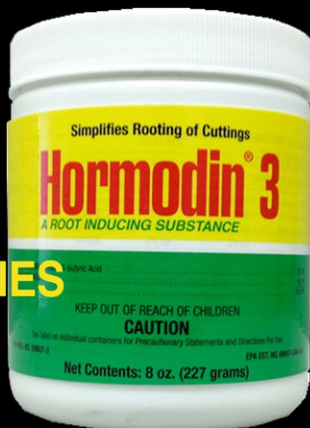




HIBISCUS INTERNATIONAL



Pages 3-4
A BOTTLE GREENHOUSE
Recycle those plastic bottles!



Page 10
PLANT HORMONES
Understanding rooting hormone



Page 12
NEONICS
Has imidacloprid had its day?

Page 8
FERTILIZING
Darren Eminian shares his secrets



Pages 13-18
CELEBRATING BEAUTY

Mount Meru



Pages 1-2
PUSHPA SURESH
STEALS HEARTS IN THE USA
WITH HER WINNING CVs

Page 19
WEIRD AND WONDERFUL
 The story of Methuselah
 grown from a 2000 year old seed!

and more!



• INDIA'S WINNERS •

The USA falls in love with Pushpa's CVs!

Dear friends, feeling blessed and happy! My seedling Mount Meru won as Best of Show Seedling (BOSS) in the Mathews-Fallman Chapter Hibiscus show held in Florida. My heartfelt thanks to Todd Alvis and Matt Martindale Nursery! Now this will be under evaluation...a long process of judging it's growth by many judges. Fingers crossed!! - Pushpa Suresh.



Mathews-Fallman Chapter
American Hibiscus Society
Best of Show Seedling
Hugo Gorday Award
Name of Bloom: Mount Meru
Exhibitor, Hometown: Pushpa Suresh / Matt Martindale



Shiva



Mount Meru

Hybridiser: Suresh Pushpa
Origin: India



Divine Grace



Dark Continent



Madame Curie



Plum Pizzazz x Black Jack (Dupont) [Not Registered]



White Diamonds



Just a short while later Pushpa's CVs again caught the judges' attention - this time at the show of the New Orleans Chapter of the American Hibiscus Society. Pushpa's winners were Haiku, Crown Jellyfish and Alluring Diamond shown by Todd and Janelle Alvis.

HAIKU
BEST OF SHOW
SINGLE

CROWN JELLYFISH
BEST OF SHOW
DOUBLE
(Purple Pashmina x
Allure)

ALLURING DIAMOND
BEST OF SHOW
MINIATURE
(White Diamonds x
Allure)

"That's pretty impressive!" said Todd." (Red Stick Hibiscus Association) who took the above photo.

Then on 20th May, Todd and Janelle Alvis again had success, winning Best of Show Miniature with Pushpa's Indian Bride, and Best of Show single with Mount Meru at the show of the Mike Bernard Acadiana Chapter of the American Hibiscus Society. Congratulations to Pushpa, Todd and Janelle!

You can enjoy seeing all the winners of this show by clicking on the following link:



INDIAN BRIDE
BEST OF SHOW
MINIATURE
((Plum Pizzazz x Black
Jack (Dupont) [not
registered]) x Allure)



RECYCLE THOSE PLASTIC BOTTLES!

Turn them into a perfect mini-greenhouse!

Wendy Williams



Using a sharp knife (I used a serrated bread knife) cut across the bottle leaving a small piece uncut so that you can bend the top back.



Put your cuttings into the bottle and seal it back together with a little piece of sticky-tape. Hey presto .. you have a perfect little greenhouse!

In our last issue of Hibiscus International, Daniela Pradais of Romania showed us how to root Hibiscus using Jiffy Pellets and a plastic bottle. Because it sounded like a great idea, I decided to try it myself and I added a photo of my own newly made bottle greenhouse to Daniela's article. I can now report back and confirm that Daniela's system definitely works. Just keep the bottles in bright light - not direct sun.

