



WELLINGTON

EPIFLORA





EPIFLORA

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The President's Page

Dear Members,

Can someone please explain why it is that my plants are determined to always open their flowers just after a meeting rather than just before. It means I can't bring them in and display them on either the Competition or Interest table. I'm writing this on the night before the May meeting and all week have been looking at the many buds – all of which will undoubtedly open next week when I'm in Auckland and can't really enjoy them. I thought that at least one would have obliged for tomorrow but no such luck.

Our recent committee meeting had a very full agenda. Planning for the midwinter meeting in July is under way. We have been asked to display in shows at Kapiti and Wairarapa and are involved in planning for the Exotic Plant show and sale in November. Because of distance and cost we felt that we had to say no to Wairarapa this year though its possible that some individual members may take part. You'll hear more of the others later.

At our last club meeting the question of widening the scope of plants covered by the Society was raised and the committee was asked to consider it. We did so but decided that if we were going to do this it should be a club decision rather than a committee one and should be discussed at the Annual Meeting. This year's programmes have already been planned so any change would not really take effect until next year anyway. We hope that you will think about it over the next few months. There are arguments for and against and questions about which way we should go if we do change – should it be opened to include all Asclepiads as some members obviously want, or are Bromeliads the better choice? We have been promised at least one article on the subject for *Epiflora* and I'm sure that the Editor will be glad to receive others.¹

I hope you're all enjoying the continuing good weather. How much does the strange behaviour of the seasons some years affect flowering and general growth of the plants and how much do we need to adjust our care of them to allow for such things? No doubt the experts will be able to tell us!!

Regards to you all,

Alison Beeston

¹ We plan to print a collection of views and comment on the subject in the September Edition of *Epiflora* – Ed.

The Programme for 1998

Meetings are at Johnsonville Union Church (Dr. Taylor Terrace) and start at 2.00 pm. Library books etc. are available at 1.30 pm.

June 13th	Panel discussion on “difficult plants”
July 11th	Midwinter function
August 8th	Orchids as Epiphytic complements
September 12th	Revelations about Rhipsalis
October 10th	Flower arrangement – with and without epiphytes
November 14th	Visits to members collections
December 12th	AGM and Christmas function

News About People:

We are all glad to see **Beryl McKellar** so well on the way to recovery from her knee-replacement operation. You restart your training programme for the Rotorua marathon next month Beryl?

At last **Sue** and **Rei Rapira** are back at meetings – it is good to see both of you again.

We send best wishes to **Betty Gross** as she begins to adjust to life on her own.

Items for your Diary ..

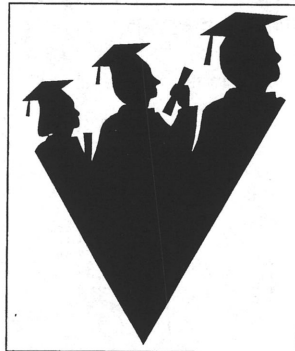
October 2 nd / 3 rd	Kapiti Show
October 17 th / 18 th	Wairarapa Orchid Show
November 7 th	Exotic plant Sale – grow your plants to sell

Hoyas in Academia

Penny Luckens reads widely and has found that some new universities are drawing on their local emblems as well as on age-old designs when creating ceremonial garments. Ask Penny to show you the magazines – as the pictures are glorious...

University graduation ceremonies have remained essentially the same since the first universities were founded in the 12th century. The authority of the university chancellor to confer degrees came from the church in the Middle Ages and the style and form of academic dress dates back to that time. The chancellor's attire is modelled on that of the Lord Chancellor of England. However as new universities are established and new robes created modern embroiderers are using new designs and emblems to embellish them.

The Southern Cross University of Northern New South Wales is one of the more recently established institutions, having gained autonomy from the University of New England in 1994. New gowns then had to be made for the chancellor. Traditionally gold embroidery is used on these gowns but, in a break with tradition, the specification called for "colourful embroidery depicting local fauna and flora with silver or gold embellishment" and that "local artists are to be employed".



The resulting designs feature a variety of birds, a possum, and "*H.australis*". Each of

the embroidered roundels took fourteen to twenty hours to complete. They are built up with three to five layers of felt to give them a sculptured shape and gold thread has been used for the stamens.

The new robes were worn for the first time in March 1997.

“Ceropegia cumingiana”

Jane Griffith describes one of her Ceropegias that is still in flower. .

