Salvia*N*ews

Victorian Salvia Study Group
A Branch of the Herb Society of Victoria

Number 25

WINTER JUNE JULY AUGUST 2006

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A month in Lesmurdie, in the Perth Hills, with my family was very therapeutic. They realized that my back was a problem needing 'sorting' out. So now I am here in Selby in the process of doing just that, and not able to go to Brisbane for the Cottage Garden & Salvia Spectacular .I know it will be very successful as the Poppies functions always are .I am so sorry to miss it. I left a garden dry and warm and returned home to a lush, cold jungle, everything overgrown relishing the rain, with masses of flowers too. The pots are so pretty with Salvia semi-atrata especially gorgeous.

CALENDAR OF EVENTS

June 18th 2006. Sunday: Visit the garden of Jillian Barkell at 6 Halcyon Ave.
The Patch: Time 11 am. Phone 9756 6361. Melway 124 D4.
Jillian has a wonderful garden in the hills, shaded by tall eucalypts, not only salvias to see but there are other plants of interest. Jillian is also the 'Salvia Minder and Propagator' for our plant sales. Bring a plate to share, all welcome.

July 4th 2006. Tuesday: Pakenham Garden Plants Expo. At Pakenham Public Hall. Time 10am. to 2-30pm. John St. Pakenham. Melway 317 E8.
The Salvia Study Group will have salvias for sale. Ph. 9803 4534-Lyndi Garnett
Perennials-Roses-Trees & Shrubs-Herbs-Succulents-Seedlings-Clematis etc.
Guest Speakers and Demonstrations. Entry $5.00. Refreshments available.
If you have an hour or so to spare to assist at our sales stall, please give us a call.

July 20th 2006. Thursday. Benalla Performing Arts Centre. 27 Samaria Rd Benalla
Time 10 AM. Gardeners Inc. Winter Seminar with Michael McCoy as guest speaker
Visitors welcome $20 includes lunch. Contact Stewart Coutts Ph. 5762 1383
The Salvia Study Group have been invited to sell salvias.

August 3rd 2006. Thursday. Judi Forrester will talk about 'Herbal Trees'.
Time 7-30 pm. At the West Uniting Church Hall, Grove Rd. Hawthorn for the Herb Society of Victoria.
Judi has a wonderful nursery at Apollo Bay in the Otways where you can find many interesting herbs, perennials including salvias, shrubs and some trees. There will be plant sales and supper.

We hope to make a visit to Geelong Botanic Gardens in September or October. More information next Salvia News.

With May a few days away, where is the rain? So far for the first four months of the year we have had just over 2 inches, and the garden and the gardener have just about run out of the will to struggle on. The Kurrawongs have been singing for the last few weeks, which is usually a sign of rain on the way but they seem to be singing "with forked tongues". The ants have been going berserk (so have I with the ant dust as they climb up the trellis and in through the house vents), perhaps the man upstairs is punishing me for killing his little helpers. Sorry guys. The weather has turned cooler and the autumn leaves have mainly fallen before they turned yet 30 minutes away at Beechworth, where they have had rain and the climate is much cooler the liquidambers, claret and golden ash are a glorious sight. So I have to admire other gardens, never mind, everything comes to him who waits.

Talking to many others in our area it is clear that the drought conditions over the past years, in reality about 8 years, have taken their toll. Although we did have rain last year, many farmers didn't sow crops until June when there was sufficient moisture for the seeds to germinate. Then we didn't have good rain till spring and by November it was all over and the moisture had not penetrated to any depth. We need about three really wet years to try to get back in balance. Our north east summers tend to start late November and go through to late March or early April. To expect plants to establish and thrive under these conditions is a big ask. In the Diggers catalogue zone map, there is a strip from Albury following the highway almost down to Benalla, which has low rainfall and high temperatures, which is spot on.

Some of the plants I have lost this summer – roses, camellias, a silver birch, plumbago (how tough are they), a young wintersweet, even an edging of curry plant, and I thought they were indestructible. Having only tank water, it is the really precious or very expensive plants which get allocated regular drinks and even though we recycle our grey water, with only two in the house and always using water carefully, there is not enough to be of huge benefit. Some of my salvias look as though they have bitten the dust but I am hoping that they will be like Trudi's, which come back from sticks in February to their glory in June. The hardiest seem to be the *S. greggii* varieties, which recover with the first promise of autumn, then continue to flower their little hearts out. A friend, 5 km. away, who has plenty of water from a spring fed dam has lost a waratah and roses, choisia, even natives, so it is just this last really torrid summer that has sounded the death knell to so much. While it was nice to have sunny weather for the Commonwealth Games and the Easter break for folks to enjoy, ENOUGH!!! SEND IT DOWN HUEY……

Jess Kay

Survival Gardening

It has been dry for so long and it seems as though it will never be wet again. In my garden I have found the survivors are the **S plants;** salvias, succulents, silver leafed plants and self sown treasures. Firstly the salvias, I didn't start collecting them because they were drought tolerant but because they are beautiful and intriguing, but I have lost very few in this dry, harsh garden. Succulents seem to go so well with salvias. The black leaved *Aeonium* 'Schwartzkoff' mixes in well with the African lot in their bed, the dark calyx of *Salvia africana lutea* matches it. The other Africans, crammed in are; *S. africana caerulea*, *S. muirii*, *S. scabra*, *S. disermis*, *S.aurita* var galpinnii, *S. somalensis*, *S. lanceolata*, *S. chameleagnea*, all jostling with the self sown *Melanoselinum decipiens* (whose common name is tree angelica), *Smyrnium perfoliatum* (Alexanders), other anonymous cow parsley type plants and Euphorbias all bordered by silver leaf senecio and the silver succulent *Cotyledon orbiculata*. There are some aloes too. All are in the driest bed under greedy trees giving neither shade nor shelter. The leaves contrast with each other, no water is ever given and weeds don't get much chance! ***Trudi Fry***

SALVIAS AND HYBRIDISATION PART 2:
Why are hybrids often, but not always, sterile?