A few days later I received some wood through the post. First I rehydrated it by submerging it in tepid water for a couple of hours. To clean the wood I dissolved a water purification tablet (Troloxene sodium, NaDCC) in with it. I made a diagonal cut across the stem of each piece below a node, dipped the cuttings into a gel rooting hormone, and gently inserted them into plugs. I used ones called 'Root Riot' which are made by 'Growth Technology' - a UK based company who also make 'Clonex' rooting hormone.

The first to root was Herm Geller at 5 weeks - I was sent 6 pieces, all of which rooted! Next to arrive was Purple Pashmina (see photo above) at 10 weeks. The remainder are still thinking about it but all are looking good after 13 weeks in their bottles. Thanks for the hot tip Daniela!



And just when you thought you knew everything about mini greenhouses made out of plastic bottles, along comes Luzia Prego of Montijo, Portugal who recycles her plastic bottles in a completely different way!

Luiza prefers to graft the wood she receives and, as you can see from the above photo, she makes a single rootstock go a long way! I count no less than six mini greenhouses protecting her precious grafts.

You can see it's working from the photo on the left which has been taken through the plastic. Little green shoots are starting to pop up on the grafted wood which means that it has a good chance of 'taking'.

That poor little rootstock will certainly have to work hard .. and I hope the wind doesn't blow!

As Luzia says, "Where there is a will, there's a way!"
I hope we get an update on this Luiza!

- Wendy Williams, UK.

DABBLING IN ART WITH CLAY AND PLASTER

Wendy Williams



Someone gave me some potter's clay and I was wondering what on earth I could do with it without access to a kiln for firing. My Hibiscus 'Orange Key' was in bloom and I decided to see if I could make a 3D impression of a flower. First I flattened out the clay with a rolling pin and spread 'Orange Key' onto it. Once I was pleased with the positioning of the petals (I couldn't do much about the long pistil which by this time was hidden underneath them) I began to push the flower into the clay with the back of a small teaspoon.

It was quite tricky because petals are very thin and delicate, but I worked as carefully as I could, pressing down gently so that the veins would stand out and the edges would show clearly. (You can see that I've already pressed in a little cherub ornament left over from Christmas.) I also placed a wooden frame around the clay. On the right I've just finished pulling the bits of flower back out of the clay and you can see the impression left behind.



I then mixed up some plaster of paris and poured it over the clay until it was about 1/4 of an inch deep. I also dropped a little twist of wire into it to form a loop for hanging. It took an hour for the plaster to set firmly enough to remove the wooden frame and discard the clay. You can see the result on the left. Before the plaster was dry, I scratched the name into it because I felt it would make the image more meaningful. A little clay has stuck to the detail which I think adds a bit of depth. When it was dry, I hung it on the wall and gazed at it for a few days, not quite sure whether it was 'finished' or not.



One day I got my watercolours out and began to add colour. I also decided to pick out the veins with gold paint. (Ignore the sun and moon - it's only there to stop the gold paint pot rolling away.)



So I think it might be finished. I even flicked a bit of orange paint around with a toothbrush to give it a bit of added interest. It looks nothing like the original flower but, as a keepsake ... I quite like it :-)

QUESTION AND ANSWER

No. 1 - When to pot up your babies



Tracy Hardy (pictured here on the left) asked: "At what stage do people move their sprouted seeds to seed raising mix soil? These have been in my hot water cupboard in a bit of water. Any tips? The roots are not all straight on some of my others, will they straighten out so I can plant them vertically? As I would assume the leaf needs to be facing up and the root down."



Tracy posted this photo of her sprouted babies on a moist make-up pad. She said "These are ones I shelled and left in water. They grew well but not straight."

Now that the seedling leaves have turned green, these seedlings need rapid attention.



Jennifer Longueville of Salinas, California said "Those are definitely ready, they should be placed root tip down, or sideways if needed. The stalks will grow up to reach for the light. Just be gentle. I like to put them just under the surface loosely covered so that they don't have a hard time coming up."

