

# Salvia News

NUMBER 70



Official Newsletter of the  
**Victorian Salvia Study Group**

[www.salvias.org.au](http://www.salvias.org.au)

Summer 2017/2018

# **THE VICTORIAN SALVIA STUDY GROUP**

A BRANCH OF THE HERB SOCIETY OF VICTORIA INC.

## **THE AIMS OF THE SALVIA STUDY GROUP ARE;**

1. To grow and collect Salvias for the purpose of enjoyment and study
2. Promote and encourage the growing of Salvias
3. Correctly name existing and new salvias
4. Maintain our Display Garden at Nobelius Heritage Park for the Group and the general public
5. Manage our website and Facebook page

The Group is a Not for Profit Organisation. Any monies received are used to run the Group's activities and for the planting and maintenance of our GPCAA (Garden Plants Conservation Association of Australia) registered garden collection. ('Plants Trust' has been a shortened, more comprehensive name for the GPCAAA and has been used for quite a while now).

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ALL copy must be received on or preferably prior to copy deadline.  
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**Please post your copy to:**

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# SALVIA NEWS

**VICTORIAN SALVIA STUDY GROUP**  
Website: [www.salvias.org.au](http://www.salvias.org.au)

Welcome to the latest edition of *Salvia News*, our Summer edition No 70! It's a bumper 24 pages and includes many photos.

It's hard to believe that another year has almost past. Norman and I have been here in Temora New South Wales for a year. Sometime prior to our moving here Temora had won an award for 'the friendliest town' and it doesn't take long to understand why. It's much colder with heavy frosts, and much warmer too than Pakenham in Victoria.. Luckily our plant losses have been very few. It's a great learning curve that no matter how many may have warned us, it has to be experienced to really understand. We are finally fenced, much of the garden has been completed. Now it's a waiting period for some growth and to decide what is needed to fill the gaps. New trees and shrubs, roses, iris including bearded iris, bulbs, and of course many salvias are starting to fill out and put on a show. We have fruit trees, a veggie patch, a new hot house/green house where tomatoes, - first fruit on the tomatoes appeared 17 October - and other salad and veggie seeds are growing. I also start off my salvia cuttings in there too so that they start to root very quickly. This is a fruit fly area and we need to be vigilant in netting, or other precautions together with ongoing maintenance to ensure we aren't part of the problem. I will share more next issue including some photos.

After my computer died, I am pleased to share that there is a new computer, a present from my hubbie, with new software and a new email address for sending your news and views. normbeth13@gmail.com  
Hope to hear from you soon.

We are saddened to have to share with you the loss of two of our Founding members, Ray Boatman and Bill Whitehead, two very special people who will be very much missed. Memories are shared on pages 8-11.

This edition also includes Summer News from Gruyere by Meg Bentley, *Salvia News* from South East Queensland, this edition is by Lynne Mc Allister.

Pat Anderson has a special article on 'Last Chance to Buy Salvias' an in depth discussion well worth a read, commencing on page 12.

You will also find articles regarding events attended, and Christmas Gift Ideas.

VSSG comes under the umbrella of the Herb Society of Victoria which is an incorporated body. VSSG submits a Profit & Loss Statement annually as part of their audit, a copy of this years is on page 22 for your information.

Our 70th edition of *Salvia News*, hope you enjoy. Would love to hear your views on *Salvia News*, or anything else that may interest *Salvia* enthusiasts.

Don't forget the Group Christmas Luncheon on Sunday 3 December at the home of Fiona Williams, in Warrandyte. Check the Calendar of Events page for more details.

The 'Silly Season' is just around the corner. Wishing you all a safe and happy holiday season and especially ..... a very Merry Christmas and Happy New Year.

Christmas Cheer,  
Beth Gilchrist

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**COPY DEADLINE FOR NEXT EDITION  
SALVIA NEWS**  
**No 71 Autumn 2018 edition**  
**17 January 2018**  
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*Remember to check the website regularly for any changes and additional information.  
[www.salvias.org.au](http://www.salvias.org.au)*

Take your plant lists to events or email your list to Lyndi prior to the event to ensure you don't miss out. Should you have any queries, phone Lyndi Garnett, VSSG Co-ordinator on 03 9803 4534 or email [lgarnett844@gmail.com](mailto:lgarnett844@gmail.com)

In addition to events open to the public, on the website under *Calendar of Events*, you will find Garden Clubs where Lyndi Garnett is speaking and a contact number for further information.

November 19, Sunday midday

## ANNUAL SALVIA PLANTS AT NOBELIUS 12PM

## Nobelius Heritage Park, Emerald

Crighton Rd, Emerald Mel: 127 G4  
under the Puffing Billy Train Line

Not to be missed, the VSSG *huge* end of year sale.

Hurry be early, grab those bargains, until stocks run out.

Salvia plants, books and seed will be for sale.

Bring your list, bring plants to be identified. If ever there was a time to email Lyndi prior to an event to avoid disappointment, this is it!

Email: [lgarnett844@gmail.com](mailto:lgarnett844@gmail.com)

December 3, Sunday 11am

## CHRISTMAS LUNCH

65 Glynns Rd, North Warrandyte

This year's VSSG Christmas Luncheon is to be held at Fiona Williams (our publicity officer's) magnificent country garden.

Bring a Christmas plate to share and a chair. Join in all the festivities of the season. Please ensure you let Fiona know you are coming. Let's all celebrate the Season and the VSSG end of year . Its always a great day and you will enjoy this special garden.