To understand this, it is necessary to understand a little about how plants are reproduced sexually (by pollination and fertilisation) and how plant cells divide.

Plants are made up of cells, each one with a nucleus where, among other things, the plant's genetic information is stored in chromosomes – thread-like structures – which occur in pairs, one set from each parent plant. When chromosomes occur in pairs like this, the cell is said to be **diploid** (two fold). A potato, for example, has 46 chromosomes in matching sets of 23 (n = 23, 2n = 46).
A plant grows by cell elongation and division whereby each cell splits to produce 2 identical, diploid daughter cells, each being an exact replica of the parent cell and carrying the genetic blueprint of the plant. This process, called **mitosis** can be observed under a powerful microscope. During the process, each chromosome actually thickens and duplicates itself before splitting.

During sexual reproduction, however, a different type of cell division comes into play. Instead of 2 identical, matching diploid daughter cells, the result of division is 4 **haploid** daughter cells, each with only 1 set of chromosomes – ie reduced by half. This process is called **meiosis**. In this way, haploid microspores with male characteristics are formed in the anthers and subsequently grow by mitosis to form male gametes (sperm) and female equivalents are formed in the ovule. When these gametes ultimately fuse during fertilisation, the diploid number of chromosomes is re-established.

These microspores not only differ from the parent cells by having only 1 set of chromosomes, they are also genetically different from each other because of the way in which the initially paired chromosomes thicken, duplicate themselves and cross over before they split in this process. This all leads to genetic diversity – the more so as each chromosome bears thousands of genes which represent different traits.

But back to the question about subsequent fertility or sterility.

In spite of the crossing over of chromosomes before splitting to form haploid gametes, so long as the splitting is normal and both parents are of the same species, the union of the 2 haploid cells during fertilisation will result in diploid cells with homologous pairs of chromosomes and the whole cycle can repeat itself in the next reproductive season.

If , however, the 2 haploid gametes originate from different, but closely related parent species, the diploid cell that results from fertilisation will be made of 1 of each kind of chromosome, and not matching pairs. When meiosis is attempted subsequently, these unmatched chromosomes cannot form homologous pairs and the plant will remain sterile – unless an accident of chromosome doubling occurs.

Occasionally, chromosome reduction fails to occur during meiosis and diploid gametes result. If diploid gametes form and fuse, the resulting tetraploid (4 fold) will be fertile as its nucleus will contain pairs of homologous chromosomes. This condition is known as **polyploidy.** If this happens to both parents, both sets of chromosomes are doubled, providing themselves with identical mates for normal pairing. So, while different species are generally recognised by their inability to cross-breed, polyploids derived from 2 or more species (allopolyploids) do occur, with the resulting plant being completely fertile since it functions as a diploid with a large number of homologous chromosomes. This is one of the main ways in which genetic barriers between species are broken down, resulting in new gene combinations that may confer selective advantages to the offspring. Generally, however, the 2 species involved will need to be genetically close. Polyploidy can also occur when both parents are of the same species. If a resulting gamete stays diploid and fuses with a haploid, a triploid will result, which in turn may be sterile but which might in turn produce unreduced triploid gametes which may give rise to a fertile hexaploid….. and so on.

Pat Anderson
5 March 2019

News from Hobart

Over summer and autumn, with the aid of a 10x magnification eyeglass, I have been intrigued, much to the amusement of family and colleagues, by the characteristics and variations of the hairs, their colour, density and length, on the stem of the style and its forked stigma, in salvia flowers. While responsible for retaining pollen to complete fertilisation and produce seed, these organs show a wide range of variability in the presence, or lack of, as well as the position and length along the style of such hairs. It appears that some salvias, such as *S. hirtella,* are devoid of these hairs, while others have a dense covering, for example *S. leucantha.*

When such hairs do occur, so far as I have seen, they do so only in a narrow band on opposite sides of the two vertical planes of these organs, that is, the hood side and lower lip side. They may also be longer above or below the stem and generally they have the colour of the corolla. However, they may also be predominantly white and vary as to their position, with most clustering occurring at the head of the style around the forked stigma. Such hairs wither on older flowers so examination should be performed on fresh corollas. I am most interested to see how the densely hairy, pinkish stigma and style of *S.gesneraeflora* 'Tequila', unfurl out of the lobes of the hood and lower lip, prior to the emergence of the corolla . The hood and lower lip have, themselves, barely emerged from the calyx

Has anybody researched the influence this characteristic has on the tendency of salvia species to self pollinate or cross-pollinate?

