of a deep mulch garden are a matter of common sense and individual style touched with some sympathy for growing plants and their needs.

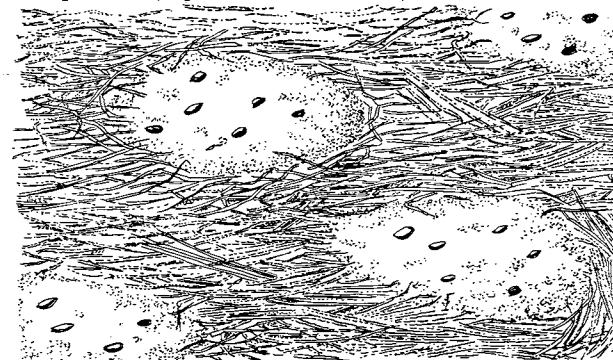
Seeding

Use any of the following methods but for very fine seeds; sow them in areas cleared of mulch:

Clear an area of mulch, plant the seed in the soil and return the mulch around the plant when it is strong and healthy.



Sow the seeds in a couple of handfuls of soil or compost on top of the mulch.

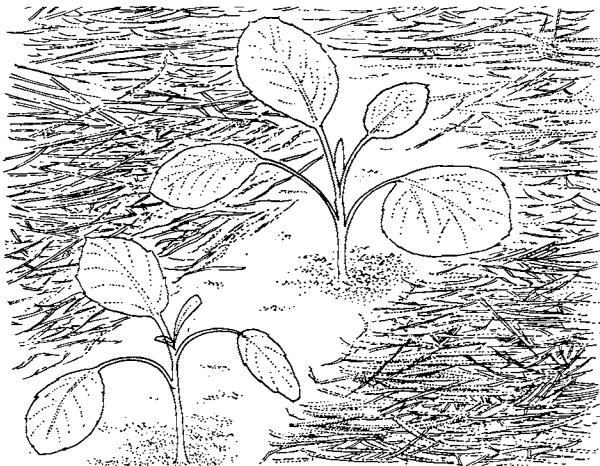


Sow seeds a few inches below the surface of the mulch where there is enough moisture for germination.

Remember that seeds need constant moisture for good germination. All these methods have worked; however, the first two methods usually germinate more seeds.

Transplanting

Clear areas of mulch for transplanting seedlings so that the mulch does not touch the seedlings when they are transplanted. Seedlings should be healthy and large. When the plants are well established and growing vigorously, return the mulch.

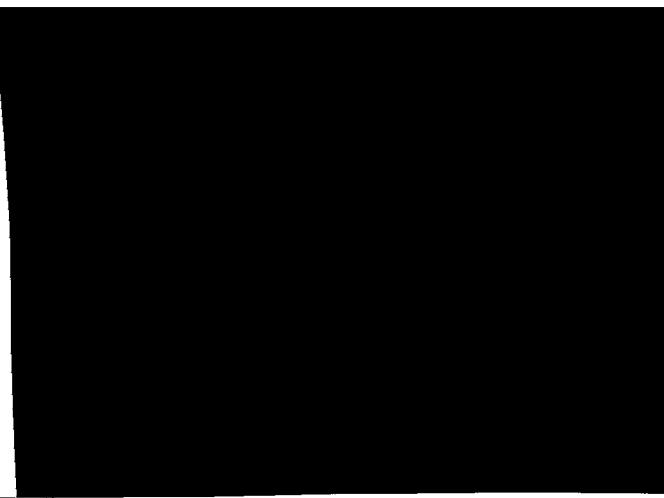


Spacing

Random planting or straight line planting is an aesthetic decision. If you are undecided about spacing between individual plants, refer to seed packets or the instructions with seedlings. The spacing decision is not critical to the success of any vegetable.

Mixed Planting

Do not feel bound by feelings of orderliness and neatness. Mixed plantings of vegetables, including a few flowers here and there, reduce the problem of pests and diseases attacking the whole crop. Pests which attack in one area of your garden may ignore similar vegetables in other areas.



Planting in rows made cultivation easier; mulch removes that chore so planting can be random



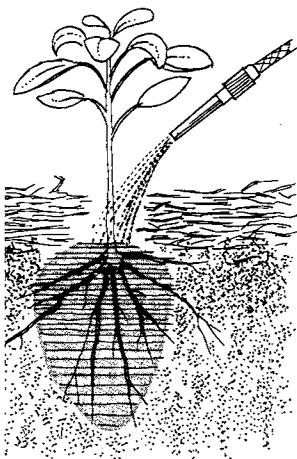
Crop Residues

When your harvest is over, break off the plant at its base and leave it to rot. You can put it under the mulch or leave it to decompose on the top. Remove only those plants that are diseased.

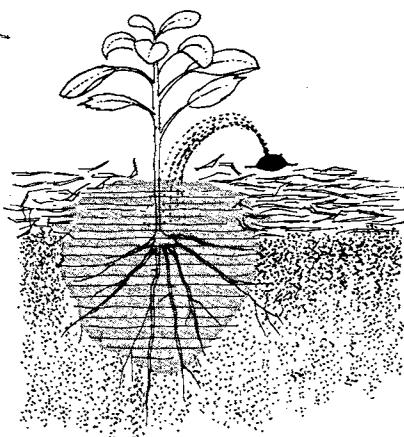
Fertilisers

To build up soil fertility with organic material can take some time, so use a complete fertiliser, like a seaweed fertiliser, to promote good plant growth in the meantime.

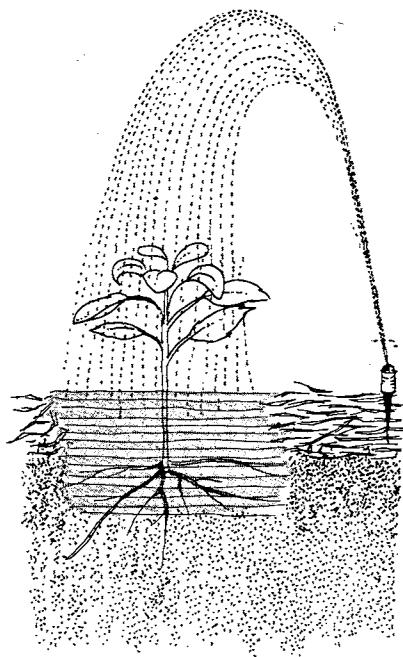
deeply to penetrate the mulch and to encourage deep rooting in the vegetables. Drip soaking is best if it can be organised: overhead watering in summer promotes mildew and in winter foliage can freeze if the watering is done late in the afternoon.



Direct



Drip



Overhead

Read This Before You Start: Benign Neglect

CANBERRA SOILS

The Southern Tablelands region of New South Wales, of which Canberra is a part, is a series of tablelands eroded into hills, sloping westwards.

The Murrumbidgee and its tributaries cross the region and drain the three large developed urban areas of Canberra: the Molonglo River flows through the city area, Woden and Weston; Ginninderra Creek through Belconnen; and the Murrumbidgee through south Woden and Tuggeranong.

The pattern of soils in the area is complex but, as a generalisation, soils are either red and yellow earths on the plains or lighter, loamy soils with clay subsoils on the hill slopes. They are shallow, particularly on the slopes, varying in depth from a few centimetres to a metre. The few pockets of alluvial soils along the Molonglo and Murrumbidgee Rivers are used either for market gardening or are shifted to develop Canberra's public and private gardens.

Although some recently settled areas, formerly grazing areas, may have had superphosphate dressings, Canberra soils, in their natural state, impose great limitations on plant growth. They have neither the chemical nor the physical structure for intensive vegetable gardening.

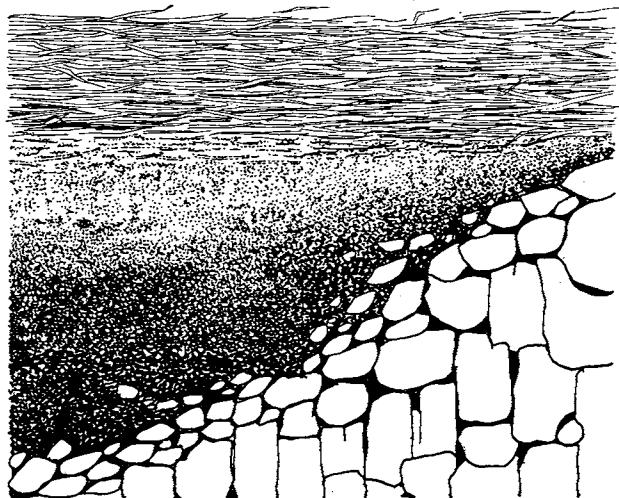
- The most common soil profile in the region, the sandy or loamy surface with clay subsoil, presents problems with water penetration, poor root growth, water-logging in wet weather and surface caking in dry weather. The physical structure of local soils is variable but generally poor.

- Canberra soils are moderately sour. This means that the ratio of acidity to alkalinity (or pH level) is low. The amount of calcium, or lime, in the soils is not high enough to 'unlock' existing soil nutrients and make them available to growing plants.

- The chemical structure of local soils is relatively infertile. They are deficient in some of the major elements needed for plant growth, particularly phosphorus. However, potassium is rarely deficient in the clay soils common to the area.

To develop a rich, deep, porous soil, dark with humus, best suited for vegetable growing, the Canberra gardener will have to do three things:

- alter the acidity-alkalinity level of the soil by adding lime or a similar calcium additive like dolomite
- compensate for the phosphorus deficiency with a phosphorus-rich fertiliser
- build up soil fertility and improve soil structure with organic material.



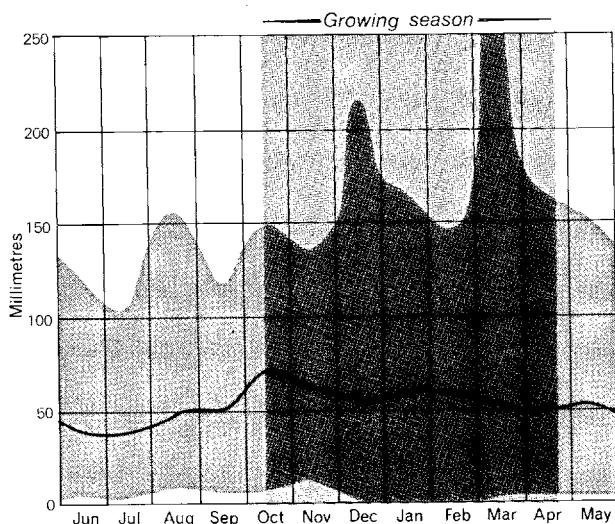
Mulch helps to improve the structure of clayey soils and will build up soil on thin, rocky slopes

CANBERRA CLIMATE

The temperate subhumid climate of the region has distinct summer and winter seasons with marked limits to plant growth.

Rainfall

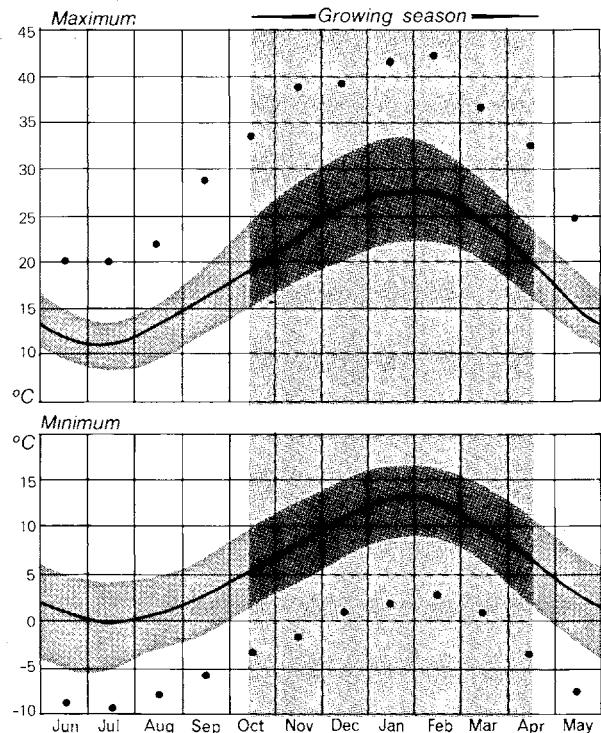
The average rainfall for the region is 630-670 mm and is fairly evenly distributed throughout the year and the district, averaging 40-50 mm per month in winter and increasing to 50-60 mm per month for the rest of the year. October is the wettest month with a rainfall average of 70-78 mm.



*The heavy line represents the average rainfall. The darker shaded area indicates the erratic nature of Canberra's rainfall by showing the extremes recorded for each month over the past twenty years.
Data from 'Climate of Canberra'*

Temperatures

In summer the average daily range is from 13-27°C with a highest recorded maximum of 42°C. In winter the average daily range is from 0-12°C with a lowest recorded minimum of -10°C. Temperatures in spring and autumn are similar, the average daily range for both October and March being from 10-23°C.



The heavy line represents the average temperatures. The darker shaded area shows the range of temperatures recorded over the last twenty years. The dots show the extremes.

Hazards

Frost: Frost occurs about 100 days each year, mostly between April and October, with some frosts as early as March and some as late as November.

Drought: About thirteen severe droughts have been recorded in Canberra since 1827, while droughts of short duration are a constant problem.

Winds: In summer the prevailing winds are north-westerlies with afternoon easterly breezes. Cold westerly and north-westerly winds in winter and early spring and the hot westerlies in summer affect areas with those aspects.

Snow: Snow falls (but does not settle) in Canberra about every two years. Snow covers the ranges surrounding the area for much of winter.

Climatic Pattern

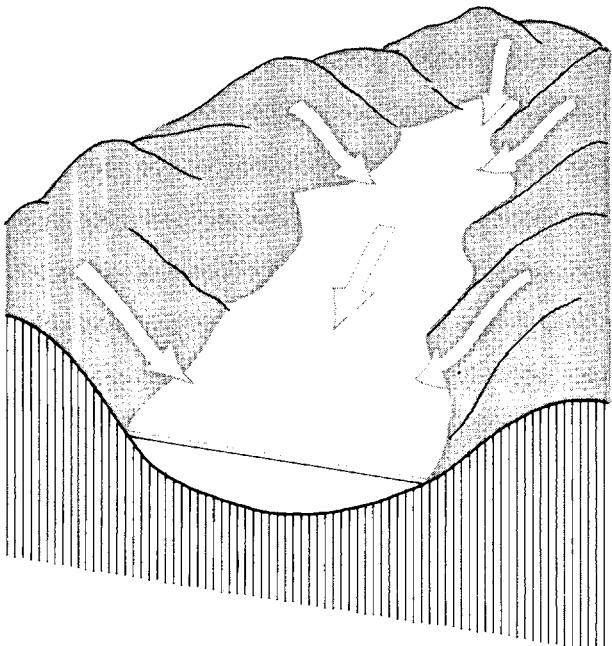
Severe winter depression with low temperatures and frosts, the areas most severely affected being those which are low lying or have a westerly aspect.

Summer depression with high temperatures, sometimes unreliable rainfall and frequent hot north-westerly and westerly winds. High evaporation and transpiration rates and surface runoff affect water retention.

Spring and autumn peaks with regular rainfall and warm temperatures in late spring and early autumn.

Frost

The gardener's main concern about the climate is how long the growing season will be. This will be determined by the last frosts in spring and the first frosts in autumn but microclimatic peculiarities reduce that period in many parts of Canberra because of temperature inversion — the frosty hollow effect.



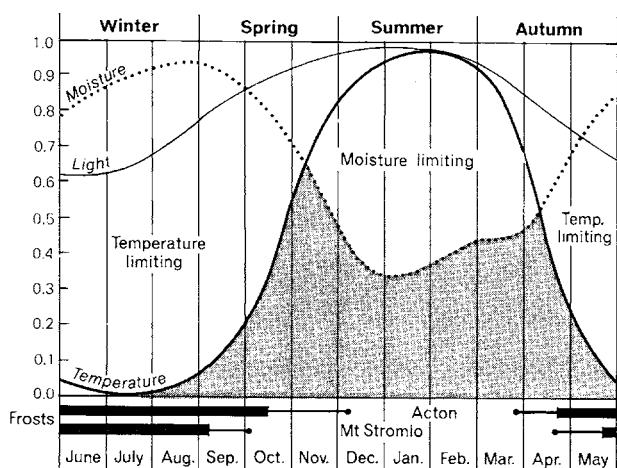
Frosty Hollows

Temperature normally decreases with altitude but on clear still evenings cold air drains onto the lowest ground and remains there, reversing the usual pattern. Overnight minimum temperatures can be as much as 7°C lower in the frosty hollow than above it. Areas that have plenty of trees will have some frost protection. Treeless hill slopes can be affected by a frost while the well vegetated frosty hollow can miss the full frost effects.

To Explain it Another Way . . .