Phone Fiona if coming . Ph 0417323785

*We wish everyone  
a Joyous Christmas Season  
And a safe and  
Happy New Year!*



# Summer 2017 Notes from Gruyere

Meg Bentley, Gruyere, Vic

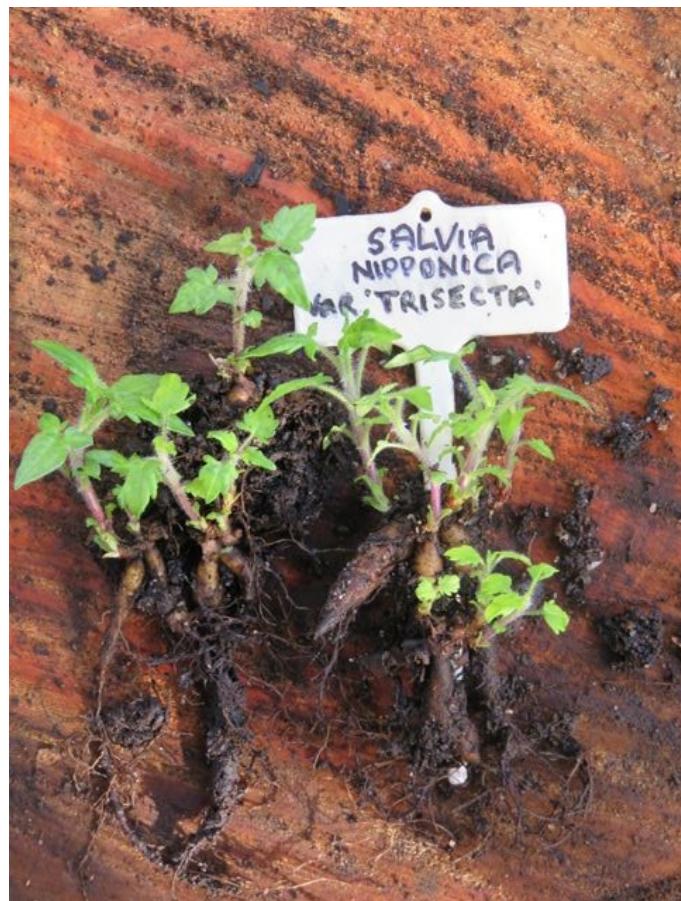
Summer is fast approaching as I write, watering both pots and new garden plants has been on the go for a few weeks as we await a good rainfall. The garden this spring has been a joy and filled with many fragrances from both bulbs and flowering shrubs. Salvias of course usually take their time to bloom here in Gruyere and don't start until Spring rolls into Summer, however, that is never a problem when it spreads the joy of viewing all the flowers at various times of blooming.

I guess many folk have been frequenting all the plant fairs and rare plant sales this past Spring, as have I and as usual I am always on the lookout for anything in the Lamiaceae plant family. Years ago I obtained seed of *Salvia viridis* also called *Salvia horminum*. These two names seem to be interchanged on and off from the early years of growing salvias and can be found in old garden books.

*Salvia viridis – horminum* is only an annual and produces coloured 'tufts' at the tips of the flowering stems. The flowers come in colours of blue, pink or white and are quite small, they emerge from the stems – rather tucked in and not prominent, unlike the colourful 'tufts' produced at the top of the flowering stems, rather like wings and each colour of course represents the colour of the flowers. The leaves are a dull green and since the plant is small and low growing it needs to be planted in abundance to show off the display of 'tufts' in the Spring.

The interesting thing I found was the name *Salvia horminum*, especially when I bought a plant called *Horminum pyrenaicum* which has delightful green foliage and light purple two-lipped flowers. So I looked up my garden books and found it was also a member of the family Lamiaceae. This made me wonder if in the early days of finding and naming plants whether a name is put to the plant on written descriptions alone, thinking that it is the one described – or is it named so because it is a 'look-alike' of the actual described plant. One asks was the name *Salvia horminum* dropped in favour of 'viridis'? In any case the annual *Salvia viridis* does look good massed planted and the lovely, low growing perennial *Horminum pyrenaicum* is a delight at all times, both in flower and foliage, adding colour in a lightly shaded position. It would look great planted with *Salvia koyamae* and *Salvia nipponica* 'Fuji Snow' or even *Salvia nipponica* var trisecta.

Speaking of *Salvia nipponica* var trisecta, another very interesting plant and not commonly planted since it is slow and very low growing. I decided to repot my plant, it had been in the same pot for a few years and wanted to give it a 'fresh' start to Spring. As you know I have been following up on the roots and tubers of salvia plants (last Salvia News I wrote about the tubers of *Salvia stolonifera*). Well, I was quite amazed to see tubers under every section of new shoots of the *Salvia nipponica* var trisecta and it had tubers almost as long as the stem growth itself. Having divided the plant I will now try a few parts of the division out into the garden, in a shaded position and with a good compost-leafmould soil and gravel around the top to stop slugs eating the foliage. There may be a chance it will grow bigger than when I had growing in a pot...a bonsai pot at that! I shall keep you informed.



# **Salvia News**

## **Victorian Salvia Study Group**

A branch of the Herb Society of Victoria Inc.

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# Salvias in southeast Queensland

Lynn McAllister

Hello everyone and welcome to salvia gardening, during the extended dry in southeast Queensland. I do hope your salvias are springing into bloom, wherever you are. At last, this week we have welcome rain in my southeast Queensland suburban garden. This is our first rain, 15 beautiful mm, since early July. My garden diary tells me it was even drier here in 1986, but back then I had little garden, a few precious trees, and no salvias. Since 2010, I have been working towards a cottage garden, and I do get a little over-excited when it rains. We have town water but I find, while it keeps the plants alive in most cases, they do not thrive without the rain. Perhaps this is due to the chlorine, which must have a detrimental effect on soil biota, although I haven't seen this mentioned in the gardening magazines. For the last few years, I also use a Greywater Gator [purple wheelie bin and pump set-up] which collects and distributes the shower, bath and laundry water onto the garden. The process demanded a move to gentle cleaning products, and has proven a time and money saver, so far with no obvious negative effects on the garden.