Below is a table that records the above observations so far, albeit with the limitations of a 10x eyeglass:

Salvia Species and Cultivars with Hairs on Style and Stigma

Dense	On Upper Surface Only	'Bald'/ Sparse or Lower Surface Only
S.x'Anthony Parker'	*S. chamaedryoides*	S.'Black Night'
S.azurea	*S.coahuilensis*	*S.canariensis*
S.cardinalis	*S.corrugata*	*S.coccinea*
S.g 'Tequila'	*S.greggii*	*S.forskaohlei*
S. 'Indigo Spires'	*S.microphylla*	*S.glutinosa*
S.i. 'Bethelli'	*S.sinaloensis*	*S.guaranitica*
S.leucantha	*S.uliginosa*	*S.hirtella*
S.mexicana		*S.miniata*
S. 'Phyllis Fancy'		*S.muirii*
S.'Waverly'		*S.patens*
		S.sclarea
		S.semiatrata
		S.splendens

A number of exceptions are *S.chiapensis* and *S.* 'Costa Rican Blue' which have dense hairs only on the lower surface and *S.* 'Purple Majesty' which has moderately dense hairs on both sides.

John Daniels Hobart Botanic Gardens

Salvias By The Sea.
Lakes Entrance Victoria

I have returned from Salvia wilderness. Owing to family commitments, and family always comes first, my garden got out of control during Spring-Summer. I was seriously considering abandoning it. Fortunately I received a call from Jane Lee reminding me I had promised to let her bring a Salvia tour to visit my garden at the end of March. The next 6 weeks was spent pruning (2 trailers full to the tip), weeding (2 large compost bins full) and mulching (2 trailers full back on the garden).

Thank you Jane for the wake-up call. I now have a lot of new friends and I am enthusiastically collecting Salvias again. Anything else has to provide a very good reason why it should stay in my garden, my culling is ruthless. During this clean-up exercise I discovered most of my Salvias are winter flowering and a lot are in the wrong position. So I did not have a lot in flower for Jane's visit.

Salvia ' Blue Bird', *S. canariensis, S. iodantha,* S.*corrugata*, *S*. 'Costa Rica Blue', and *S*. 'Red Dragon' are all in the shade of a large *Paulonia* tree and are just beginning to show colour now. Despite being in full sun*, S. involucrata* x *karwinskii, S. dolomitica, S. gesneriiflora, S. dorisiana and S. involucrata '* Pink Icicles' are still far from flowering.

I am enjoying *Salvia* 'Waverley'*, S. madrensis, S. confertiflora, S. mexicana* 'Limelight', *S*. 'Marine Blue' and *S*. 'Purple Majesty', to name a few of my favorites. I am busy placing permanent name tags and trying to organise some sort of record of my collection. I am especially enjoying visiting other gardens of salvia lovers.

Coral Kennedy.

Salvia officinalis – *The Common Sage Part 2*

Last issue, I wrote about general information regards the Common Sage and how to grow it. As promised, I'm concentrating this time on the medicinal uses of this wonderful herb. I'm not a herbalist, so the information below is simply sharing some of my reading and research and should not be used as a basis for self-treatment of medical conditions. In fact, there are warnings about how not to take Sage in large doses for extended periods, and to avoid taking it if epileptic or during pregnancy.

Having said that, the Common Sage has a long history of medicinal uses. The Ancient Greeks and Romans highly valued its healing powers for a variety of complaints, as did the Chinese later on. In modern times, Sage's benefits have tended to focus on the mouth, throat and female menstrual/menopausal problems.

The Common Sage has effective antiseptic and antifungul properties, it contains oestrogen, helps with the digestion of fatty foods, and latest research suggests it also contains powerful antioxidants. Sage Tea is considered as an excellent gargle for sore throats, laryngitis, and tonsillitis, and I have personally found it helpful in this regard. It's also recommended for sore gums and mouth ulcers.

As for women's complaints, Sage is used for treating irregular or painful menstruation as well as menopausal symptoms such as hot flushes. Other applications include use of Sage as a gentle

stimulating nerve and blood tonic, for combating diarrhoea and for loss of appetite. Crushing and applying fresh Sage leaves on insect bites can bring relief.

The Purple Sage, *Salvia officinalis* 'Purpurescens', a cultivar of the Common Sage, is often recommended as being the best one for medicinal uses. Research continues on the properties of this herb, so it's likely that we will come to know more clearly why this herb has maintained such a strong healing reputation for many centuries.

As for me, I love cooking with Sage, and it's kind of nice to know that it also has these healing properties.

Arja Toivanen

NEWS FROM WERRI BEACH NSW

I'm so glad that summer is over finally! We had no rain for almost two months, which on the coast is unbelievable. However last week we started to get some small showers and today it's raining again from the south so the tanks are full.

Having watched some plants shrivelling before my eyes, I've begun a re-evaluation of the garden and there are some plants I won't be growing again including Dahlias.

I finally decided to move *Salvia africana-lutea* which had overgrown the path across the middle of the back garden. I mulched all the foliage and managed to find a few stems with roots, which I have transplanted below where the original plant was, hoping to make a hedge. It was a good windbreak but I was forever cutting it back.

In the space which was about 1.5mx1m, I have created a mixed bed of smaller perennials inc. Dianthus, Geum, Ajuga and of course, two smaller salvias. One is a musk pink (no other name) and the other is *S.semi-atrata* which is replacing the one I lost.

I have been most impressed with S.'Anthony Parker' over the summer. One I planted in a very difficult spot underneath a NZ Christmas Bush and it is flowering madly at the moment. Another I planted on a slope next to a large May bush and it struggled a bit through the worst of the dry but seems to have come good. I was lucky after the big seas to gather a fair bit of seaweed off our jetty and that, with a bit of rain, I think, has replenished the soil around them.

