Interactive meeting

on

Doubled haploids: Scope and Future in Horticultural crops

Organized by
Society for Promotion of Horticulture
and
Indian Institute of Horticultural Research, Bengaluru

Date: 4th Oct, 2013
Venue: IIHR, Bengaluru
Sexually producing plants carrying a set of chromosomes from each parent are the rule in nature. For crop breeders, haploid plants represent a more useful resource. Though, haploidy was first reported by Bergner in 1921, the first attempt to use haploidy in breeding was done by Chase (1952) in maize. Ever since, several techniques for induction of haploidy including pollen irradiation prior to pollination, alien cytoplasm, ultra wide hybridization, micro/megaspore culture, and more recently, the Cenh3 histone based haploidy have been reported in several crops with varying success. Since such plants have only one version of each gene, they are of special interest for geneticists. Further these plants can be used to develop doubled haploid (DH) populations which are of great value in crop improvement.

Incorporating DH in breeding programs has the advantage of accelerating inbred line development by achieving homozygosity instantly within a generation. DH technique can be used to transfer sterile cytoplasm of CMS lines into a desirable background in a single step avoiding many generations of backcrossing. Further, DH can also be employed for studying inheritance of quantitative traits, QTL mapping, genomics, gene identification, as base material for TILLING populations, production of stable transgenic plants and reverse breeding.

With these advantages, haploidy is emerging as a powerful tool to enhance genetic gain per cycle which is of more relevance in horticultural crops which are either perennial or out crossing with inbreeding depression or with great commercial value where breeding duration is critical.
Recognizing the growing interest in this area, Society for Promotion of Horticulture, Bengaluru in collaboration with IIHR, Bengaluru, is organizing one day interactive meeting on, “Doubled haploids: Scope and Future in Horticultural Crops“ on 4\textsuperscript{th} Oct, 2013. This meeting is an attempt to create awareness, deliberate and debate on strategies and prospects of using doubled haploidy in horticultural breeding programs.

Eminent scientists from CYMMIT, IISER, UAS Bengaluru, Monsanto, Syngenta, Namdhari’s, Invitro International etc shall participate as resource persons.

The program shall cover lectures on the following areas.

- Haploids in crop improvement: applications and prospects
- Haploids in vegetable crop improvement: feasibility and advantages
- Novel techniques for development of haploids in crop plants
- CIMMYT’s experience on crop improvement using doubled haploidy
- Genetic and transgenic approaches for haploid plant production
- Application of DNA Markers in haploid breeding
- Commercial production of double haploids with special reference to horticulture crops

Registration fee

<table>
<thead>
<tr>
<th>Category</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>General</td>
<td>Rs. 1000/-</td>
</tr>
<tr>
<td>Students/SPH members</td>
<td>Rs. 500/-</td>
</tr>
</tbody>
</table>

Demand draft/ Cheque drawn in favor of SPH, Bengaluru payable at Bengaluru along with filled in Registration form may kindly be sent to the Secretary, Society for Promotion of Horticulture, IIHR, Hesaraghatta Lake PO, Bengaluru-560089 for registration.
Organizing Committee

Chief Patron:
Dr. N.K. Krishna Kumar, 
DDG (Hort), 
ICAR, New Delhi

Chairman:
Dr. A.S. Sidhu, Director, 
IIHR, Bengaluru

Organizing Secretary:
Dr. A.T. Sadashiva, 
Principal Scientist and Head, 
Div of Vegetable Crops, 
IIHR, Bengaluru

Convenors
Dr. T. S. Aghora
Dr. K. Madhavi Reddy
Dr. E. S. Rao
Dr. N Mohan

For further details kindly contact, 
Dr. T. S. Aghora 
Mob/Tel: 09986100079 or 28466420 ext: 280 
Email: aghor@iihr.ernet.in
Interactive meeting on
Doubled haploids: Scope and future in horticultural crops
Organized by
Society for Promotion of Horticulture
&
Indian Institute of Horticultural Research, Bengaluru

Date: 4th Oct, 2013  
Venue: IIHR, Bengaluru

Name:
Designation:
Address for communication:

Phone/Mobile:
Email ID:
Category: Student/ SPH member/ General
Mode of Payment: Cash/ DD/ cheque

Signature