Even with the very dry and quite warm winter (minimum here 9C and it would normally get down to 6C or 7C, at least twice), the winter-flowerers have performed very well where they have received a weekly bucketful. *Salvia madrensis* is always a winter stand-out, making a lovely show this winter, with *Salvia* 'Amistad' and 'Purple Majesty' along the front fence. These two tall, bright purple salvias didn't even slow down during the cooler weather. They will get a piecemeal prune, with a third of the stems shortened and the rest left to complement *S. 'Waverly'*, which is just coming into flower. 'Waverly' has been a great dry weather performer here, surviving on irregular watering and then bursting into flower suddenly two weeks ago, presaging the welcome rain. *Salvia involucrata x karwinskii* 'Winter Lipstick' with its luscious, fat spikes of deep pink flowers reaches 3 metres and usually flowers reliably for a long period, in both sunny and semi-shaded positions. I am blaming the dry weather, for the recent very patchy flowers, with no flowers at all since mid-September. This salvia is also known as 'Romantic Rose' which I saw towering to at least 5 metres at Nobelius Heritage Garden just a couple of weeks ago. I'm guessing my 'shorter Winter Lipstick' is probably 'Timboon' which also does well, rain, hail or drought! Info online tells me that *Salvia* 'Josh' is a summer flowerer and should die down in winter. Well, not in my garden (perhaps it's a visitor and not 'Josh' as labelled) where he has been adding lovely flashes of clear light red all winter, whether watered or neglected. He's a champion performer.

The *Salvia microphylla* hybrids have suffered most, with quite a few succumbing back in August. 'San Carlos Festival', 'Edna Harding' Heatwave 'Blaze', and Penny's Smile' have been the most forgiving, but they are all looking very sparse and not flowering. Fortunately, as I have these dotted around the yard, I will be able to take cuttings and fill the empty spaces. The upside of these tough times is motivation to re-work sections of the yard and add a few more varieties to the family. The recent, locally bred release, *Salvia* 'Cupie Doll' a gorgeous pale pink with cream splash which really does look just like its namesake, will certainly have a home in the new bed. There is more rain forecast for October. I feel a 'nursery crawl' in the offing. 'Til next time.



## **Vale 'Ray Boatman'**

### **26.8.1929 – 24.8.2017**



It is with much sorrow that one of our founding members has suddenly died.

It was Ray with the help of Bill Whitehead who instigated the beginning of our Group. It was Ray who placed the ad in *Herb Age* all those years ago asking for people who were interested in growing *Salvias* to attend a meeting at Trudi Fry's home.

It was Ray through his friendship with Guss (the curator of the Emerald Museum) who allowed Ray to create a small plot for trialling and growing *Salvias* with the idea of studying their growth habits.

It was Ray who thought of our title – *Salvia Study Group* (Victorian came later).

It was Ray who drew up a plan for the garden, mapped it out, dug it out, planted it out with what we had at that time and maintained the plot.

Ray would either walk from Belgrave or catch the Emerald train, each time carrying whatever implements that he needed for the day, whether they be a spade, rake or even a hose – he would carry them there and back again after a long days' work!.

Although not as active in recent years Ray would constantly promote *Salvias* and herbs, herbs and *Salvias*; to everyone he spoke to, they were his passions. Ray planted his home garden with *Salvias*, always propagating and planting them in various community gardens and giving them to all his friends and family.

It was always a pleasure to see Ray at our Christmas Lunch, always contributing a delicious plate of something of his own making.

Thankyou Ray for all your help, expertise, your knowledge and your friendship over the years.

It was wonderful to have known you. You will be missed.

*Lyndi Garnett*  
*Photos: Patrick Hogan*

# ‘Ray Boatman’ MEMORIES *photos Patrick Hogan*



# Vale 'Bill Whitehead'

**26.06.1916 – 22.09.2017**



It is with much sadness that another of our founding members has died.

It was Bill with the help of Ray Boatman who instigated the beginning of our Group.

Bill asked Ray Boatman to place an ad in the *Herb Age* asking for people who might be interested in growing *Salvias* to come to a meeting. Bill was the then rep of the OPCA (Ornamental Plant Collections Association).

Here we were around Trudi Fry's big round table and a little old man was telling us about conserving collections, next to a very tall slender man advocating that we should grow and collect *Salvias*, that *Salvias* were a worthwhile collection to be conserved. We were all in awe of Bill's collection of approximately 12- 20 *Salvias* as most of us had no idea that so many existed. At the time I thought I had quite a few – I had 4 known *Salvias*.

Bill was very passionate about his *Salvias*, especially *S. leucantha* (Mexican Sage) He knew that the species was purple and white, and he thought that the ordinary purple form should have a hybrid name, but unfortunately nothing ever came of his campaign for this ordinary *Salvia* to be named. But to his surprise, some years later a new form of *S. mexicana* has been named after Bill – *Salvia 'Bill Whitehead'*. This *Salvia* was presented to him at Trudi Fry's 80<sup>th</sup> birthday.



Bill was passionate about herbs, *Salvias* and Tai Chi. He was a founding member of the Geelong Herb Society and was their president for many years.

About 1990, he resigned from the President's position but remained an active member. He also decided to donate his *Salvia* collection to the Geelong Botanical Gardens. His plant collection still forms part of the garden outside the gates of the Botanical Gardens

# **Vale 'Bill Whitehead'**

**26.06.1916 – 22.09.2017**

Whenever the group came down to visit Geelong Botanical Gardens, we would always visit Bill and partake of some of Shirley's wonderful curry puffs and walk around Bill's small back yard, examining Bill's herbs and extolling how wonderful his herb garden was. Bill loved growing unusual herbs, plants like Woad, Summer Savoury, Southernwood and a good Oxalis collection..

