The Fuchsia Breeders Initiative

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Contents of this issue:

Contributions for the next issue, which is scheduled for the end of July 2022, should be in the editor's possession ultimately on 10 July 2022.

Please send your contribution in Word, with the photographs attached separately. Large contributions can be transferred by uploading the file with , for example, WeTransfer.

Any new Fuchsia cultivars being released? Please provide a photograph and some descriptive information, and it will be seen and get attention all over the world!

Photograph on front page:
***Fuchsia* 'Johannes Jan'**
(De Cooker, 1997)

The sandwich always falls butter side down

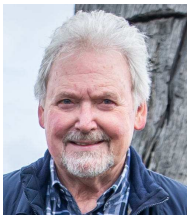
At least, that's what many people seem to believe, and what's known as "The Curse of the Sandwich". True or not, I wish it had happened to my box of germinating fuchsia seeds, which I accidentally dropped last week while inspecting it for spraying.

I always germinate my fuchsia seeds in plastic boxes, mostly about 6 to 8 different crossings in one box. Never a problem, they can be kept perfectly separated. Normally I have about 20 boxes in September, October and November, with 30 to 100 small plants in each box, waiting to be transplanted. Last week I accidentally dropped one of the boxes, but instead of landing horizontally (with hopefully minimal damage) it fell on its side at the edge of the table, splattering the sowing soil and germinating seeds in all directions. No way for recovering the seeds.

Such accident is not always detrimental, as often more seeds in different boxes from identical crossings are available. This time, however, the box contained for the majority germinating seeds from crossings with second generation pentaploid parents (as described on p. 16). And it will certainly put the breeding program at a disadvantage.

But worst of all, it also contained my first (and only) two second-generation germinating seeds from the 'Yellow' project, which I am carrying out together with Henk Waldenmaier. Well, we'll have to live with that. And there are still multiple leads, so I'm staying optimistic!

Fortunately, many seedlings of all kinds of other crosses do well. Examples are crosses to obtain long tube purple triphyllas by using *F. inflata* as the crossing parent. Crosses with *F. magdalenae* also look promising. However, some other combinations cause problems. *F. decidua*, as an example, appears to be an excellent crossing partner. However, its use for making multi-flowered purple triphyllas has failed so far because the seedlings only develop a very poor root system. The challenge is to find the right combinations that work with *F. decidua*.



Editor of The Fuchsia Breeders Initiative

Mario de Cooker

I am also very happy to experience that many other Dutch breeders are also taking up the challenge of making new fuchsias by using all kinds of little used *Fuchsia* species. It is not an easy task to achieve a good result, but it seems to be the only way to achieve something really new.

With that said, it only remains for me to wish you all a blessed, healthy and successful 2022.

Merry Christmas and a Happy New Year

Mario de Cooker

Seeing Double

By Edwin Goulding

Photographs in this article courtesy Mr. Edwin Goulding

"The whole matter of doubleness is complex and is perhaps best given a full article."

Mission statement
My own hybridising has been guided by a simple mission statement, which goes as follows. *"To produce better or different fuchsias than those that are already on the market; ideally both."* This is applicable to doubles, triphyllas and to everything else connected with the genus.

Research
Over the years it has been my aim to grow as many different cultivars as I possibly could. In this way experience was gained; insights into the individual faults and benefits of each individual plant. It has also been my pleasure to visit a great many displays and gardens, especially within Holland, and to discuss Fuchsias with friends and fellow enthusiasts. A photographic record has helped to keep these memories fresh in my mind so comparisons can be made between different cultivars seen.

Across the years it has also been my privilege to collect books on Fuchsias from around the world. People have asked why I bother when many are written in a foreign language that is unfamiliar to me. The answer is simple, "Photographs and names are still clearly described." Magazines have also provided a source of information. Much of the best has been provided by Nederlandse Kring van Fuchsiavrienden through its "Fuchsiana".

All these things together give an added historical perspective that would otherwise be unavailable. It becomes immediately obvious when someone introduces a "new" Fuchsia if it is inferior, or a copy, of those that have gone before. As well as the visual aspects of plant prioritising, technical data is accessible. Things like Hybridist, Year, Parentage, Purpose, Special features and many that are less obvious come easily to hand. Judgements are made using all the available methods and information; this includes such matters as fertility.