The photograph of the flower of this plant was taken in February 1998 when the first flowers appeared on the plant. Seed was obtained from the International Asclepiad Society in April 1996 and germination took place quickly. After the plant was re-potted in September 1997 growth was rapid and buds were evident by January 1998. Since it first started flowering it has continuously flowered and is continuing to do so as temperatures drop in mid May.

There was no indication where this particular seed came from but *C.cumingiana* is known to exist in Bali, Borneo, Papua New Guinea, the Philippine Islands and northern Queensland. It is a herbaceous climber which is found in its natural habitat on the margins and in the canopy of deciduous vine forests.

Paul Forster writing about this species in *Asklepios* 56, August 1992 noted that it is not an easy plant to grow in the long term as the deciduous rootstock has a tendency to rot in the winter if it is kept wet and cold. It is to be hoped that this particular specimen will make it over our forthcoming winter and reward us with another spectacular display of flowers next summer.



Ceropegia cumingiana

The life-cycle of Epiphyllums

At the May meeting Jane Griffith discussed the lifecycle of epiphyllums, Andrew Flower took notes..

First point: Mexico, Costa Rica, Guatemala the natural habitat of epiphyllum species. Rainforest, about 600m., small diurnal temperature range, some seasonality. Night flowering, highly perfumed. Lifecycle, according to Jane, (I put that in so you wouldn't think it was according to me....) starts off with a leaf growing amongst the trees, sending out aerial roots to cling on to the trees. Often the epiphyllum plants (having now grown to several or many leaves) have pieces knocked off by passing animals. Leaf bits then regenerate and new plant grows. Epiphyllums grow in crevices where there is a little bit of humus. Jane does not think that seed propagation is the main form of growth in the natural habitat.

Second point: We grow epiphyllum *hybrids*. How do they grow? How do we get new hybrids? Main flowering season here is November, and we make hybrids by cross-pollinating. Pods color up when they are ripe (usually a deep magenta colour) and go a bit squishy. Sow them on seedling mix (perhaps a fine version of standard epiphyllum potting mix?), put them in a seedling container, water well., and cover them with gladwrap or similar (must let the light in). Jane puts them in the glasshouse in full sun.

Controversy. Some people say you leave the epiphyllum seed for six months or so before sowing it. Jane says "Tosh!" Sows them immediately, no problem. Penny sows her seed right away in a sterile mix. Jane holds the seed a couple of days till it dries then sows on commercial seed raising mix. Merv holds his seed for six months or so before sowing. Looks like you take your pick! Think I'll plant half my seeds and see if they germinate – if they don't, I'll wait six months then plant the rest. Didn't get where I am today being bold....

Growing on. When it comes time to plant seedlings on, Jane keeps the four or six best looking ones and throws the rest out. Takes seedlings five years or more to flower – if buds form on an immature plant, take them off. Be firm. TAKE THEM OFF....

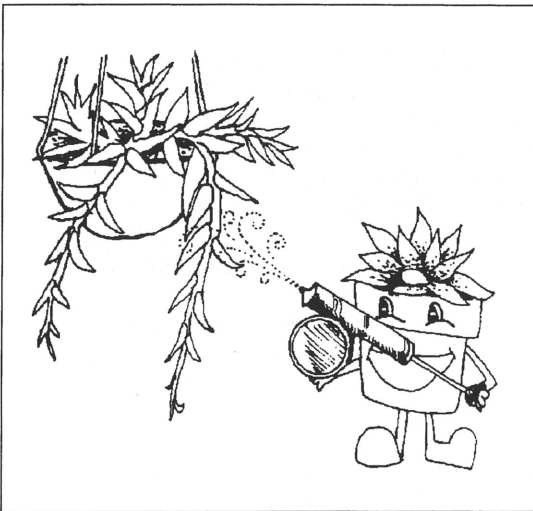
When plants get to the stage where they have flowered a bit, getting a bit rough looking, if they have new growth then prune off the old leaves. If a plant has flowered on most of the aureoles and there is no new growth coming, make a decision: if the plant is too old, it probably will be useless for cuttings, throw it out. If you really need to regenerate the plant cut off the old leaves, prune back its roots and re-pot.

Remember that plants have a natural cycle, and death is a part of it. And they take too long to break down in the compost. Morris says put them through a mulcher.