With the help of Des Lawrence, ( head gardener of the Salvia Collection at the Geelong Botanic Gardens ) Bill was able to stay in touch with what was happening with the group. Des brought Bill up to Nobelius on numerous occasions, armed with his secateurs, wanting only to help and be part of the team maintaining his precious Salvia Collection.

Although Bill wasn't able to make the journey up to Melbourne in the last few years, we still kept in touch through his Birthday cards, his beautifully hand written letters, always extolling his S. leucantha. Graham Ellis visited Bill quite often, taking him to lunch (which he loved, especially as he was able to have a beer) and visiting the Geelong Botanical Gardens to see his beloved Salvia Collection.

Sadly his Shirley was taken ill and died. He missed her dreadfully as a companion and soul mate. He looked forward to his visits from Graham.



Bill had a wonderful 100<sup>th</sup> Birthday, coming up to the Herb Society meeting, where we all had a wonderful time celebrating with him. Colline Muir made a magnificent Cake in his honour. Bill took great pleasure in cutting his 100<sup>th</sup> birthday cake, giggling and laughing as the night wore on. Bill stole the show with his infectious smile and giggling, everyone was in raptures the whole night with Bill being the Star.!

Bill was a wonderful person, with a ready smile, always generous with his knowledge and eager to give and share plants.

Wonderful memories for someone so special.

*Lyndi Garnett*

*Photos: Patrick Hogan*

*Birthday photos: Lyndi Garnett*

## ***LIKE US ON FACEBOOK .....***

Check out the Salvia Study Group on Facebook.  
Thanks to Patrick Hogan, VSSG is now on Facebook.  
Any queries Patrick can be contacted by emailing;  
***patrick.hogan@optusnet.com***

# VSSG Visit to Geelong Botanic Gardens August 2017

By Patrick Hogan

A very enjoyable Sunday outing was had by all who attended the Salvia Study Group visit to Geelong Botanic Gardens. Despite some inclement weather predicted – we had a very enjoyable day and not a drop of rain. For

anyone who is not familiar with Geelong Botanic Gardens – they have a very fine collection of Salvias and is well worth a visit. There was a great display of winter flowering salvias and a few photographs will give you some idea of just what was in bloom. Lyndi and Jillian took several notes and I believe will give a helping hand to the Geelong volunteers in the art of pruning Salvias at a later date.



A delightful lunch was available at the garden tea rooms and afternoon tea was also available after touring the gardens

In a cool and quiet part of the Geelong Botanic Gardens, you will see some distinctive **Japanese bronze sculptures** which were brought to Geelong in the 1870's for the owner of the St Albans Stud.

I always enjoy visiting Geelong Botanic Gardens and my two favourite plants would have to be the Dragon Tree (*Dracaena draco*) at the entrance and the Queensland Kauri (*Agathis robusta*) at the entrance to the Main garden – just below the Rose garden.



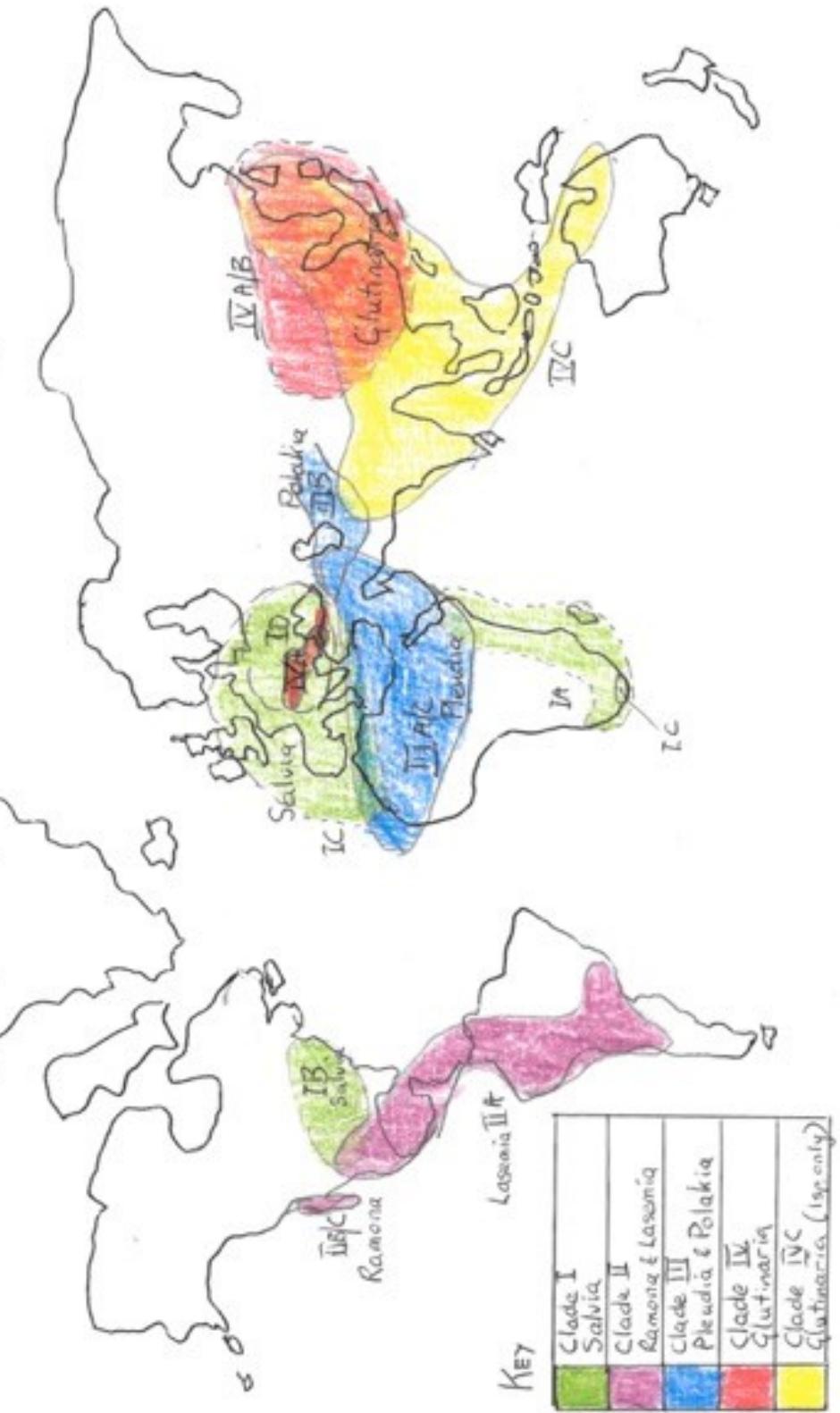
The Dragon Tree at the Gardens was planted in 1850 by the first Curator and was moved from its original position outside the gardens to its present location in more recent times.