Templates
Very early in my growing career I adopted a notebook to collate information related to experiences and ideas. This was used to re-visit material when brief periods without any other clear stimulation occurred. At this time we had two small children so various toys were always distributed around the house. One such was the method of dressing cardboard dolls with a variety of different outfits that could be hooked into place to make realistic two dimensional images of fully dressed girls or boys. Interplay could also take place between elements from different styles as the mood arose. From these I gained a very useful idea that could be applied to the theory of hybridising; two dimensional cut-outs. The separate parts consisted of tubes, sepals and corollas in as many different sizes and shapes as my imagination thought possible. Examples consisted of existing shapes and colours but these could be re-positioned in relatively new ways. My original idea in hybridising was to produce a white triphylla-type Fuchsia and then to progress to one with long white tubes and short sepals but with blue petals.

Market niches
Vague ideas about beautiful flowers won't cut-it, I'm afraid. Hybridists have to be much more precise in their methodology. If basket types are wanted it is best to look at those plants that would be most likely to produce these as offspring; if you wanted to breed race horses there would be no point in starting with Shetland ponies. Available stock must be suitable for the purpose in hand.

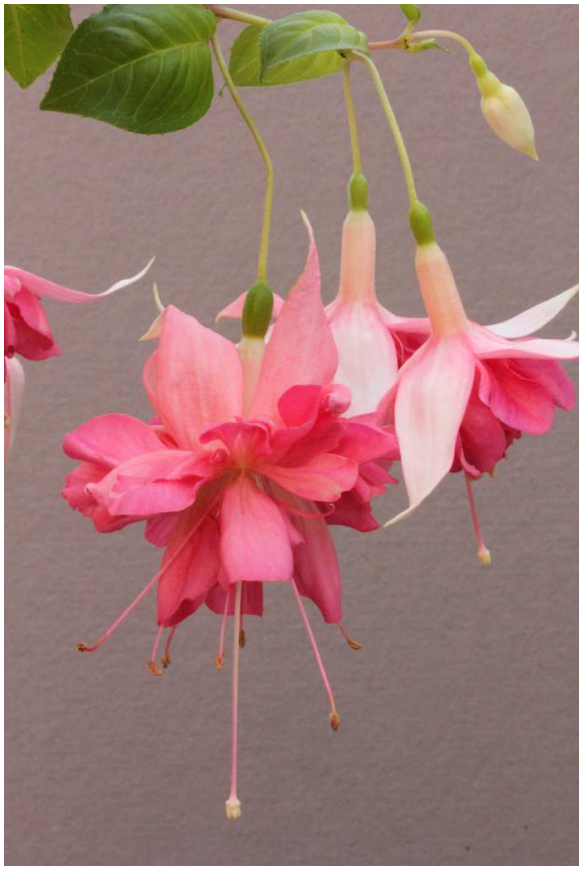
Always consider outlets, or pathways to further developments. Sometimes there is an opportunity to create a new class of flowering plant. Normally we work within the usual niches that can be recognised easily by others. Sorting plants purely by alphabetical order makes it harder for customers to choose the most suitable subjects for their purposes, usually an attractive garden or yard.

Currently these categories are recognised as the following:

Species (& variants)
Hardies
Uprights
Baskets
Triphyllas
Encliandras

Most of the time Fuchsias with foliage interest will be included within one of the sections listed above. Those with especially popular colours, like white, are also usually subsumed within one of these larger groups. Another rapidly expanding group of hybrids with clearly recognisable characteristics is called Paniculates. Although other groups, such as the Encpans (Encliandras x Paniculates), which are composed of plants produced by crossing two differing groups are being developed their range at present is too limited to warrant a separate allocation of bench space.

George Bernard Shaw



'Marcus Graham' (Stubbs, 1985)

"The opinion of an ordinary well educated woman." This is what is required when asking for advice to help in forming an opinion of something we have produced. Be that as it may, it is clearly better to canvas the opinion of someone who will give an impartial opinion as to the quality of something new; fellow enthusiasts and relatives are likely to be too heavily prejudiced in favour of or unwilling to voice an honest opinion. My reliable method was always to find out if people wanted to pay money for plants. Of course, this assumes there is nothing the same, or better, already available to them.

Doubles

Plants, as we have seen, should have a purpose. Doubles, having increased chromosome counts, also have increased cell volumes. This tends to make them less resistant to extremes in the weather, especially frosts. It is also true that they rarely produce such bushy plants as vigorously as those with single flowers. Competitions are now dominated by singles, most of which the public have no interest in. It is as if spray chrysanthemums are the only choice: customers require cut flowers for funerals and weddings, too.