What if growth is too lush, someone asked. Cut back on nitrogen and give higher potash (sounds like Blossom Booster?) Don't coddle them!

Winter watering. Jane waters once every four to six weeks. Indoors, water once a week or fortnight over winter. Penny says water them more if you have them under cover.

An answer to the problem of Mealy Bugs?



Recently a flurry of articles and comment has arisen both in NZ and abroad about a new product that is said to be "death to Mealy Bugs"; others describe it as the mealies' worst nightmare. Some of our members have already started to use it – so should be able to give us first-hand impressions quite soon – however, in the mean time, this is what others are saying²

Mealy bugs are insects about one to two millimetres long, either pink or white and rather like a tiny slater in appearance. They are often surrounded by a mass of wax (egg sacs) in colonies at the base of or under leaves or at the crown of the plant. They also can

be found on plant roots. They like warm, moist conditions and, like aphids and some scale insects, exude a honey dew. As most members will know, they will attack any of the plants we grow.

Until recently controlling mealy bug has been very difficult, in part because the insect's waxy covering repels a water borne spray. Isolation has been one of the more effective

² Thanks to Nick Perrin, Dan Mahr and Willy Verheulpen among others.

methods – as one writer said “make sure there is nothing green living within 50 metres of where you grow your succulents, and never bring home another plant; grow everything from seed. Recommendations a bit harsh? You bet! But spontaneous generation was disproven a few years ago. In the hobbyist collection, pests develop in two ways: (1) natural movement into the collection from infested plants adjacent, and (2) introduction of infested plant material. Best bet: thoroughly inspect all new acquisitions, including unpotting them and looking at the root system”. This sort of isolation is hard to maintain when colonies of mealy bugs live in the bank outside the shade-house!

Chemical warfare is not the perfect answer. Some of the more potent sprays that have some effectiveness against mealy bugs also damage delicate plant tissue. Usually this can be seen as a burning of foliage. The problem can be more extreme with solvent-based formulations. However, certain insecticides can also do damage to the roots of plants; solvent-based acephate (aka Orthene; also the active ingredient in Isotox) is one notorious example.

Now a new remedy is being marketed It is called "Confidor" and its active ingredient is imidacloprid, which is a class of insecticide called cloronicotinyl. It has a very low toxicity to humans, and has a strong systemic action. It is effective on sucking insects (aphids, mealy bugs, lace bugs, mites, thrips whiteflies, etc). It comes in packets of five 5 gram sachets, each of which makes 5 litres of spray, and it is in the form of wettable granules. This means it doesn't contain any of those nasty solvents of the "emulsifiable concentrates" or "EC"s that make a mess of most succulent plants. (ECs are the only form that most insecticides seem to come in these days- they are best avoided).

"Confidor's" active ingredient is not new, it has been available for some time. In the U.S. it is available under the brand names Merit and Marathon. It is an effective systemic against many types of sucking insects. On some plants it can be somewhat slow acting.

In the U.S. it is available in two formulations, a granular formulation designed to be incorporated into the soil, and a liquid formulation for spraying. They are both absorbed into the plant and translocated to the more actively growing areas.

When applied to the soil, uptake seems to be slower than systemic organophosphate insecticides (such as Orthene (acephate), DiSyston (disulfoton), and Cygon (dimethoate). It is possible that activity may be delayed several days after application; this period may be lengthened if the plant is not actively growing.

Toads to Princes .. Keith Lowe on Bonsai

At our April meeting **Keith Lowe**, one of Wellington's acknowledged experts, talked about Bonsai - reported by **Penny Luckens**

Keith, from the California Garden Centre, greeted us as "customers and friends". He demonstrated how to turn a reject nursery plant into a bonsai, while telling us something about the history of both himself and bonsai along the way.

Starting with a somewhat divaricating coprosma, (*C. virescens*, a charming name - coprosma means "dung-smelling" and virescens "coming green") he removed the plastic planter bag, teased out the roots and trimmed them back to fit the new, shallow, bonsai pot. Commercial bonsai pots were referred to as "toothpaste pots" as they were all produced by machine and all looked just the same. We are fortunate to have a potter among our members who makes individual pottery bowls by hand.

The growing and training of bonsai (or penjing) started in the Han dynasty (BC 206 – AD 220). It was practised in China over 2000 years ago, at least 800 years before the art passed to Japan, where it was known as bonsai. During the T'ang dynasty (618-907 AD) the growing of dwarf trees became very popular at many levels of society and in many parts of China. Trees, shrubs and herbaceous materials capable of being grown outside throughout the year are all used. The training techniques keep the plants small, compact and healthy.

