



INDIAN ROSE FEDERATION

MONTHLY ELECTRONIC - NEWSLETTER – VOLUME – 16.



Presidents Page

Dear Members,

The 34th All India Rose Convention held in Pune under the aegis of the Indian Rose Federation and hosted by the Maharashtra Rose Society concluded recently. We tried our best to make this Convention truly educative, informative and entertaining. Whether we could satisfy you all delegates during this period, you have to tell me. But for me I'm very satisfied, nay, overjoyed in respect of two achievements of this Convention. Firstly our mentor and guide for last three years, Mr. Ahmed Alam Khan was honorably inducted as the President Emeritus of the IRF. All of us will appreciate his historic contribution that he has single handedly put our organization on the international platform. The global leaders of the World Federation of Rose Societies are respecting Indian rosarians and appreciating their contribution to the rose fraternity. I'm glad that the sound advice, guidance and all assistance of Ahmedbhai will be available to us always.

The second happy event of this convention was smooth, unanimous and unopposed election of the incoming governing council of the IRF. This happy historical result was possible only because of noble action of contesting nominees who were seeking election to the governing council. They withdrew their nominations thus ensuring unopposed elections of all posts. I'm grateful to them for their magnanimous decision which paved the way for rancour free transition. This, hopefully, will guide us in avoiding any bitterness during taking decisions in future and steer clear with taking care to avoid any confrontations as consensus is the

way ahead to achieve greater heights.

I most heartily congratulate all the members of the new governing council and expect them to be active in their respective areas. Suggestions for improvements in the working of the IRF are welcome. Hence members of the IRF are requested to suggest novel ideas, actions etc to me directly, I assure you that serious cognisance will be taken of your suggestions during meetings of the Governing Council.

With warm regards and all my good wishes for a happy, rosy year ahead,

Suresh Pingale.



EDITORIAL.



Hello dear rose lovers and members, been a long time not heard anything from you all, seems you all are busy with your garden chores, the season has ended and the summer heat has already started too early, the weather playing a truant and some areas facing a scarcity of water, let us hope for the best, as news pours in that some growers have already started discarding a few plants due to water problems.

There is some good news for you all, anyone interested in visiting China for the World Regional Conference, the last date has been extended till 30th April - 2016, for further information please visit their site for registration details.

With a heavy heart, I said goodbye to our outgoing highly respected and loved President, Ahmed Alam Khan, at the conclusion of the Pune Convention, it was my pleasure and honor working with the esteemed personality, which he is, but that is not the end of the road, he is still with us and will always be, coming out with innovative ideas and guiding the Federation to the path of success.

I am quite happy with the induction of new young faces in the Governing Council for the term 2016 - 2019, to top it most are rose growers, a very important requirement for IRF, I hope the newly elected members will put in efforts to glorify the Organization and take it to higher levels, just sitting in the Council for name sake was never beneficial nor will be, if one takes the responsibility it should be with some results, both to the Organization and the respective area of representation, wish all the new entrants best of luck.

Take care

Arshad Bhiwandiwalla.



17th WORLD ROSE CONVENTION
ABSTRACTS OF LECTURES

Sunday, 31st May - 10-15-10.45

Mechanisms of polyploidization

Benjamin Govetto, Manuel Le Bris

The genus *Rosa*, comprising around 200 species, has the particularity to show a high richness in polyploids (organisms owning more than two sets of chromosomes) ranging from diploid up to decaploid species.

In spite of the wide diversity in *Rosa*, only a dozen of wild species would have contributed in modern roses, explaining their relatively limited genetic background. Interspecific hybridizations with new wild species, in the aim of introgressing new traits and broadening the modern rose genetic background, are actively sought by plant breeders. However, the differences in ploidy level between wild species (mostly diploids) and cultivars (mostly tetraploids) often lead to a sterile offspring. A promising pathway to overcome this ploidy barrier is the fertilization of tetraploid cultivars with diplogametes ("unreduced" gametes with somatic chromosome number) induced in wild species. However, the knowledge of polyploidization mechanisms (e.g. the cytological events, the inductive environmental cues or the genetic factors) is still limited in plants. Before being able to develop routine tools in rose breeding using diplogametes, more data and information about their formation need to be collected.

In this context, both environmental and developmental conditions able to reproducibly induce a high production of male diplogametes were recently identified in *Rosa* in our lab. A short exposure of high temperatures in early meiosis is sufficient to trigger the formation of diplogametes. From this perfectly reproducible rose biological model, cytological changes leading to diplogametes were observed: mainly microtubule re-orientations in metaphase in meiosis II, a few cytotoxic events and complete omissions of the second meiosis are not excluded. As some of these modifications phenocopy *Arabidopsis* mutants, orthologous genes are studied in *Rosa*. In addition, potential new pathways are also investigated by comparing the differentially expressed genes in *Rosa*.