The majority of Fuchsia hybrids with double blooms will be of the basket type. This is partly, of course, because the flowers, having many more petals in each corolla, weigh more as individuals and en-masse. Much damage to customer choice has been done by shows. Hybridists have been encouraged to use ever increasing degrees of in-breeding to create more and more look-a-likes. Deliberate efforts must be made in order to create strong upright growers with substantial double flowers and in adequate numbers to catch and hold one's gaze. Then, of course, they must be continuously in bloom, not spasmodic in nature.

Shapes

The textures and shapes of double Fuchsia flowers are much more varied that the majority of growers realise. Furthermore, the length and strength of the pedicels is of a greater importance than most hybridists even dream of. The thickness of petals and the number contained in each corolla makes an enormous difference to the weight of each bloom and consequently to each plant's ability to show its flowers off to the maximum benefit. Long and weak pedicels, combined with heavy double blooms, make it impossible to enjoy even hanging baskets unless they are placed at eye level, which

makes every-day watering and attention to cleanliness extremely difficult.
Let us consider one particular hybridist, Annabel Stubbs. She raised her plants in America where they were required to withstand hot conditions combined with low air humidity. Doubles rarely enjoy such environments. Because of this we could be forgiven for overlooking the value of her introductions. They combine visual appeal with an unusual robustness. Her pastel shades are often extremely subtle but their habits are better than most modern introductions. In particular the fly-away sepals allow the full beauty of each flower to be seen. Two examples of her output are 'Marcus Graham' (see p. 3) and 'Seventh Heaven'.

Two more hybrids, one bred by Annabel Stubbs deserve a mention because of their unusual flattened and almost catherine-wheel-shaped corollas. This spread shape remains a rarity even today. Sepals held at about forty five degrees enhance each flowers beauty even more.

'Gay Parasol'
(Stubbs, 1981)

'Scarborough Rosette'
(David Clark , 1984)

As we consider the possible shapes to be found among double flowered Fuchsias it is worth reminding ourselves that some of them remind us of other flowers that we love; the tulip for example. The classic nipped-in cup shape can be illustrated with two introductions of

'Seventh Heaven'
(Stubbs, 1985)

'Mancunian'
(Gouldings Fuchsias, 1985)

'Veenlust'
(Jansink, 1992)

Moving on from the various shapes found in the corollas themselves, our next two pictures: 'Allure' and 'Big Charles' give some idea about the change in appearance that can be made by elongating the tubes. Although the size of the corollas is usually slightly reduced with these introductions the extra-large tubes more than compensate for this deficiency.

Although we could continue with many more and extremely varied shapes to be found among double flowered Fuchsias, perhaps it is time to halt this runaway expansionism and turn our attention to changes that can be wrought by enhancing the sepals. In most cases this means enlarging them but, in a few, an additional twist is created that is attractive in itself. Again, two examples have been chosen to make the point: 'Alison Ruth Griffin' and 'Texas Longhorn'.

'Allure'
(Moerman, 1991)

'Big Charles'
(Moerman, 1988)

'Alison Ruth Griffin'
(Gouldings Fuchsias, 2000

'Texas Longhorn'
(Fuchsia-La, 1960)

Colours

Sometimes, it seems to me, too much emphasis is placed on colour. This can distort our values to such an extent that it becomes virtually impossible to judge things like shapes and sizes impartially. We can be so overwhelmed by the spectacular hues that detailed consideration of things like faults or special uses becomes impossible.

Indonesian culture has a tradition of storytelling with stick puppets. These were shown as black profiles against white backgrounds; true shadow puppets. The imagination filled in each person's finer details and brought both personalities and stories alive. Audiences became involved and were captivated. A rather less adventurous, but nevertheless effective method of using such silhouettes as illustrative records of living people gave us those small wall-mounted cameo styled pictures of famous people like Benjamin Franklin. Supposedly the true essence of each person was encapsulated in this way.

The range of colours available to hybridists is currently limited to those found within the genus. Red and violet dominate Section *Quelusia* and its derivatives. Other sections and species have gradually widened the range to be seen in hybrids over many years. Many of these can be seen in the selection of pictures shown so far in this article. A few more will give some further ideas of what is possible (see p. 6).