Traditionally towards the end of winter (August in New Zealand) was the best time to train and prune the plants; but now, with container-grown plants obtainable throughout the year, this can be done whenever you find a suitable plant. Often these may be in the reject or "specials" bin – as long as Keith was not there before you!

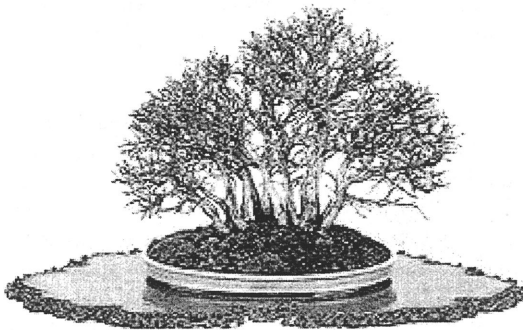
Having teased out and trimmed the roots, and then anchored the roots in the container with wire, string or cable ties through the two drainage holes in the pot, you take a good look at the plant. Decide which are the best features and start trimming away the unwanted growth. Keith compared cutting roots and branches to trimming toenails and hair. While he trimmed out unwanted growth he remarked it made him feel like a hairdresser, to which there was a muttered comment from an audience member "I wouldn't come to you!". After dealing with the occasional bad customer Keith likes to retire to a corner and concentrate on pruning and shaping a bonsai. All the prunings can be used as cuttings for further plants, but you must know when to stop. Raw materials may be seedlings, cuttings or 100-year-old trees.

Use plastic mesh over the drainage holes to keep out slaters and other insects. Ordinary potting mix can be used – with added sand for conifers. If using soil to prepare a mix, strip off the top six inches and use the next layer to avoid weeds and pests, then mix with peat and sand. Pack the soil in around the roots and cover the surface with a layer of moss. Try to place the plants off-centre in the pot if possible. A small pottery figure may be added beside the tree to make it look taller in proportion.

Repotting is done, when necessary, at two to five year intervals. Following the shaping of the *Coprosma virescens* to a weeping form – a form much favoured by the Chinese – Keith was asked to prune Merv's *Juniperus procumbens*

Keith showed us some two-year fertiliser tablets made by BASF for use when planting out conifers in plantations. One tablet is placed below each tree at planting time. They can be used on more mature trees by pushing them down with a broom-handle around the drip line every eighteen months to two years. They can also be used for all container plants except for bromeliads. Osmocote can also be used for bonsai.

In Japan and China bonsai are often grown and shaped in rows in the ground and only transferred to pots when mature plants. Plants in the ground develop good sturdy trunks necessary for good bonsai. Bonsai need to be outside all the time, but can be brought in for a few days for special occasions. They are not indoor plants.



David Gross

David Gross died in March after a long and courageous battle with cancer. We know David as one of those who did so much to found and support the Auckland Epiphyllum and Hoya Society. He was an accomplished photographer of flowers of all kinds – many of his photos appearing in the Auckland Society newsletter.

Betty and David arrived in Wellington from the UK in 1951. David was a civil engineer and was employed by the Ministry of Works in Wellington. Whilst in Wellington they lived for the most part of the time at Trentham. After two years in Wellington they moved to Auckland where David was employed by the Drainage Board (later to become the Auckland Regional Authority) until he retired.

We send sincere good wishes at this time to Betty and the rest of their family.

V.C., R.G.

Morris 'n Merv talk Hoyas

At our March meeting Morris Tarr and Merv Keighley talked about growing hoyas. Penny Luckens is the reporter ...

Morris opened his talk by demonstrating how to remove black sooty mould from Hoya leaves with a damp sponge. Sooty mould develops on flower nectar or sap-sucking insects' sugary excretions that fall on plant leaves. Sometimes sticky secretions or sooty mould are the first indications you may have of aphid or woolly aphid invasions – particularly the “Indian Rope” hoya (the form of *H. carnosa* with twisted leaves and short internodes). During warm weather you can use a strong blast from a hose to get rid of both pests and the sooty mould on cold-hardy species such as *H. carnosa*. Afterwards sprinkle Diazinon on the surface of the pot where egg masses are often laid.

Hoyas are subject to fungal diseases when under stress and in high humidity.