I have seven seedling salvias, names unknown, which are only a few inches high and don't seem to be growing much. I don't want to over fertilize them but they need a boost. Maybe Seasol is the best bet. It's frustrating because I want to be able to identify them.

Salvia madrensis looks a bit odd at the moment. Because it's a bit exposed to the salt winds and also because it's been so dry, the leaves browned off and they looked so ugly I took them off. Now they are flowering as just fairly bear stems sticking up into the sky. I will move it so it doesn't happen again.

One of our local nurseries is selling a good number of salvias. I was there a couple of weeks ago and they had put them all together and most were flowering and looked a picture. They are propagating *S.patens* for Spring so I hope to get a few. I don't know why I don't have it. I have definitely lost *S.atrocyanea* and of all things, *S.chiapensis*.

I've found water crystals to be useful through the dry weather. I put some in the bottom of the hole every time I plant something and I have noticed a difference particularly in those parts of the garden that don't get much water. Long range forecasts point to another dry February/March next year so we'll have to be prepared. Finally, I'm enjoying being out in the garden without the heat and planning and planting and cutting back. It's the best time of the year!

Maureen Cox

Stratford News

It's Salvia News time and that means reading your tip-bits.

Grasshoppers have gone I feel now that colder weather has set in. New growth is coming back slowly so I won't prune until after the frosts. I did not get to spray with "Confidor" as I said I would in the last Saliva News, I ran out of time and now, as the hoppers have nearly gone, I'll hold off. It will soon be time to spray with "Stressguard" for frost protection. It's a great product for warding off jack frost and protecting those salvias and other tender plants.

Following up on Giant Salvia- *Brillantaisia subulugurica* - the one in the pot has finished flowering and making new leaves etc, whereas the one in the garden that I moved is flowering now and has 2 flower stems, and so I'm thrilled both cuttings taken are flowering. I will cover them over winter and spray with "Stressguard" as a precaution as I'm sure they will be frost tender.

Saturday I had my garden open for Sale Garden Club, we ran a bus and cars and after having cuppas, eating Chris's home made scones and looking around my extensive garden, we headed for Bairnsdale to a few nurseries and lunch, then onto 2 gardens with lots of salvias in Lakes Entrance. Gee I would love to live in an area with no frost. There would be no stopping you planting anything anywhere.

Next day we got rain, and I mean **rain**. Our road was blocked and a lake appeared below the house in the paddocks. I was a like kid taking photos and trying to believe what I saw was for real. We got over an inch, which is a miracle for our area. It has certainly freshened up the garden and brought a green tinge back into the paddocks and helped all the feed crops that my husband has sown.

Our club is running a bus trip to the Dandenongs to see 2 magnificent Salvia gardens - Elly's and Jillian's. Salvias are certainly getting popular up this way and aren't they worthwhile and rewarding plants? Trudi and Jillian gave them a helping hand by coming to Sale as guest speakers at our meetings and holding workshops which certainly has helped promote them.

Enjoy the rain and autumn planting.
Jane Lee

The Geelong Botanic Gardens

On a recent visit to the Geelong Botanic Gardens, on a very cold, windy autumn day, which was more like winter, I was amazed to see such a glowing display of salvias.

Through the gates, at the original entrance, just behind the carved statues of the 'Lady & Gentleman', was a garden bed of mixed *Salvia coccinea*, outer edges in red blooms and pink and white blooms through the centre.

I met with Des Lawrence, the 'minder' of the salvias to check out this latest, up and coming 'new salvia collection'. One can only give glowing reports about such a well maintained collection with so many species in full bloom, at a time of the year when our own salvias are looking a little drab and awaiting a good haircut or prune.

There have been seven beds allocated to salvias and Des has done a marvellous job setting out the beds in a fashion to suit the type of species and the countries of their origins. A great example is a rounded garden, set between two pathways, devoted to African species, *Salvia africana-lutea* is situated

with *Salvia africana-caerulea, S. namaensis* and *S. repens.* Other species like *S. chamelaeagnea, S. dolomitica* and *S. rugosa* were also included in other salvia beds.

Another circular bed shows *S. microphylla* and cultivars in varying shades and colours with heights taken into account, lowest plants on the outer edges and taller varieties towards the centre. The Central and South American species looked fantastic in a rather large bed with the taller species situated towards the back of the border and in part shade. *Salvia* 'Costa Rican Blue' looks good in any garden and none more so than here.

It is very interesting to see a whole garden bed devoted to a single species, where one can see the full benefit of what a species has to offer. This was so with the low growing *Salvia scutellarioides.* This species grows to around 30cm and has wispy spires of bright blue flowers. Des explains that when this has finished flowering, the whole area is cut down, ready to start again and makes a very good substitute for ivy. It is always covered in fresh green leaves and so easy to maintain.

Everywhere I looked the salvias were looking splendid. Des tells me that there are 7 beds devoted to the salvias including the drier area of the new 21st Century Garden and a new Childrens' Play area.

The Geelong Botanic Gardens have a wonderful collection of salvias that they are registering with the OPCAA, beautifully laid out and well worth a visit, autumn being the best time. The Salvia Study Group hope to be making a special visit later in the year. Much assistance has been give to this salvia collection over the years, from Bill Whitehead (who, incidentally offered most of his salvias to Des and John Arnott), Graham & Velda Ellis along with the Salvia Study Group and MB.
Meg Bentley

A weekend with salvia fanatics in East Gippsland

There was movement in the city for word had got around
That some sages in the east were up for view
So the girls from Yarra River pulled their feet from out the ground
And headed off to Buchan in the blue.
They travelled east through Nayook, and soon half filled the car
With plants from Merryle's nurs'ry 'side the road
Then motored on through Heyfield, Bengworden and Trafalgar
To Paynesville, where they lightened their load.