'Anne Strudwick'
(Gouldings Fuchsias, 1998)

'Cecile'
(Whitfield, 1981)

'Deep Purple'
(Garrett, 1989)

'Eureka Red'
(Stubbs, 1991)

'Suffolk Punch'
(Gouldings Fuchsias, 2000)

'Tropicana'
(Tiret, 1964)

Chromosomes

Although not by any means always the case, doubleness is usually accompanied by increased numbers of chromosomes within the Fuchsia's genotype. Examples that will be well-known to most growers include *Fuchsia* 'Dollar Princess' (Lemoine, 1912) with 88, *F.* 'Rolla' (Lemoine, 1913) which has been described as having both 77 and 88 chromosomes, and *F.* "Snowcap' (Henderson, 1880) which, although usually regarded as semi-double, also has 77 chromosomes. Normal numbers for species of the genus are either 22 or 44.

This article has not dealt with semi-doubles in any depth. This is because size really does seem to matter in the Fuchsia market place for doubles. Neverthe-

less, the chromosomes encapsulated within the genotypes of even these specimens carry the characteristic for doubleness and therefore, if plants are fertile, are capable of producing larger and more fully-double progeny given the right partners. Incremental enlargement becomes the name of the game.

Conclusion

The enlarged possibilities created by these increased chromosome numbers and with them the tendency towards double flowers can be likened to playing on keyboards instruments. Simple keyboards might only consist of an octave or two but the full diapason of a massive organ like the "Mighty Wurlitzer" has to be experienced to be believed. Foot pedals, stops and multiple keyboards make magic happen. Complexity becomes the key to success. As such an organist's (Fuchsia hybridist's) life will never be an easy one when working with doubles. May every success be yours in the coming years and remember to make things fun.

New web address for Henk Waldenmaier's website

Because of a change of web hosting, Fuchsia hybridist Henk Waldenmaier has now a new web address: **www.henkwaldenmaier.nl**

Henk's website provides information on a variety of topics, including the names of his fuchsias, their lineage and AFS description.

In addition, a lot of information can be found about, for example, breeding goals.

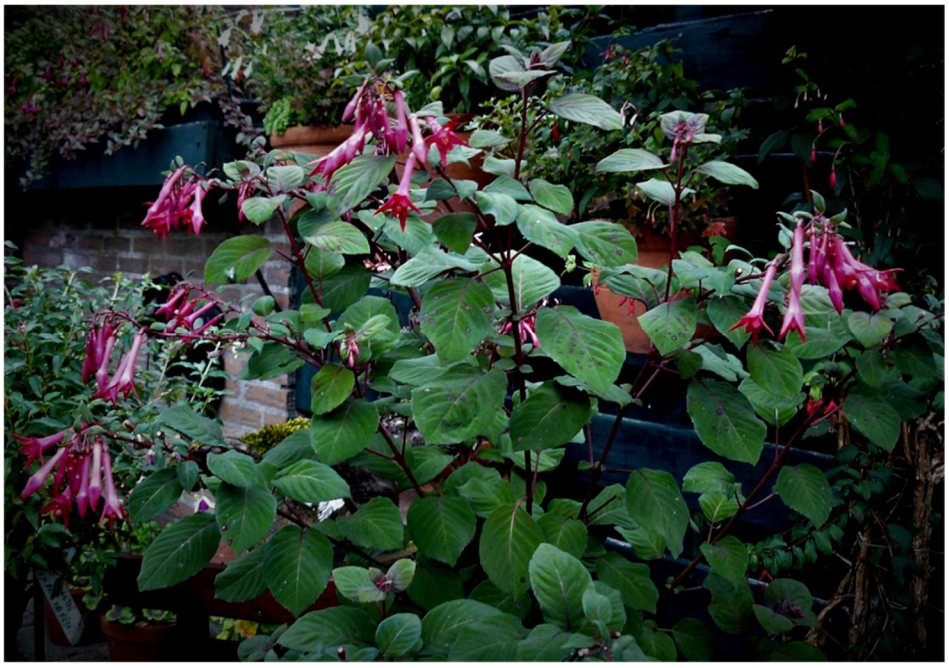
The information is in Dutch, but everything is very accessible with the help of, for example, Google Translate. And the pictures of the fuchsias speak for themselves of course!