Plant Responses to Moisture, Light and Temperature (Society for Growing Australian Plants, page 6)

redrawn with permission



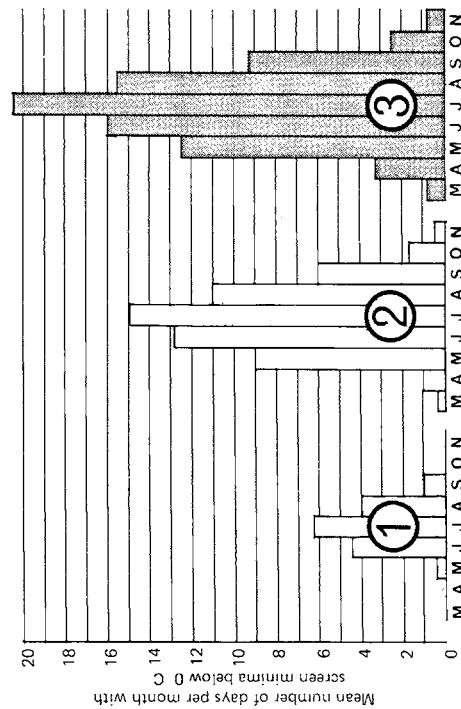
- the relative dry matter scale expresses the non-linear responses of plants to a linear scale from zero to unity
- unity represents optimum conditions and zero represents completely limiting conditions
- the bar graph shows the average frost periods for Acton and Mt Stromlo, the line extending towards the centre indicates the extreme recorded dates of frosts.





This map, devised by Geoffrey Hope, divides the Canberra area into three zones of frost susceptibility:

- ① Mild frost regime (Mt Stromlo)
- ② Average frost regime (Acton)
- ③ Extreme frost regime (Cooma)



SOIL FERTILITY

The key to long term soil fertility is humus but it is quickly depleted in continually cultivated and well-watered soils. With deep mulching, humus is constantly renewed with no cultivation and the astute gardener has time to consider using other soil renovating techniques to complement deep mulching.

Earthworms

Earthworms are a useful indicator of the success of your soil fertility program. The more you have the better the soil. By consuming an enormous amount of organic material earthworms return to the soil their casts, which improve the soil's structure, increase the availability of soil nutrients to plants and deeply cultivate the soil to allow better air and water penetration. Encourage them by feeding them leftover scraps from the kitchen or animal manures left under the deep mulch. They thrive on waste ground coffee.

Animal Manures

While animal manures are plentiful and readily available, gardeners will be able to replenish humus in the soil as well as provide considerable quantities of plant nutrients. The nutrient value of animal manures depends on the quality of the animal's feed and the freshness of the manure. Pig manure and chicken manure in particular have high concentrations of nitrogen, potassium and that ingredient missing in Canberra soils, phosphorus. As well, the nutrients in pig and chicken manure are in soluble form, essential if they are to be readily available to plants.

Take care not to place fresh manure in direct contact with growing crops because it will burn them. However, if you spread chicken manure thinly at a maximum rate of about 300 grams per square metre underneath the deep mulch then there will be little danger of burning seedlings.

Composition of Samples of Common Animal Manures

Manure	Nitrogen N%	Phosphorus P%	Potassium K%
Horse	0.5 to 2.0	0.2 to 0.6	0.4 to 0.6
Poultry	1.0 to 2.0	1.0 to 1.6	0.5 to 1.0
Cow	0.5 to 1.0	0.2 to 0.6	0.5 to 0.7
Sheep	0.8 to 1.8	0.2 to 0.6	0.5 to 0.7
Pig	0.5 to 1.2	0.5 to 0.8	0.1 to 0.4

When Canberra's poultry farms or stables advertise composted manure for sale, you can solve your soil fertility problems easily. At little expense, with some labour, you can provide your garden with the benefits of high quality manure aged in straw, hay or sawdust litter.

Green Manuring

Growing a green crop which is returned to the soil at maturity will help to improve soil fertility. The nutrients of the plants themselves are added to the soil, the organic material will help restore humus, the rotting roots will deeply 'cultivate' the soil and if legumes, like peas or beans, are used as the green manure then the soil's nitrogen is increased because the nitrogen fixing bacteria in these plants use atmospheric nitrogen for their growth.

In large holdings the techniques for green manuring can be elaborate and laborious but for the home gardener it is easier. In Canberra you can grow a crop of peas or broad beans in August, take a first picking, knock over the plant and spread it under the mulch. A late January or early February planting of peas or French beans will give you a picking before the frosts affect the setting of the peas or beans. Scatter a handful of pea or lupin seeds on the soil or mulch in an area in your garden which you do not want to use for some time. Grow them in winter when other crops are impossible. Allow a couple of weeks before replanting the garden. If you find that the intended green manure crop is prolific, abandon the idea of using it as green manure. After the harvest, chop the plants and leave them under the mulch.

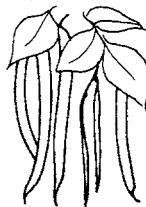
Crop Rotation

Crop rotation does not seem to be common among organic gardeners if their literature is anything to go by, perhaps because their soil fertility is very high. But the procedure requires little planning, so that until your soil has reached an acceptable level of fertility, take advantage of its benefits.

With crop rotation, the garden can use the fertility provided by the vegetables themselves: leafy greens like lettuce and cabbage which require heavy manuring and plenty of nitrogen follow peas and beans; and root crops, which dislike that environment, will follow leafy greens. Growing the same crops in the same ground repeatedly depletes the soil of the particular nutrients required by those crops.

Rotation, too, will reduce the possibility of disease organisms associated with the same plant or similar plants building up in the soil.

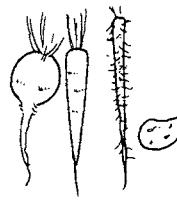
Try this three-course rotation



Legumes



Brassicas and leafy greens



Root crops

Beans

Peas

Celery

Leeks

Onions

Radishes

Broccoli

Cabbage

Cauliflower

Lettuce

Spinach

Beetroot

Carrots

Parsnips

Swedes

Potatoes

Tomatoes

Capsicum

Remember: don't plant members of the same family one after another; swedes and turnips are brassicas, silver beet and beetroot are beets.

COMPOSTING

Composting increases the rate at which material rots. Layers of organic waste are built up in such a way that the micro-organisms in the heap will quickly multiply and the high temperatures they create will destroy pathogens, parasites, pests and weeds. The final product should be a crumbly soil rich in humus and plant nutrients. Unfortunately, there seem to be too many methods, too many pitfalls, too much work and never enough compost.

Compost is a useful adjunct to the deep mulch garden as good compost is an excellent medium for growing seeds and seedlings in the mulch. The indolent method of compost making uses up the organic materials that are not put directly under the mulch.

Methods of Making Compost

Compost is only as good as its ingredients, so Canberra composters should ensure that materials high in phosphorus are used, like blood and bone or rock phosphate. Materials with potassium include lawn clippings, poultry manure, wood ash and seaweed. Nitrogenous materials are more readily available like leaves, lawn clippings, grasses, weeds, plant material, animal manures. Whatever materials are used, some kind of activator is needed to encourage the decomposing process. This can be manure, blood and bone, lime or a brand activator.

For those gardeners who are dedicated compost makers, the CSIRO Division of Soils has, in its Discovering Soils series, a booklet, *Composting – Making Soil Improver from Rubbish*. The author advocates the Berkeley method as the best method of compost making. Alternate layers of high nitrogen and low nitrogen materials are built up to about 1.5m (5ft) high. The layers are dampened, the heap turned, mixed and aerated after 3 or 4 days, and every 2 or 3 days for 2 to 3 weeks depending on how fine the compost is to be. The booklet is available at the Australian Government Publishing Service bookshop in Alinga Street, Canberra City.

Indore Method: The compost heap is built up in alternative layers of vegetable matter with a soil activator or manures between them. As each layer goes down, water well. Continue the layers to about 1.5m (5ft). Turn the heap after 6 weeks and 12 weeks.

Compost Bins: The same procedure is used as the Indore Method except that there is no turning of the heap. This means that more activator materials must be used like manures, lime or blood and bone.

Compost Boxes: A more permanent compost box can be made, one for the maturing compost, which after 6 weeks can be transferred to the other bin for final maturing before starting again. Slats need to be spaced for adequate aeration, front slats can be removable.

Indolent Method: The indolent method of compost making involves building up a compost heap over a longer time, keeping in mind the need to add various kinds of green materials, soil, manure and blood and bone. The procedure is much more haphazard than the various other compost recipes and takes a longer time to decompose. Compost should be taken from the bottom of the heap as the top layers will still be in the process of decomposing.

Acid												Alkaline
4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5	9.0	9.5	pH	
						Nitrogen						
						Phosphorus						
						Potassium						
						Sulphur						
						Calcium						
						Magnesium						
						Iron						
						Manganese						
						Boron						
						Copper and Zinc						
						Molybdenum						

FERTILISERS

Of the three main fertiliser sources, chemical fertilisers, organic manures and crushed ores, rocks or minerals, organic gardeners will depend on the latter two fertilisers.

Chemical fertilisers can decrease the earthworm population, and many organic gardeners argue that all chemical fertilisers will decrease it seriously. If soluble chemical fertilisers are over-used then there is an increase in the concentration of salts in the soil, often to the point where the plants are unable to take up water.

Using organic or inorganic fertilisers alone will not help build up soil fertility. Fertilisers should be used to supply nutrients missing in the soil or not available to the plants. Over-use of any fertiliser can reduce plant growth by creating deficiencies — too much nitrogen can cause potassium deficiency, too much phosphorus can cause potassium and zinc deficiency and too much potassium will cause magnesium deficiency.

Lime

Lime, the common name for calcium carbonate, is not usually regarded as a fertiliser but if it is used to reduce the acidity of Canberra's soil then it has the effect of making some of the existing soil nutrients more easily available to growing plants. With the use of lime the pH level of the soil can be increased to 6.5-6.8 which is ideal for encouraging helpful flora and fauna including earthworms.

Nutrient Availability at Various pH Ranges

A useful form of lime for domestic gardens is dolomite, magnesium-calcium carbonate. It supplies magnesium as well as calcium to the soil and can be mixed with animal manures and nitrogenous fertilisers provided it is immediately covered with mulch to reduce the loss of ammonia to the atmosphere.

Caution in the use of lime is important because over-liming can produce deficiencies in essential elements like iron and manganese.

Some vegetables are tolerant to soil acidity:

Blood and Bone

Blood and bone is a slow acting organic fertiliser ideal for Canberra soils. It is rich in phosphorus, moderately rich in nitrogen with smaller amounts of potassium, zinc and manganese. It will adequately supply the nitrogen needs of leafy vegetables and the phosphorus needs of legumes as well as compensating for the phosphorus deficiency in local soils.

Use it at a rate of 100 grams, or 3 handfuls, per square metre for establishing a garden, and half that rate every two years as a maintenance dose.

Composition of Blood and Bone

nitrogen	5%
phosphoric acid	16%
magnesium	0.5%
copper	13 parts per million
manganese	12 parts per million
zinc	160 parts per million

Tolerance of Vegetables to Soil Acidity

Very tolerant	potato, shallot
Moderately tolerant	aubergines, beans, brussels sprouts, capsicums, carrots, cucumbers, garlic, radishes, tomatoes, turnips
Slightly tolerant	asparagus, beets, broccoli, cabbages, cauliflowers, celery, leeks, lettuce, onions, parsnips, silver beet, spinach

If you are wondering whether your Canberra garden needs lime, a good indicator is sorrel. If it is growing happily then your soil needs lime. If so, take advantage of it by planting potatoes which have a preference for acid soils. You can add lime for the next crop.

If you are preparing new vegetable gardens, dolomite should be applied under the mulch at the rate of about 500 grams, or 10 handfuls, per square metre. After this initial heavy dressing, lime can be added at a quarter of that rate every two

years or so.

If you want to loosen heavy clay soils, apply lime with plenty of organic material.

Foliar Fertilisers

Plants can absorb nutrients through their leaves as well as their roots. An increasing number of organic foliar fertilisers are on the market including many based on seaweed, which has appreciable quantities of essential trace elements, some of which may be lacking in your soil. Seaweed fertilisers are, indeed, a complete fertiliser, for the major elements needed for plant growth are there too. The level of nitrogen in the seaweed formula is often increased by adding urea.

Seaweed fertilisers are the safe way to treat any suspected mineral shortage, and mineral shortage-linked diseases, so use them regularly until you think your soil has reached an acceptable level of fertility.

Young leaves can absorb most of the nutrients within 24 hours particularly if the fertiliser is applied when the humidity is relatively high, either in the morning or in the late afternoon. What is not absorbed by the leaves will be absorbed by the roots of the plant.

SM3	almost all trace elements, vitamins, amino acids.
Liquid Seaweed	Catalysts release phosphorus, manganese, zinc, copper, boron into soil
MARINURE	phosphorus, potash/nitrogen, calcium/magnesium, copper/boron, manganese, sodium, iron, zinc, lead, sulphur, molybdenum, chlorine
Liquid Seaweed Manure	nitrogen, phosphorus, potassium, plus trace elements, cobalt, iodine, molybdenum, copper, boron, iron, zinc, manganese
MAXICROP	
Seaweed Fertiliser	

NUTRIENT DEFICIENCIES IN VEGETABLES

Apart from applying an all-purpose fertiliser to supply minerals lacking in the soil, it is possible to identify some of those deficiencies and remedy

<i>Element</i>	<i>Symptoms</i>	<i>Susceptible vegetables</i>	<i>Organic remedies</i>
nitrogen	general yellowing, stunted growth, premature maturity	all non-legumes particularly leafy greens	fowl manure, blood and bone, lawn clippings, legume roots
phosphorus	yellowing, blue-green and purple streaks in older leaves	carrots, lettuce, sweet corn, brassicas, tomatoes, leafy greens, legumes	blood and bone, rock phosphate
potassium	scorched leaf margins, older leaves bronzy green, spots surrounded by pale zones	leafy greens, tomatoes, beans, potatoes, brassica, lettuce and beetroot	seaweed, potash
magnesium	patchy yellowing, colouring at edge of older leaves, brown patches in leaf centres	brassica, celery, cucumbers, tomatoes, carrots, potatoes, peas and beans	dolomite
molybdenum	mottling over leaf surface, cupping of older leaves, distortion of stem	brassica, occasionally lettuce, silver beet, tomatoes, cucumbers	horse manure, compost, sawdust
manganese	veins and leaves pale green, water soaked spots, hollow centres	beetroot, peas and beans, brassica, leafy greens	chickweed, horse manure, compost, sawdust, seaweed
calcium	growing tips blacken and die, blossoms die, leaves turn purple brown	broad beans, peas, beans, tomatoes, brassica	oaten hay, lucerne hay, chamomile, horse manure, dolomite, crushed shells
sulphur	yellowing of young leaves, slow growth	peas and beans, most vegetables	cabbage/cauliflower leaves
iron	very pale young leaves, veins very green, with yellowing between	beans, peas	nettles, dandelion, spinach, sawdust, parsley
copper	dark-blue leaves, curling, twisting, death of growing tips	most vegetables	nettles, dandelion, chickweed, sawdust
zinc	smallness, bunching of young leaves, yellow-white mottling	beans, onions, potatoes, sweet corn	horse manure, sawdust
boron	hollow stem, browning of young leaves, brown heart	cauliflower, tomatoes, beetroot, turnips	beetroot leaves, horse manure, sawdust

them by adding organic materials to the soil. Perhaps poor plant growth will be the only sign of a mild deficiency. Severe deficiencies are more easily identifiable.

Susceptible vegetables

all non-legumes particularly leafy greens

Organic remedies

fowl manure, blood and bone, lawn clippings, legume roots

blood and bone, rock phosphate

seaweed, potash

dolomite

horse manure, compost, sawdust

chickweed, horse manure, compost, sawdust, seaweed oaten hay, lucerne hay, chamomile, horse manure, dolomite, crushed shells

cabbage/cauliflower leaves

nettles, dandelion, spinach, sawdust, parsley

nettles, dandelion, chickweed, sawdust

horse manure, sawdust

beetroot leaves, horse manure, sawdust

PESTS AND DISEASES

Canberra has a number of advantages over warmer, maritime climates for pest and disease control: severe winters reduce insect populations, insect damage and insect-borne diseases and long dry summers reduce the problems of mildew which can seriously affect vegetables in the coastal regions. Moreover many areas of Canberra are only recently suburban so the gardens should be disease and pest free for some time.

Remember that pests and diseases do not strike haphazardly nor do they generally strike together. Seasonal factors, particularly if extreme, and management procedures affect the flora and fauna lurking in the shrubbery. Work on the principle that pests and diseases are indicators of poor soil fertility, that the poorer the soil the greater the pest and disease problem.

Management

Preventative measures are the better part of rational pest and disease control.

Use disease-resistant seeds and seedlings from reliable nurseries. Seed packets will often tell you if the seeds are resistant to particular diseases. Diversify your crops by growing different varieties; in some seasons one variety will flourish while the others languish and there is nothing you can do about it except plant different crops.

Unwanted plants, or weeds, can be kept away from the garden by mulching. Keep weeds under control in out of the way places because some bugs, like the green vegetable bug, can winter over on them before multiplying in spring and moving to your vegetables.

Rotate crops to control diseases in the soil and reduce the chance of insect infestation from the old crop. Tomatoes, potatoes, aubergines and capsicums are all susceptible to similar diseases so avoid planting them one after another on the same patch of ground.

Build up soil fertility, watch the watering program and fertilise your plants. Strong and healthy plants have natural defence mechanisms to withstand pests and diseases.

If plants are seriously diseased, rather than insect infested, pull them out.

Grow enough for the bugs. Pests and disease will appear in the best managed gardens so take precautions by planting enough for the family and a little more for potential rivals.