Now, the salvia girls to this point were saddled with an old bloke
But at Paynesville they left him with his wine.
Thereafter they were free, and men became a bad joke
As they headed off to "Lakes" to sleep and dine.
The salvia girls had fish and chips, a product of the east
Like gulls, they flapped and squawked around the town
While the old bloke o'er in Paynesville drank produce made with yeast
Which helped erase a little of his frown.
The girls saw sev'ral gardens in Buchan and in "Lakes"
Where salvias grew 'mongst structures made of wood
They concluded that the owners had ev'rything it takes
(With little rain the sages did look good).
And as they stood at Buchan taking in the scen-er-y
They mused upon the river flowing there.
Of course, it joins the Snowy, which flows onwards to the sea
And they con-tem-plate-d legends ev'rywhere.

They motored back to "Lakes", past bank-si-as in flower
Their cones with mouths wide open, 'fore the sea.
And they thought of salvias flow'ring in their native New World bower
As they swallowed sev'ral super cups of tea.

With thirty minutes left, 'fore the ev'ning light grew dim
They weren't about to waste it at the pub
So, they walked to the vast ocean, to dip their toes therein
Then dined at tables saved "Saliva Club".

Meanwhile, the bloke at Paynesville had been walking in the heat
And finished up in need of some good cheer
After sampling a red bottle, which for him is a quite a treat,
He was ready to go prawning in his gear.
He marvelled at the night life as prawns jumped all around
And eels glided smoothly through the weed
While flounder and flathead lay hiding in the ground
And garfish teemed in hundreds for a feed.

They all met up in Bairnsdale where each had tales to tell
At a gorgeous salvia garden 'neath the sun
Here, the happy bunch of salvia girls, some crumbling blokes as well,
Were plied with lots of tea and buttered bun.
At Munro, they had lunch, and the garden made their jaws drop
While pots and cuttings crept towards the car
Then on again to Sale for a final garden stop
Then westwards to the turbid grey Yarra(h).

The salvia girls enjoyed themselves, they sparkled off the chain
They talked about corollas all day long
They sorted pots and cuttings, (stuff the money down the drain)
And they all got very high on salvia pong.
The old bloke, who went with them, found their company quite joyous
Despite all their antics off the chain
For they're really quite outrageous, their merriment contagious
And he's quite prepared to do it all again.

John Anderson

SEED TRIALS

In the last newsletter I reported on some seed trials I had conducted in Spring 2005. The results demonstrated that for species that I had previously found difficult to germinate, treatment with the hormone Gibberellic Acid appeared to be the most consistently useful treatment for breaking dormancy. Unfortunately, the table of results was not printed completely. It is reproduced here with Treatments 2 and 3 omitted (ie soaking and nicking).

Germination rates of Salvia species 6 weeks after sowing on 2nd Oct 2005

Salvia Species (date of seed collection and source)	No. seeds in each batch	Treatment 1 CONTROL	Treatment 4 SMOKED WATER	Treatment 5 Aussie wild flower seed started	Treatment 6 G3 (0.1% soln)	Treatment 7 G3 (0.01% soln)
S. spathacea (Jan '05 PA)	10	0%	0%	0%	20%	10%
S. mellifera (Mar '05 MB)	20	0%	10%	0%	0%	20%
S. judaica (Dec '04 PA)	20	5%	25%	55%	30%	30%
S. namaensis	20	0%	35%	25%	25%	25%

(Mar '04 PA)						
S. lanceolata (Feb '05 PA)	20	0%	5%	0%	10%	30%
S. clevelandii (Chiltern Seeds, purchased '03)	20	0%	0%	X	5%	10%
S. recognita (Aut '05 GG)	5	0%	X	0%	20%	67%
S. chamae-dryoides (Mar '05 PA)	20	15%	X	X	45%	50%

"X" indicates no seeds sown

PA = Pat Anderson; MB = Meg Bentley, GG = Geoff Genge
G3 = Gibberellic Acid

Pat Anderson

Up-date from Lurg, via Benalla

Thank goodness the very hot summer has passed, with continuous temperatures of between 38 degrees and 43 degrees but we are still desperately waiting for good rains.
With the cool of autumn here, the salvias that survived the heat are looking colourful at the moment.

Salvia 'Phyllis Fancy' and *Salvia* 'Waverly' coped very well with the heat, as did *S. guaranitica*, S. 'Black Knight', *S. leucantha* and *S. lanceolata.* They survived on limited waterings since we are only on dam and bore water.

Much to my great disapointment, I lost *S. spathacea* and *S. canariensis* but I will try them again. *S.* 'Southern Belle', *S. microphylla* 'Lara' and *S. microphylla* 'Sensation' all struggled with the heat and still have not really picked up.
The two absolutely best salvias from all aspects eg. wind, limited water and scorching heat, were *S.* 'Hot Lips' and *S.* 'Maraschino' while *Salvia* 'Kathe' has just started to put on new growth, it sat and sulked all summer.