New Fuchsia from Hans van Aspert (NL)

'Lieke' (Van Aspert, 2021)

Fuchsia 'Lieke' originates from the crossing (*F. magdalenae* x *F. triphylla* PB7760#7)) x 'Jaspers Big Boy'. It's an upright growing cultivar, and can be grown as a bush (for example, three cuttings in a pot) or a small standard. The cultivar is not self-branching and has to be pinched twice to get a good shape. It tolerates sun, and overwintering in the cold greenhouse is without any problems.

The plant is named after Lieke, the hybridist's third granddaughter.



***Fuchsia* 'Lieke'**

Obtaining a flower with such purplish colour from the crossing (*F. magdalenae* x *F. triphylla* PB7760#7)) x 'Jaspers Big Boy' seems rather unusual, and was indeed not expected.

'Jaspers Big Boy' originates from crossing *F. boliviana* 'Alba' x 'Roesse Blacky', but does not show the latter's dark colour hues. Moreover, its 2C DNA value matches the 2C DNA value of *F. boliviana* 'Alba' , which would suggest a self-fertilisation or apomictic origin. However, it is clear that 'Jaspers Big Boy' still seems to contain genetic elements for certain rather dominant colours of the male crossing partner, without these being expressed and showing in the phenotype.

***Fuchsia* 'Jaspers Big Boy'**

Photograph 'Jaspers Big Boy' courtesy Mr. Mario de Cooker.
Other photographs courtesy Mr. Hans van Aspert.

New Fuchsias from Mario de Cooker (NL)

Photographs courtesy Mr. Mario de Cooker.

'Purple Charm' (De Cooker, 2021)

Fuchsia 'Purple Charm' is a triphylla fuchsia cultivar originating from a crossing with non-introduced seedlings N 16-20 x N 11-05.

N 16-20 = 'Daryn John Woods' x 'Purcellian Elegancy';

N 11-05 = ((*F.* × *colensoi* x *F. magdalenae*) x 'Delicate White') x 'Grasmere'.

'Purple Charm' is one of the first of a series of new purple triphyllas originating from seedling N 16-20, which is a hexaploid plant that produces 100% purple triphylla offspring. Several more of such purple triphyllas, having different flower shapes and growth properties, will follow in the coming years.

'Purple Charm' has semi-trailing growth properties and excellent high temperature and sun tolerance. Overwintering in the cold greenhouse is without any problems.

***Fuchsia* 'Purple Charm'**

'Saphyra' (De Cooker, 2021)

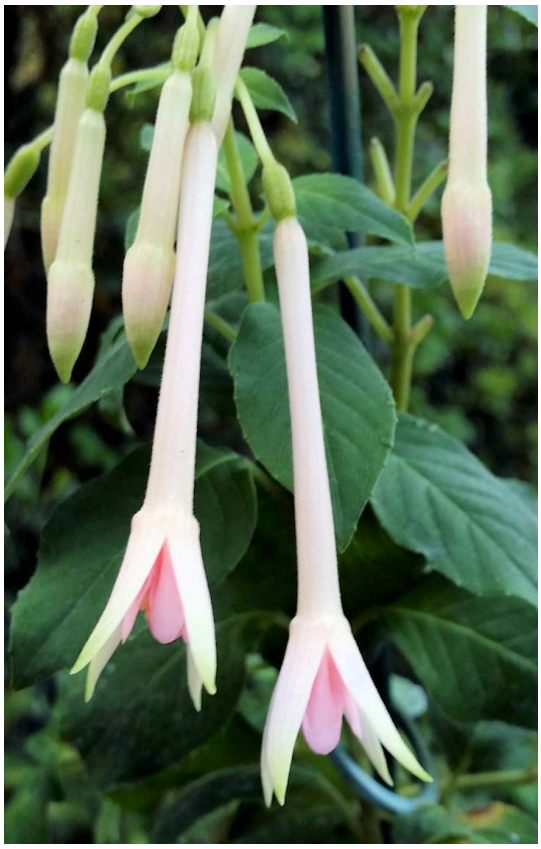
Fuchsia 'Saphyra' is a triphylla fuchsia cultivar, also originating from seedling N 16-20 by crossing N 16-20 x selfing seedling of *F. fulgens* 'Gesneriana'.

'Saphyra' has a long, thin elegant tube, inherited form *F. fulgens* 'Gesneriana'. It's an upward growing variety and can be grown as a bush or a small standard. It has good high temperature tolerance, but can best be grown at a dappled shade position. Overwintering in the cold greenhouse is without any problems. Because it's not early flowering it's recommended growing it from (non-flowering) autumn or winter cuttings.