Companion planting is believed by some to improve plant growth by association with other 'sympathetic' plants as well as by conferring resistance to disease and pest attack. Apart from the chemical inhibitions mentioned above, experimental proof of good and bad vegetable associations is hard to come by. But when in doubt, keep an open mind!

Grow inhibitory plants among your vegetables. Garlic, marigolds and chrysanthemums have effective chemicals in their roots that repel nematodes, minute worms which attack plant roots. Basil reduces nematodes in the tomato patch, and sage and mint are reputed to repel the cabbage butterfly.

COMPANION PLANTS

Perhaps the real benefit of companion planting is diversifying what is growing in the vegetable garden and reducing the pest hazard and disease transmission problems that monoculture can bring. Our own fairly extensive experience has been inconclusive but we still consider the plant's affinities when planting, partly out of faith, but mostly out of a belief that the greater the variety in plantings, the less likelihood of insect infestation.

Asparagus

likes: tomatoes, parsley

Broad beans

like: carrots, cauliflower, beetroot, potatoes, sweet corn

French and climbing beans

like: cucumber, cabbage, leeks, celery, sweet corn, carrots, cauliflower, beetroot
dislike: onions, garlic, shallots, leeks

Beetroot

like: French beans, onions, kohlrabi

Brassicas

like: potatoes, herbs, beetroot, celery
dislike: tomatoes

Carrots

like: peas, lettuce, chives, onions, leeks, salsify

Celery

likes: brassicas, leeks, tomatoes, beans

Cucumber

likes: chives, potatoes, peas, beans, brassicas

Kohl rabi

likes: beetroot, onions

dislikes: French and climbing beans, tomatoes

Leeks

like: celery, carrots

Lettuce

likes: radish, carrots

Onions

like: carrots, beetroot

dislike: peas, beans

Peas

like: radish, carrot, cucumber, turnip, sweetcorn, beans

dislike: onions, garlic, leeks

Potatoes

like: beans, sweet corn, peas, brassicas, broad beans

dislike: tomatoes

Pumpkin

likes: sweet corn

dislikes: potatoes

Radish

likes: peas, lettuce, beans, all vegetables

Tomato

likes: asparagus, parsley

dislikes: kohlrabi, brassicas

Turnip, swede

likes: peas

Sweet corn

likes: potatoes, peas, beans

POISONS FOR THE GARDEN

If after trying all this, you find the pests and diseases are still there, perhaps the cause has been a long wet spring and you have mildew, or a long hot summer with startling numbers of green vegetable bugs. In cases like these we treat the symptoms.

Indiscriminate chemical warfare is not the answer. There are no 'safe' insecticides. The 'safest' are the least immediately effective but they still kill and they too can affect the good bugs as well as the bad.

Each gardener has to decide what the balance is to be between good plant growth and poisons. If the gardener avoids using some of the more potent poisons on the market like DDT, chlordane, dieldrin or lindane, reduced harvests may be the only price, and it is not a high price to pay for protection from the long term damage they do. Use insecticides derived from plants. They are effective for the backyard gardener, but, unfortunately, too expensive and unreliable for the commercial gardener.

DUSTING SULPHUR fungicide

controls rust and black spot on beans, controls red mite, red spider, powdery mildew, rust on beans

harmless to insects

BORDEAUX MIXTURE copper sulphate fungicide

controls mildew on tomato, brassicas, turnip, spinach, leaf spot on celery, broad bean

DERRIS derived from plant

fatal to fish
affects ladybirds and their larvae
biodegradable
apply in evenings, non-toxic

effective against aphid, caterpillar, red spider, mite, beetle, thrip

PYRETHRUM derived from plant

affects ladybirds and their larvae
biodegradable
non-toxic to humans

effective against aphid, beetle, sawfly, weevil

METHALDEHYDE chemical poison

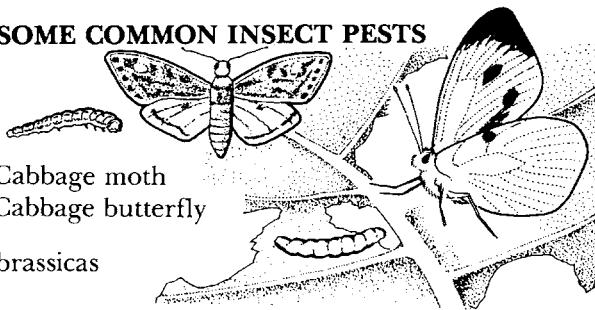
dangerous to birds and domestic animals

effective against slugs and snails

OR:

- beer in saucers or cooking salt sprinkled around the garden will reduce snail population
- pay children a bounty for collecting snails
- aphids can be washed off vegetables with a strong jet of water
- on small plants, scale is best scrubbed off with soapy water

SOME COMMON INSECT PESTS



Cabbage moth
Cabbage butterfly

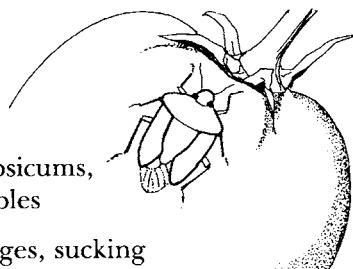
brassicas

caterpillars eat foliage, growing tips
extensive damage if not controlled

Green vegetable
bug

tomatoes, beans, capsicums,
will eat most vegetables

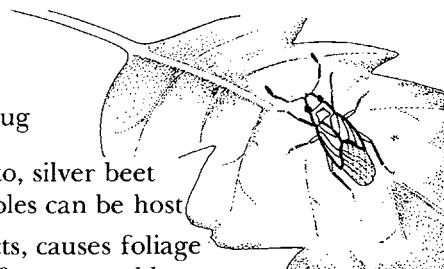
destructive at all stages, sucking
and pitting foliage and fruit



Rutherglen bug

potato, tomato, silver beet
other vegetables can be host

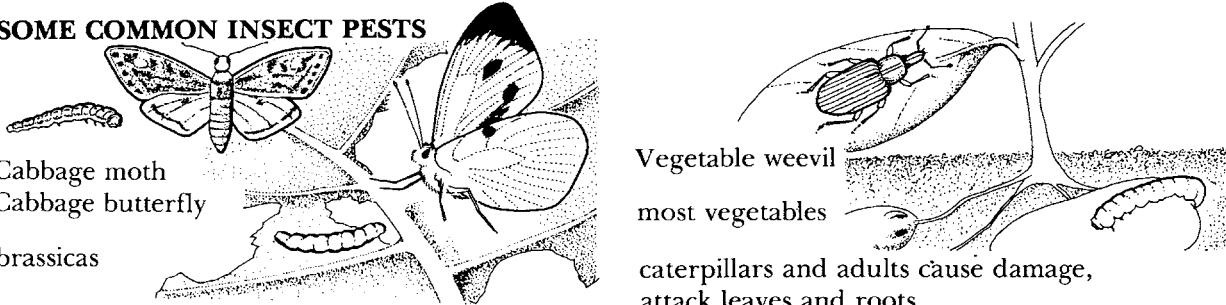
sucking insects, causes foliage
to shrivel, affects vegetable



Red spider mite

beans, pumpkin, squash,
cucumbers, tomatoes

sucking pest, affects foliage and
vegetable



Vegetable weevil

most vegetables

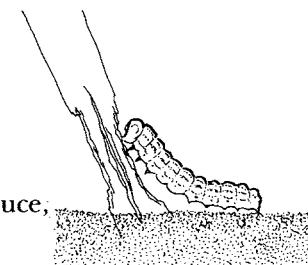
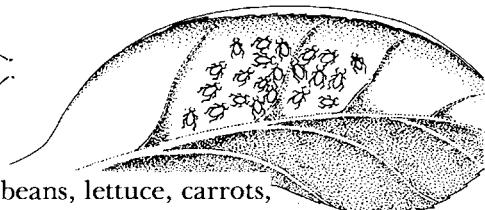
caterpillars and adults cause damage,
attack leaves and roots



Aphids

cabbage, beans, lettuce, carrots,
onions, leeks, peas, pumpkins,
squash, cucumber, capsicums

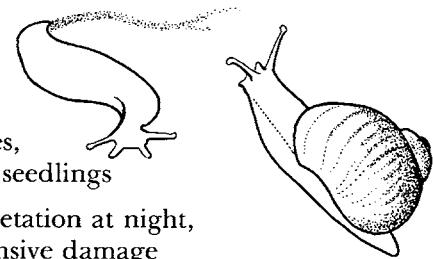
sap suckers, multiply rapidly, affect
foliage and vegetable



Cutworms

tomatoes, potatoes, lettuce,
brassicas, capsicum

cut through young stems at ground level
at night, hide in soil during day



Snails, slugs

all vegetables,
particularly seedlings

feed off vegetation at night,
can do extensive damage

Now try this

Now that you have been convinced that it is possible to have a low-labour garden with an inbuilt soil replenishment process, convert your existing vegetable gardens or start from the beginning.

Converting Your Garden to a Deep Mulch Garden

Before you begin, consider the general acidity and fertility levels of the existing garden. If they have been limed and fertilised in the past, then the simplest way to create a deep mulch garden is to build up the mulch with layers of spoilt straw or hay to a depth of 150-200cm (6-8in). If there are weeds in the garden, make the mulch a little thicker. If you want to use up some of your newspaper, put 3 or 4 layers under the mulch.

You will need to use fertilisers to ensure good plant growth when you plant your seeds and seedlings.

Or . . .

If you are dubious about the acidity and fertility levels of the garden beds, then add dolomite lime and a fertiliser before adding the layers of newspaper and mulch.

dolomite — 5 handfuls per square metre

blood and bone — 2 handfuls per square metre

animal manure — 10cm ($\frac{1}{2}$ in) layer

Starting from Scratch

You can make a deep mulch garden on virtually any surface. This procedure is suitable for converting a lawn area to a deep mulch.

Lim the area at the rate of 500 grams per square metre — 10 handfuls per square metre.

Fertilise the area at the rate of 3 handfuls per

square metre, with blood and bone or a thick layer (25mm or 1in) of animal manure.

Cover with thick layers of newspapers so that there is a complete light-excluding barrier over the grass or weeds.

Build up the mulch with the spoiled straw or hay to a depth of 15-20cm (6-8in).

With both these methods you can put your kitchen and garden wastes directly under the deep mulch.

One bale of spoiled hay or straw should adequately cover 3 square metres (18 square feet) approximately.

Urban Sheet Mulching

Permaculture is the exciting concept of Bill Mollison and David Holmgren. Their book, *Permaculture One*, is a resource book for a low energy, high yielding agriculture ecosystem of animal species and perennial plants useful to man. Permaculture is a design for future urban and rural developments integrating aspects of many disciplines like ecology, landscape design, energy conservation, architecture and agriculture. The Canberra Permaculture Society actively seeks ways to adapt the design to Canberra.

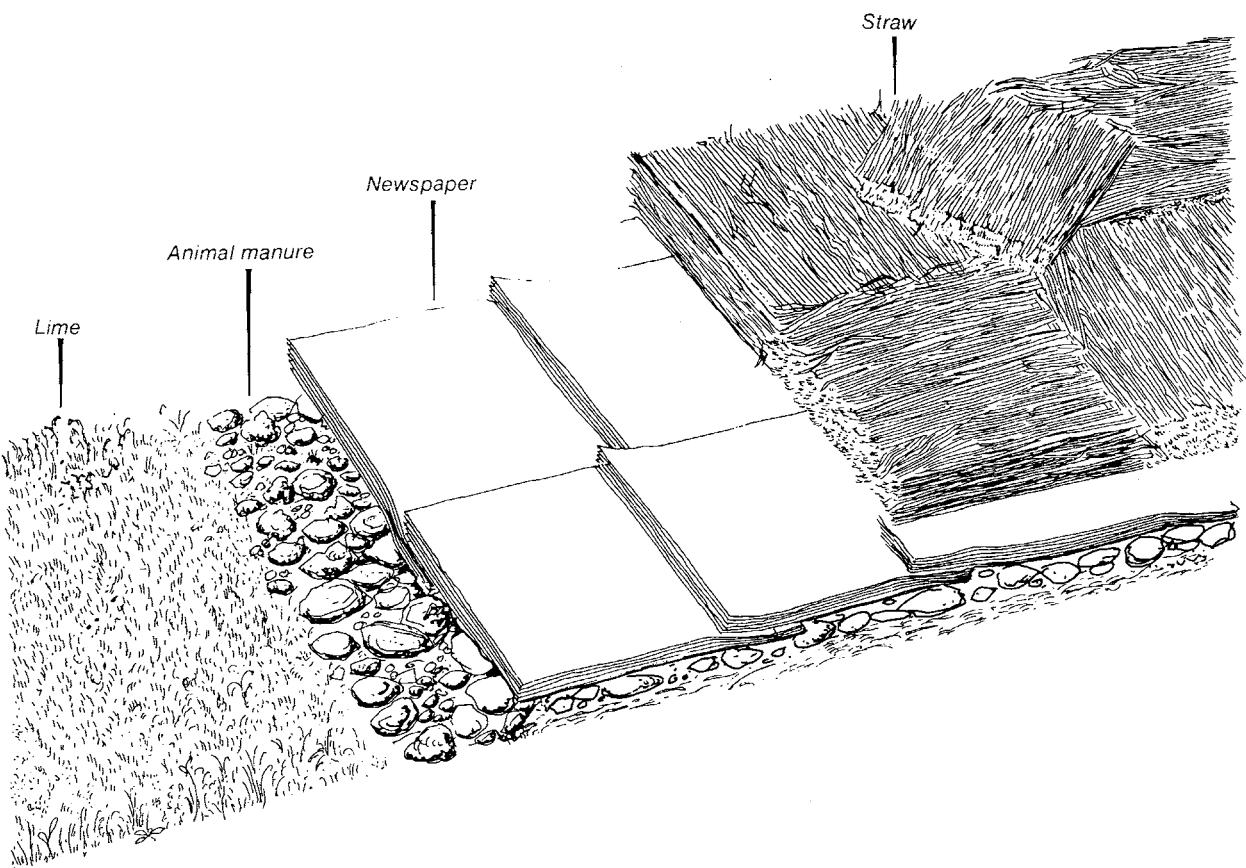
In terms of the domestic vegetable garden in Canberra there can be little application of the grand permaculture design but urban sheet mulching, as Mollison and Holmgren describe it, is one of the variations of a deep mulch gardening technique.

The procedure is:

Scatter organic nitrogen (like poultry manure or blood and bone) and some ground limestone or dolomite on the area to be planted. Leave grasses and weeds untouched.

'Tile' the area with a thick organic, light-excluding barrier using materials like cloths, carpets, newspaper or cardboard. Use leaves, sawdust, bark or straw as a loose cover over the 'tiled' area.

Use buckets of sandy soil to make small mounds for planting seeds and seedlings. Water well.



Vegetable calendar

The calendar is a guide to planting seeds and seedlings for optimum seasonal conditions, disease resistance, maximum growth and yields. However, seeds and seedlings have a considerable ability to compensate for unfavourable conditions. A reduced or delayed harvest may be the only significant result of idiosyncratic plantings.

The part-time gardener can save time and effort by buying seedlings from nurseries. While seedlings are convenient and available at appropriate times for planting they are not always available when planning for particular harvests. To plan for a winter garden of, say, silver beet, lettuce, brussels sprouts and herbs, seeds and seedlings must be available in December, January or February.

This calendar recommends later plantings, usually by a month, than is usual for a Canberra growing calendar. This allows greater chances for frost to be over and the ground to have warmed up. However, when the calendar recommends October as a planting time, late September is appropriate too. Summer crops, some Canberra gardeners say, should be in on the long weekend in early October.