Tatyana Nikolaenko of Russia (pictured on the right) also replied and sent some photos of her own newly sprouted seedlings. On the left she is holding two healthy looking babies ready which are ready for planting.



This is Tatyana's photo of her newly planted babies, all neatly labelled.

For best results it is important to use a good quality seed compost and keep it moist, not wet.

When the seedlings have about 2-4 true leaves, it will be time to pot them on into a richer mix so that they can thrive and grow.

QUESTION AND ANSWER

No. 2 - How to fertilize your Hibiscus



Atin Chattopadhyay (pictured left) said: "Hi I am new to this group. I love Hibiscus very much. Can someone guide me about Hibiscus fertilizer and it's use, also potting soil ratio. I am from India, Kolkata. Thanks in advance."

Darren Eminian replied: "Hi Atin! For exotic hibiscus fertilizer you want something that has mid to low nitrogen, very low phosphorus and high potassium. Some important micronutrients you would want in it as well are chelated iron & chelated magnesium. Your soil needs to be very well draining with lots of air in it as exotic hibiscus roots get rot easily. Many growers do a 1/3 soil, 1/3 coco coir 1/3 pumice stone or perlite mix. No one solution works perfectly for each location so you will need to experiment and see what soil mix works best in your local conditions as well as the same for your fertilizer. Sometimes certain items are hard to get and you have to be a bit creative to figure out how to find the right inputs for your plants."

What is important to remember that what works in one location and for one grower can vary quite a bit with another. I recommend base guidelines that

have been proven over time through rigorous field testing to be the normal requirements for exotic hibiscus. When you apply careful observations, keep detailed track of how your plants react and careful application of new inputs you will learn over time what makes your plants do best in their particular environments. Through my experience it is possible to find ways to get them to bloom all year round and a lot.

One final factor to take into account also is the hybridization of your plants too. Exotic hibiscus that have been bred to have strong vigorous plants that bloom a lot have the ability to achieve these results. So when you are working hard to figure out how to get results with lots of blooms year round

don't forget that you can be limited by a plant's genetic ability. It might not be one that blooms often or tolerant of certain conditions and is not able to continually be in it's optimal state.



Above: Darren Eminian, the new President of the IHS (see back page!).

Left: Darren is an expert on fertilizers as you can tell by this Cindy's Heart which is flourishing in his garden.

LIGHTEN THE LOAD!

And recycle your polystyrene packaging



The accepted wisdom has always been to use either small stones or pieces of broken crockery to provide drainage in plant pots. Many of us like to use horticultural grit. All of these tend to make a pot quite heavy - which is fine if you are trying to discourage plant thieves, but puts a terrible strain on your back.

A neat, eco-friendly solution is to use either styrofoam packing peanuts, or broken pieces of polystyrene at the bottom of your pots. It means your pots will be easier to carry and the insulation properties of the polystyrene will help keep the roots warm during the winter months.

Just be aware that because landfills are overfilled with non-biodegradable products, many styrofoam packing products are now made to dissolve in time. You can check whether the product you have is biodegradable by leaving a small amount in water for a couple of days.



This stunning glass Hibiscus holder was spotted on the internet and if you ever visit Florida, it is available from branches of Wilford & Lee.



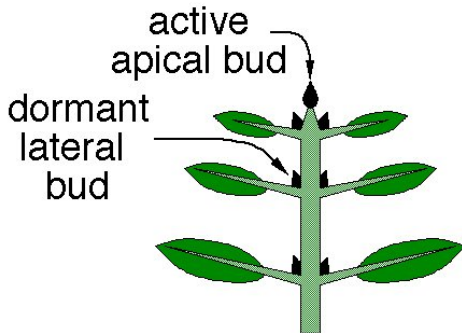
Click here to visit Wilford & Lee.

PLANT HORMONES

... and the role they play in rooting

Wendy Williams

Just like us humans, plants also have hormones but they are rather different to ours. Plant hormones fall into five main groups:



Auxins affect apical dominance, the phenomenon whereby the main, central stem of the plant is dominant over (grows more strongly than) other side stems.