The Queensland Kauri is most unusual as it has leaves growing directly on its trunk and is in fact a conifer.

To complete the day we were entertained by a colony of fruit bats – just behind the gardens. A great day out and always well worth a visit.



Figure 1. Proposed new genera for the 900+ species, formerly known as *Salvia* (compiled from maps in Will and Cleven-Bockhoff, 2017)



# Last chance to buy salvias!!!

*Pat Anderson (Sept ember 2017) Warrandyte Vic*

*Salvia* is one of the largest genera in the world, with more than 900 known species. When a genus is as large as this, it is usually inevitable that, sooner or later, it will be split by botanists, who spend their lives working at such things. In a previous issue of *Salvia News*, I reported some botanical research at the molecular level which demonstrated that there was potential to split the genus *Salvia* 3 or even 4 ways. More recent research conducted in Mainz, using a much larger sample of plants, especially including more from the Old World, has provided more compelling reasons for splitting the genus.

In the 19<sup>th</sup> century, the only way of describing plants, and subsequently grouping them, was by their visual characteristics. By comparing various attributes such as corolla, calyx, stamens, seed arrangements etc, plants were grouped at various levels. In this way, a large family of plants, the *Lamiaceae* (the so-called mint family), was described as having a 2-lipped corolla (petal arrangement), square stems, opposite leaves, a style emanating from the base of the ovary and 2 pairs of stamens. *Salvia* stood out as an individual genus within this family based on its 2-lipped calyx and its distinctive stamen arrangement. Unlike the other family members, *Salvia* had only 1 pair of stamens, the second pair being much reduced or non-existent. In many individual species, the remaining pair of stamens had evolved into a lever system to aid pollination.

From an evolutionary perspective, it made a lot of sense to group plants on the basis of their reproductive parts. So, using such features as stamens, ovaries etc, Bentham tried to subdivide the unwieldy genus *Salvia* into 14 groups back in 1830, subsequently reducing this to 12 groups at a later date. It wasn't a perfect subdivision and it wasn't used to split the genus as such, but no one has come up with anything any better, until perhaps much more recently.

Summarising what I wrote previously, new approaches to classifying plants were developed in the 20<sup>th</sup> century. Whereas the 19<sup>th</sup> century classifications were based on morphology alone and were therefore a bit subjective, scientists began to look at much more plant information, such as pollen, chemical components and more recently, genetic information. Powerful electron microscopes and, later on, powerful computers, made it possible to measure and process enormous amounts of data. So all this data could be used to try to determine the evolutionary history of plants, (**phylogeny**) as a way of grouping the plants, and a new, mathematical way to determine phylogenetic trees was developed, called **cladistics**. Cladistics is basically a process whereby a large amount of information for a group of plants is fed into a computer program, whether that information is morphological or molecular, to generate a set of tree-like diagrams, with branches indicating relationships, from which the most appropriate one is selected. The most appropriate tree is deemed to be the one that is arrived at by the least number of processing steps. Statistical measures are assigned to the branches of this tree and tell us how well the branches fit the data. In other words, the method is statistical and any results will only be as good as the data used. The branching of the selected tree, particularly if based on genetic information, suggests: a) the grouping of the specific plants under investigation; b) the relationships between the groupings, and c) how they might have evolved.

The work that I described before was undertaken by a group of researchers in Wisconsin and was reported in the *American Journal of Botany* in 2004 (Walker et al). Their aim was to test, at a molecular level, whether *Salvia* has a single origin (ie whether it is **monophyletic**), and how *Salvia* is related to other members of the *Lamiaceae* family. The authors collected genetic data from a total of 112 species, comprising 70 *Salvia* species, (although biased towards the Americas) together with other species from the *Lamiaceae* family, from the sub family *Nepetoideae*. The genetic information used came from chloroplast DNA, as this is inherited from the female parent, is abundant and easy to work with.