All these discoveries might allow to open up new opportunities in rose breeding: e.g. in breeding genotypes highly producing diplogametes, or in stimulating a high production of diplogametes by playing with both climatic conditions and developmental stages. By providing easy access to still unexploited wild resources, Modern rose might benefit from such new tools.

Benjamin Govetto, Manuel Le Bris

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17th WORLD ROSE CONVENTION ABSTRACTS OF LECTURES

Sunday, 31st May - 10.45-11.15

Exploring flower shape and architecture

Annick Dubois

Wild and cultivated roses harbor a huge diversity of flower morphologies, colors and scents, making them a particularly intriguing model for the study of natural and artificial evolution of floral traits. How are rose flowers forming? Behind this apparently trivial question lies particularly complex research, as we know very little yet about the biology of the ornamental perennial. Wild rose's floral diagrams harbor very high organ numbers, which allows for a variety of morphology changes observable in our garden roses. How do we tackle this question at the basic research level?

How do we - geneticists and molecular biologists - revisit the rose floral diagram? Our group at ENS-Lyon focuses on floral architecture, especially on the genetic control of petal size and petal number. While wild roses all have 5 petals, most cultivated roses have double flowers ranging from 10 to as many as 200 petals.

Using morphological analysis and microscopy we described the first stages of floral organogenesis in roses. Our approach to study flower architecture was based on the existing background knowledge in model plants and on the analysis of gene expression at the very first steps of floral development. We compared gene expression in simple and double rose flowers, and we showed that differences in the regulation of the rose *AGAMOUS* gene could explain the differences in phenotype. From these results, we drew a genetic model explaining the changes in double rose flower architecture. By a combination of genetic, molecular and transcriptomic approaches we now seek possible causes explaining the *AGAMOUS* differential regulation in the double flowers. In the course of this study, we built a series of tools to study molecular biology and genomics which will be useful to study other traits in roses.

Annick Dubois, Xiaopeng Fu, Delase Amesefe, Aurélie Durand, Olivier Raymond, Jeremy Just, Laurence Hibrand Saint-Oyant, Manuel Le Bris, Sébastien Carrère, Jérôme Gouzy, Sylvie Baudino, Fabrice Foucher, Philippe Vergne, Mohammed Bendahmane

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17th WORLD ROSE CONVENTION ABSTRACTS OF LECTURES

Sunday, 31st May - 11.45-12.15

Genotype x environment interaction on the plant architecture in rose bush

Camille Li-Marchetti

The shape and, therefore, the architecture of the plant are dependent on genetic and environmental factors. The architecture determines the visual quality, a key criterion underlying the decision to purchase an ornamental potted plant like rose bush. Plant shape can therefore be controlled through the genetic pathway via plant breeding and/or control of the environment, the application of cultivation techniques such as water restriction.

More extensive knowledge about the heredity of architectural characteristics as well as the genotype x environment interaction would lead to a more effective control of plant architecture and, as a result, its shape. The effect of water restriction (WR) was assessed on the architecture of eight rose bush cultivars with contrasted shapes. Water restriction effect was revealed for all the architectural variables measured with a decrease of growth and branching leading to more compact plants. Likewise, genotype (G) effect, as well as G x WR interaction - with three distinct genotype responses: weak, moderate and strong - were highlighted.

This work will allow:

- To develop, within the framework of breeding program, new cultivars that are tolerant of water deficit without damaging the shape of the plant and, therefore, its visual quality,
- To control plant shape by cultivation techniques such as water restriction in order to respond to consumer preferences.

Camille Li-Marchetti, Camille Le Bras, Daniel Relion, Alain Ferre, Oscar Stapel, Jean-Marc Deogratias, Soulayman Sakr, Philippe Morel, Laurent Crespel

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17th WORLD ROSE CONVENTION ABSTRACTS OF LECTURES

Sunday, 31st May - 11.15-11.45

Deciphering recurrent blooming

Fabrice Foucher

In rose, recurrent blooming has played an important role in the success of roses. Once flowering roses flower only in spring, whereas recurrent roses have the ability to flower several times a year. Among recurrent roses, some roses [as modern roses or old Chinese variety as 'Old Blush'] can flower continuously. We have demonstrated that the continuous-flowering phenotype is due to a genetic mutation in a gene encoded a floral repressor. In once-flowering roses, the production of this floral repressor is seasonally regulated. The molecule is not produced in spring allowing blooming to take place. Then after the blooming period, all the new emerging shoots produce the repressor and are unable to flower again till the next spring.

