

**THE
FERN SOCIETY**

**OF
VICTORIA**

Inc.

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NEWSLETTER

VOLUME 11, NUMBER 3, MARCH 1989

FERN SOCIETY OF VICTORIA Inc.

Postal Address: P.O. Box 45,
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Membership Secretary:	John Oliver		-	879 1976
Editor:	Terry Turney		-	211 8169

SUBSCRIPTIONS: Single - \$13.00 (Pensioner/Student -\$9.00);
 Family - \$16.00 (Pensioners -\$11.00);
 Overseas - A\$25.00 (by Airmail).

PRESIDENT'S MESSAGE:

This month there really is an article in the Newsletter about the trip to Wilson's Promontory! My apologies for any frustration in trying to find it in the last edition. One of the results, I'm afraid of having different sections of the copy written by various people and our overworked Editor needing to get them typed as soon as they are available.

We have now been told that the Herbarium hall will not be available in May, so we will stay at the Welsh Church for our May general meeting. We will have our special evening to celebrate the 10th anniversary of the inauguration of the Society (on 3rd May, 1979) following our 10th Annual General Meeting on the 10th August. Your suggestions on special features for this meeting will be most welcome.

Please try to take part in our forthcoming Fern Show, if it's geographically feasible, or at least come as a paying visitor (helpers get in free, of course). It's a great way to see wonderful ferns, enjoy the features of the Horticultural Centre and get to know your fellow members better.

Best regards,

Bob Lee



1989 FERN SHOW

at

Nunawading Horticultural Centre

82 Jolimont Road, Forest Hill
(Melway Ref. 62 F4)

Saturday, 8th April 10.00 a.m. - 6.00 p.m.
Sunday, 9th April 10.00 a.m. - 5.00 p.m.

Setting up the various structures and tables in the display hall and sales area will begin at 12 noon, Friday 7th April. We should like ferns, both for the display and for sale, to arrive between 2 p.m. and 8 p.m. - definitely no earlier than 2 p.m., please, as we will not be organized to receive them before that time. People with only a few ferns to sell and who find it difficult to bring them on Friday, can deliver them to the Show before 9.30 a.m. on Saturday or Sunday, but only by prior arrangement, please.

We hope that many members will participate in the display. A wide selection of well-grown healthy ferns is needed and do not hesitate to bring along your special favourites, particularly if they are ferns not widely seen elsewhere. They will be well cared for, but if you have any particular concerns, please talk to a member of the Show Committee. Don't forget to have all ferns adequately labelled - with names for the display and your name to facilitate return.

The Show Committee is anxious to finalize arrangements for the Show and to this end would like to have firm information on the availability of helpers for the various activities. These include setting and later dismantling of the display, staffing it during opening hours to answer visitors' questions (and guard the ferns!), selling and restocking in the sales area, demonstrations, the refreshment service, etc. As mentioned previously, do not worry that your knowledge of ferns may not be adequate. There are plenty of jobs for all levels of knowledge and chances all the time to learn. Please wear your triangular F.S.V. name tag, with your name on it while at the Show.

On the publicity front, media coverage will be less this year than in the past because of economy moves by some organizations. This makes the efforts of Society