Hoyas can be raised from seed. *H. Serpens* seems to be self-fertile as it sets seed when it is the only species flowering, and all the seedlings are just like the parents. This species prefers some shade. Another seedling hoya from a PNG strain had red margins to its leaves. The mother plant lacked red margins but 50% of the seedlings were red-edged.

Bumble bees will often gorge on the nectar of hoya flowers when pollinating them. Afterwards they will lie on the ground for an hour or so. ("Just a siesta after a big meal" was one comment). They then get up and fly away.

Plants grown in too much sunlight may develop yellow leaves with red blotches. Long new growth on hoyas should be wound round the wire frames, up to the top and down to the bottom again and then tied gently in place with grafting tape. This is obtainable from some garden centres and is strong enough to allow the stems to increase in diameter.

Morris is now using "Just" potting mix, adding "blasting sand" (obtainable from Winstones at a small cost) at the rate of one 5 litre bucket of sand to five bags of mix. When he repots he adds a layer of mix in the bottom of a larger pot, then takes the old pot off and adds the undisturbed root ball to the new pot and fills around it with new mix. Repotting is done only as necessary and he does not use a pot larger than a two-litre size. If the lowest leaves are in the way when watering and deflect water from the mix then Morris removes them. The feeding of the plants is more important than pot size. *H. serpens* has a small root ball and grows well in ponga logs. When growing *H. multiflora* ("shooting star") plant three cuttings in the pot for a better shape and display. This variety likes to be kept warm and will drop its buds if in a draught. *H. carnosa* "Indian Rope" often does not flower on the first 18" (0.5m) of growth – another good reason for growing it on a vertical round frame.

Some varieties of *H. carnosa* may have umbels of different colours or even have flowers of different colours on two sides of an umbel on the same plant. Both *H. pubicalyx* "Hawaiian Royal Purple" and *H. carnosa* "snowball" can do this. (Similarly a variegated coprosma or privet can produce plain green shoots).

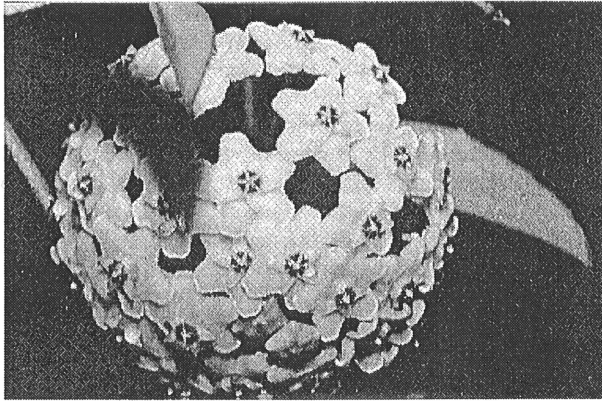
Morris was asked why hoya perfume is stronger at night. He suggested that in habitat the plants are pollinated by nocturnal insects.

Hoyas seem to flower better when trained on the large vertical rings, but the tiered rings or tubes are better when space is limited on benches. Plants trained on large horizontal rings need to be hung above head level to display their flowers to advantage and take up a lot of space.

At this time of the year (March) we should be reducing the amount of feeding for all hoyas except for those that are just about to flower; for example *H. australis* and *H. macgillivrayi*.

Some species, particularly the warm growing ones, may be harder to flower in

Wellington as they need both high humidity and high temperatures. With some plants it may also be a question of size or maturity. *H. sp. New Guinea White* may take several years before it flowers, but once it starts it will flower consistently each year.



Hoya carnosa

“Overwintering Hoyas”

Until a short while ago it seemed summer might go on indefinitely. Then things changed. Von Cross reminds us how we should care for hoyas – so they will still be with us when spring arrives.

This is the hardest part of growing hoyas. New Zealand winter conditions are vastly different from those in the plants’ natural habitats. Also the environment in which each individual grower keeps his or her plants will vary considerably. Therefore there can be no hard and fast rules. Small leaved species from Himalayan areas for example *H. bella*, *H. lanceolata*, and *H. serpens* do not like to dry out completely – just give them sufficient water to avoid this. Larger, thick and leathery leaved species will usually tolerate longer drier periods. Avoid watering during prolonged cold spells unless, of course, plants are in a heated area; and never saturate the mix or leave containers in saucers holding water.