Asparagus

Sow: September, October
Transplant: July, August
Maturing time: 2-3 years
Harvest: Spring

Aubergine

Sow: October
Transplant: November, December
Maturing time: 20-25 weeks
Harvest: late summer, autumn

Beans, French, Dwarf

Sow: October to January
Maturing time: 8-12 weeks
Harvest: summer, autumn

Beans, Climbing

Sow: October to January
Maturing time: 10-14 weeks
Harvest: summer, autumn

Broad Beans

Sow: February, March or May to August. Early plantings no advantage
Maturing time: 20 weeks
Harvest: summer, autumn

Beetroot

Sow: September to January
Maturing time: 12 weeks
Harvest: summer, autumn, will winter in ground

Broccoli

Sow: August, September and December, January
Transplant: January to February
Maturing time: 16 weeks
Harvest: spring, autumn, winter

Brussels Sprouts

Sow: November, December
Transplant: December to February
Maturing time: 18-25 weeks
Harvest: autumn, winter

Cabbage

Sow: August to February, varietal differences significant for sowing times
Transplant: September to March
Maturing time: 10-20 weeks
Harvest: spring, summer, autumn

Chinese Cabbage

Sow: September, October and December to February (preferable)
Maturing time: 8-12 weeks
Harvest: early summer, autumn, early winter

Capsicum

Sow: November

Transplant: November, December

Maturing time: 20 weeks

Harvest: late summer, autumn

Carrots

Sow: September to January

Maturing time: 10-14 weeks

Harvest: summer, autumn, can winter in ground

Cauliflower

Sow: December to January, varietal difference significant for sowing times

Transplant: January to February

Maturing time: 12-28 weeks

Harvest: autumn, winter, spring

Celery

Sow: October to November

Transplant: November to December

Maturing time: 20-24 weeks

Harvest: autumn, winter, spring

Cucumber

Sow: October to December

Transplant: November to January

Maturing time: 8-12 weeks

Harvest: summer, autumn

Kohl Rabi

Sow: September, October and February, March

Maturing time: 8-12 weeks

Harvest: summer, autumn

Leeks

Sow: August to November

Transplant: September to January

Maturing time: 20-30 weeks

Harvest: autumn, winter

Lettuce

Sow: August to March, varietal differences significant for sowing times

Transplant: August to March

Maturing time: 8-12 weeks

Harvest: all year

Onions

Sow: February to September, varietal differences significant for sowing times (early, mid, late)

Transplant: March to September

Maturing time: 25-36 weeks

Harvest: summer, autumn

Parsnips

Sow: August to December

Maturing time: 24 weeks

Harvest: autumn, winter

Peas

Sow: August to January

Maturing time: 14 weeks

Harvest: summer, autumn

Potatoes

Sow: August to December

Maturing time: 20-25 weeks

Harvest: autumn, winter

Pumpkin and Squash

Sow: October, November

Transplant: November, December

Maturing time: 20-24 weeks

Harvest: autumn

Radish

Sow: September to March

Maturing time: 4 weeks

Harvest: summer, autumn, winter

Salsify

Sow: October to December

Maturing time: 8-12 weeks

Harvest: autumn, winter, winter over in ground

Silver Beet

Sow: September to January

Transplant: October to February

Maturing time: 24 weeks

Harvest: autumn, winter, winter over in ground

The spring fidgets and autumn agitation is a twice-yearly affliction, and the usual symptoms are unhappy seedlings coping with unsatisfactory growing conditions. Avoid too early and too late plantings. If the calendar is incomprehensible, perhaps these lists will help.

Spinach

Sow: August to October and January, February

Maturing time: 8-12 weeks

Harvest: summer, autumn, winter

Sweet Corn

Sow: October, November

Maturing time: 12-16 weeks

Harvest: summer, autumn

Early spring — very cold hardy

plant 4-6 weeks before frost free date

artichokes	peas
broccoli	potatoes
cabbage	parsnips
leeks	spinach
lettuce	turnips
onions	

Spring — cold hardy

plant 2-4 weeks before frost free date

asparagus	carrots
beetroot	silver beet
cauliflower	radishes

Late spring — not cold hardy

plant after frost free date

beans	sweet corn
celery	tomatoes
cucumber	zucchini
pumpkins	

Early summer — medium heat hardy

aubergine	silver beet
beans	sweet corn
capsicum	zucchini

Summer — heat hardy

plant 6-8 weeks before frosts	
beetroot	spinach
cauliflower	turnips
lettuce	

Turnip, Swede

Sow: December, January

Maturing time: 14-18 weeks

Harvest: autumn, winter

Zucchini

Sow: October to December

Transplant: November, December

Maturing time: 10-12 weeks

Harvest: summer, autumn

A VEGETABLE 'EFFICIENCY' LIST

For the part-time gardener, growing exotic vegetables is interesting but incidental to producing a good harvest from a small area with little labour.

For the gardener conscious of food value, each season should include root crops and leafy green crops. This list is an 'efficiency' list: generous harvests from small areas over a reasonable time, with short or medium growing periods.

Beans, French and climbing 10-12 weeks
high proportions of all vitamins, rich in minerals

Beetroot 12 weeks
small amounts vitamin A, B complex, C, high in cellulose and sugars

Broccoli 14-16 weeks
rich in vitamin B and C, rich in minerals

Cabbage 10-12 weeks
rich in vitamin A and D, rich in minerals

Carrots 10-14 weeks
very rich in vitamin A, rich in carbohydrates and minerals

Cucumbers 8-12 weeks
small amount vitamin C, less B complex, very rich in phosphorus

Lettuce 8-12 weeks
(salad greens)
good quantity vitamin A, B complex, rich in iron and minerals

Peas 12-14 weeks
small amounts vitamin A, B complex, C, rich in minerals

Radish 4 weeks
small quantity vitamin B complex and C, rich in sugars, potassium

Silver beet 8-12 weeks
rich in vitamin A, B complex, rich in minerals

Spinach 8-12 weeks
good source of iron and vitamin A, rich in minerals

Sweet Corn 12-16 weeks
good supply of carbohydrates, rich in minerals, very low in vitamins

Tomatoes 14-20 weeks
rich in vitamin A, good source vitamin B, rich in potassium

Turnips, White 10-12 weeks
small amounts vitamin A, B complex and C, rich in starches, very rich in potassium

Zucchini 10-12 weeks
rich in vitamin B complex, good source vitamin A, rich in minerals, particularly potassium

If your garden is large you will have the space for:

asparagus	cauliflower
aubergine	kohl rabi
brussels sprouts	leeks
celery	potatoes
cabbage	pumpkins
capsicum	

Depending on your taste and initiative, you can grow more esoteric vegetables:

artichokes	celeriac
salsify	

'Foolhardy' vegetables

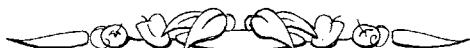
beans	lettuce
beetroot	radish
carrots	silver beet
leeks	zucchini

Now go ahead

ARTICHOKEs

Globe Artichokes

Cynara cordunculus var. *scolymus*



Plant seeds of the Purple Globe or Green Globe variety, or better still, plant suckers if you can get them, in July or August. Have 3 or 4 plants, more if you and your family are addicted. After the plants yellow in autumn, build up the mulch.



Globe artichokes are attractive and very ornamental plants that do well in Canberra, growing up to 1.5 metres (5ft) in sunny positions. Deep mulching techniques are ideal, for they like rich soil and plenty of moisture during the growing season.

The buds are the delicacy. If you want to grow large ones, thin the suckers when the new growth appears in spring to about 4 suckers per plant and as the bush spreads nip the lateral buds. In a minimum labour garden don't bother; small buds are delicious and can be eaten raw or fried whole in butter or oil.

Harvest the buds while they are still tight and tender. If the buds are mature like the ones you see in the greengrocers, cut off the outer leaf-like sepals and trim their tops. Spread the 'leaves' a little and boil them in salted water with lemon juice or vinegar to keep their colour, for 15 to 30 minutes, depending on size.

The usual way to eat artichokes is to pull off the leaves, dip them if hot in melted butter and lemon juice, or if cold, in mayonnaise or vinaigrette. Very young artichokes are delicious sliced raw in salads.

Venetian Artichokes

Cut the outer 'leaves' away from 6 to 8 artichokes and stew them gently with the lid on for an hour in 2 tablespoons each of oil, white wine and water. Test them by pricking the base which should then be soft. Take off the lid and reduce the sauce to oil before serving.

Greek Artichokes

6 young artichokes	1 carrot, chopped
2 tablespoons oil	2 tablespoons parsley, chopped
1 clove garlic	1 cup stock or water and wine
lemon juice	
1 onion, chopped	

Prepare the artichokes as before and put them with all the other ingredients in a pan. Stew gently until tender, about 30 minutes. Remove the artichokes, puree or mash the remaining vegetables and reduce them if necessary to a sauce. Serve the artichokes with the sauce poured over them.

(A very simple version of a traditional dish.)

Jerusalem Artichokes

Helianthus tuberosum



In spring plant 1 or 2 tubers from a friend's garden under the mulch in a permanent spot. Harvest the tubers in autumn and winter as needed, and mulch the area. They do well anywhere but beware, they can become a nuisance.



An ideal vegetable for the labour-free garden if you and your family are not allergic to them. Jerusalem artichokes are a perennial plant. The edible part is the nobby tuber which has a nutty flavour, and a texture like water chestnuts.

Scrub the tubers. Boil them for 15-20 minutes and then scrape off the skin. They are now ready to be used in other recipes or eaten, but be warned that some people react to Jerusalem Artichokes with an awful case of flatulence. Artichoke soup seems to reduce the problem. They can be used raw in salads and oriental cooking as water chestnuts.

Artichoke with Tomatoes

1 kilo small artichokes basil or marjoram
4-5 tomatoes, skinned garlic
and chopped olive oil

Cook the peeled artichokes whole until they are almost cooked. Drain them and cut each in half, then put them into a little olive oil heated in a pan. Add the tomatoes with some basil or marjoram and a crushed clove of garlic. The artichokes should be ready when the tomatoes have softened and become a sauce. They can be eaten as a single dish or as an accompaniment to meat.

Artichokes stewed in Wine

½ kg artichokes, 1 glass wine or cider
peeled garlic
1 onion, sliced nutmeg
1 tablespoon flour parsley

Cook the onion gently in oil then add the flour and stir for a minute. When it has been absorbed, add a glass of wine or cider, bring it to the boil and then add the artichokes with a crushed clove of garlic and a pinch of nutmeg. Simmer gently until the artichokes are cooked. Serve with chopped parsley on top.

Artichoke Soup

(Put scrubbed artichokes into water with lemon juice to prevent discolouration.)

10-12 artichokes 1 cup cream
2 onions, chopped parsley
butter for frying parmesan cheese,
5 cups stock grated

Melt the butter in a large saucepan and gently fry the onions. Slice the scrubbed artichokes one by one and fry them with the onions. Keep the heat low, put the lid on so they 'sweat' rather than fry and they will not discolour. Simmer for 5 minutes, add stock, bring to the boil and simmer for a further 15 minutes. Puree the soup, return it to the saucepan, add the cream and parsley, and serve with parmesan cheese.

ASPARAGUS

Asparagus officinalis



Plant root-crowns, spreading the roots carefully, when they are one or two years old, preferably the Mary Washington variety, about 16-20 plants for a family of four. Prepare the garden in July or June if necessary and plant in July or August. Each plant needs about .2 square metres (2 square feet). Build up the mulch over them.



Asparagus does well in Canberra but it needs *lots* of space and plenty of time. It is not a high priority vegetable for the gardener with limited space, as the return on the space occupied is low. It is a perennial and takes about 3 years before the shoots are fully mature. Once the asparagus is established it will produce for years, but even then the harvest can be variable in the numbers harvested and the thickness.

You can harvest lightly and infrequently during the second year, and during the third year harvest until the spears look thin. Allow the plants to fern in late summer and cut back to ground level when the frosts start. Build up the mulch.

The green spears are superior to the white spears in flavour and nutrition so allow them to darken a little through the mulch before cutting them at the base. Asparagus deteriorates quickly so get it to the pot within a couple of hours.

Cooking can be a problem because overcooked asparagus is watery and tasteless. If the spears are tough (or ones you have bought at the green-grocers) peel off the scales at the base of the stalk with a potato peeler.

To cook

Tie the spears in bundles and boil them with their heads above water for 12-15 minutes depending on the size of the spears.

Cut off an inch or so of stalk and lay them on the bottom of the pan. Put the rest of the spears on top, add water or stock, bring to the boil and cook for 8-10 minutes.

If you have only a few spears, put them on top of rice, cooking by the absorption method. When the rice is cooked serve the spears. Test by piercing the base of the asparagus; if it is soft, it is ready.

Freshly-harvested asparagus is too delicious to be served elaborately and the gluttons won't let you.

Serve with butter, parsley butter, or butter that has been heated to a light hazelnut colour.

Asparagus Omelette

Cook thin spears as above and wrap the tips in an omelette prepared in the usual way.

AUBERGINE (EGGPLANT)

Solanum melangena esculentum



Transplant available seedlings or plant early maturing varieties like Early Long Purple or Supreme in October and November, well after the frosts. Interplant aubergines with their relatives, tomatoes, if you wish, for they like similar growing conditions.



Aubergines are a gift of a late Canberra summer for they need those four or five months of warm weather. They are a beautiful grey-green bush with handsome purple fruit, the brinjal of India, the 'poor man's meat' of the Middle East. Plant them for their beauty and if your palate is unimpressed, give the fruit to an appreciative friend.

Aubergines ripen one at a time. Pick them when they are firm, dark and glossy. They are a surprisingly versatile vegetable. Middle Eastern and Indian recipes have them pureed, pickled, stuffed and baked, deep fried and sauteed; while western European recipes for the distinctive aubergine are the Greek moussaka, the Turkish Imam Bayeldi and the Provencal ratatouille. A magnificent farewell to summer.

To prepare aubergines for cooking, sprinkle salt on the slices or cubes and leave them for 20-30 minutes. This will reduce the amount of oil they absorb, the bitterness and toughness that cooked aubergines can develop. Some recipes don't need it.

Moussaka

6 medium aubergines, sliced lengthwise and salted	6 tablespoons toasted crumbs
1 tablespoon butter	$\frac{1}{2}$ cup olive oil
$\frac{1}{2}$ kilo minced meat	1 $\frac{1}{2}$ cups white sauce (béchamel)
2 onions, chopped	2 tablespoons grated cheese
2 tablespoons tomato puree and little water	$\frac{1}{2}$ cup wine

Melt butter, add onions and meat and fry till brown. Stir in the wine, tomato puree and water, season, cover and cook gently for 30 mintues. Remove from heat and add 4 tablespoons of the breadcrumbs. Heat olive oil and fry aubergine slices. Grease a large dish, sprinkle with breadcrumbs. Arrange a layer of aubergines then the meat. Continue in layers until aubergines and meat are finished. Cover with béchamel sauce. Sprinkle with cheese and breadcrumbs. Bake in the oven till golden brown.

Imam Bayeldi

5 aubergines	2-3 cloves garlic, chopped
6 onions, sliced	1 cup olive oil
6 tomatoes, chopped and peeled	parsley

Cut aubergines in half lengthwise, scoop out their centre, sprinkle with salt, squeeze dry. Fry onions, garlic and tomatoes in 2 tablespoons oil, season. Put stuffing into aubergines, arrange them in pan. Pour rest of oil and some water into pan. Bake in moderate oven for an hour. Serve cold.

Ratatouille

3 medium onions, sliced	4 large tomatoes, skinned
2 large aubergines, cubed and salted	2 garlic cloves, chopped
3 zucchini, cubed and salted	2 small cups olive oil
3 large red peppers, seeded and sliced	

Heat olive oil in a large, flat pan. Add the onions, soften them and add garlic, peppers, the drained aubergine, and zucchini. Cover the pan and cook very gently for 30 minutes. Add tomatoes and cook till vegetables are soft but not soupy.

BEANS

French and Climbing Beans

Phaseolus vulgaris



Grow dwarf and climbing varieties after the frosts have finished as beans are frost sensitive. Choose varieties that are stringless if you want to reduce preparation time in the kitchen. Climbing beans bear later than dwarf beans, so plant them at the same time. In Canberra they do well in spring and autumn, for some varieties are as sensitive to very hot weather as they are to very cold weather. Beans do very well in deep mulch because they like constant moisture during flowering for good pod setting.



For the novice and experienced gardener alike, homegrown beans are a continuing pleasure, disease and pest problems are virtually non-existent, they have a short growing season and a long harvest and they are a delicious vegetable raw or cooked.

Sometimes called the French bean, the common bean has bush and climbing varieties. Bush beans have several varieties — dwarf, stringless or runner and yellow butter varieties as well as shell beans which are grown for the bean not the pod.

Choose varieties to suit your style, family needs and taste. You can't go wrong.

French Beans. French beans are very easy to manage in the deep mulch garden. Clear the mulch, plant your seeds after the frosts, perhaps a bush stringless variety like Tendergreen, and once the bushes are established, return the mulch. The mulch will serve as a support for the beans when they begin to crop heavily so there will be no need for staking.

Try other bush varieties too, like Windsor Longpod or Brown Beauty which will pod in very

hot weather. If they are picked young enough, the strings are not a problem, and they are more adaptable to a variable growing season than the stringless varieties.

If you have the space, try shell beans like Red Kidney or Cannellini. Leave the pods until the seeds are large and mature, and use them as a vegetable or dry and store them for later use.

Harvest young beans regularly to encourage new crops.

Climbing Beans. Scarlet Runner (*Phaseolus multiflorus*) and Giant of Stuttgart are both prolific varieties of climber beans. They are sensitive to very hot weather so some shade or protection will allow them to set in summer. If you crop them regularly, you can expect harvest for a couple of months or more if conditions are good.

Don't remove the roots when the Scarlet Runner crop is finished, they will set new roots for the next season. After a few years you may want to get new stock but these climber beans have at least three years of regrowth. They are an excellent vegetable for the low-labour garden.

Bean Sprouts.

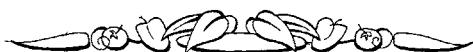
Soak the beans in tepid water in a jar with a lid for about 12 hours. Rinse and drain the seeds thoroughly twice a day for 3-6 days. Use the lid as a drainer. In winter they need some warmth, about 21°C. Leave the sprouts in the light if you want them to be green; leave them in the dark if you want them to be white. The sprouts will be ready when they are an inch long and plump.

Bean sprouts will solve part of your vegetable problem during that quiet time between winter and spring. They are easy to grow, delicious and a valuable food with high protein and vitamin content.

The sprouts are ready in 3-6 days depending on the season; they don't need soil or sunlight, can be grown indoors any time and are very nutritious.