- **Auxins** are produced in terminal buds (the tip of a branch). They affect cell elongation (tropism) and apical dominance (see the illustration). They are also found in root tips and promote root growth. It is also auxins that affect fruit drop or retention.
- **Gibberellins** affect cell division, flowering, size of fruit and leaves and they are important in overcoming seed dormancy.
- **Cytokinins** promote cell division, aging in leaves, and influence cell differentiation
- **Abscissic acid** is especially important for plants in the response to environmental stresses, including drought, soil salinity, cold tolerance, freezing tolerance, heat stress and heavy metal ion tolerance. It also has a function in seed and bud dormancy.

The plant hormone that most of us will at one time or another have used is an auxin which stimulates root growth. Some plants make roots very easily, but the Hibiscus rosa-sinensis is notoriously stubborn, and this is where a rooting hormone can help.

There are two naturally occurring auxins:

Indole-3-acetic acid (IAA)
Indole-3-butyric acid (IBA)

IAA is the most abundant auxin in plants, but it is not used very much for propagation since it breaks down quickly both in plants and when exposed to light. IBA is found in very small amounts in plants because plants convert it to IAA.

Man has synthesized compounds that behave like auxins in plants and one of these is alpha-Naphthalene acetic acid (NAA). NAA is a molecule that is very similar to IAA, and mimics IAA in plants so that plants can't really tell the difference between the two.

So IBA and NAA are the two hormones that are found in most commercial rooting products.

There are liquid, powder and gel forms. The powder forms are said to be a bit less effective, but they are easier to work with and less toxic. They all have a shelf life so check the expiry date - powders will probably remain active longer. They should all be stored in cool darkness - a fridge is perfect.

Different plants need different concentrations of rooting hormone. Too little and there will be no effect, too much can result in blackening of the stem, yellowing leaves and even death of the cutting. Woody plants like the Hibiscus need the hormone in a higher concentration.

I have experimented with NAA but did not notice any benefit. Others have suggested that the best rooting hormone for Hibiscus is Hormodin 3 - which is a high concentration IBA.



HIBISCUS BAPTISTII

(HAWAIIAN FLAG)

Munirah Shuaib



A beautiful photo of Hibiscus baptistii taken by Munirah Shuaib of Alor Setar, Malaysia.



Ka Hae Hawaii, also known as The Hawaiian Flag was introduced to Hawaii before 1893 from the Baptisti Nursery in Australia. Ten years later it was planted all over Honolulu as a protest to the overthrow of Queen Lili'uokalani. *(From the website of Hibiscus Lady Nursery, Hawaii).*

In 1964 Ross H. Gast visited a Northern Queensland nursery and wrote: "I did find a very good plant of baptistii, the odd variegated red and white that one sees in Hawaii occasionally. It is called Hawaiian Flag there. As I remember, this variety was found as a sport by an Adelaide nurseryman nearly a hundred years ago, and sent to England where it enjoyed a brief vogue as a hot house novelty ... so learned that Baptisti & Son were nurserymen near Sydney and introduced baptistii (now called Hawaiian Flag)". *(Extract from a letter by Ross H. Gast to J.W. Staniford published by the American Hibiscus Society in 1980.)*

Hibiscus baptistii is available for sale from the Hibiscus Lady Nursery, Hawaii.



HAVE NEONICS HAD THEIR DAY?

The problem with imidacloprid

Wendy Williams



Neonicotinoids (sometimes shortened to 'neonics') are a class of neuro-active insecticides chemically similar to nicotine. In the 1980s Shell, and in the 1990s Bayer, started work on their development. The family includes acetamiprid, clothianidin, imidacloprid, nitenpyram, nithiazine, thiacloprid and thiamethoxam. **Imidacloprid is the most widely used insecticide in the world.**

Neonicotinoid use has been linked to adverse ecological effects, including honey-bee colony collapse disorder (CCD) and loss of birds due to a reduction in insect populations. However, the findings have been conflicting, and thus controversial.