*Continued on page 16..*

# Last chance to buy salvias!!! Pat Anderson

.... continued from page 15

From the sample studied, the authors concluded that *Salvia* has evolved in time and space more than once (ie it is **polyphyletic**) and suggested 3 separate lineages of *Salvia* (**Clades**), each related to other genera in the Lamiaceae family. These were:

**Clade I:** mostly Old World species of *Salvia*, but with 1 New World lineage and closely related to *Rosmarinus* and *Perovskia*. Rosemary and Russian Sage)

**Clade II:** all New World species of *Salvia*, such as *S. microphylla*, *S. corrugata*, *mexicana*, *leucantha*, (sub genus *Calosphace*) as well as those species from Californian and Baja California with the strong perfumes and whorled flowers, like *S. clevelandii* (*Audibertia*). Also they appear to be closely related to the genus, *Dorystaechas*

**Clade III:** a possibly independent Asian lineage (species like *S. digitaloides* and *S. hians*)

The results opened up some suggestions for future classification of the huge genus *Salvia*. It was suggested that as the type species for the genus *Salvia* is *Salvia officinalis*, all those other species in the same Clade - i.e. Clade I could remain in *Salvia* (including *Rosmarinus* and *Perovskia*). Clade II could become a separate genus, called maybe *Calosphace*, and might also include the genus *Dorystaechas*.

Since 2004, additional research has repeatedly supported the existence of **Clade II** (the American salvias) as a single evolutionary line (Jenks et al 2013, Walker and Sytsma, 2007, Walker and Sytsma 2015). Now, very recently (Will and Classen-Bockoff, 2017), collaborating in this work, have conducted extensive molecular studies on numerous Old World salvias, while also incorporating some New World species. Their work points to 4 distinct evolutionary lineages of *Salvia*, strongly reflecting geographical distribution.

**More particularly, the authors are proposing that the current large genus known as *Salvia* be split into 6 genera.** The details of this split are shown in \*Table 1 and their geographical spread is shown in a rather rough map herein. The authors aren't ready yet with a finite taxonomic revision and key, but suggest some generic names that could be used now, rather than terms like Clade I and Clade II etc. They believe that the true origin of *Salvia*, in the strict sense, is most likely South West Asia, and as such, the clade in which this occurs (Clade I) should maintain the name *Salvia*, especially as the type species of the genus, *Salvia officinalis*, is embedded within it.

Examples of species that would fall into their new definition of *Salvia* are listed in \*Table 1. They are split into sub groups. Sub groups IC and ID include all the species we loosely talk about as being from the Mediterranean area, South West Asia and Europe. They include *Salvia officinalis* (of course), as well as *S. indica*, *palaestina*, *disermas*, *dominica*, *interrupta*, *ringens*, *recognita*, *candelabrum* and others. Another sub group, IA, includes the S. African species of *S. africana caerulea*, *chamaeleagnea*, *aurita*, *lanceolata*, as well as the ones with verticils of small flowers, like *S. napifolia* and *S. verticillata*. But sub group IB is an anomaly because the few species in this sub group all occur in the southern states of N. America. These include the closely related species of *S. summa*, *roemeriana* and *henryi*, as well as *S. penstemonoides*, *texana*, *engelmannii* and *lyrata*. The big question is, why? This same link to the European salvias was demonstrated in the other molecular analyses already mentioned.

Turning to the rest of the species from the Americas, the authors split these into 2 proposed genera: *Lasemias* and *Ramona*. *Lasemias* includes all the richly colourful and diverse species such as *S. mexicana*, *polystachya*, *splendens*, *guaranitica*, *oxyphora*, *patens*, *microphylla*, *greggii* and many more (nearly 500 in fact, elsewhere referred to as 'Calosphace'). *Ramona* includes all the Californian species otherwise known as 'Audibertia', including *S. clevelandii*, *leucophylla*, *mellifera*, *munzii* and another subgroup with spiny leaves, like *S. funerea* and *graetai*.

The authors split the salvias in Clade III into 2 more genera from North Africa through to S. W. Asia, including a relatively small number of salvias that are unfamiliar to us, namely *S. aegyptica* and *pterocalyx* in the genus *Pleudia*, and *S. aristata* in the genus *Polakia*.

\* Table 1 page 18,19

Figure 1 Map page 14

continued on page 17..

# Last chance to buy salvias!!! *Pat Anderson*

.... *continued from page 16*

The last proposed genus – *Glutinaria* – covers all the Asian salvias that we know, together with *S. glutinosa* that occurs in Europe. Included are a sub group with *S. glutinosa* as the type species: *S. castanea*, *przewalskii*, *trijuga*, *glabrescens*, *nipponica* etc and another sub group with *S. japonica* as the type species, including: *S. chinensis*, *plectranthoides*, *bowleyana*, *miltiorrhiza*. *Salvia plebeia* is put in a sub group all by itself, but as you can see on the map, this is widespread geographically, even including parts of Australia, although its spread there is probably relatively recent in geological terms.

This is certainly the most comprehensive cladistical analysis of *Salvia* at the molecular level yet, and because it has included so many species from the Old World, it builds on the results established earlier by the Wisconsin group, which was biased towards the New World group. The authors are convinced that the results provide the strongest argument yet for splitting the genus *Salvia* on a clade by clade basis, probably into 6 genera.

But..... don't despair, at least not yet. There are a lot of ambiguities to be sorted out before all of this ends up with the International Botanical Congress, where ultimate decisions are made. In fact, since I began to write this article, my attention has been drawn to yet another paper, also published this year, entitled "***Salvia* united: The greatest good for the greatest number**". ". I will report on this in the next issue of *Salvia News*.

Meanwhile, enjoy your salvias and don't stop buying them.