Prepare mung beans for cooking by stirring them in a dish of cold water so that the green shells will float away. Do not overcook them, they should remain crisp and firm. Most sprouts will stay fresh in the refrigerator for 4-7 days.

Serve beans and bean sprouts raw in salads and tempt the children with them. Do not overcook beans, particularly bush beans, cook them whole for 8-10 minutes in boiling water. If they are crisp and firm so much the better for taste and nutrition. Climber beans should not be cut up for cooking as they lose some of their flavour. They need 10-12 minutes of cooking and if you prefer to eat the beans inside rather than the pods, cook the whole pod before removing the bean.



Noodle and Bean Sprout

4 cups chicken stock	shredded cooked
2 handfuls fine egg noodles	chicken
2 teaspoons cornflour	6 tablespoons bean sprouts
	parsley, coriander garnish

Boil the noodles in stock for 2 minutes and then remove them. Mix the cornflour with 3 tablespoons of cold water and pour it into the soup. Cook until soup is clear. Stir in the chicken, sprouts and noodles. Serve with parsley or coriander garnish.

Bean Sprout Omelette

4 eggs	1 tablespoon chopped
2 teaspoons light soya sauce	parsley
6 tablespoons bean sprouts	3 tablespoons vegetable oil

Beat the eggs with 1 teaspoon soya sauce and 1 tablespoon water. Heat 2 tablespoons oil. Pour in the egg mixture to make a thin pancake omelette. When cool, cut it into strips. Heat the remaining oil and stir fry the sprouts for 3 minutes. Add the remaining soya sauce, egg strips and parsley. Stir fry for 1 minute more. Serve.

Beans With Soy Dressing

Cooked beans served cold in salads are delicious and they do not lose flavour and texture.

plate of cooked beans	1½ tablespoons vinegar
5 tablespoons crunchy	2 tablespoons soy sauce peanut butter

Beat the peanut butter, vinegar and soy sauce in a cup with a fork till creamy. Pour over beans. Serve cold.

Beans With Garlic And Basil

Cook some French beans to taste. Heat 2 tablespoons olive oil, crush a clove of garlic into it with some chopped basil and pour this over the beans. Serve hot.

BROAD BEANS

Vicia faba



Sow Early Long Pod, Coles Dwarf Prolific or any of the Windsor varieties in late winter, late July or August, remembering that germination will be slow in the depths of winter.



You can if you wish, plant them in autumn so that they are well established by the coldest months when they will remain dormant until the warm weather. Early plantings are more prone to disease and aphid attacks and the flowers and pod set will be affected by frosty weather. The advantages of early plantings are offset too by the later plantings maturing not long after the early plantings. Make your own choice.

Broad beans are a hardy, easy to grow vegetable, suitable for the mulch garden. The mulch will provide some support for the tall-growing varieties. Grow the beans close together, about 15cm (6in) apart, they will be able to support one another as they mature.

Black aphids are fond of the growing tips of broad beans: use derris dust when the plant is young and if the bush is setting pods, nip out the affected tips.

N.B. pinch out the growing tips of the plants to force growth in the pods.

Broad beans are one of the first Canberra spring crops and the young firm seeds are favourites with children and adults for weeks during their harvest. If family tastes don't run to vast quantities of broad beans, then use the crop as a green manure.

The beans can be used like French beans when the pod is immature but the seeds are cooked alone when the pod is mature, thick and soft. Use them cooked as a salad; they are delicious served cold in oil and vinegar dressing with slices of hard boiled eggs.

Broad Beans with Bacon

(Simple and delicious, use ham or salami as variations.)

2 slices bacon, diced	$\frac{1}{2}$ cup stock/water
1 onion, chopped	4 cups shelled broad beans
some butter	

Melt the butter in a heavy saucepan. Add the bacon and onion and fry until the onion is soft but not coloured. Stir in the beans. Add the stock or water, and bring to the boil. Cook till beans are soft. Evaporate excess liquid by brisk boiling. Season and serve.

Broad Beans and Tomatoes

Broad bean pods, cut into 4 cm (2 inch) lengths	
1 onion, sliced	parsley
3-4 tomatoes	oil

Pick young pods when they are 10-12 cms long. Cut into 4-5 cm lengths. Boil or steam until just soft. Fry a sliced onion gently in some oil for three or four minutes then chop the tomatoes into the onion. When tomatoes are liquid add the beans and some chopped parsley and cook for a further five to ten minutes.

BEETROOT

Beta vulgaris



Sow beetroot, either the globe or the long-rooted kinds, from September to January; too early plantings will run to seed. If the last sowings are in February or early March, the mature beetroot can remain in the ground through the coldest months for a winter supply. If the very late harvests are a little woody, use them for soup.



Beetroot is an easy vegetable to grow and it does well in a wide range of soils and climatic conditions even though it prefers cool to warm conditions and neutral soils.

In the deep mulch garden you can either clear the mulch completely or sow the seed in handfuls of compost or soil on top of the mulch. Either way, soak the seeds in a diluted seaweed fertiliser for a couple of hours before planting.

Beetroot is not usually attacked by pests or diseases but it is susceptible to boron deficiency which is likely if the soils are over-limed, as too much lime will prevent boron in the ground becoming available to the plant. If young beetroot leaves are thick, distorted, stunted or redder than usual, or the root is spotted with black, corky areas then use a complete fertiliser, like a seaweed fertiliser, containing boron.

To prepare beetroot for the pot, cut off the tops about 5cm (2in) from the beet. Wash them carefully and avoid breaking the skin otherwise they will 'bleed' profusely while cooking. Boil them in plenty of salted water (adding a tablespoon of sugar and a couple of tablespoons of vinegar if you wish) from 30 minutes to an hour or so according to size. Test them by piercing them, when they should be tender right through, or by pressing the skin of the beetroot which will slip off easily if cooked. Drain them and slip off the skin, small roots and the stub of stalk. They are now ready to use, either as a hot vegetable or cold as pickled beetroot for salads.

Borsch

There are many, many recipes for borsch. This is a delicious, rich soup, enough for a substantial meal.

6 beetroot, peeled and chopped	bacon bones
4 onions, chopped (soup vegetables optional)	1 tablespoon tomato puree
800 grams cubed stewing steak	1 tablespoon lemon juice
2 pints stock	dill seeds
1 teaspoon vinegar	½ small cabbage, shredded
½ cup sour cream	1 raw beetroot, grated

Fry the beetroot, onion and soup vegetables till soft. Add the stock, season and simmer for 10 minutes. Add the beef and bacon bones, and cook slowly for 1½ hours. Skim fat and remove the bacon bones. Add tomato puree, lemon juice, dill and cabbage, simmer for 20 minutes more. Add the grated beetroot and vinegar, simmer a few minutes more. Serve with sour cream and boiled potatoes.

Harvard Beets

(For beetroot aficionados, an easy and delicious American dish.)

6 medium beetroot cooked and sliced (or equivalent in smaller beetroot).	1 tablespoon cornflour
4 tablespoons sugar	6 tablespoons wine vinegar
	butter or oil

Blend the sugar, cornflour and vinegar and cook over a very low heat or in a double saucepan until it thickens and boils. Carefully mix the beetroot into the sauce and cook gently for about 20 minutes until the beetroot is hot and the sauce is a deep red. Add butter and serve.

Jellied Beetroot Salad

6 beetroot, cooked	4 cloves
½ cup vinegar	1 tablespoon gelatine
½ cup beetroot water	½ cup water
6 peppercorns	3 allspice

Dice the beetroot and place in a bowl. Put vinegar, water from beetroot, salt, pepper, peppercorns, allspice and cloves in a saucepan, bring to the boil and remove from heat. Leave to stand for 10 minutes. Soak the gelatine in water. Strain the warm vinegar and spices into the gelatine and stir till dissolved. Chill to point of setting. Add diced beetroot. Chill till firm.

BRASSICAS

Your vegetable garden is sure to have some members of the brassica family—broccoli, brussels sprouts, cauliflower, chinese cabbage, many herbs including mustard, kohl rabi, kale, white turnips and swedes. For the indolent gardener, however, decisions about which of the brassicas to grow can be difficult because nearly all brassicas need constant attention and care to get good harvests.

More than any other family of vegetables, brassicas have limited conditions for very good growth: the soil has to be well-manured and limed, they are sensitive to certain soil deficiencies like molybdenum and boron, and the cabbage butterfly and moth as well as snails and aphis are ready and willing to share the plants.

Avoid some of the more troublesome aspects of growing these important winter vegetables by planting broccoli and brussels sprouts, both of which will produce a good harvest over a long period provided growing conditions are good. Leave growing superb specimens of cauliflowers and cabbages to the experts, and buy them at the markets.

Pests and Diseases

Coping with snails and slugs is relatively easy with brassicas, but the cabbage butterfly and moth are tiresome in the extreme, particularly in late summer and early autumn. Later plantings are not nearly as badly affected. You can keep an old tennis racquet handy for some satisfying and constitutional confrontations with a few butterflies, you can pick off the green caterpillars, or you can use derris dust regularly when times are bad.

Grey aphis can be washed off with a strong jet of water but if the infestation is severe, particularly on brussels sprouts, use derris or pyrethrum, taking care to thoroughly cover the affected areas.

Soil Deficiencies

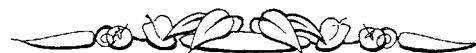
Brassicas, and cauliflowers in particular, are very sensitive to certain deficiencies in soils.

Molybdenum deficiency causes ‘whiptail’ in

cauliflowers, a yellowing in the leaves, a breakdown of the leaf edges, and poor development of the curd. If the soil has been well limed, this deficiency is unlikely to occur.

Boron deficiency causes curled and distorted leaves, browning of the curds, and hollow brown stems. Over-liming aggravates the problem. Spraying the leaves with a solution containing 42 grams of borax to 19 litres of water will solve the immediate problem.

Preventive measures are the most satisfactory. Use a complete fertiliser like a seaweed fertiliser with trace elements to overcome these deficiencies.



BROCCOLI

Brassica oleracea italica



Clear the mulch from an area you know to have good soil, transplant strong, large seedlings about 25cm (10in) away from each other as they need room to spread. For a late spring harvest, sow or transplant in August or September. For autumn and winter harvest, sow seeds in December and January, or transplant from January to March.



Green sprouting broccoli has fewer cultivation problems than other brassicas and greater tolerance to growing conditions that are not optimal. Broccoli will produce one main head and after that is cut, there will be a succession of smaller heads from other stems. If your plants are strong and healthy, leave them to produce another harvest in spring or autumn. Some plants will produce for years.

Preparation. Leave some stem on the broccoli when you harvest it. Wash carefully and peel the broccoli stems so that they will cook at the same rate as the broccoli heads. Boil for 8-10 minutes and do not overcook. Serve with butter and lemon juice. A delicious and nutritious vegetable.

Broccoli with Cheese Sauce

1kg (2lb) cooked broccoli in ovenproof dish	1 cup milk
1 tablespoons butter	1 cup parmesan cheese, grated
2 tablespoons flour	sprinkle of nutmeg

Make a sauce by melting the butter then adding the flour and cooking for a few minutes. Add milk and seasoning, bring to boil. Cook for a few minutes. Add most of the cheese. Pour over broccoli, sprinkle with rest of cheese and bake in hot oven until brown.

Pureed Broccoli

Cook broccoli until tender, then mash, sieve or chop it finely. Add to it one finely chopped onion, 2 tablespoons cream, pepper and 125 gm (4 oz) melted butter. Mix well and serve hot.

BRUSSELS SPROUTS

Brassica oleracea var. bullata gemmifera



Clear an area of mulch, sow seeds in December or January, or transplant strong and vigorous seedlings in January and February. Return the mulch thickly when the sprouts are established because they may need the support the mulch gives. Do not over-fertilise, rely on your soil fertility for good growth.

Grey aphids are a problem so keep watch that they do not get out of hand.



Brussels sprouts take some time to mature but they are well worth waiting for. The small, tight, cabbage-like sprouts have a distinctive and delicious flavour, and even if the sprouts are not perfect, they will be superior in taste to the vegetable market offerings. An ideal vegetable for the part-time gardener, brussels sprouts will crop continuously over a long period of time.

Harvest the buds from the bottom when they are small and firm. Cut the base of the sprout so that it will cook at the same rate as the head. Boil the sprouts for 8-10 minutes and do not overcook. Serve with butter and pepper, or toss in buttered breadcrumbs with some grated cheese.

Brussels Sprouts with Cheese

$\frac{1}{2}$ kg (1lb) cooked brussels sprouts	4 tablespoons breadcrumbs
2 tablespoons butter	4 tablespoons grated Parmesan
2 tablespoons olive oil	

Heat the butter and olive oil till hot. Stir in the sprouts and as they fry, add breadcrumbs and cheese. Cook till breadcrumbs and cheese become firm. Serve.

Brussels Sprouts Puree

$\frac{1}{2}$ kg (1lb) brussels sprouts, cooked, pureed or mashed	$\frac{1}{2}$ cup cream
2 tablespoons butter	
4 potatoes, cooked and mashed	salt, pepper, nutmeg

Blend the sprouts and cream together. Add the potato and butter. Beat till light and fluffy. Reheat and serve.

CABBAGE

Brassica oleracea capitata



Plant seeds or seedlings from August through to January in areas cleared of mulch or in handfuls of soil on top of the mulch. Return mulch when plants are well established. Plant them to mature in the cooler months, autumn, winter and spring. Watch for the cabbage butterfly and moths.



Cabbages are not too difficult to grow provided they are well fertilised and insect pests are controlled. Freshly harvested, their nutritional value is argument enough against the problems of cultivation. Choose types that will grow quickly, be adaptable to seasonal variations, will keep reasonably well in the ground after maturing, and are good cooked or raw.

If you rely on seedlings from nurseries you will not have as wide a varietal choice as if you grow them from seed you select. Most nurseries rely on the increasingly popular, smaller, quicker-growing cabbages.

Cabbage can be eaten raw or cooked. With very little effort, plain cooked cabbage can be delicious, nothing like the smelly, over-cooked mush that seemed to haunt childhood winter dinners.

Melt a little butter in a saucepan, add washed and shredded cabbage, a little vinegar, a small glass of water or wine, and gently melt the cabbage for about 8-10 minutes. Add caraway seeds to reduce the smell of cabbage cooking. They will give an interesting crunchiness to the final dish.

Cabbage and Bacon

$\frac{1}{2}$ cabbage, shredded
4 rashers bacon,
chopped

1 onion, finely chopped
cloves and bay leaf
4 tablespoons butter

Wilt the cabbage by pouring boiling water over it and leave for five minutes. Fry the onion and bacon in the butter, add the drained cabbage, cloves and bayleaf and cook for about 15 minutes. Remove cloves and bay leaf. Serve.

Coleslaw

Shred some cabbage and soak in iced water for an hour. Drain. Mix in other shredded raw vegetables with herbs to taste. Serve with mayonnaise or oil and vinegar dressing. Add some caraway seeds if you like them.

CHINESE CABBAGE

Brassica pekinensis, Brassica chinensis



Sow seeds in September and October, or December and January in handfuls of soil in the mulch or in areas cleared of mulch. Return mulch after transplanting strong, large seedlings. Watch for snails and slugs.



There are two types of Chinese 'cabbage' to grow, both of which prefer to mature in cool weather; however, it is possible to get an early summer harvest from spring plantings.

Brassica pekinensis looks like a large, oval lettuce.

Brassica chinensis, often described as Chinese mustard, looks like silver beet with smooth green leaves and white stems.

Either cabbage may be eaten cooked or raw.

Stir-fried Cabbage

$\frac{1}{2}$ cabbage 2 tablespoons vegetable oil
Wash the cabbage and cut it into small portions. Heat the oil and add the cabbage. Stir for about 3 minutes. No water should be necessary.

If you are using white-stemmed Chinese cabbage, separate the stems from the leaves. Stir-fry the stems for a minute, add a little water and cook for a couple of minutes. Add the green leaves and cook for further 2 minutes.
Add sugar or soy sauce to taste.

Chinese Cabbage Soup

1 Chinese cabbage, sliced thinly	$\frac{1}{2}$ teaspoon sugar
250 gm pork, diced	2 teaspoons soya sauce
3 slices ginger root, sliced	
4 cups hot water or stock	peanut oil

Fry ginger in hot oil for a minute. Add hot water and bring to boil. Stir in cabbage and cook for ten minutes. Add pork, sugar and soya sauce. Season with pepper and cook fifteen minutes more.

CAULIFLOWER

Brassica oleracea botrytis



Sow seeds during November and December, transplant by February. Mulch when plants are well-established. Give plenty of fertiliser, watch for insect pests and soil deficiency problems. Choose early maturing varieties to reduce some of the hazards of growing them. You may be lucky!



It is difficult to grow good cauliflowers if conditions are poor and not enough care and attention are given to the development of a good, white curd. Moreover, they are prone to soil deficiency disorders like 'whiptail'. For the part-time gardener, buying cauliflowers at the vegetable markets is probably the only way to get superb specimens.

Cauliflower must not be overcooked. If you are cooking the whole head, take off the outside leaves, slash the base of the head and put it, stem downwards, into a pot. Add a cup of water, bring to the boil and cook for about 15 minutes. Cook the flowerets for about 5 minutes.