To members of the species *Apis mellifera*, the western honey bee, imidacloprid is one of the most toxic chemicals ever created as an insecticide. A 2017 study in the journal 'Science' found neonic pesticides in 75% of honey samples from around the globe. The poison is slow acting, and the bees do not die at once but bring the poisoned nectar and pollen back to the hive.

Imidacloprid has also been found in studies to be toxic to four bird species: Japanese quail, house sparrow, canary, and pigeon.

Although imidacloprid breaks down rapidly in water in the presence of light, when not exposed to light imidacloprid breaks down slowly in water, thus having the potential to persist in groundwater for extended periods. In soil, under aerobic conditions, imidacloprid is persistent with a half-life of the order of 1–3 years. On the soil surface the half-life is 39 days.

EUROPE: In February 2018, the European Food Safety Authority published a new report indicating that neonicotinoids pose a serious danger to both honey bees and wild bees. In April 2018, the member states of the European Union decided to ban the three main neonicotinoids (clothianidin, imidacloprid and thiamethoxam) for ALL outdoor uses.

CANADA: In 2016, Health Canada proposed phasing out the neonic imidacloprid over the next three to five years. The government's concerns included not only the impact of neonics on bees, but serious concerns regarding invertebrate water species and birds were also voiced. On June 7, 2018 Health Canada proposed phasing out a number of uses of neonicotinoids in order to mitigate risks to pollinators. The agency has completed its review of clothianidin and thiamethoxam - two neonicotinoids that have been linked to pollinator decline and finds risks of concern for bees. However, these measures do not go as far as those recently made in the European Union, but further than label restrictions issued by the U.S. Environmental Protection Agency (EPA).

USA: Maryland and Connecticut have both taken steps to limit the use of neonics. On April 7, 2018 Maryland became the first state to ban the consumer use of neonicotinoid pesticides. According to the U.S. Department of Agriculture, Maryland's bee loss has been one of the highest in the country.

On a recent THML thread Mark Evans wrote: "This is only my own personal experience ... and I am not certain that living in Miami it could be due to aerial spraying for the Zika virus carried by mosquitoes ... but this is the first year ever that I have not seen a single honeybee on any of my plants. The numbers have been steadily declining each year but I have been shocked and dismayed that I haven't seen ANY so far this year. All this rain and no mosquitoes which is nice but no bees or butterflies either.

Tom Miller wrote: "While the Bayer products at Home Depot had no imidacloprid, even the ones that used to have it, Lowe's had some different Bayer products that did - "Fruit, Citrus & Vegetable Insect Control" and one more. I do believe that Bayer is starting to phase it out.

A CELEBRATION OF BEAUTY

A selection of fabulous photos shared by members of the
International Hibiscus Society



CYBER SISTER

(Midnight Blue x Blue Bayou)
Hybridized and photographed by Elena Tabuntsova



MOOREA MY BLUE PEARL

(Moorea Moana Storm x
Moorea Anastasya)
Hybridized by Charles Atiu
Photo by 姚君諾



ASIA CHICO RAINBOW

[Not registered]

Parentage unknown
Hybridized, grown and photographed by Vicki Lai

**IMMA CASIANA
GABRIELA**

(Moorea Eros x
Moorea Lovely Treasure)
Hybridized by Charles Atiu
Photo by Rodrigo Joseph
Bautista



CHERRY APPALOOSA



(Morgan Alyssa x Rebellious Spirit)
Hybridized by Charles Black
Photo by Neneng Zenarosa

AFRICA

(Feelin' Blue
x Black Jack (Dupont))
Hybridized by Sonny Stollings
Photo by Veronika Vondrusková



TAIWAN MAGIC STOAT [Not Registered]



(Taiwan Lovers of Verona x Snow on the Mountain)
Hybridized and photographed by Aneela Léa



OUT OF THE ASHES

(April Showers x Midnight Blue)
Hybridized by Charles Black
Photo by Darren Eminian

QMMA CHARLES' PASSION



(Moorea Weird Mood x Moorea Milagro)
Hybridized by Charles Atiu
Photo by Alex Huang Pohan