## References:

Jenks, A., Walker, J. B. and Kim, S-C., 2013. *J. Plant Research*: 126 pp 483 – 496. “Phylogeny of New World *Salvia* subgenus *Calosphate* (Lamiaceae) based on cpDNA (*psbA-trnH*) and nrDNA (ITS) sequence data”

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“ Staminal evolution in the genus *Salvia* (Lamiaceae): molecular phylogenetic evidence for multiple origins of the staminal lever”

Will, M. and Classen-Bockoff, R., 2017. *Molecular Phylogenetics and Evolution* 109 pp 33 -58. “Time to split *Salvia* s.l. (Lamiaceae) – New insights from Old World *Salvia* phylogeny”

\* **Table 1:**

*Will and Classen-Bockoff's proposed new genera for the 900+ species formerly known as *Salvia* on Pages 18, 19*

*continued on pages 18 & 19..*

Table I: Will and Classen-Bockoff's proposed new genera for the 900+ species formerly known as *Salvia*

| Proposed Genus      | Clade | Clade sub-division | features  | Examples of species in each proposed genus:  |
|---------------------|-------|--------------------|---|--|
| Salvia              | I     | IA                 | A heterogeneous group<br>Stamens range from levers with fertile lower thecae to reduced ones<br>Restricted to S. Africa & Madagascar<br>Diversity of corolla shape & colour, probably adapted to pollinator diversity | <i>S. repens, namaensis, muiri, scabra, dolomitica, aurita, lanceolata, africana caerulea, somalensis, thermarum, chamaeleagnea,</i><br>And the small-flowered <i>S. napifolia</i> & <i>verticillata</i> |
|                     | IB    |                    | Includes those species in Bentham's section 'Heterophace'<br>From the S. states of N. America   | <i>S. roemeriana, texana, engelmannii, pensimoides, summa, henryi, hybrata</i>   |
|                     | IC    |                    | Stamens with reduced lower lever arm lacking fertile thecae<br>Falcate corollas<br>From SW and Central Asia, Europe and the Canary Islands, with just a few from S. Africa  | <i>S. phlomoides, hypargea, daghestanica, juri-risictii, virgata, canescens, indica, broussonetii, sclarea, palaestina, disermas, dominica, cyaneescens, tingitana</i>                                   |
|                     | ID    |                    | Comprise 3 of Bentham's subgenera/sections<br>Stamens with fertile thecae on the lower arm<br>Some lobed or even compound leaves  | <i>S. officinalis, fruticosa, interrupta, candelabrum, fruticosa, caespitosa, ringens, tomentosa, rosifolia, recognita, pisidica, aucheri,</i>   |
| <i>Rosmarinus</i> & | I     |                    | both very close to <i>Salvia</i> . Should they be included?   |  |
| Dorystaechas        | II    | IIA                | both close to former Section 'Calosphaece'  |  |
| Lasemia             | II    | IIA                | Includes all the New World species formerly in section 'Calosphaece' – ie all those from the Americas excluding the Californian species ( <i>Audibertia</i> ) and those odd ones in IB                                | <i>S. mexicana, polystachya, splendens, guaranitica, oxyphora, microphylla, patens, greggii</i>  |
|                     |       |                    | A very diverse group from S. USA, Central and S. America  |  |
| Ramona              | II    | IB                 | Straight lower lever arm and lacking fertile thecae<br>Equivalent to Bentham's section <i>Audibertia</i><br>Restricted to California and Baja California  | <i>S. funerea</i>  |
|                     |       | IIC                | Equivalent to Bentham's section <i>Audibertia</i><br>Restricted to California and Baja California   | <i>S. mellifera</i>  |

|            |     |                  |  |   |
|------------|-----|------------------|--|---|
| Pleudia    | III | IIIA and<br>IIIC | <i>Pleudia</i> is a recently recognised genus<br>Low growing, branching shrubs, often dwarf<br>Small leaves and flowers<br>Verticillasters with few, short-lived flowers<br>Upper lip of corolla straight<br>Stamens partly exposed<br>Small seeds | <i>S. aegyptica</i><br><i>S. pterocalyx</i>   |
| Polakia    |     | IIIB             | Comparatively large corolla<br>Long pedicels<br>Large, sometimes lobed, compound leaves  | <i>S. aristata</i>  |
| Zhumeria   | III |                  |  |   |
| Lepechinia | IV  | IVA              | Type species is <i>glutinosa</i>   | <i>S. glutinosa</i> , <i>glabrescens</i> , <i>nipponica</i> , <i>casansea</i> , <i>flava</i> , <i>digitaloides</i> , <i>przewalskii</i> , <i>trijuga</i> , <i>evansiana</i> |
| Glutinaria |     | IVB              | Type species is <i>japonica</i>  | <i>S. japonica</i> , <i>lutescens</i> , <i>chinensis</i> , <i>plectranthoides</i> , <i>yunnanensis</i> , <i>miltorrhiza</i> , <i>bowleyana</i>                              |
|            |     | IVC              | One species only   | <i>S. plebeia</i>   |



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# Melton Botanic Gardens Visit

**Lyndi Garnett, Glen Waverley Vic – VSSG Co-ordinator**

Jillian and I were late in arriving for the GPCAA Garden Trust's Winter Tour of the Melton Botanic Gardens, we were delayed by road works on the Western Fwy, sitting in the long line of cars waiting to move for approximately  $\frac{3}{4}$  hr!!, having travelled back from speaking at the Euroa Garden Club the day before.

When we did arrive, all the groups had gone to view the progress of what the Friends of the MBG have achieved. When we caught up to a group, heading for the lake and being guided by John Bentley (president, no relation to Meg), who should we find, but Meg, Jane Edmondson and a number of others that we knew, including Robyn (president of the Herb Society). It seemed everyone who was anyone was there to see the wonderful display of plants that survive and grow well in Melton.

As the group was heading down to the lake to see some beautiful species of dwarf Eucalypts and other tough native plants, I cornered the couple who look after the South African collection, asking if they could show me the South African Salvias; we had supplied quite a few over the last few years.

The layout was interesting, as the paths wound around and through all the beds. All the beds were mounded for good drainage and all were well mulched. Don't forget this area is frost prone and we had just had quite a lot of frosty days in August. I was surprised to see what they had planted, what got bitten by the frost and what didn't.