Baked Cauliflower

whole cooked cauliflower	2 cups milk
2 tablespoons butter	nutmeg, grated
4 tablespoons flour	cheese, mustard

Make a cheese sauce by heating the butter and adding the flour. Stir for a minute and add the milk. Bring to the boil, cook gently for a few minutes and add the nutmeg, cheese and mustard. Pour the sauce over the cauliflower, add more grated cheese, and brown in a hot oven.

Cauliflower and Lemon Juice

cooked cauliflower flowerets	1 tablespoon olive oil juice of lemon
1 tablespoon butter	

Heat the butter and oil, add the lemon juice. Add the flowerets and coat them with the mixture. Keep on a low heat until the lemon juice has been absorbed and the cauliflower is heated through.

Cauliflower with Breadcrumbs

Cook cauliflower whole until just tender - and before it starts to break apart. Melt 125 gm (4 oz) butter in a small pan. When it starts to froth and turn light brown, add 125 gm (4 oz) breadcrumbs. Stir well and put over cauliflower.

CAPSICUM

Capsicum annuum



Capsicum seeds can be difficult to germinate in a Canberra spring. Buy seedlings from a nursery and transplant in late October or November after the frosts have finished and the ground is warm. Clear the mulch, transplant about 30cm (1ft) apart, and return the mulch when the plant is established. As the fruit is setting, check to see that the bush itself does not obstruct the fruit. Use mulch to support the maturing bush with its ripening fruit.



Capsicums, or peppers, are relatives of tomatoes and potatoes so they do well in similar conditions. They come in different shapes, sizes and colours, from the long thin Sweet Banana capsicum, the bell-shaped red, green and yellow capsicums to the tiny red hot chili. The flavour varies with the size, the large peppers are sweet and mild, the smaller ones eye-wateringly hot.

Although capsicums need a long time to mature, five to seven months of warm weather, they are worth growing because of their high vitamin C content which increases as the fruit matures. The red hot chili can be grown as an ornamental bush and its fruit can be dried for use in curries or served chopped fresh as a side dish to 'warm up' otherwise mild curries.

Harvest the capsicums any time after the flesh feels firm. Make sure that the seeds are removed otherwise they will sour the dish. Capsicums are delicious raw, and slivers of raw capsicum and carrots are an excellent hors d'oeuvre for children. Capsicums are essential for ratatouille described on page 32

Capsicums and Tomatoes

6 capsicums	8 tomatoes, skinned and chopped
2 cloves garlic, chopped	3 tablespoons olive oil
2 onions sliced	basil

Remove the seeds and slice the capsicums into thick strips lengthways. Very gently fry the garlic, onions and capsicums in the oil in a covered pan for 10 minutes. Then add the tomatoes and basil. Cook gently for another 10 minutes. The capsicums should still be firm in the puree of tomatoes.

Stuffed Capsicums

4 capsicums	500 gms mince
2 tablespoons oil	1 cup cooked rice
1 onion, chopped	
to taste: chopped celery, raisins, nuts, tomatoes	

Cut tops from peppers and remove seeds. Salt and drain peppers and blanch them for five minutes in boiling water. Heat oil, fry onion and other ingredients until mince has changed colour. Add rice. Fill capsicums with mixture, cover with tops. Place them upright in baking dish with about 2cm (1 inch) of water. Bake in moderate oven 40-50 minutes.

CARROTS

Daucus carota



Clear mulch from an area which has not had fresh manure recently added to it, for manure would make the roots forked and misshapen. Sow seeds from September to February using varieties that are resistant to the Motley Dwarf virus disease and are adaptable to summer growing and winter storage. Try All Seasons, Topweight, Royal Red or Western Red and Amsterdam Forcing for baby carrots. Sow seeds fairly thickly and thin only if you want to. Your carrots may be a little smaller but it saves a lot of fuss.



Carrots have high yields for the space occupied, are delicious cooked or raw, will keep in the ground over winter and are a rich source of vitamin A. However, they need some care in their cultivation for maximum returns.

It is essential to keep the soil moist during germination: use a thin damp mulch of compost, sawdust, hessian or damp newspapers to help in dry, hot weather. When the very young plants emerge they still need constant watering. After they are established, carrots are a hardy vegetable.

If freshly pulled carrots survive children and salads to get to the pot, boil them gently for about 10-15 minutes according to size. Do not overcook them.

Carrot Soup

6 medium sized carrots	2 onions peeled
4 potatoes, peeled and diced	4 cups stock/water
	2 tablespoons butter
	2 teaspoons sugar
	parsley

Melt the butter and add the carrots, potatoes and onions. Gently stew them for about 15 minutes. Add the stock and cook until the vegetables are soft. Put through a blender or sieve. Reheat and serve with parsley.

Carrots in Honey

(A variation of the usual glazed carrots)

20 small carrots or sliced equivalent	2 tablespoons butter
	½ cup stock
	1 tablespoon honey

Melt all the ingredients in the butter and cook, covered, on a very low heat until almost all the liquid is absorbed and the carrots are tender. Shake the pan during the last stages of cooking.

Marinated Carrots

6 medium sized carrots	3 tablespoons oil
½ cup white wine	1 clove garlic, crushed
½ cup wine vinegar	bayleaf, parsley

Cook cleaned carrots for 5 minutes. Mix the wine, vinegar, garlic, bayleaf, and season to taste. Pour over the carrots and cook until tender. Add oil when cooking is almost complete. Serve the carrots when cold with parsley.

CELERY

Apium graveolens



Clear the mulch and sow or transplant self-blanching celery from October to December. Return the mulch after the plants are well-established. If the plants are attacked by a leaf-spotting disease in humid weather in mid or late summer, spray with Bordeaux mixture. If uncontrolled, the brown and black spots make the celery useless.



To grow celery to the shape, size and appearance of those bunches available in the markets is a difficult and time-consuming task. Celery needs fertile soil, lots of water, careful blanching to turn it white, and often needs spraying against a leaf spotting disease. However, there is a self-blanching type much easier to grow.



CELERIAC

Apium graveolens rapaceum is a root celery which resembles a large turnip and it is the base which is eaten and can be used in stews, soups or shredded and blanched for use in salads. Sow from August to December. The mature roots will winter over in the ground.

Delicious Celery Soup

3 cups celery or celeriac, chopped	3 tablespoons oil
2 onions, chopped	4 cups stock
2 potatoes, chopped	2 tablespoons cream
	dill
	½ cup milk (optional)

Gently stew the celery, potato and onion in the butter in a covered pot for about 10 minutes. Add the stock and dill. Simmer for 20 minutes. Blend and add the milk if used. Bring the soup to the boil and add some more dill. Put cream into the bottom of soup plates, add soup, mix and serve.

Celery salad

bunch celery	crushed garlic clove
½ cup sour cream	chopped dill, chives and
½ cup mayonnaise	parsley to taste
	1 teaspoon lemon juice

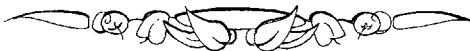
Mix sour cream with mayonnaise, lemon juice, garlic and herbs. Remove celery tops, wash the washed and sliced celery stalks in water for ten minutes, drain and cool. Mix with the sauce and chill before serving.

CUCUMBERS

Cucumis sativus



Sow when the weather is warm, from October to December or transplant seedlings from November to January. Clear the mulch, plant 2 or 3 seeds in the same spot, return a thin layer of mulch and keep the area well-watered throughout germination. As cucumbers need lots of water during their growing season as well, return a thick layer of mulch to the vines as soon as possible, making sure the ground is well-watered underneath.



For growing cylindrical cucumbers, a trellis is needed. Apple cucumbers can wander happily over the ground without the fruit becoming misshapen. The hybrid burpless variety is a very successful cucumber which can satisfy many palates and digestions but it needs a trellis for the fruit to hang down. The small pickling cucumbers are worth the effort if the family likes them pickled.

With luck there will be plenty of bees around to pollinate the flowers. Don't worry if cucumbers drop off before maturing, the vines will only set as much fruit as they can mature. Pick the fruit before they turn yellow; they become sour if overripe.

Cucumber Soup

3 peeled and pureed cucumbers (reserve some for garnish)	1 onion chopped
4 cups stock	1 garlic clove crushed
2 tablespoons butter	1 cup cream
	parsley, chives

Boil pureed cucumbers in stock for 10 minutes. Fry the onion and garlic in butter until soft and transparent. Add to soup. Chill the soup, stir in the cream and serve with chopped herbs.

Cucumbers in Sour Cream

2 cucumbers, unpeeled and sliced very thinly	3 tablespoons chopped dill, chives and parsley
$\frac{1}{2}$ cup sour cream	

Put the cucumbers into a colander with plenty of salt and leave for 30 minutes. Drain and squeeze excess moisture from slices. Stir the cucumbers gently into the sour cream and herbs. Season with salt, pepper and sugar.

KOHL RABI

Brassica oleracea caularopa



Sow seeds in September and October for an early summer harvest, or February and March for an autumn and winter harvest. Sow seeds in handfuls of soil on top of the mulch. Keep moist until seedlings are established.



Kohl rabi is one of the cabbage family but it is grown chiefly for the thickened turnip-like stem which grows above the ground. The bulb has a celery flavour and the leaves can be used like spinach. It grows well in Canberra, can survive heat, although lack of water will make them woody, and is free of the pests and diseases that usually attack brassicas. Kohl rabi will winter over in the ground.

Kohl rabi can be eaten raw if young, sliced thinly and served with an oil and vinegar dressing flavoured with mustard and paprika or herbs. To cook the roots, wash and peel them and boil them until tender, about 30 minutes. They can be boiled first and peeled later. Try mashing them with milk and butter.

Kohl Rabi in Wine

oil or lard	stock
2 onions, chopped	$\frac{1}{2}$ kg kohl rabi,
200 grams ham, bacon or speck	peeled and cut as for chips
$\frac{1}{2}$ bottle of white wine	

Soften the onions in the oil or lard then add the kohl rabi. When it is half cooked, add the ham or bacon. Then add the wine and stock and simmer until the liquid is reduced by half.

Kohl rabi salads

Cut kohlrabi into slices and then into matchstick thin pieces. Cook for 2-3 minutes only in boiling water. Drain and cool. Toss in mayonnaise.

Peel young kohlrabis and grate or shred finely. Dress with oil and vinegar seasoned with mustard and paprika or mixed herbs.

LEEEKS

Allium porrum



If you are growing from seed, plant from August to November. Plant seeds thickly in a small area cleared of mulch. When the seedlings are strong, transplant. In a mulch garden, transplant by making a hole through the mulch and deep into the soil. Put each leek into one of the holes, return the soil and the mulch. There is no need for complicated blanching techniques.



Growing leeks is an easy introduction to growing onions, so easy in fact that it is hardly worth the effort to grow bulb onions.

When leeks become established in the garden, you can gauge for yourself when the seedlings need transplanting because mature leeks produce seedlings that grow from the main stem. Leeks grow all year round in Canberra.

Leek Soup (Vichyssoise)

4 leeks, cleaned and chopped	butter
4 potatoes, diced	4 cups good stock

Melt the leeks and potatoes in butter. Add stock and cook for 40 minutes. Blend.
To make vichyssoise, serve the soup cold with 1 cup of cream stirred through it.

Leek Quiche

pastry	2 rashers ham or bacon, chopped
2 tablespoons butter	3 eggs
6 white stems of leeks, cleaned and chopped	1 cup cream

Line a dish with pastry. Melt the chopped leeks in butter, add ham or bacon. Spread the mixture over pastry. Beat the eggs and cream, pour over the leeks and cook in hot oven for 30-40 minutes.

Leeks in Red Wine

6 leeks, washed	1 small glass red wine
3 tablespoons olive oil	2 tablespoons water

Heat the olive oil and gently fry the leeks on all sides till they change colour a little. Add the wine and water, cover the pan and cook for 10 minutes. Put the leeks onto a serving dish, reduce the sauce, pour over leeks and serve.

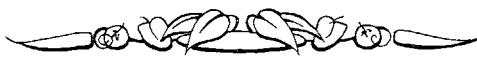
Leeks à la Grecque

6 leeks, washed	1 cup water
½ cup olive oil	1 cup white wine
2 teaspoons coriander seeds	

Chop the leeks across into 4 pieces, put them into a large frying pan and add the other ingredients. Bring to the boil, and cook gently, stirring frequently, until the leeks are cooked and the sauce is reduced. Serve hot or cold.

LETTUCE

Lactuca sativa



Sow seeds thinly in an area cleared of mulch. Keep moist during germination. Thin the seedlings if necessary.



Lettuce is a must in any garden. With thoughtful selection of different varieties it is possible to have a continuous supply throughout the year. There are so many types on the market that it is a continual surprise and disappointment that the only ones available at the greengrocers are the Iceberg or cabbage-type lettuces which seem to become more tasteless every season.

For the part-time gardener, choosing a few reliable varieties and planting some of each at regular intervals from August to April should satisfy the need for fresh salad greens. Freshly harvested, their vitamin content and flavour are at a maximum.

Lettuce likes cool weather, rich soil and more water than most vegetables. They can bolt to seed if conditions are poor. Choose non-heating lettuces, like mignonettes, that will do well in summer and winter. If you are lucky enough to get some 'lace' or 'Greek' lettuce your spring, early summer and autumn lettuce supply is guaranteed. The lace lettuce has no heart and the leaves are harvested as needed. They will produce over a long period of time and if the centre is nipped out as the weather gets hotter they will not go to seed and the harvest will be prolonged. If they do go to seed allow them to self sow and next year's harvest is guaranteed. They grow in spring and autumn either from seed or from roots left in the ground.

If you are adventurous and wish to take the time and make the effort, try other lettuces for summer and winter and include the delicious Cos lettuce in your autumn and winter harvest.

Snails are a problem with young seedlings but will not cross a narrow trail of sawdust.

Serve lettuce as salad with a good dressing and herbs. Add other summer vegetables to taste. Cooked lettuce is faintly decadent.

They (the rabbits) did not awake because the lettuces had been so soporific

Beatrix Potter

ONIONS

Allium cepa



If you use seedlings when they are available in the nurseries from February to August, try planting them in a thin layer of mulch. Although this defies the traditional method of growing onions in bare soil, onions will develop thick bulbs in the usual manner.



Onions

If you are growing from seed, clear an area of mulch and sow seed thinly. Do not return the mulch but let the onions grow closely together and you will reduce weed problems.

If you are growing large quantities of onions for storage then a specialist gardening book will be of use to determine when to plant, what varieties and cultivation techniques to help produce onions that will keep well. For the leisurely gardener, chives, garlic, shallots and tree onions are trouble-free onions for a predictable and regular harvest.

The onions are ready to harvest when the green stems turn yellow and topple over. If they are to be stored, the onions must be carefully dried in the sun for anything up to three weeks. Store them in a dry, airy dark spot. Thick stemmed onions will not store well.

Tree Onions

Allium cepa var. *aggregatum*

Tree onions are perennials which produce small onions at the top of the stalks and medium sized onions at the base. The very small onions are used for pickling or replanting while the base onions are used in the normal way. They are easier to grow than globe onions and are an ideal substitute for other onions if space is limited. If dried carefully, they keep well.

French Onion Soup

3 tablespoons butter 10 medium sized onions
3 tablespoons flour 10 cups stock
Peel and slice the onions into thick rounds. Melt the butter in a saucepan. Add the onions and fry until golden and translucent. DO NOT BROWN otherwise they will become bitter. Add the flour and stir gently for about 2 minutes. Add stock, bring to boil and simmer for 20 minutes.

To serve: 6 slices French bread
gruyere cheese, grated

Fry French bread in butter till crisp or toast the bread and butter it. Put the bread in the bottom of the soup bowls and sprinkle with the cheese. Pour in soup. Add more cheese if necessary. Let the bowls stand until the cheese melts.

Pickled Onions

20 small onions or shallots	1 dessertspoon allspice berries
1 dessertspoon peppercorns	1 dessertspoon salt 4 cups brown vinegar

Skin the onions and put into jars. Bruise the peppercorns and allspice and add to the vinegar with salt. Pour the vinegar over onions until liquid is finger width deep over the onions. Seal jars with waxed paper.

Glazed Onions

15 small onions	½ glass sherry
4 tablespoons butter	1 glass water
3 tablespoons sugar	

Soak the onions in cold water for a few minutes. Peel them and put them into a pan in the heated butter. Stir for 10 minutes, add sugar, sherry and water. Cook until liquid is syrupy and onions soft.

PARSNIPS

Peucedanum sativum



Remove mulch from the area, sow fresh seed thinly from September to December for autumn and winter harvests. There should be no need for thinning. In humid, wet autumn weather parsnips may be affected by a powdery mildew. Try Bordeaux mixture.



Parsnips are a hardy root vegetable which grow well in Canberra and will keep in the ground over winter. They do not seem to be used as a table vegetable as commonly as in years past; however, these recipes may do something to restore their popularity.

Parsnips need similar cultivation techniques to carrots but three things must be remembered: they are much deeper rooting than carrots, they take longer to germinate and the surface soil needs to be kept moist during germination.

Parsnip Chips

Slice parsnips into thin sticks. Deep fry until brown.

B

6 parsnips, cut into thin strips 2 tablespoons butter lemon juice 1 cup water

Fry the parsnip strips in the butter, add other ingredients and bring to the boil. Cook uncovered until the liquid is reduced and the parsnips cooked.