The cultivar is named after the youngest Airedale Terrier of the family: Saphyra.

Airedale Terrier Saphyra

***Fuchsia* 'Saphyra'**

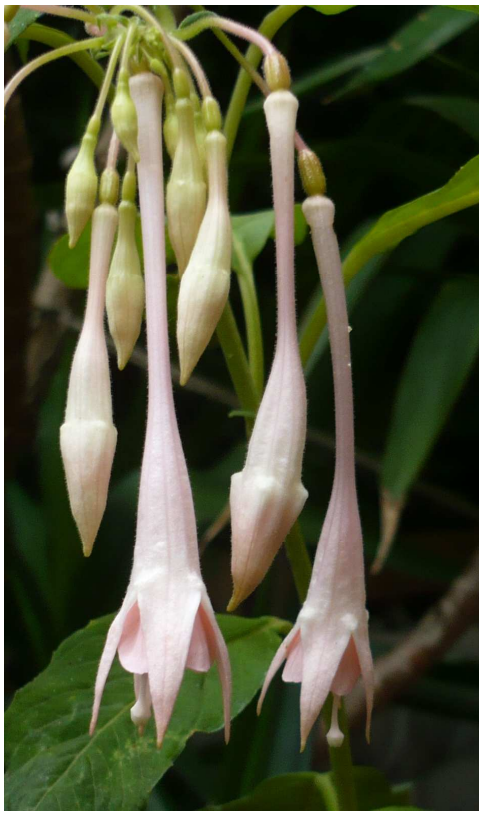


***Fuchsia* 'Silver Charm'**

'Silver Charm' (De Cooker, 2022)

Fuchsia 'Silver Charm' is a semi-trailing, floriferous triphylla fuchsia cultivar, originating from the crossing ((('Göttingen' x 'Our Ted') x ('Göttingen' x 'Our Ted')) x 'Purcellian Elegancy') x 'Jaspers Indestructible'. It has a slender, white tube and a soft pink corolla. It can be grown as an older plant. However, the best results are obtained by growing it from autumn cuttings, three to five cuttings in a basket. Flowering starts early and continues until the end of summer.

'Silver Charm' cuttings root very easily. Overwintering in the cold greenhouse is without any problems.



Seedling N 16-54, female parent of 'Silver Charm'

New Fuchsia from Gerrit Kreijkes (NL)

Photographs courtesy Mr. Gerrit Kreijkes

Trailing fuchsia "Smiling Raf" (Kreijkes, 2021) originates from the crossing ('Amélie Vos' x 'Swingtime') x 'Snowfire'. The plant has big double blooms and has best blooms and foliage in limited light. The fuchsia is named after the hybridizer's grandson Raf Kreijkes. It was highly appreciated at the Dutch Circle of Fuchsia Friends (NKvF) Fuchsia judgement in August this year.

***Fuchsia* 'Smiling Raf'**

Please update your e-mail address!

It happens rather frequently that subscribers to The Fuchsia Breeders Initiative change their e-mail address. However, if this has not been communicated to the editor, it's not possible providing you with the most recent issue at the moment it is sent around. And you might be wondering why you are not on the subscribers list anymore.

So if you want to stay connected, please communicate any changes to **fuchsia@decooker.nl** and you will receive your copy at the appropriate moment.

Could a Fuchsia Gall Mite infestation have a cyclical pattern?

By Mario de Cooker

In July this year, Fuchsia hybridist Mr. Brian Kimberley has visited France. In Brittany he ran into Fuchsia plants that were heavily infected with Fuchsia Gall Mite (*Aculops fuchsiae*). The photograph at the right shows one of the many affected plants.

Reaction to this photograph by Mr. Edwin Goulding:

"*I have been pondering the activities of Fuchsia Gall Mite. This is because I have noticed a certain cyclical pattern with many other native galls.*

The two that we have most experience of are Oak Gall and Greengage (or Plum) Gall. These appear to come in sudden massive attacks that remind me of Locust swarms; almost an all or nothing situation. The nothing periods are extensive in time but the few attack years are massive, then fade away again."