FESTIVAL OF LIGHTS

(White Diamonds x Unknown)
Hybridized by Pushpa Suresh
Photo by Veronique Demailly



EVA PAOLONI

(Grey Lady x Herm Geller)
Hybridized by Joe and Roberta Ludick
Photo by Adil Demirboga

The Weird and the Wonderful

MEET THE METHUSELAH TREE

Grown from a 2,000 year old seed



©powo.science.keew.org

Israeli researchers managed to grow a date palm from a seed found in an ancient jar during excavations at Herod the Great's palace at Masada, Israel. Radiocarbon dating confirmed the seeds dated from between 155 BC to 64 AD.


After special treatment with fertilizer and hormone-rich solution a seed grew, and the sapling was nicknamed 'Methuselah' after the longest-lived person named in the Bible. Methuselah is remarkable in being the oldest known tree seed successfully germinated, and also in being the only living representative of the Judean date palm which was once a major food and export crop in ancient Judah, but which has been extinct for over 800 years,

Genetic studies suggest it may share about half of its genetic code with modern dates. Methuselah flowered in March 2011 and is male. It produced pollen that has been used successfully to pollinate female date palms.

Tests showed the plant to be closely related to the old Egyptian variety Hayani, 19% of its DNA being different, and an Iraqi cultivar (16% different DNA). They may have shared the same wild ancestor.

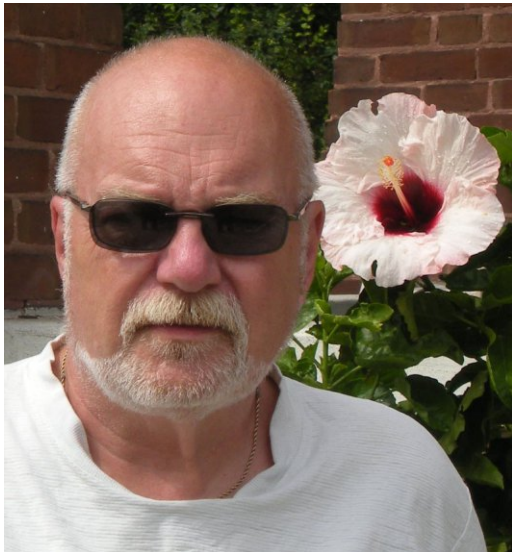


Herod the Great by James Tissot, 1836 - 1902

[Click here to see a video about Methuselah.](#)  WEB LINK



Darren Eminian



Kes Winwood

ALL CHANGE ON THE BOARD!

There have been some changes to the Office Bearers of the IHS and the biggest one is that, after 8 years in office Kes Winwood, our President, has stepped down. He is replaced by the previous Vice-President, Darren Eminian.

Darren, who lives in Larchmont Heights, California, is famous for the fabulous displays of Hibiscus in his garden. Not just a handful of blooms per day, but literally hundreds! Darren is already President of the Southern California Hibiscus Society and will, I have no doubt, be an inspiration to us all. He is also the owner of Colorlicious Landscaping.

I know you will all join me in thanking Kes, who is stepping down, for all his hard work on behalf of our Society. I am honoured to call him a friend (although we have never met in person) and have very much enjoyed our trans-Atlantic Skype sessions between the UK and Canada chatting about TV, politics, pets, weather and even occasionally Hibiscus. Kes has been largely responsible for the overhaul of our superb website and his IT skills have been invaluable. It feels like the end of an era!

Kes is not, however, allowed to leave us and I am delighted to tell you that he will continue to work behind the scenes making sure that the IHS holds its place as one of the most interesting and inclusive horticultural societies in the world!

I have accepted the role of Vice-President (gulp!) and will be supporting Darren. We also welcome Waldi van Rensburg who will represent Africa, replacing Gail Cahi who is sadly no longer with us.

- Wendy Williams

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Web Address - www.internationalhibiscussociety.org
E-mail Address - InternationalHibiscusSociety@yahoo.com

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