Should you be unlucky enough to have a plant showing signs of collapse, for example dull drooping foliage, examine the main stem where it emerges from the soil mix. It should be firm and show green when carefully scraped with a fingernail or similar

object. If the stem is spongy and brown in the centre the only remedy is to remove the plant from its container, sever the root and stem well above the spongy area and re-root in fresh mix, or make new cuttings. However do not be too hasty to do this. Wait until the weather warms up. Plants in this condition degenerate quite slowly. If the main stem is still healthy and green, probably the dull or drooping foliage is nothing more serious than an indication that the plant has got too dry. Carefully increase the water.

About the end of August or early September each plant can receive its annual application of dolomite lime. Use about one teaspoon to a 12 cm container; this is sprinkled on the surface of the mix and gently watered in. The regular fertiliser programme can begin a few weeks later.

“Thank you” to Peter and Alison

The presentation of *Epiflora*, with its stylish cover has attracted much favourable comment over the years. As most of us know – the printing and finishing of *Epiflora* has been done by Peter and Alison Beeston. They took on this task when Alison became Editor – and continued after she had handed that task on. Now changes at their business mean it is no longer practicable for them to do this task. Thank you to both of you. Your effort, always willingly given, has been much appreciated.

"Odd Cuttings and Seeds ...".

El Nino!

The El Nino weather pattern is being held responsible for many things in many places. It has been named as the cause for abnormal floods and our extended summer. But as many people around the world have noted it has also been the cause of better than average growth in most plants (weeds especially) and of the proliferation of the bugs and pests that attack them!

Convention.. convention

We are hearing whispers that Auckland Epiphyllum and Hoya Society are starting to think about the 1999 Convention. Wait, when we get more details we will pass them on.

Biological controls!

Another thought on the matter of natural methods of controlling pests (we all know that sprays and poisons are to be avoided if possible" ...here is the answer to one person's problem

"I now have a large King snake (at least that's what my friends say It is) hanging around my cactus collection. I was having a rodent problem (unknown specie - but lots of "droppings") - unrooted cuttings were being knocked over, plants nibbled and fruit carried off. Not anymore! Since "Jake the snake" moved in, I have no more problems of this kind. Whether he is scaring them off - or fattening up on them I do not know. In any event, nature is taking care of my rodent problem - in the old fashioned way!

Second Hand Books and Journals

For those with internet access – the Whitestone Gardens list of second hand books and journals is now available on the Cactus Mall. The book list address is: <http://www.cactus-mall.com/whitestone/shbooks.html>

The Rainbow Gardens Flowering Jungle Cacti Catalogue is now also available on-line through the Mall.It's address is: http://www.cactus-mall.com/rainbow_gardens

Seed Importation

A number of people have recently had seed detained by MAF; a variety of species are involved including Rebutias and Cynanchums. To obtain the seed

one has either to pay a massive fee or "quoting from MAF's letter"..

"Provide written evidence that the species is not a new organism i.e. a species of any organism which is not currently present in New Zealand. New organisms are "risk goods" as defined in the Biosecurity Act 1993" etc. etc

Thus it seems that if one can provide written proof that these species are already grown in New Zealand without any problems, MAF will let you have your seeds.

It seems that Landcare Research NZ Ltd is now in charge of the import list and has been making up this list from commercial nurseries sales catalogues. All cacti that were classified as Basic ie. Mammillarias, Notocactus, Rebutias etc. are now going to have to have the species name listed as well. (This is probably because Ariocarpus and Pediocactus are taking over NZ paddocks!) Some old plant import lists were also being used as part of this list but Karl Johnson notes that "they have left off plants we have imported in the past".

A list of confiscated seeds is being circulated, if any of our NZ readers have had seeds held - please send details to the editor so that they can be added to the list.

Future Publication Dates..

EPIFLORA is published quarterly by the Wellington Epiphyllum and Hoya Society.

Comments and contributions are most welcome.

The society aims to encourage discussion and debate; opinions expressed are those of the authors and do not necessarily represent those of the society. It is the policy of the society to publish corrections of fact but not to comment on matters of opinion expressed in other publications.

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Closing dates for contributions:

Spring 1998 Edition - 8th August
Summer 1998 Edition - 14th November

Subscriptions:

Subscriptions are due on 1st of January and are:

Members -	\$12.00
(overseas members	\$NZ16.00 or \$US12.00)

Additional Associate Members - \$4.00