Parsnip Pie

6 parsnips, scrubbed and grated	5 tablespoons oil
4 medium sized tomatoes, skinned and sliced	3 tablespoons butter
	1 cup grated cheese
	1 cup cream
	4 tablespoons fresh white breadcrumbs

Heat the oil in a pan and fry the parsnips lightly for about 3 minutes. Grease a casserole dish with half the butter, place a layer of parsnips over the bottom and pour a little cream over them. Cover with a layer of tomatoes, some more cream and some cheese. Repeat these layers until the ingredients are used up. Top with breadcrumbs and dot with butter. Cook in moderate oven for 40 minutes.

PEAS

Pisum sativum

To sow, you can either

- clear an area of mulch, sow a number of seeds in one spot and return the mulch when the plants are growing strongly. They will need some support,
- spread seeds under damp mulch and stake when growing strongly,
- plant telephone peas near maturing corn or close to a trellis.



Freshly harvested peas are reward enough for the care needed to grow them. Peas prefer cool to warm weather so if you plan to grow them throughout summer try to find a position that will give them some shade.

There are many kinds to choose from: bush or climbing peas, snap peas which can be eaten whole when immature and sugar peas which are grown to be eaten whole.

Peas can be grown before the frosts finish but if they are maturing heavy frosts will prevent the flowers setting pods.

If fresh peas survive the depredations of children, harvest them before they begin to crinkle. If they survive shelling and salads, try the following recipes.

To cook sugar peas: Remove the stalks from the peas and cook them in their pods in boiling water for about 20-30 minutes. Serve with chopped herbs and melted butter.

Buttered peas: Put 4 cups of shelled peas into a pot with 1 cup of water, 2 tablespoons butter, salt and pepper, a pinch of sugar, and some parsley or mint. Bring to the boil, remove the lid and gently cook till water has evaporated.

Fresh Pea Soup

(A delightful luxury.)

2 cups shelled peas	5 cups good stock
1 potato, peeled and thinly sliced	$\frac{1}{2}$ cup cream
1 onion, thinly sliced	1 egg yolk
	croutons (optional)

Boil the peas, potato and onion in stock for 20 minutes. Put them through the blender and return to the pot. Beat the cream and egg yolk together lightly and add to the soup. Reheat but do not boil. Serve with croutons.

*I eat my peas with honey
I've done it all my life
They do taste kind of funny
But it keeps them on the knife*

Anon

POTATOES

Solanum tuberosum



Plant certified seed potatoes bought from the nursery from as early as August. Try to get small seed potatoes but if the potatoes are large, cut them so that there is an eye, or shoot, in the portion to be planted.



If you have the space, growing potatoes in deep mulch is very simple. Try growing just a few even in a small garden for their superior quality and taste will convince you that you will need a bigger crop next season.

If you are starting your potato patch in an unmulched garden, then place the potatoes on top of watered soil in rows about 30cm (1ft) apart and allow about 30cm (1ft) between them. Cover with mulch to about 15cm (6in) and water well. When potato shoots appear, cover them with another layer of mulch, otherwise green tubers will grow through the decomposing mulch.

N.B. green potatoes are poisonous.

If your garden is already a mulch garden, put the seed potatoes about 15cm (6in) into the mulch. Water well. Cover green shoots with another layer of mulch if the mulch shows signs of decomposing too much.

You should not have to water too regularly, but make sure the garden does not dry out completely.

Harvest the potatoes according to the size you want. If the skin is soft they are 'new' potatoes and not suitable for storage, if the skin is hard they are 'old' potatoes and are suitable for storage. The more mature the potato, the better the cooking quality. You can leave your potato crop in the ground after the frosts have killed the tops and harvest them as you please. Make sure you harvest them before the next spring otherwise they will sprout again.

Boil or steam 'new' potatoes and use 'old' potatoes for baking. Avoid peeling the potatoes if possible as the nutrients are close to the skin. With potatoes grown in deep mulch, skins are very clean.

Potato Peel Soup

peels from 6-7 large potatoes, cut into 6mm ($\frac{1}{4}$ in) strips

1 large onion, chopped	1 clove garlic
2 carrots, chopped	5 cups stock
1 small stalk celery, chopped	

Put all the ingredients into a pot and boil gently for an hour. Put into a blender and return to the pot. Reheat. Add chopped parsley and serve.

Potato Casserole

Grease a casserole dish. Add thinly sliced potatoes and nearly cover with milk. Sprinkle with nutmeg. Cover completely with grated cheese and dot with butter. Cook for an hour in a moderate oven.

Potato Cakes

Grate potatoes, add egg and flour to bind. Make into small cakes and fry until golden.

PUMPKINS



Sow seeds from October if the weather is warm, transplant until December. Put a few seeds of different kinds of pumpkin and squash that suit family and individual tastes into handfuls of compost or soil on top of the mulch. Cover with a handful or so of loose mulch if you want to protect the soil and help germinate the seeds.



Pumpkins, marrows, squash and gourds are all members of the cucurbit family which includes cucumbers and zucchini, both of which are dealt with separately.

Pumpkins have a firmer texture, keep longer and have more nourishment than either summer squash or marrows but there seems to be little precision about the naming of varieties across the Atlantic and the confusion has spread to Australia.

Enthusiasm for large winter pumpkins can wane when the gardener-cook is faced with very large pumpkins, lots of them to store and a relatively unenthusiastic family continually faced with pumpkin for dinner. Grow smaller varieties, like Butternut, which are a good quality pumpkin with a reasonable storage life.

Try the delicious summer squash, Green Button, a high yielding squash with fruit that are picked at a very immature stage. Cook them the same way as zucchini, either whole or sliced.

All cucurbits like warm growing conditions with plenty of moisture. Choose a spot in your garden, perhaps by a fence, which will cope with growing vines that will spread over a large area. Because they do take up so much space, don't be tempted to plant too many if your garden is small — you will not have the space for other vegetables.

For the adventurous, there are a number of interesting pumpkins and squash on the market of

considerable curiosity value. Sow some ornamental gourds where there is a gap in the garden. Use the fruit as indoor decoration or gifts.

Vegetable spaghetti is another curiosity. It is a high yielding squash which when cooked whole has a tasty spaghetti-like flesh inside.

Pumpkins and squash can be boiled and pureed, baked or used in pies and soups.

Pumpkin Soup

Boil some pumpkin in light stock or water till tender. Slice and fry some onions until they are crisp and start to blacken. Put the pumpkin, stock, onion and some milk into a blender. Puree and reheat. For an extra dash add a splash of chili sauce.

Barry's Bread

(for 3 loaves)

3 cups pumpkin puree	½ cup
2 cups mixture of chopped	wheatgerm
dates, nuts, raisins to taste	or bran
4 teaspoons baking soda	1 cup oil
4 cups wholemeal/white flour	1 cup sugar
mixture	1 cup honey

Mix the ingredients thoroughly and put into the greased pans. Cook in a moderate oven till done, about 1-1½ hours. Test by putting a fine skewer into loaves.

RADISH

Raphanus sativus



Sow summer seeds thinly from September to February in an area cleared of mulch. Sow varieties that suit family tastes, for some are hotter than others. Small sowings at regular intervals will probably provide an adequate supply. Make sure that winter radishes are sown by January and February.



Radishes are easy to grow and they mature quickly. Provided they get enough water to make them crisp and firm, they are invariably successful.

There are many kinds on the market, varying in shape, size, colour and flavour. Although they are usually grown for summer salads and snacks, there are winter radishes that will remain in the ground for use over winter.

Try cooking radishes for a change.

Boiled Radishes

Peel or scrape some radishes, blanch them in salted water for 5 minutes. Gently simmer them in a good stock for another few minutes. Add some cream if you want to be extravagant.

SALSIFY

Tragopogon porrifolius



Sow seeds of either the white or black-rooted salsify between October and December in an area cleared of mulch. Sow thinly so there will be no need for thinning. The salsify will be mature by late autumn.



Salsify is a deep-rooted vegetable that needs the same conditions as carrots and parsnips and like them can stay in the ground over winter. Salsify is grown for its roots, which have a flavour reminiscent of oysters.

Prepare the roots for cooking by cleaning well and leaving them in salted water to prevent discolouration. Boil them for about 40 minutes. Rub off the skin, serve hot with butter.

Salsify Fritters

Scrub roots carefully to get rid of hair roots. Grate. Add some egg and flour (1 tablespoon flour to each egg) to bind. Fry small quantities until brown on both sides.

SILVER BEET

Beta vulgaris var. *cicla*



Sow seeds or transplant seedlings from September to January in an area cleared of mulch. When the plants are growing vigorously, return the mulch. Silver Beet is a biennial, so it will crop until the second season when it will go to seed. If your soil has not developed a reasonable level of fertility, use a seaweed fertiliser to encourage leaf growth.



Silver Beet, or Swiss Chard as it is sometimes called, is the standby for the indolent gardener. It is easy to grow and bears well right throughout the year. It is nutritious and provided it is not boiled to a soggy mess, delicious. In recent years multi-coloured varieties have been introduced so your garden can have the splendour of Rainbow Chard or Ruby Chard.

Harvest mature outside leaves regularly. Cook the leaves and the stems together if you wish, or the leafy part separately.

If silver beet is cooked imaginatively, children will demand more. To prepare silver beet for everyday cooking, thinly slice the well-washed leafy part. Melt some butter in a saucepan and add the still damp leaves. Do not add any water. Cover and cook very gently until the leaves change their colour from green to dark green. Do not over-cook. Give the dish an extra dash by adding nutmeg or lemon juice.

SPINACH

Spinacia oleracea



Clear an area of mulch and sow English spinach in August and September for a late spring harvest. Sow seeds again in January and February for autumn and winter harvests. Water and fertilise regularly. Spinach will not do well in hot conditions.



The indolent gardener has not the time to tend true English spinach. However, as it is a culinary delight, the ambitious gardener may be prepared to devote more time and trouble to it. It is not easy to grow well because growing conditions must be good and care must be taken with its cultivation otherwise it will either grow too slowly or bolt to seed. If you don't have great success, be happy with silver beet.

You can harvest spinach leaf by leaf but the usual thing is to harvest the whole plant when it is mature. Carefully wash the leaves before preparing for the table — grit in the final dish is not easy to pass off as pepper.

Spinach is delicious raw as a salad. If cooking spinach, use the same recipe as for silver beet, that is, melt the leaves in butter until the leaves change colour.

NEW ZEALAND SPINACH

Tetragonia expansa



Transplant runners in Canberra in September for a summer harvest. It will not survive winter. If you can get seeds, soak them overnight in a diluted seaweed mixture before planting.



For those who go regularly to the coast, it is easy to find runners of New Zealand spinach for it grows like a weed near many beaches. It is a very convenient leafy green because only the top tender leaves are cropped as needed. At the coast, it grows all year round.

Treat the leaves like other spinach.

When cooking your leafy green vegetables, try a mixture of vegetables, sorrel, spinach, silver beet, some lettuce leaves, the tops of kohl rabi. If such a mixture is pureed and turned into a sauce with onions and a little stock, it is delicious served with fine pasta and parmesan cheese.

All these spinach vegetables go well with eggs.

For large quantities of leafy green vegetables: In a large pot of boiling water, parboil the stalks, then add washed and chopped leaves little by little so they will not go off the boil. When the spinach has wilted, pour into a sieve and douse with cold water. The wilted spinach can be kept in the refrigerator for a few days, can be frozen, or can be used immediately for spinach recipes.

Cheese and Spinach Pie

12 sheets phyllo pastry	1 cup hot milk
6 tablespoons melted butter	3 cups cooked spinach, pureed
4 tablespoons butter	3 eggs, beaten
4 tablespoons flour	1-1½ cups grated cheese

Melt the butter and add to the flour. Add the milk gradually and simmer until sauce is thick. Remove from heat, stir in the spinach, cheese and eggs. Butter a square pie dish and line with a sheet of pastry. Brush with melted butter and add another sheet. Use 6 sheets of pastry. Pour in the spinach mixture. Cover with the rest of the pastry, brushing each sheet with melted butter. Bake in moderate oven 30-35 minutes.

OR try this simpler version.

Spinach Pie

puff or shortcrust pastry	½ cup gruyere cheese, grated
3 cups spinach, cooked and pureed	3 eggs, beaten
	½ cup cream

Line a pie dish with pastry. Leave in the refrigerator for 10 mins. Mix the spinach, cheeses and eggs. Pour the mixture into the pie dish. Sprinkle with nutmeg. Bake for 30-40 minutes in moderate oven.

Spinach Soup

Wash quantities of spinach. Chop finely. Melt some butter in a large saucepan and gently fry a couple of chopped onions. Add the spinach, fry until it has wilted, add the stock and cook for 20 minutes. Put through the blender. Return to pot, add cream and serve with dill seeds.

SWEET CORN

Zea mays var. saccharata



seeds on transplanted seedlings from

When the weather and ground are warm, clear the mulch from some small areas, plant 3 or 4 seeds together. Plant about 6-8 blocks for a family of four. Continue planting in this way every 3 weeks from October to November if you have the space. By planting in blocks, you have greater chances of pollination and the corn stalks will be able to provide support for each other. Return the mulch to the base of the corn after the plants are established. Throw a few pea seeds around the growing corn, they can then use the corn for support, give a crop of peas and when the crop is finished, the pea bushes can be cut and put under the mulch.

to grow and bears well right throughout

Cook the cobs in plenty of boiling water for anything from 5-10 minutes according to the size and freshness of the cob. Serve with butter. Other recipes seem a bit pointless with freshly harvested corn, with the possible exception of corn fritters.

Sweet Corn Fritters

2 eggs	3 tablespoons milk
2 cups cooked sweet corn	oil
3 tablespoons flour	pepper

Beat egg yolks and combine with corn, flour, milk and pepper. Whisk egg whites and fold into corn mixture. Drop spoonfuls in to hot oil and fry on both sides.

Eating your own freshly harvested sweet corn is one of the garden's great pleasures. Flavour and succulence rapidly disappear after harvesting so cook the cobs immediately.

The only troublesome pests are caterpillars that crawl inside the ears of corn and eat the kernels. Keep a watch on them and remove by hand.

Harvest the corn after the silk (the brownish-yellow tendrils at the end of the cob) withers and the cob feels firm if pressed. When the harvest is finished, chop the stalks and roots and cover them with mulch. By next spring they will have broken down enough to plant other crops.

TOMATO

Lycopersicum esculentum



Clear an area of mulch which you know is reasonably fertile. Sow seeds from October to November after the frosts have finished, or transplant to December. If you are putting in tomatoes that need staking put the stakes in at the same time. Set the seeds or plants about 45cm (18in) to 60cm (2ft) apart. When the plants are sturdy, return damp mulch thickly to the base.



Every home gardener grows tomatoes. There has been a decline in the taste and texture of tomatoes available at the markets because professional gardeners must pick, package and often chemically treat unripened fruit so that they will appear unblemished to the consumer. Those tasteless apparitions are incentive enough to grow one's own.

You can grow tomatoes from seed if you wish or buy healthy seedlings of different kinds. Tall varieties need staking and sometimes pruning. The bush and dwarf types need neither. Some tomatoes are resistant to wilt and nematodes; some are early croppers, some late. Remember that if you buy hybrid varieties, the seedlings during the next season will not grow true to type.

Don't restrict yourself to the one type of tomato, in some seasons one variety will do better than another. Tomatoes can be as unpredictable from year to year as any other vegetable.

Try these varieties:

Grosse Lisse: tall growing tomato which needs staking and some pruning, mid to late season cropper with large fruit.

Earliest of All: bush variety that needs neither staking or pruning. Fruit of medium size.

Burnley Gem and Burnley Surecrop: no pruning necessary but staking may be needed for Surecrop. Resistant to wilt.

Rouge de Marmande: popular early cropper which can be susceptible to wilt.

Tiny Tim: a miniature tomato bush with tiny fruit that can be used whole in salads.

Cloche: If you want to give your tomatoes a start before you think the frost period is over, use a cloche. A cloche will protect the plant during cold nights, heat the soil during the day and provide moisture for the young plant. The easiest way to make a cloche is to cut the bottom off a large plastic bottle and put it over the plant. Leave the lid off the bottle so air can circulate.

Pruning: Arguments for heavy pruning of tall growing tomatoes do not seem very convincing as the only effect seems to be to reduce the quantity of fruit that will grow in favour of its size. The indolent gardener should make sure that the tall-growing tomatoes are staked well and pruned judiciously to keep the bush under control.

Care with early cultivation will avoid one of the most common tomato problems — blossom end rot. When the plants are young, they need regular watering particularly if the weather is dry. Irregular watering and drought may cause the blossom end of the tomato to become water-soaked and brown.

If tomatoes are still bearing at the beginning of the cold weather, you can take out the stakes and carefully lay the bushes on top of the straw so the fruit has a chance of ripening at ground level. Spread bush varieties in the same way.

Few foods are more delightful than fresh tomatoes sliced into a salad with chopped herbs and a touch of oil and vinegar. Tomatoes are delicious in cold summer soups such as gazpacho or the hot soup described below.

To peel tomatoes, leave them in a bowl of boiling or very hot water for a couple of minutes. Dip them into cold water and then peel off the skin.