1989 FERN SHOW (cont.)

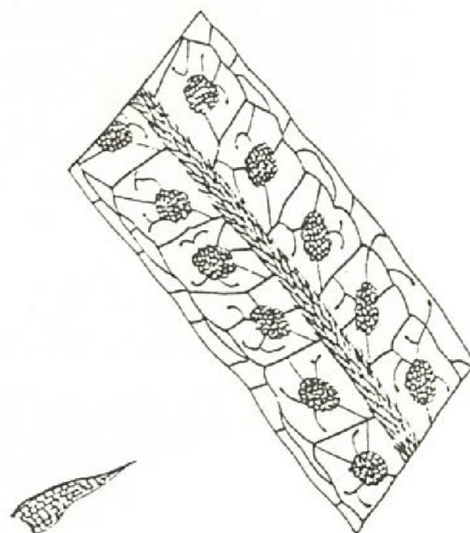
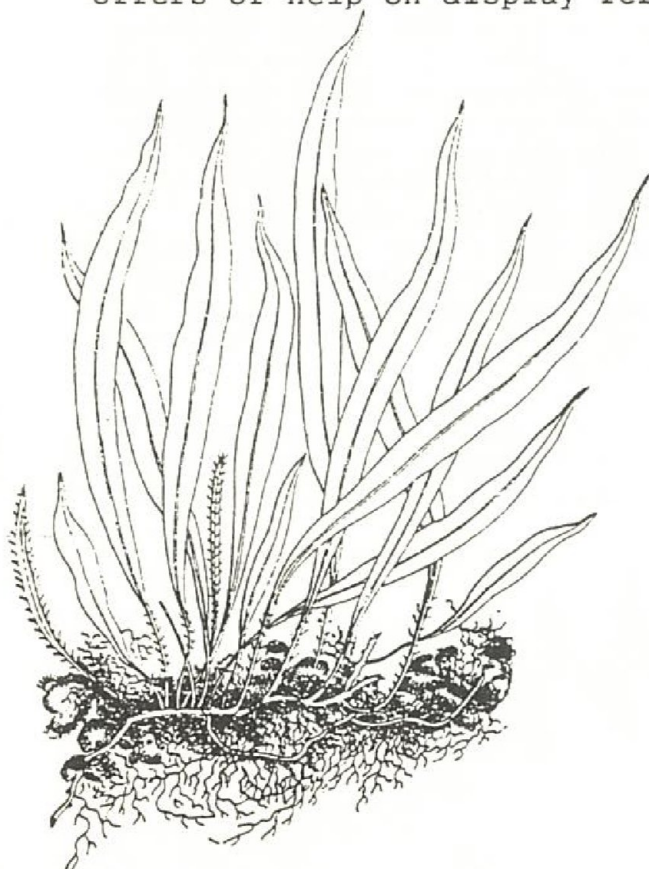
members even more important. Please continue to promote the Show right up to the weekend of the event by word of mouth and our advertising leaflets. A leaflet is included with this Newsletter and more will be available at the March meeting. Please try to have them displayed prominently at suitable public places in your neighbourhood (nurseries, florists, libraries, garages etc.) to attract the attention of potential visitors to the Show.

Would members wishing to sell ferns at the Show, who have not already advised their intention, please contact Bernadette Blackstock either at the March meeting or by phoning 391 5517. It is a condition of acceptance that all ferns for sale be grown on by members and not just acquired for re-sale. Sellers are also expected to contribute ferns for display in proportion to their sales volume. Please ensure that all plants have individual labels and in fairness to customers, indicate clearly whether hot-house or other special growing conditions are needed.

Limited public transport to the Horticultural Centre is available on Bus 765, which runs between Nunawading and Mitcham railway stations, passing along Jolimont Road. Departures from either station is every half hour on weekdays and Saturday morning and hourly after 1 p.m. on Saturday afternoon. Unfortunately, the service does not operate on Sundays. Copies of the timetable will be available at the March meeting.

Please contact a member of the Show Committee (names and phone numbers in the February Newsletter) with offers of help on display ferns, for any queries, etc.

Bob Lee



NEXT MEETING

Grooming Ferns for Display
by Betty Allgood

Thursday, 9th March, 1989

at the

WELSH PRESBYTERIAN CHURCH HALL

320 LATROBE STREET, MELBOURNE

PROGRAMME:

- 7.30 p.m. Fern and Book Sales
Spore Bank, Library Loans
Special Effort Ticket Sales
- 8.00 p.m. February General Meeting
- 8.30 p.m. Talk by Betty Allgood
- 9.30 p.m. Fern Pathology and Identification Table.
Special Effort.
- 9.45 p.m. Supper.
- 10.00 p.m. Close



Excursion to Wilson's Promontory

We have booked accommodation for 36 people in the lodge at Tidal River. The bus departs Friday morning, 18th May and returns Sunday evening 21st May.