This reflection by Mr. Goulding reminds me of a severe infestation I observed last year on blackthorn (*Prunus spinoza*). Several plants were loaded with thousands of bladder plum galls, a chemically induced distortion of the fruit. It is caused by *Taphrina pruni*, a fungal plant pathogen. I had never observed such massive infection. And this year:? Not one bladder plum gall, the infection was completely gone!

Is there any experience among our readers of such a possible cyclical pattern in relation to Fuchsia Gall Mite?

Comments are most welcome!

Fuchsia Gall Mite infestation *photographed on one of the many affected plants during July 2021 in Brittany, France by Brian Kimberley. The equipment used was a Samsung S7 mobile phone.*

Bladder plum galls *on blackthorn, an infection caused by Taphrina pruni .*

Photograph by Mario de Cooker on May 5th ,2020 in Ohé en Laak (Netherlands).

In the spotlight: Sister Seedlings of WALZ Jubelteen

By Henk Waldenmaier

***Fuchsia* 'WALZ Jubelteen'**

Every Fuchsia enthusiast most probably knows the fuchsia 'WALZ Jubelteen' (Waldenmaier, 1991), originating from the crossing 'Toos' x 'Prince Syray'. Less well known are two of its sister seedlings: 'WALZ Wipneus' and 'Herps Kroostrijk'. These two fuchsias have the same pedigree as 'WALZ Jubelteen'.

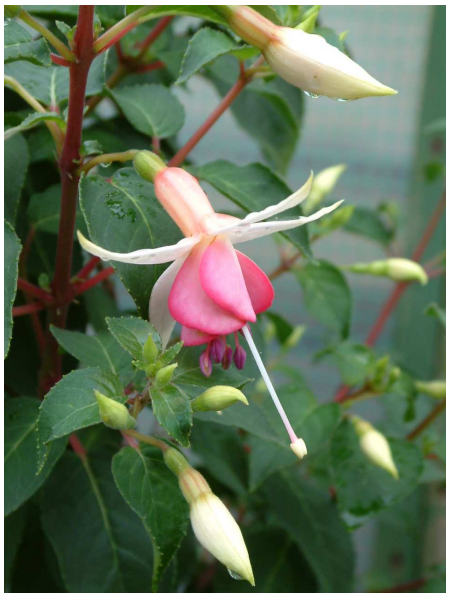
'WALZ Wipneus' (Waldenmaier, 1992) carries its blooms in a circle, like a wreath. It flowers cyclically, and just like 'WALZ Jubelteen' it is sterile. It is profusely flowering, having several buds per axil. Requires pinching and can best be grown as a medium sized bush. The plant is somewhat susceptible to botrytis.

The English translation of 'Wipneus' is 'Tip-tilted nose'.

***Fuchsia* 'WALZ Wipneus'**

'Herps Kroostrijk' (Waldenmaier, 2010) is a medium to large, profusely flowering plant with outward looking blooms. The corolla has a beautiful pink colour with dark edge. This fuchsia does not suffer from botrytis and is very fertile.

The English translation of 'Kroostrijk' is 'Lots of progeny'.