To prepare tomatoes for stuffing, slice off the stem end, loosen the pulp with a spoon, salt the inside surface and leave them to drain upside down for 10 minutes. The pulp will come away easily without damaging the skin.

If you have a glut of tomatoes, peel, seed and puree them. Simmer until the sauce is thick and smooth. Freeze in ice cube trays.



Grilled Tomatoes and Bacon

(A delicious brunch.)

Cut some tomatoes in half. Score the surface of the tomatoes, sprinkle with chopped garlic and basil. Grill until the flesh is soft. Serve with grilled bacon.

Gazpacho

1 slice bread	1 stick celery
5-6 tomatoes	3 tablespoons olive oil
1 capsicum	2 tablespoons vinegar
1 cucumber, peeled	
2 cups of water or mixture of tomato juice and water	

Blend the bread, tomatoes (keep one), half the capsicum, cucumber and celery. Add oil, vinegar and blend until smooth. Add water or mixture of tomato juice and water. Chill. Serve with remaining finely chopped vegetables.

Tomato Soup

Melt 6 or 7 large, fresh tomatoes that have been skinned and chopped in some olive oil. Add a clove of garlic and some chopped basil. Cook gently for 5 minutes, add enough stock to make it soupy and cook another 5 minutes. Serve with chopped basil.

Tomato Sauce

Chop 5 or 6 large, ripe tomatoes. Put them into a saucepan with a clove of garlic, an onion, a carrot, some celery and parsley, all finely chopped. Simmer until tomatoes have thickened. Season with salt, pepper, a little sugar and some chopped basil.

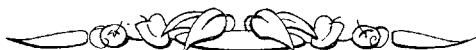
TURNIPS

Swede Turnips

Brassica napobrassica

White Turnips

Brassica rapa



Thinly sow swede turnips in December and January. Lightly mulch the seeded area until the seedlings are well established, and return the mulch. They need constant moisture.

Sow white turnips in August and September, and again in January to March in an area cleared of mulch. Return damp mulch as soon as possible as they need plenty of moisture.



Swede turnips are the most useful turnips for the low-labour, deep mulch garden — they are grown for autumn and winter harvest, will not deteriorate too quickly in the ground and are a useful winter vegetable. White turnips deteriorate quickly if not harvested at maturity.

Harvest swedes from the size of small potatoes if you wish. Use both white turnips and swedes in soups and casseroles as flavouring. If you have a prejudice against them as a vegetable in their own right, try some of the following recipes.

Pureed Turnips

Use either white turnips or swedes. Swedes will take longer to cook. Clean and peel 4 or 5 turnips, dice or slice them and gently boil for 10-20 minutes until soft. Drain off the liquid, mash or puree them with butter and a little milk.

Cheese Turnip

2 medium swedes, cleaned, diced and cooked	1 cup mozzarella cheese, diced
2 cups cooked leafy greens	$\frac{1}{2}$ cup hard grated cheese
1 cup cottage cheese	1 cup breadcrumbs
	3 cups tomato sauce (p. 60)

Butter a casserole dish and put in half the turnip cubes. Put in half the green vegetables. Spread half of the various cheeses and breadcrumbs over the turnips and greens. Pour over half the tomato sauce. Repeat for a second layer. Bake uncovered for 30 minutes in a moderate oven.

Turnips are quite sweet as a vegetable but the swede is sweeter. Thin slices of swede served raw give a lift to winter salads, children, too, often eat them as a pre-dinner snack.

ZUCCHINI

Cucurbita Pepo L.



Sow 2 or 3 seeds, or transplant healthy seedlings in a handful of soil or compost in the mulch. Keep seeds moist until they are germinated. Return the mulch as soon as possible.



Easy to grow, invariably successful and prolific croppers, summer squash is an invaluable vegetable.

Harvest the young marrows as regularly as possible, at 10cm (4in) if they are to be used whole in cooking or 18cm (7in) if they are to be sliced or grated. If you want to reduce your zucchini harvest, leave the fruit on the plant.

Zucchini is delicious in a number of ways: sliced into sticks and served raw as a salad, served in ratatouille, as a soup, stuffed and baked or as a casserole. Vary your methods of preparation; grated zucchini can give a favourite recipe quite a lift.

Zucchini soup (or how to cope with that monstrous crop)

4 cups zucchini, grated 2 tablespoons oil
2 onions, sliced 4 cups stock
Melt the zucchini and onion in the heated oil. Add the stock and simmer gently for 30 minutes. Serve with chopped herbs.

Bill's Zucchini

(delicious and very rich)

6 small zucchini,	$\frac{3}{4}$ cup grated parmesan
coarsely grated	1 clove garlic, chopped
1-2 tablespoons butter	nutmeg
$\frac{3}{4}$ cup cream	fettucine or egg noodles

Sprinkle zucchini with salt and leave to drain for 10 minutes. Heat the butter in a large pan, add the garlic and the zucchini, fry gently until the zucchini change colour. Add cream and allow mixture to thicken and reduce over medium heat. Add 2 tablespoons grated parmesan cheese and stir till melted. Serve with cooked fettucine or egg noodles and the rest of the cheese.

Pickled Zucchini

4 medium zucchini, sliced	$\frac{1}{4}$ cup red wine vinegar
1 clove garlic	$\frac{1}{2}$ cup olive oil
3 tablespoons olive oil	

Fry garlic in three tablespoons olive oil. Remove. Gently fry zucchini slices until light brown. Drain on kitchen paper and place in a shallow dish. Combine oil and vinegar, pour over zucchini and leave for an hour before serving.

HERBS



Herbs will brighten your gardening and cooking. Many of the herbs are perennials so their care is minimal after they are established, the greatest problem being to keep them under control.

This is not an exhaustive list of aromatic or medicinal herbs, rather a list of easily grown culinary herbs that do well in Canberra and have some specific contribution to make in spicing our cooking.

Balm

Melissa officinalis

Often called lemon balm because of its lemon-scented leaves, balm is an easy perennial to grow. It likes similar conditions to mint and will spread in the same way. If protected from frosts, some leaves will survive the winter.

Use the leaves in salads to add a subtle and distinctive flavour and aroma.

Basil

Sweet Basil

Ocimum basilicum

Bush Basil

Ocimum minimum

Both varieties are annuals which do not survive the first frosts if grown out-of-doors. Sow in spring and when the plant is established, nip out the flowering buds to extend the life of the plant.

Basil should be grown among tomatoes as it has a reputation for repelling nematodes and protecting tomatoes from insect pests. As well its finest affinity in cooking is with tomatoes.

Use it with raw tomatoes in salads, in tomato purees, with baked tomato and tomato juice. Try using basil with egg recipes.

Pesto Sauce

Use this delicious sauce for all kinds of pasta and as flavouring for soup.

Pound a large bunch of basil leaves with 1 or 2 cloves of garlic, a little salt and a handful of pine nuts. Add a couple of tablespoons of parmesan cheese. Slowly add enough olive oil to amalgamate with the other ingredients so that the sauce is thick.

Chives

Allium schoenoprasum

Chives thrive anywhere. Use them as a garden border, divide the clumps in spring for a continuous supply in spring and summer. Cut them back to their base in winter if it looks as though any pests or diseases show an interest. Grow garlic chives for a mild garlic flavour. Russian chives grow throughout the winter.

Coriander

Coriander sativum

Grow coriander in spring. If it is left to seed you will have plenty of new plants for the following season. The lacy leaves are commonly used in oriental dishes as a garnish. The seeds are fragrant and spicy, and can be used in a variety of oriental and middle eastern dishes. It can be used instead of parsley.

Dill

Anethum graveolens

Sow seeds in spring. Like many other herbs, dill will, if left to seed, regrow next season. Dill and fennel are very similar herbs, the dill the milder of the two.

Use the leaves when cooking fish, they will reduce the smells. Use the seeds in coleslaw, in bread and in making pickled cucumbers.

Garlic

Allium sativum

Grow garlic in autumn in strategic places in the garden as a deterrent to bugs. Plant cloves from healthy, large bulbs you buy at the market. They will be ready to harvest when the stems turn yellow and topple over. Dry them thoroughly in the sun if there is a large crop.

Horseradish

Cochlearia armoracia

Grow horseradish if you are addicted to fresh horseradish sauce. However, grow it in a pot otherwise it will become a pest in the garden.

Grate or mince horseradish in a blender if you have one for it affects eyes more than onions do.

Horseradish Sauce

Grate horseradish, season and add some cream to make a mayonnaise-like consistency.

Marjoram

Origanum onites **Sweet Marjoram**

Origanum majorana

Oregano

Marjoram vulgare

Oregano and marjoram are related species and are similar in appearance and flavour. Oregano is regarded as wild marjoram. Both are easy-to-grow perennials with soft green leaves and attractive flowers. They are valuable winter herbs. Use them in soups, stews, as a garnish for vegetables and as flavouring in meat sauce. They are indispensable in pizza and bolognese sauce recipes.

Mints

Mentha spp.

There are many aromatic and culinary varieties of mint. They will all grow from seed or runners in

spring, they all like plenty of water, and they all have rampant root systems.

Use mints for tea, drinks, salads, flavouring for carrots and peas. For mint sauce try using apple-mint as a change from the more common curly mint.

Mint Sauce

To make a small jug of mint sauce, finely chop about $\frac{1}{2}$ -cup of mint and put it into the jug. Add 1½-tablespoons of sugar, pour on 3 tablespoons boiling water and add $\frac{1}{2}$ -cup vinegar. Use less mint if it is dried mint.

Parsley

Petroselinum crispum

Parsley is an almost indispensable culinary herb, and with mint, is likely to be the most common herb found in any garden.

Apart from the common curled variety, there are other varieties — Italian parsley, Hamburg parsley, moss curled parsley.

Parsley is a biennial. If you plant seeds or seedlings in spring they will grow throughout the year and go to seed the following summer. Because germination is very, very slow, plant healthy seedlings bought from a nursery.

Parsley is rich in vitamins and iron. Pick it and use it immediately. As a culinary herb it is very versatile as a garnish and flavouring in soups, casseroles, sauces, and salads.

Try deep freezing parsley in some water in ice cubes if it looks as if your parsley will not survive until the next crop is ready.

Rosemary

Rosemarinus officinalis

Rosemary is an attractive, grey-green bush with fragrant leaves. Buy a young plant and transplant it to a sunny and sheltered spot.

Use it judiciously as a flavouring for meats, particularly roast meats.

Sage

Salvia officinalis

Sage is an evergreen perennial which will grow into a handsome spreading ground cover if conditions are right.

Sage and Onion Stuffing

4 onions, chopped	2 tablespoons butter
7 fresh sage leaves	1 cup stale bread

Boil the onions for 5 minutes. Dip the sage into boiling water for 2 minutes then chop. Mix the ingredients. Use this stuffing for fatty meats: duck, turkey or chicken.

Shallots

Allium ascalonium

Shallots are a perennial usually grown from bulbs. They are a hardy onion and will grow in nearly all conditions. Use them for salads, flavouring and garnish.

Sorrel

Rumex acetosa

This herb is often used in the same way as spinach. It is a perennial herb with plenty of tasty if somewhat lemony leaves. Use it raw for salads, mix some with other green vegetables while they are cooking or use it in this delicious sorrel and lentil soup.

Sorrel and Lentil Soup

Boil a cup of lentils in some stock with minced soup vegetables if desired. Cook until soft. Add some finely chopped sorrel leaves and cook for 10 minutes more.

Winter Savoury

Satureia hortensis

Winter savoury is a perennial herb that grows into an attractive low shrub and the leaves darken

in colour with the colder seasons. Use some leaves in stuffings and in salads, the peppery flavour will add some extra dash to both. Because it grows well in winter, it adds variety to what can be a dearth of tasty herbs.

Tarragon

Artemisia dracunculus

There are two types of tarragon; French tarragon and Russian tarragon. Both will spread throughout the garden once they are established. Grow them in spring and when they die back in winter, cut off the woody stalks.

Add tarragon to hot and cold sauces, stuffings and use it in fish dishes. Be less generous if the herb is dried.

Tarragon Vinegar

2 tablespoons tarragon leaves	1 clove garlic, chopped
	2 cups warmed vinegar

Put all the ingredients in a covered jar. In 2 weeks strain and bottle the vinegar.

Thyme

Thymus vulgaris

Thyme is a perennial herb that has become familiar in gardens. There are many aromatic and variegated varieties available.

They grow easily from seed or suckers in late winter or spring. Cut back the bush in winter if it looks spindly.

Zucchini with Thyme

Slice some small zucchini thinly. Melt 1 tablespoon of butter, add zucchini, 2 teaspoons chopped thyme (1 teaspoon if dried) and season. Cover and cook gently until soft. Be careful not to burn the zucchini.

Some further reading

This is not a complete list of books on organic gardening. However, the list covers some of the books appropriate to Australian conditions, organic gardening and deep mulching, and some specific aspects of organic gardening.

A Guide to Organic Gardening in Australia

Michael J. Roads

Mary Fisher Bookshop, 1976

One of the few organic gardening books based on Australian experience using deep mulching techniques. Much of what is said is relevant to Canberra conditions.

Esther Dean's Gardening Book

Esther Dean

Harper and Row, 1977

Another Australian deep mulcher, Esther Dean has been growing vegetables in compost in hay and straw. Useful as a variation to the deep mulch techniques described in this book.

The Ruth Stout No-Work Garden Book

Ruth Stout and Richard Clemence

Rodale Press, 1971

Ruth Stout has been deep mulching in America for years. This book describes her methods of mulching, sowing and harvesting.

Organic Gardening

Lawrence D. Hills

Penguin, 1977

One of the classics on organic gardening. Although the book is written for English gardeners, the general approach and the detailed information are of some help to the dedicated organic gardener.

Permaculture One

Bill Mollison and David Holmgren

Corgi, 1978

As described in the text, Permaculture One is an agricultural ecosystem for temperate Australian regions designed as a low energy, high yielding agricultural system. Essential reading for those interested in rural self-sufficiency.

Companion Plants and How To Use Them

Helen Philbrick and Richard Gregg

Devin Adair, 1966

One of the books to come from the Bio-Dynamic Farming and Gardening Association which is based on the study of mutual influences of living organisms. Of interest to those who want to study companion planting in more detail.

The Australian Gardener's Guide to Pests and Diseases

Pax Lindsay

A.H. & A.W. Reed, 1975

If you cannot identify your garden pests and diseases and you want to do so, this book will help. Don't use the remedies.

Discovering Soils Volumes 1 to 7

CSIRO, 1979

The CSIRO has published a series of booklets on soils. They help to explain what soil is, what happens in the soil, and what can be done about soil fertility. The titles are: *Soils*, *Soil - Australia's Greatest Resource*, *Composting*, *What's Wrong with My Soil?* *Earthworms*, *Food For Plants*, *Organic Matter and Soils*.

The Owner Built Homestead

Ken Kern

Owner Builder Publications, 1975

An American handbook for partial economic self-sufficiency, conscious of social and ecological responsibility. The chapter on plant management advocates mulching as the ideal way of preserving soil fertility.

The Self-Sufficient Gardener

(Australian-New Zealand Edition)

John Seymour

Oxford University Press, 1978

John Seymour's books have become an industry. This book is very detailed and its gardening practices labour intensive. However, the book has such a romantic view of gardening that it is hard to ignore it, even if it is just to look at what others are trying to do!

Australian Plants for Canberra Gardens

Society for Growing Australian Plants, 1976

The introductory section is a helpful guide to Canberra climate and soil problems. An invaluable guide for gardeners growing Australian plants.

	SPRING			SUMMER			AUTUMN			WINTER		
	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
Asparagus	●	●									↖	↖
Beans, broad							●			●	●	●
Beans, french	●	●	●	●	●	●						
Beetroot	●	●	●	●	●	●						
Broccoli	●			● ↘	● ↘	↖						
Brussels sprouts			●	● ↘	● ↘	↖	↖	↖	↖			
Cabbage	● ↘	● ↘	● ↘	● ↘	● ↘	↖	↖	↖	↖			
Capsicum			● ↘									
Carrot	●	●	●	●	●	●	●	●	●			
Cauliflower	●	●	●	↖	↖	↖	↖	↖	↖			
Celery	● ↘		●	↖	↖	↖						
Cucumber	● ↘	● ↘	● ↘	● ↘	● ↘	↖						
Leek	● ↘	● ↘	● ↘	↖								●
Lettuce	● ↘	● ↘	● ↘	● ↘	● ↘	↖	↖	↖	↖			● ↘
Onion						● ↘	● ↘	● ↘	● ↘	● ↘	● ↘	● ↘
Parsnips	●	●	●	●	●							
Peas	●	●	●	●	●	●	●					●
Potato	●	●	●	●	●							●
Pumpkin	●	●	● ↘	↖								
Radish	●	●	●	●	●	●	●	●	●			
Silver beet	●	● ↘	● ↘	● ↘	● ↘	● ↘	↖	↖	↖			
Spinach	●				●	●	●					
Sweet corn	●	●	●	● ↘	↖							
Tomato	● ↘	● ↘	● ↘	↖								
Turnip, white	●				●	●	●	●	●			
Turnip, swede				●	●							
Zucchini	● ↘	● ↘	● ↘									

● Sow

↖ Transplant

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Indolent Kitchen Gardening

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Australian National University Press, Canberra

ISBN 07081 18240