The Prom provides a number of excellent walking tracks, abundant in ferns, native birds and animals.

The cost, including meals, accommodation and transport is \$120 per person.

As we have a limit of 36 places, please forward your cheque as early as possible to avoid disappointment.

I wish to make a booking for the excursion to Wilson's Promontory, 18th-21st may, 1989. Please find enclosed my Cheque for \$120.

Name
Address
.....

To: The Treasurer, Fern Society of Victoria,
P.O. Box 45, Heidelberg West, Victoria, 3081

Speaker's Report - February Meeting

"Ferns and Fern Allies" by Doug Thomas

Our guest speaker, Doug Thomas, again proved his wonderful ability, when he presented, "Ferns and Fern Allies", a repeat of a lecture previously given at a Council of Adult Education Course. Doug has conducted this course twice a year for the past several years and all present were soon aware why he was chosen.

Slides illustrating the following segments very clearly complemented the lecture:

Recognition of ferns

Almost without exception, ferns are characterized by their possession of croziers, which is the first stage of new fronds. Young fronds are also generally protected by hairs or scales.

Fern numbers worldwide

There are some 10-12,000 species of ferns around the world, with at least 107 genera and 350 species in Australia.

Distribution in Australia

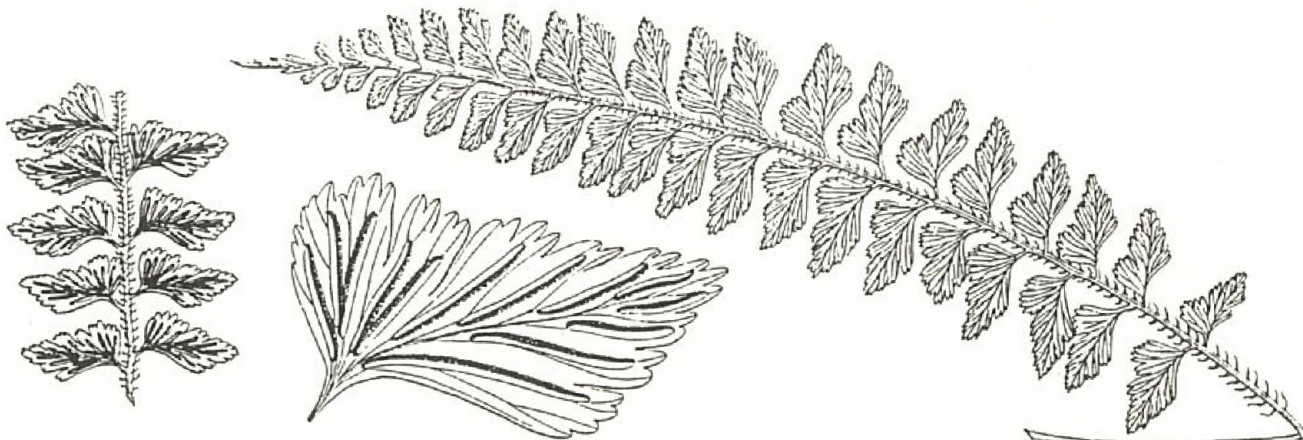
Ferns show their greatest numbers and diversity in the tropical rainforests of Queensland. There are also well represented in South-Eastern Australia, but poorly developed in S.A. and in W.A.

Reproduction

Reproduction is by spores, which are tiny structures, readily dispersed by the wind and by water. They require water to develop into the stage, most of us recognize as "a fern". Many ferns can also reproduce by vegetative means, for example, by off-shoots, runners and bulbils.