In continuous-flowering plants, the gene encoded the floral repressor is mutated by the insertion of a large DNA element, called *copia*, in the gene sequence. Due to the insertion of this *copia* element, the roses could not anymore accumulate the repressor, and consequently they flower continuously. Furthermore, we have demonstrated that this mutation is reversible. In the climbing mutants, as 'Old Blush Climbling', the *copia* element is replaced by a shorter element. The climbing rose mutant can then accumulate the repressor and cannot flower continuously.

The continuous-flowering mutation was introduced in Europe from old cultivated Chinese roses and progressively selected during the 19th century, leading to the modern roses. We draw new hypothesis concerning the origin of recurrent blooming in *Rosa moschata* and *Rosa rugosa*. Their ability to flower several times a year could be explained by a different regulation of the gene encoded the floral repressor. The floral repressor is less accumulated than in once-flowering roses, and new blooming is possible in summer or in autumn.

By studying this floral repressor, we bring new knowledge on the physiology of flowering in rose and the different environmental and endogenous factors that affects blooming.

Fabrice Foucher

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"PUNE IRF CONVENTION"

All rose lovers must be happy that the Pune Convention passed off peacefully. Fairly well organised and attended. The rose show was good. Congrats to the organising team. I have a humble suggestion in this connection. Efforts should be made to stick to the show schedule sent to the prospective exhibitors via email. It can be a great disappointment to the participant when he / she comes to know at the show hall that the section (s) which were included in the earlier schedule and for which he / she has come prepared have been omitted ! "

" NEW SCHEME OF PRIZES INTRODUCED BY NAGPUR GARDEN CLUB"

With a view to accord due recognition and their deserved places at rose shows to floribundas and miniatures, The Nagpur Garden Club has introduced the following scheme of prizes and trophies beginning with their Winter Show held on 10, January 2016.

HTs : No 1 : H. T. King,

No 2: H .T. Queen,

No 3: H. T. Prince,

No 4: H. T. Princess

Floribundas (Single stem) : No 1 : Floribunda King,

No 2 : Floribunda Queen

Minis (Single Stem). : No 1: Miniature King ,

No 2 : Miniature Queen

I am looking forward to a day when the number of entries in the floribunda and mini sections shall match the number of HT's so that the number of prizes can also match.

Many exhibition bugs might now recollect that a similar pattern is prevalent in many rose societies at least in the USA.

Thanks and good wishes,

Dr. N. V. Shastri.

Nagpur.

The 34th All India Convention at Pune

Prof. A. S. Waranashiwar

All roads lead to Rome ! This is what exactly happened on the 22nd of January – 2016, on the auspicious day of the 34th All India Rose Convention at The Empress Garden, Pune. The Convention was organized by The Maharashtra Rose Society under the aegis of Indian Rose Federation from 22nd to 24th Jan - 2016, and was dedicated to the loving memory of the former President of India, Dr. A. P. J. Abdul Kalam.

The Convention was termed as "MAHAROSE"

The glorious day started with the glory of the rose show. The weather was salubrious. Rosarians from Pune, Thane, Nagpur, Jabalpur and other parts of the Country presented a galaxy of Hybrid Teas, Floribundas and Miniatures to produce a riot of colours. Participants held their breath in suspense as the judging was on. Mr. Ashish More's "Confidence" won the "King of the Show", Mr. Nimhan's "Gladiator" won the "Queen of the Show". Mr. Ashish More also won the "Prince of the Show" for his "Lutin" and Dr. Vikas Mhaskar's "Rosemarin" won the "Princess of the Show". Mr. Nimhan won the "Best Indian Bred" trophy for his newly bred variety, "God's Particle". The Convention was being held in the kaleidoscopic backdrop of the Empress Botanical Garden, Camp, Pune. The main pavilion where all the important events took place was named after the late Shri P. L. Mokashi, the Founder and former President of the Indian Rose Federation as a tribute to him. The atmosphere was electrifying as the Show opened and the fragrance spread as naturally as breathing... The roses were presenting the magical spell with their arresting charm...