Salvia greggii 'Sierra Pink' has thrown a Sport, a rich creamy cream, some with light pink markings. I have taken a few cuttings but may be a bit late in the season.
We have tentatively named this sport 'Miss April', after our grand daughter, just so we know which salvia we are talking about.
Could anyone give me more information regarding 'Sports' and naming plants, have we a new salvia? **[Advice given in the 'Forum' section]**

Salvia corrugata has just started to flower and *S.* 'Anthony Parker' is in full bloom.
Some of the garden has survived the burning heat of summer, although a bit stressed, mind you, we were very stressed dragging hoses around 24/7.

As I stand in my front garden, on a hilltop, looking out over the valley and sunburnt landscape, light mist hangs in the distance, the birds are singing, it's 7am and my mind is already dreaming of what to plant and what to change for the coming spring.
The joy of gardening!
Mary Lukezic

What's in a name?

Lots it seems. There are now so many forms and crosses of *Salvia greggii* and S. *microphylla* that it is difficult to keep track of them all. Does this matter? Perhaps not if we just want to enjoy their beauty, versatility and long flowering season in our gardens. Some folk, however, are collectors and as a "Salvia Study Group" we supposedly have an interest in knowing which one is which. Then there is the nursery industry that naturally has an interest in making money. This is no doubt why new plants with exotic names appear from time to time, but on close inspection show very little, if any, difference from those already in circulation.

For some time there has been discussion about establishing a register of available cultivars in Australia. Barb Wickes began this process for the Salvia Association of Australia a couple of years ago, but the process has so far not developed beyond some revisions to the suggested form for recording details. Lyndi Garnett made a start on documenting some S. greggiis and microphyllas last year. More recently, Arja Toivanen has been investigating the whole business of determining, documenting, naming and recording cultivars through discussion with the National Herbarium of Victoria and through relevant web sites.

Armed with all this information and volumes of plant material and assorted equipment, a group of us met recently to compare the plants we have in our collections and to see whether the names actually matched, whether their origins could be determined, etc. etc. What an interesting afternoon we had, and it was of course not nearly long enough. We began with the yellows, working through the two-coloured ones, then the purples and some reds, leaving all the pinks…. not to mention the recent nursery introductions. Clearly, we have a long way to go before there is a register but we will keep you informed. Meanwhile, some interesting points can be shared:

1) How can you tell a greggii from a microphylla?
2) When is a jamensis not a jamensis ?

How to tell a greggii from a microphylla

Back tracking a bit to clarify a few names and terms, the genus *Salvia* was divided into 14 sections by the great 19th century botanist, George Bentham. The names he gave to these sections end in the syllable "sphace". Calosphace was a very large and diverse group of American native species. In the 1930s, Carl Epling re-classified the numerous species in the Calosphace section into many subdivisions. Because his work was so thorough, these subdivisions are still largely recognised today, although current studies being undertaken at Wisconsin at the molecular level may yet confirm or refute Epling's work.

So, to the relevant part. In Epling's classification, *S. greggii* and *S. microphylla* belong to 2 different divisions of Calosphace. They look similar outwardly, but have been put in separate divisions based on the presence or absence of a pair of papillae inside and at the base of the corolla tube:

Division of section Calosphace	Some species in each division	Presence of a pair of papillae
Fulgentes (now merged with Cardinales)	*microphylla, fulgens, holwayi*	**YES**
Flocculosae	*greggii*	**NO**

So what do these papillae look like? The following sketch may help. It is a sketch of the inside of *S. microphylla* . You can see this for yourself by carefully cutting through a flower with a safety razor blade, a scalpel, if you have one, or even a sharp thumb nail (I've seen Cait Hoogenbosch use this latter technique)

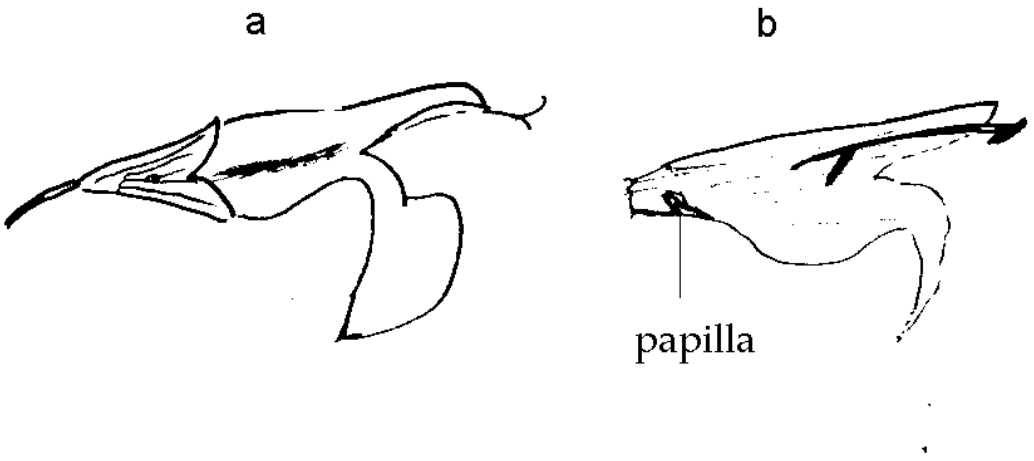

Figure 1: (a) *Salvia microphylla,* (b) cross section of *Salvia microphylla*
NB. In some flowers you will see an additional protuberance half way along the corolla. This is not a papilla. It is a staminode, that is, a vestigial stamen. Most members of the lamiaceae family have 2 pairs of stamens, whereas Salvias are distinguished by having only 1 pair of fertile stamens, the second pair either completely absent or reduced to these vestigial staminodes.