All the Cussonias were badly affected (yes Cussonias come from South Africa), but should come back o.k. Great beds of *Salvia aurea* in both the grey and green leaf forms, they were only slightly affected, mainly on the new leaf growth.

*S.namaensis* was sadly hit badly, but had enough good basal growth to recover very well. Good beds of 'African Sky', *africana caerulea*, *S. aurea* 'Silver Lady' and the prostrate form, all growing very well with little damage. Other plants seen were *S. somalensis*, *muirii*, newly planted *aurita* var *aurita* and its sibling, *aurita* var *galpinnii*, which I suggested should be planted in the shade of the Eucalypts close by.



**Salvia dolomitica**

The *Salvia* which really impressed me was *S. dolomitica*. I hardly recognised it as it looked like Saltbush; they were all dense and compact bushes, all in bud and growing well in this environment. Their growth habit was in sharp contrast to the one we have in Nobelius, which is tall, open and lanky, so I think we need to prune that down and wait for the new growth and keep that down as well to keep the shrub compact.

I might add that I was the only one of that group who saw the Salvias that day, so I made a really good friend with Steve (one of the Friends who is in charge of that area).

When all the groups eventually came back to the Friends meeting room, a wonderful spread was laid out – we all needed a hot cup of soup to warm our hands. Outside the meeting room was the Friends nursery, open every Tuesday and 4<sup>th</sup> Sunday to the public—a wonderful array of plants, both native and exotic. Of course I made a bee line for the table of Salvias; I purchased a few *S. dolomitica*'s to be planted at Nobelius to see their growth habit over the next year or so. Meg had donated a few pots of *S. aurea* 'Silver Lady' for the raffle, these were highly prized, by those who won.

When all was done, we headed off to a property almost in the Macedon Ranges on the Black Ridge Mountain range. The Pye Garden at Bullengarook. A native garden very high up in the range. Despite its coolness it doesn't get frosted. Magnificent views across the valleys to the other wild, inaccessible ranges. We all enjoyed wandering around their native garden, full of so many different species that grow at that level. Of course tea, coffee and cake finished off the day very nicely, before heading back to the traffic and suburbia along the freeways. We slept well that night.



**Meg & Jillian on GPCAA Tour, Pye's Garden**

**Victorian Salvia Study Group**  
**844 Highbury Road, Glen Waverley Vic 3150**

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**1/07/2016 through 30/06/2017**

*prepared by VSSG Treasurer, Gordon Donaldson*

***Income***

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| <i>Subscriptions</i>        | \$7386.20                |
| <i>Plant Sales</i>          | \$12654.50               |
| <i>Miscellaneous Income</i> | \$1000.00                |
| <b><i>Total Income</i></b>  | <b><u>\$21040.70</u></b> |

***Cost of Sales***

|                            |                          |
|----------------------------|--------------------------|
| <b><i>Gross Profit</i></b> | <b><u>\$21040.70</u></b> |
|----------------------------|--------------------------|

***Expenses***

|   |           |
|---|-----------|
| <i>Purchases Betsy Clebsch Book</i>       | \$192.00  |
| <i>Plant Tags</i>                         | \$790.31  |
| <i>Float</i>                              | \$400.00  |
| <i>Plant Supplies</i>                     | \$6073.78 |
| <i>Membership</i>                         | \$150.00  |
| <i>Rental of Display Stall</i>            | \$2035.00 |
| <i>Merchant Fees</i>                      | \$4.00    |
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| <i>Salvia News</i>                        | \$1672.85 |
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| <i>Garden Supplies (Soil &amp; Mulch)</i> | \$492.08  |
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| <i>Web Site Development</i>               | \$190.91  |
| <i>Display Advertising</i>                | \$269.11  |
| <i>Visit to Gardens</i>                   | \$60.00   |
| <i>Miscellaneous Expenses</i>             | \$1000.00 |
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|                              |                          |
|------------------------------|--------------------------|
| <b><i>Total Expenses</i></b> | <b><u>\$18581.85</u></b> |
|------------------------------|--------------------------|

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|--------------------------------|-------------------------|
| <b><i>Operating Profit</i></b> | <b><u>\$2458.85</u></b> |
|--------------------------------|-------------------------|

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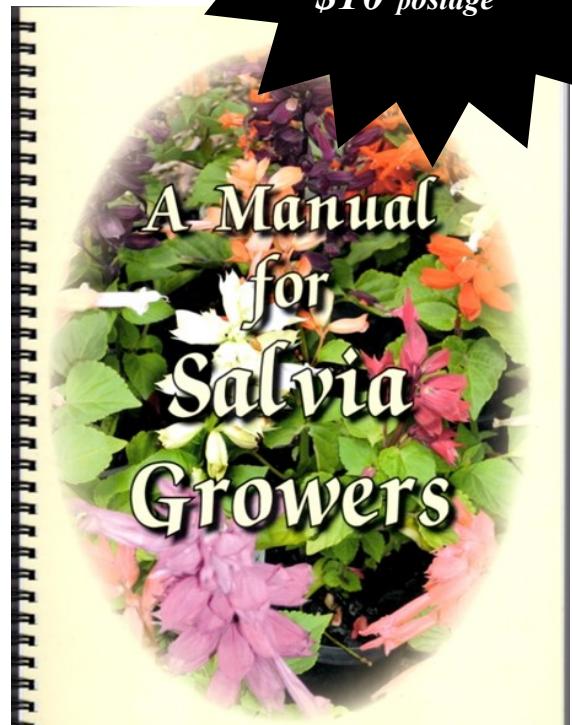
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**ISSN 2208-1089 (Online)**

*Salvia News* is printed by  
Apple Print  
702 High Street Road, Glen Waverley Vic 3150