Cultivation

Ferns generally need cool, sheltered positions but some are very hardy, e.g. *Polystichum proliferum*, *Blechnum cartilagenum* and *Culcita dubia*. All need plenty of water during dry periods, with hot northerly winds in southern Australia capable of causing considerable damage. Ferns prefer to be planted together and are greatly assisted by a mulch to keep their roots moist and cool. Tropical ferns are often very frost-sensitive. Though not needing heavy fertilizing, light applications of blood and bone, well-rotted cow manure, Maxicrop or Nitrosol are beneficial.



Propagation from spore

Spores can be sown in a mixture of peat moss, tree fern fibre and gravel. Sterilize the container once with a solution of dilute liquid bleach (eg White King) and then with a 2 cm deep layer of the sowing medium in it, the container is sterilized again with boiling water. After cooling, sow the spores thinly and place in a polystyrene fruit box with a sheet of glass or plastic over the top. A well-lit place (not direct sun) will aid germination.

Vegetative propagation

Some ferns can be layered by pegging down bulbils with a homemade staple and can be severed from the parent plant in a few weeks. Many ferns can be divided, as they have creeping rhizomes, for example, *Culcita dubia*, *Dennsteadtia*, *Davallia*, *Nephrolepis* and *Adiantum*.

Interesting groups of ferns

Doug showed slides of numerous unusual and interesting ferns, the first being, *Pneumatopteris pennigera*, the lime fern. We usually find the lime fern in moist gullies beside a creek running over limestone. Although such area should be ideal for the growth of tree ferns, they are acid-loving ferns and hence, are not found in association with the lime fern.

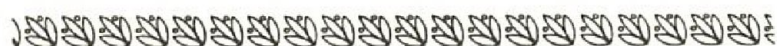
Ampelopteris prolifera, growing in the Carnarvon Gorge, forms gemmiferous bulbils along the rhachis in the axils of the pinnae. In time these form plantlets and take root so that this fern will develop into large colonies.

Other ferns discussed were *Azolla*, which grows on the surface of ponds and streams and proliferates by breaking off to form new plantlets. An *Athyrium* cultivar, with an interesting pattern of crossed pinnae was also shown. This was first discovered during the fern craze of the last century and named after Queen Victoria. Slides of *Anogramma leptophylla*, the annual fern and *Pyrossia confluens*, sometimes called the robber fern, were used to illustrate the diversity of fern morphology and habit.

Cyclosorus interruptus, the only Australian *Cyclosorus*, is a hardy fern; its rhizomes were roasted and used as a food source by aborigines. The sporocarps of *Marsilea drummondii*, commonly called nardoo, were also collected by aborigines, ground into flour to form a nutritious food. During the expeditions of Bourke and Wills into the central Australia last century, Grey, who was the only member to survive, was given such food by the natives.

Slides of *Platyserium superbum*, growing on a rock, and *P. bifurcatum*, growing on a native grass tree, illustrate that spore will germinate and grow wherever the conditions are suitable.

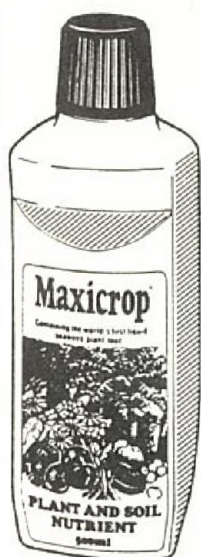
Fern allies were also featured, with slides of *Lycopodium myrtifolium*, the long clubmoss, *L. fastigiatum*, the mountain clubmoss and *L. deuterodensum*, the bushy clubmoss. These concluded a very interesting lecture. Keith Hutchinson moved a vote of thanks which was enthusiastically supported by all present.



room air inside the container in order to start acclimatizing the prothallia to room conditions. If it is easier, small holes can be cut into the top of the container and these will serve the same purpose. Now I occasionally mist the prothallia to encourage fertilization. If the prothallia are covering the "soil" surface too thickly, which inhibits proper development of the sporelings, I remove some with tweezers.