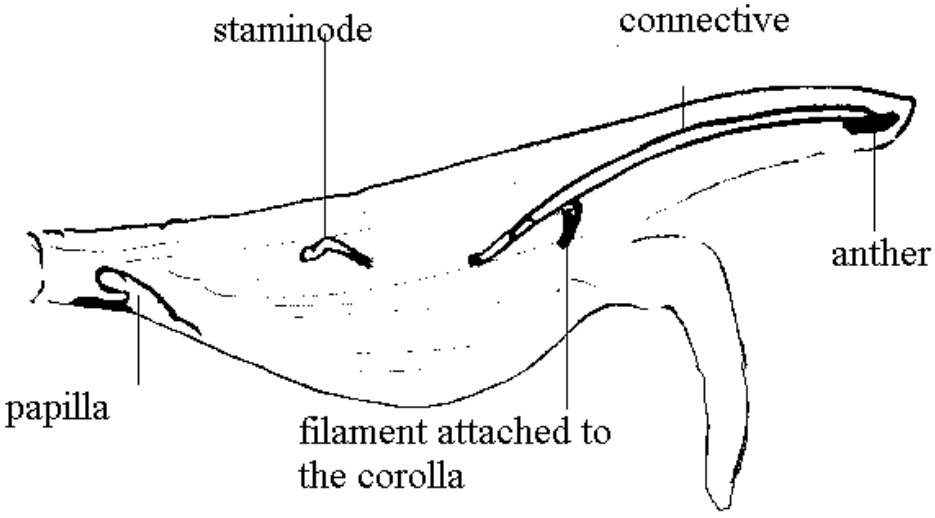

Figure 2: Cross section of a *S. microphylla* with both a papilla and a staminode

Look inside *S. microphylla* 'Pink Blush' or *S. microphylla* 'Sensation' and some others and you will see these staminodes. However, they are also present in some forms of *S. greggii*, such as 'Sierra Pink'. In other words, the presence of staminodes is not the determining factor. It is the presence of a pair of papillae near the base of the corolla tube that determines whether or not a flower is *S. microphylla* (has papillae) or *S. greggii* (has no papillae).

In addition, as has been described in this newsletter previously by Lyndi Garnett, the leaves of these species tend also to be indicative. Generally, the leaves of *S. greggii* are "elliptic or obovate, 1 – 2cm long, apex obtuse, margins entire, both surfaces glabrous". In other words, narrow, smooth edges and with smooth surfaces. The leaves of *S. microphylla*, on the other hand, are "variable, ovate, deltoid-ovate to elliptic, apex cuneate, margins serrate-crenate, surfaces rugose, finely hispidulous, rarely soft pubescent or glabrous". In other words, more heart-shaped, rougher and with toothed edges.

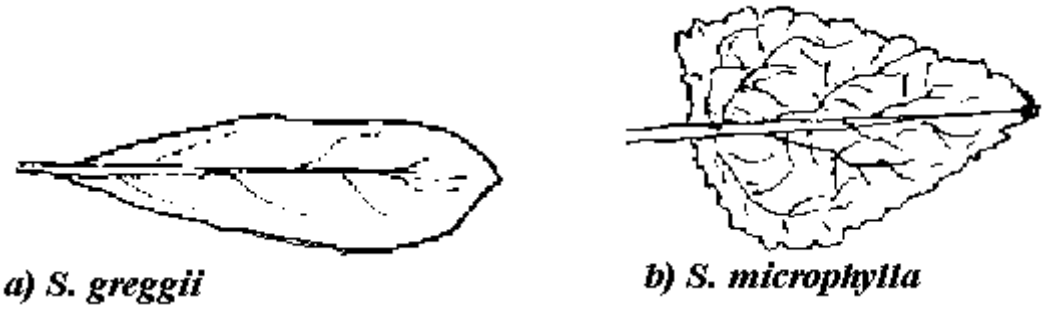

Figure 3: Comparison of leaves of *S. greggii* and *S. microphylla*

So, what about all the forms we have that are generally somewhere in between *S. greggii* and *S. microphylla*? This brings me to the second question raised, namely:

When is a jamensis not a jamensis?

The term *S.* x *jamensis* was coined by James Compton to describe a hybrid swarm between *S. greggii* and *S. microphylla* found in the wild in the vicinity of Jame, a village near Saltillo in Mexico. Similar hybridisation also occurs in our own gardens. So, does the term only apply to forms discovered near Jame or can it apply universally? This question was recently posed on the internet (Yahoo discussion group) by Robin Middleton. Richard Dufresne replied with a quote from a letter he had received from James Compton on this very subject. James Compton explained that "the type for the name *S* x *jamensis* was indeed based on plant material from near Jame", but that he based his publication of the cross "on an earlier artificial hybrid made several years before at Chelsea between those two species". The name *S.* x *jamensis* although applying to material from the Saltillo area therefore includes ALL material covered by both the ICBN (International Code of Botanical Nomenclature) and the ICNCP (International Code for the Naming of Cultivated Plants) circumscribed within the two species. In other words, all such crosses can be called *S.* x *jamensis*, so long as the parents are indeed *S. greggii* and *S. microphylla.* James Compton continues to explain that *S.* x *jamensis* includes, for example, 'Raspberry Royale', but will only continue to do so if the parent, *S. microphylla* var. wislizenii continues to be included within *S. microphylla* and is not reclassified.