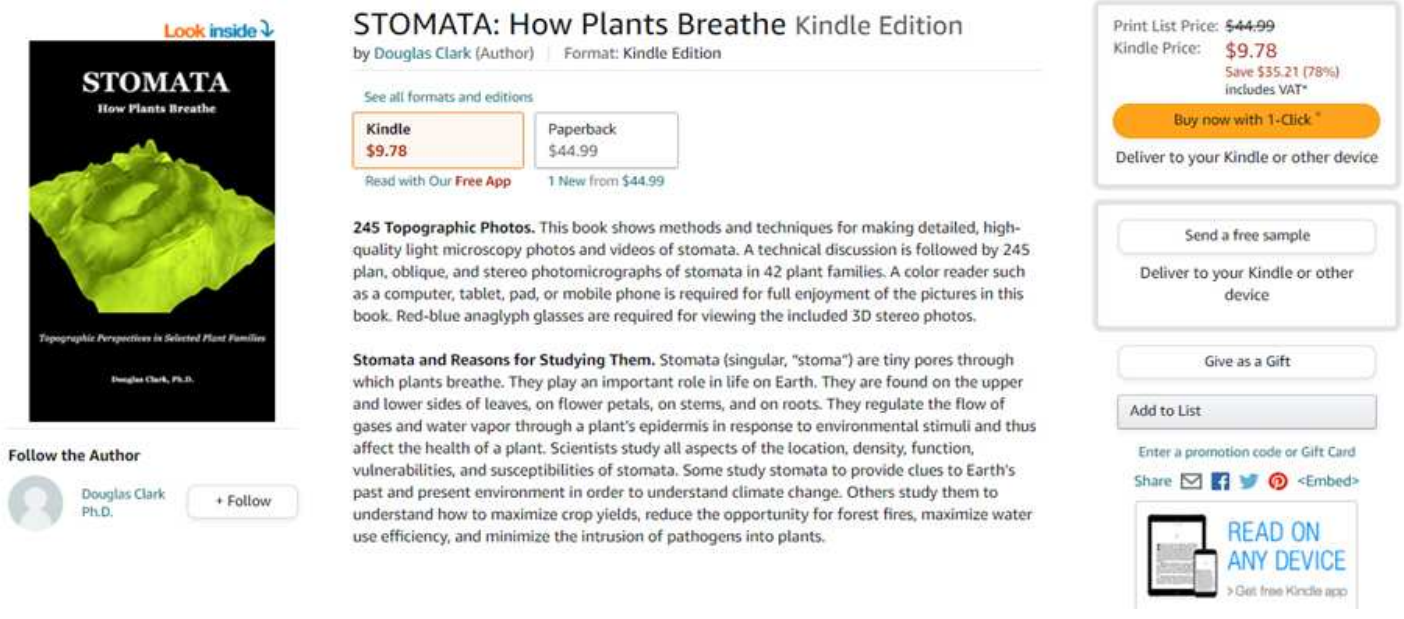
***Fuchsia* 'Herps Kroostrijk'**

Photograph 'WALZ Jubelteen' courtesy Mr. Frans Boers.

Other photographs courtesy Mr. Henk Waldenmaier.

New book from Doug Clark, Ph.D.

Mr. Doug Clark, Ph.D. has contributed several short articles to The Fuchsia Breeders Initiative in the past. Extensive information on how plants breathe can be found in his newest book, issued in October 2021.



First results of initial crossings with the new pentaploid purple triphylla seedlings.

By Mario de Cooker

The first results of crosses with purple pentaploid progeny of hexaploid seedling N 16-20 are now available. Since many young seedlings are still not in flower, more information is needed to draw firm conclusions.

Most information has so far been obtained from using *F. triphylla* PB7760#7 as the male crossing parent. According to expectations, no purple progeny has shown up so far. The blooms of the second generation (the F2) seedlings of this crossing have a vibrant red colour, sometimes accompanied by bright cream-yellow anthers. From a number of flowcytometry measurements of these F2 seedlings, 2C DNA values slightly exceeding the *F. triphylla* 2C DNA value have been obtained. Such values suggest a TTTT genome with still a couple of *F. juntasensis* chromosomes contained in the aneuploid F2 seedlings. Or, which is also not unlikely, that crossing over has occurred between T (the F. *triphylla*) and J (the *F. juntasensis*) chromosomes at gametes formation. Crossing over could also explain the cream-yellow anthers of some of the F2 seedlings.

So far, the majority of the F2 seedlings are relatively small plants, showing weaker growth than *F. triphylla* PB 7760#6/7 and many of their progeny. Some have excellent fertility, both as the male and the female parent and will be used in a follow-up breeding programme. Breeding goals are making triphyllas having new colours and colour combinations of white, red, purple and pink.

Seedling N 21-09

Seedling N 21-13

Contents of the next issue

The next issue is scheduled for the end of July 2022.

Staying Single (by Edwin Goulding)

In the middle of winter it is difficult to imagine the full range of colours to be found in single fuchsias during summer. It is even more difficult to envisage the range of shapes to be found among them. In our next article we will consider both factors.

Creating new triphylla cultivars from pentaploid purple triphylla seedlings (by Mario de Cooker).

Provided sufficient new data are available, the first results will be reported and discussed from the crosses with pentaploid purple triphyllas. The first flowers suggest a connection between the shape and colour of the flower.

Want to learn more about all this? Then stay connected!

Your contribution to the The Fuchsia Breeders Initiative is highly appreciated.
Contributions for the next issue must be available by 10 July, 2022.

The Fuchsia Breeders Initiative

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Editor: Dr. ir. Mario de Cooker
Graaf de Hompeschstraat 9
6109AK Ohé en Laak
The Netherlands
e-mail: fuchsia@decooker.nl
tel: +31 475 552227

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