When sporelings have one or two true leaves I gradually acclimatize the plants to drier conditions, still leaving them in the original Plantcon container. I remove the top of the container completely and have the bottom containing the ferns in a large propagation box, similar to a Wardian Case. In here I have numerous species in various stages of growth. As the plants grow larger they are removed from the Plantcon and transplanted in patches to small pots filled with Pro-Mix. These are still kept in the propagation box under fluorescent lights until they are large enough to go outside to cold frame or unheated glasshouse. Here they go through a final acclimatization before being planted outside in my garden.

I like this method of spore sowing because I can do any number of sowings easily. Once the spore is sown, everything is left alone for at least two months as the prothallia develop and grow. After that it is merely a question of acclimatizing the prothallia and young sporelings to room conditions. Currently, I have prothallia of *Dryopteris cristata* and *Osmunda regalis* growing in my propagation box. The spore was sown in August of 1988 and I am hoping to have small plants to put in my garden by next August. Also there are young sporophytes of *Anemia adiantifolia* grown from spore collected in Puerto Rico. These tropical ferns won't go in my garden Chicago, of course, but will eventually find homes in local greenhouses and conservatories. I just enjoy watching the development from spore to young sporophyte, even if I don't keep the adult ferns.



Maxicrop

"Goodness from the sea"

- * Contains over 60 elements and minerals
- * Safe and easy to use.
- * Made from fresh growing seaweed.
- * Ideally suited for ferns
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SOCIETY NEWS:

* Talks by Society Members:

It would be appreciated if members who give talks, speeches, demonstrations etc, on behalf of the Fern Society of Victoria, give details of the occasion (date, group/club, topic etc) to the Secretary, Bernadette Blackstock. We are trying to keep a record of the amount of work and goodwill members accomplish.

All requests for speakers should be sent, in writing, to the Secretary.

* Book Orders:

Derek Griffiths, Ph: (03)336 3157, has taken over all book sales for the Society. Derek will promptly process all order sent directly to him at 8 Susan Court, East Keilor, Victoria, 3157. There have been substantial recent increases in postage (especially to overseas), so please dont forget to add sufficient for postage and packing.

* New Member:

A special welcome to David White of Heidelberg West, who has recently joined the Society.

* Additions to the Library:

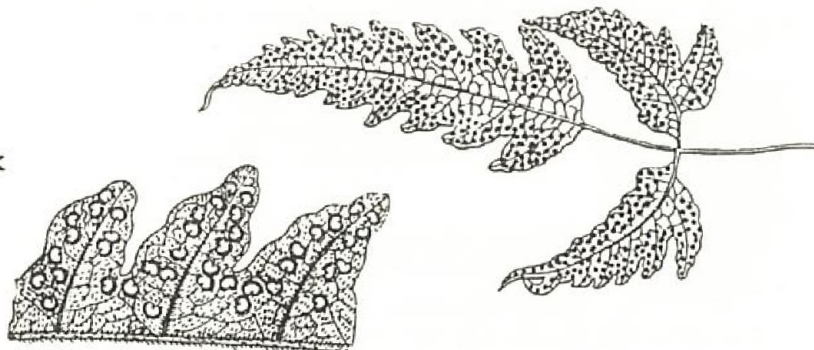
The following new arrivals to the library are now available for monthly loan at each meeting:

- * Fern Society of South Australia Newsletter, No.93, Nov. 1988 and No. 94, Jan. 1989.
- * South Florida Fern Society Bulletin, 16(10), Dec. 1988.
- * Journal of Los Angeles Internat. Fern Soc., 16(1), Dec. 1988.
- * S.G.A.P. Fern Study Group Newsletter, No.43, Dec. 1988
- * Fern Society of Western Australia Newsletter, Dec. 1988.
- * Nelson Fern Society, N.Z., Newsletter, May-Aug. and Aug-Nov., 1988.
- * Gardening News, 8(6), Dec. 1988 - Jan. 1989.