All this raises another question: If *S. greggii* and *S. microphylla* hybridise so freely both in the wild and in cultivation, might they be more closely related phylogenetically than the Epling classification suggests? It will be interesting to see whether the DNA studies being undertaken by the University of Wisconsin group will shed any light on this matter. This is all beyond our scope and we must work within the definitions provided by the experts.

So, returning to our day of identification, it is clear that many of our so called *S. greggii* and *S. microphylla* plants are in fact *S.* x *jamensis*. According to Christian Froissart (also on Yahoo), it seems that a pair of papillae is a dominant character and that if one parent is a *S. microphylla,* the subsequent hybrid will also bear papillae.

Hopefully, at some stage (in the next newsletter?) we might be able to outline what we have to date in Victoria. Stay tuned.

Pat Anderson 5 March 2019

A REMINDER to those readers who have forgotten to renew their subscription to Salvia News. An additional subscription form has been included. This will be the last issue sent to those who haven't renewed their subscription.

News from Benalla Victoria

This is a report on the progress of the 15 or so small growing salvias Jillian selected for me when Trudi and Jillian spoke at Benalla. Within a few days, I had repotted the plants into larger containers and all without a single loss. In some instances I was able to divide or take off a side shoot to increase the stock. There has since been a second potting up but not all are in terracotta containers as Trudi had suggested.
Salvia spathacea has a large bud while others like *Salvia* 'Christine Yeo', *S. microphylla* cyclamen, *S. chamaedryoides*, *S.* 'Cookie', and *S. greggii* alba have all bloomed for several months. The only one making slow progress is *Salvia lanceolata* but it appears to be healthy.
Salvia africana-lutea ginger form has not yet bloomed nor has the sprawling *S. aurita* var galpinii. Unfortunately, a salvia with grey-green leaves and silver on the underside, lost its label due to the work of blackbirds. It has purplish-black blooms.
Editors Note: Sounds like *Salvia discolor*.

Success with the cuttings I brought home from the meeting was somewhat limited which was unexpected as I am usually quite successful. When striking cuttings, I use river gravel mixed with coir peat. The cuttings, with many of their leaves removed or trimmed, are dipped into hormone powder and planted two cuttings per hole. I plant two at a time merely to speed up the operation. In the warmer months I place the pots of cuttings in a shade house.

For some years now I have grown *Salvia* Van Houttii (also known as *S.* atrosanguinea) which sulks during the frosty winters but manages to survive. Not far from this plant a seedling appeared last spring, in a large pot of a miniature clematis. I had intended to remove it but that never happened. I wasn't even certain that it was a salvia as I've never had this one self seed before. Then in February, red blooms began to appear, nothing like the colour of *Salvia* Van Houttii. The plant suffered some frost damage last weekend. I always thought that if the early morning sun did not shine on the frosty leaves, there would be less damage. So much for the theory…or maybe only the soft young growth was burnt? To date none of the other salvias have been affected by the frosts.

Stewart Coutts

STOP PRESS !!! Geelong Botanic Gardens are now an official Salvia Collection, registered with the Ornamental Plants Conservation Association of Australia, **Congratulations!!!**

Some Major Nurseries Supplying Salvias in Victoria

OASIS NURSERY
Navajo series Red, Cream, Purple, various Splendens cultivars

BALL AUSTRALIA
Black & Blue, Hot Lips, Mystic Spires,

ROMANTIC FARM PERENNIALS
Blue Hills, Snow Hills, Rose Queen, Pink Blush, Patens, East Friesland, Argentea, Farinacea blue Merlot (similar to Rose Queen)

COUNTRY FARM PERENNIALS Wensley Apricot (a pale form of Coral greggii) Black currant (a dark red Microphylla x) Navajo varieties

PGA
Original Mexican Bandits, Greggii forms including Raspberry Royal, Fulhams Red, Alba, Coral SanCarlos Festival, Fuji Snow, Sierra Pink , Sierra Red,

* HEAT WAVE SERIES
* Scorcher, Sizzler (pink) Blaze, Flare(red)

LARKMANS
Many, many varieties (common, and hard to get, including Silke's Dream, Vermillion/ coral microphylla x)

Lambleys
Have a good range of salvias

Many of these nurseries will sell to the public, either directly or by mail order.
Lyndi Garnett

SALVIA FORUM

A place for Salvia discussion, questions, answers, informal or formal just like the Salvia Group pictured

Regarding **'Sports'** in the plant world this is still undergoing further investigation but what we have been able to find out has been of great interest.
According to the dictionary, Sport, in the Biology sense is an animal or plant that differs conspicuously in one or more aspects from other organisms of the same species usually because of mutation. It seems that if the parent plant shows signs of 'change', a branch that may have for some strange reason produced either variegation of leaves or flower colour changes (darker or paler or striped etc.) then this section (part thereof) is classed as a 'sport'.

Cultivar, on the other hand is where a change occurs through seed grown plants and the cross pollination of two plants, resulting in leaf formation the same but with flowers of different colours. See previous Salvia News No.25 Winter for information re: Naming Salvias.

It is membership renewal time for the parent body of the Salvia Study Group. Please send your subscriptions to The Treasurer, The Herb Society of Victoria Inc, P.O. Box 396, CAMBERWELL 3124. If you have not got a renewal form, or are a new member, a form may be downloaded from the website: www.herbsocietyvic.com.au **Neville Kelly Treasurer,** Remember that e-mail subscriptions are the most economical.