The Convention was inaugurated at the hands of Mr. Kelvin Trimper (Australia), President of World Federation of Rose Societies (WFRS) with Mr. Ahmed Alam Khan, President the Indian Rose Federation in chair. After the inauguration ceremony, Mr. Arun Patil (Pune), and Mr. Rakesh Shrivastava (Tatanagar) were honoured with Gurubakshsingh Gold Medal. Mr. Shekhar Dutta (Kolkata) and Mr. Sanjoy Mukerjee (Kolkata) were honoured with Vijay Pokarna Gold Medal. The ex – Presidents of IRF, who were present at the Convention were also duly honoured, Smt. Meenatai Pimplapure, Mr. Ramrao Jagtap, Mr. B. S. Thipse and Dr. A. S. Sable.

The first Technical Session commenced with the speech of Mr. Ganesh Kadam of Floriculture Research Centre on "Open Field Cultivation of Roses", followed by the talk of Mr. Ashish More and Mr. Ganesh Shirke on "Potted rose culture for hobbyist" and different varieties of roses. This was followed by the lecture of Prof. Arun Waranashiwar on finer points of rose cultivation in soil as well as in pots . The practical tips highlighting the care and

cultivation of roses in pots , were well received by the audience. After the session, the delegates were treated with musical extravaganza followed by dinner.

Day two opened with another Technical Session with talks by Mr. Arun Patil on "Rose nurseries in Pune and Maharashtra". The next speaker was Dr. K. B. Jagtap, Project Manager, Hitech Floriculture, Agriculture College Pune, who spoke on "Protected Cultivation of Roses" and Dr. D. S. Kakde, Plant Pathologist, who spoke on "Integrated Pest Management". All the talks were accompanied with excellent slides. Dr. M. T. Patil summarized the proceedings of the Technical Sessions. Thereafter, Mr. Sanjoy Mukherji demonstrated how to fill up the pots, using cinders as the chief medium for growing roses. As we all know, his method of using cinders has resulted in prolific flowering of roses in pots. His demo was appreciated by all.

After the Technical Session was over, the delegates enjoyed the Indian cuisine at lunch. At 3.00 pm, The Annual General Meeting (AGM) started under the Chairmanship of Mr. Ahmed Alam Khan, President - IRF. The elections were due at this point of time but were avoided due to amicable settlement of the contestants. Mr. Suresh Pingale (Pune) as the President, Mr. Arshad Bhiwandiwalla (Mumbai) as the Secretary and Ms. Anupama Barwe as the Treasurer were elected unopposed to the IRF for a term of next three years. Similarly all the members on the Governing Council were also elected unopposed to the IRF. In the evening, the prize distribution programme was held with great gusto and enthusiasm, cheering the winners. A musical programme with variety entertainment was held in the evening

On the third and final day, the delegates visited Mr. Pundlik Nimhan's big garden, with "Gladiator" dominating the scene. After having a tasty breakfast, the buses headed for Talegaon where the visitors could see Polyhouse roses grown at the Horticulture Training Centre and Polyhouse of Mr. Raskar and another big pot culture Polyhouse.

In the afternoon, the delegates visited "Pingale Farm" wherein a newly developed rose garden presented another feast to the eyes. After a stroll in the garden the delegates had lunch hosted by the incoming President of IRF Mr. Suresh Pingale.

The rose convention was gradually coming to an end. The team of the Maharashtra Rose Society had worked round the clock to make this convention a grand success. With a promise to meet at Kolkata for the 35th Convention in January 2017 , the delegates parted with pleasant memories of the 34th All India Rose Convention at Pune : The cultural capital of Maharashtra.























Given above are a few photos of the inaugural function, lightening of the lamp, welcome address by Mr. Suresh Pingale, release of IRF Annual and Souvenir of Maharashtra Rose Society, felicitation of Past Presidents, present at the Convention, by President WFRS, Mr. Kelvin Trimper and Mrs. Helga Brichet, felicitation of Mr. Kelvin Trimper, President WFRS, Mrs. Trimper, Mrs. Helga Brichet, Mrs. Uzma Ahmed Alam Khan at the hands of the President, IRF Mr. Ahmed Alam Khan and Mr. Suresh Pingale welcoming and felicitating the President IRF, Mr, Ahmed Alam Khan, Mr. Ravindra Bhide, President, Pune Rose Society, Mr. Vijay Kant, Hon. Secretary, IRF, Mr. Veerbhadra Rao, Hon. Treasurer, IRF and Mrs. Sumati Kirloskar, Mr. Kelvin Trimper, President WFRS, presiding at the inaugryal function and handing over the award of Garden of Excellence to Mr. Ahmed Alam Khan, for his Green Valley rose garden, which was selected at Lyons, France - 2015 for the award, last photo, Mr. Ahmed Alam Khan, President IRF and Vice President (Central Asia) WFRS, speaking at the Inaugural Function.