* Special Effort:

Winners of the Special Effort with ferns most generously donated by Reg Siebel were:

Karen Young
Margaret Radley
Terry Turney
Mary Paterson
Bernadette Blackstock
Norma Hodges
Renee Shiels



SPORE BANK:

Ordering: The following spore will be sent free to those who donate spore. Otherwise, members - 20 cents each, non-members - 50 cents Available at meetings or by mail (please add \$1.00 for p. & p.) from Barry White, 24 Ruby Street, West Essendon, Victoria, 3040 (Ph: 337 9793). There is no charge for overseas requests, but to cover postage, 2 International Reply Coupons would be appreciated.

ADIANTUM raddianum 'Crested majus'	3/87
ADIANTUM raddianum 'Gracillimum'	3/87
ADIANTUM raddianum 'Grandiceps'	3/87
ADIANTUM raddianum 'Grossum'	3/87
AGLAOMORPHA heraclea	6/87
ARACHNIODES foliosa	10/88
ASPLENIUM bulbiferum (native)	1/87
ASPLENIUM sp.(nidus? W. Irian)	/87
ATHYRIUM schimperi	3/87
BELVISIA platyrynches	6/87
BLECHNUM capense	10/88
BLECHNUM discolor	8/88
BLECHNUM fluviatile	3/87
BLECHNUM gibbum	4/88
BLECHNUM punctulatum	5/88
CHRISTELLA guenziana	10/88
CYATHEA australis	4/88
CYATHEA cooperi	3/87
CYATHEA dealbata	6/88
CYATHEA medullaris	3/87
CYATHEA vieillardii(New Cal)	4/88
CYRTOMIUM falcatum	3/87
DICKSONIA antarctica	2/87
DIPLAZIUM australe	3/87
DOODIA maxima	2/89
DORYOPTERIS pedata	2/87
DRYOPTERIS affinis 'polydactyla'	/87
DRYOPTERIS dilatata 'lepidota'	2/87
DRYOPTERIS erythrosora	3/87
DRYOPTERIS inequalis	4/87
HYPOLEPIS rugosula	3/87
LASTREOPSIS acuminata	6/88
LUNATHYRIUM japonicum	4/87
MICROLEPIA strigosa	2/87
MICROSORIUM scandens	2/89
PELLAEA rotundifolia	2/87
PHYLLITIS scolopendrium (small)	/87
PLATYCERIUM sp. (Timor)	/87
PLATYCERIUM willinkii 'payton'	/87
PLATYCERIUM bifurcatum	3/87
POLYSTICHUM echinatum	2/87
POLYSTICHUM formosum	3/87
POLYSTICHUM munitum	4/88
PTERIS cretica 'parkerii'	3/87
PTERIS hendersonii	2/89
PTERIS quadriaurita 'argyraea'	3/87
PTERIS semipinnata	2/89
PTERIS tremula	3/87
PTERIS tricolor	3/87
PTERIS vittata	3/87
PTERIS wallichiana	2/88
RUMOHRA adiantiformis (cape form)	3/87
THELYPTERIS patens var. lepida	2/89
UNKNOWN sp. (China)	/87

FRESH SPORE IS URGENTLY NEEDED - EVEN COMMON VICTORIAN SPECIES
PLEASE HELP WITH YOUR DONATIONS TO BARRY WHITE

BUYER'S GUIDE TO FERN NURSERIES:

Victoria

- * Allans Flat Plant Farm - Retail.
Tomkins Lane, Allans Flat, 3691, Ph:(060) 27 1375.
(25Km south of Wodonga on the Yackandandah Road)
Specializing in ferns and indoor plants. Open daily, except
Wednesdays, and all public holidays.
- * Austral Ferns - Wholesale Propagators. Ph:(052) 82 3084.
Specializing in supplying retail nurseries with a wide range of
hardy ferns - no tubes.
- * Beasley's Nursery - Retail.
195 Warrandyte Road, Doncaster East, 3109.
Ph:(03) 844 3355.
- * Cool Waters Fern Nursery - Wholesale Fern Propagators.
Beech Forest, 3237, Ph:(052) 37 3283.
Specializing in cool climate native ferns.
- * Fern Acres Nursery - Retail.
Kinglake West, 3757, Ph:(057) 86 5481.
(On main road, opposite Kinglake West Primary School).
Specializing in stags, elks and birdsnest ferns.
- * "Fern Glen" - Wholesale and Retail. Visitors welcome.
Garfield North, 3814, Ph:(056) 29 2375.
- * R. & M. Fletcher's Fern Nursery - Retail.
62 Walker Road, Seville, 3139, Ph:(059) 64 4680.
(Look for sign on Warburton Highway, 300m east of Seville Shopping
Centre. Closed Tues. except on public holidays).
- * Mt Evelyn Fern Centre - Retail.
63 York Road, Mt. Evelyn, 3796, Ph:(03) 736 1729.
Mail orders welcome.
- * Ridge Road Fernery - Wholesale and Retail.
Weeaprounah, 3237, Ph:(052) 35 9383.
Specializing in Otway native ferns.

New South Wales

- * Jim & Beryl Geekie Fern Nursery - Retail.
6 Nelson Street, Thornleigh, 2120, Ph:(02) 484 2684.
By appointment.
- * Marley's Ferns - Retail.
5 Seaview Street, Mt. Kuring-gai, 2080, Ph:(02) 457 9168.

Queensland

- * Moran's Highway Nursery - Wholesale and Retail.
P.O. Box 467, Woombye, 4559, Ph:(071) 42 1613.
(1Km north of Big Pineapple. Turn right into Kell Road).



Growing Ferns From Spore - Chicago Style

by Sue Yamins, Chicago, Illinois, U.S.A.

Living in Chicago, where temperatures can drop to -25° F (a bitter -32° C) and can rise to above 100° F (38° C) in summer, presents a challenge to the fern grower. Although I travel to all climates to view ferns in habitat, I concentrate on growing ferns at home which will survive Chicago's climate. I find that many plants do better in the garden if grown from spore rather than purchased or collected in the field and transplanted to the garden as adults. I thought members of the Fern Society of Victoria would be interested in my spore growing methods. Although I use specific materials, I think this method is simple, usually successful and can be adapted to materials which are readily available.

I start with containers called Plantcons made by Flow Laboratories. These are normally used for tissue culture and growing plants in agar. The bottom is about 10 cm on each side and about 2-3 cm deep. the top snaps onto the bottom, can be reopened, and is about 10 cm tall. I fill the bottom with a commercial soilless mix, called Pro-Mix-BX. Before filling, the mix is thoroughly moistened (wet enough to sow spores but not too soggy) using regular warm tap water. I don't find it necessary to use distilled or deionized water. Many soilless mixes would probably be fine to use; the important point being that they do not contain topsoil and are composed of relatively sterile ingredients, such as, sphagnum peat moss, vermiculite or perlite.

Next, I snap on the container in place and use my microwave oven to sterilize the inside of the container and the Pro-Mix. I "cook" the container and contents for 55 seconds on the highest power. If your microwave doesn't have a turntable, it's probably a good idea to stop the process half way through and turn the container 180 degrees. Its important that the soilless mix be quite moist because it is the heated water that does the sterilizing. I always put a paper plate or towel under the container in case I make a mistake and the container starts to melt. That way its it's easy to clean up a mess!

Once the container has been heated, I set it aside for a few hours to cool. When it reaches room temperature I carefully lift off the top and quickly sow clean spores, distributing them as evenly as possible over the "soil". I settle The spores onto the surface with a light misting of regular tap water. The top is snapped back in place again and the container is labelled and put under fluorescent lights that are on for 15 hour a day. If, after a day or two, there is too much moisture condensed out on the inside of the container, I remove the top and shake out the excess water in it and then put it back in place. (Excess water encourages algal growth).

Generally, I see the start of prothallia within a month. The container is left closed and undisturbed until the prothallia are larger. When they are approximately 3/16" (4-5 mm) across, the top of the container is opened and put back on loosely. This is done in a manner which allows a little bit of