also invited to submit concept notes on research directed at resolving major constraints faced by the cultivation of cucurbits and post harvest utilization (for example, reducing drudgery of pollination, inter-specific or inter-generic hybridizations, bitterness and deformity in cucumber, possibility of storing ivy gourd in brine, pharmaceutical utilization of cucurbits, pest (fruit fly) and diseases (downy mildew), etc.). Top ten concept notes will be selected and the students will be invited to present their ideas during the seminar. The invited students will be provided with return Second Sleeper expenses on shortest route from their place. **Top three concept notes will be awarded.** 

#### **Field Visit**

During the seminar, a field visit of the participants will be organized to Central Horticultural Experiment Station, Bhubaneswar for showing its genetic resources of various cucurbitaceous vegetables like *Momordica dioica*, *M. subangulata* subsp. *renigera*, *M. cochinchinensis*, *M. suboica*, *, Solena amplexicaulis* etc. and to encourage the scientists to take up research on some of these crops in their respective regions. Some crops like pointed gourd and teasel gourd are commercially cultivated in eastern and north- eastern India which are not so popular in many southern states. This field visit would be useful for the researchers from all over the country to benefit from the on-farm discussions on various aspects of the cultivation of diverse cucurbits.

#### Venue:

Bhubaneswar, Odisha

#### Important dates:

Date of First Circular: 15th May 2014

Last date of submission of abstracts: 15<sup>th</sup> July 2014

Last date of submission of student abstracts and concept notes: 1<sup>st</sup> July 2014

#### Registration fee:

Scientists/Researchers/Delegates : 4000/ SPH Members : 3000/-

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Students/Research Scholars : 1000/-

Demand draft/ Cheque drawn in favour 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, Hessaraghatta Lake PO, Bengaluru-560 089 for registration.

#### Please contact:

#### Dr. L. K. Bharathi

Organizing secretary

Mob: 09776675599

Email: cucurbitseminar@gmail.com

### **REGISTRATION FORM**

# NATIONAL SEMINAR-CUM-WORKSHOP ON "STRATEGIES FOR IMPROVING PRODUCTIVITY, UTILIZATION AND EXPANSION OF CUCURBITS"

#### Organized by

CHES-IIHR in collaboration with SPH, Bengaluru

Name of the Bank

Amount

Number of persons:

Date

Registration Fee:

#### **About Bhubaneswar**

Bhubaneswar, popularly known as Temple City of India, is located in south-west of the River Mahanadi. Hundreds of temples dot the landscape of the Old Town, which once boasted of more than 2000 temples. Bhubaneswar is the place where temple building activities of Orissan style flowered from its very inception to its fullest culmination extending over a period of over one thousand years. The twin hills of Khandagiri and Udayagiri were chiseled out for the ascetic Jain monks, also has some inscriptions describing the exploits of king Kharavel. The Dhauli hill has major edict of Mauryan emperor Ashoka engraved on a rock and white Peace Pagodapeace (Shanti Stupa). Nandankanan Zoological Park,

Peace Pagodapeace (Shanti Stupa). Nandankanan Zoological Park India's first zoo to join World Association of Zoos and Aquariums, is famous for various endangered species, safaris and white tigers. The other attractions around Bhubaneswar are Pipli (famous for applique work), Atri (hot spring) and Hirapur (the shrine Chausath Yogini Temple). The new Bhubaneswar with its modern buildings and extensive infrastructure perfectly complements its historic surroundings. Having some of the finest Institutions in its lap, Bhubaneswar has emerged a major educational hub in eastern India.

Just like the rest of Odisha (formerly Orissa), Bhubaneswar experiences tropical climate. During monsoons, the city receives approximately 1450 mm of rainfall. The weather during August is quite pleasant, though it may be a little sticky because of the humidity. Average temperature in August may hover around 32° C.

#### Accommodation

A range of options has been identified by the organizers for the conference. The delegates, to the extent possible will be accommodated in guest houses depending upon the availability of rooms, on first come first serve basis. Hotel accommodation can also be arranged by the organizers, on information of confirmed itinerary on chargeable basis. Transport from hotel/guest houses to the venue will be arranged by the organizers.







**National Seminar-cum-Workshop on** 

# STRATEGIES FOR IMPROVEMENT, ENHANCING PRODUCTIVITY AND UTILIZATION OF CUCURBITS August 8-10, 2014

Organized jointly by





CENTRAL HORTICULTURAL EXPERIMENT STATION
(Indian Institute of Horticultural Research)

Bhubaneswar



# **CENTRAL HORTICULTURAL EXPERIMENT STATION**

(Indian Institute of Horticultural Research)
Aiginia, Bhubaneswar-751019, Odisha

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# Background

The cucurbits of New World origin and of international importance like cucumber, water melon have been well studied for their distribution, genetics, improvement and utilization. The Old World cucurbits like pointed gourd, ivy gourd, bottle gourd, bitter gourd, sweet gourd, teasel gourd, spine gourd, ash gourd, sponge gourd, ridge gourd and some native melons are broadly cultivated in India and several South-East Asian countries. However, these crops have not yet been studied thoroughly due to supply and use constraints, in spite of their huge potential for commercial exploitation owing to their popularity in specific geographical pockets. These constraints are borne out of poor yield and shelf life, un-recognized nutritional value and poor consumer awareness. There is an urgent need to characterize and conserve the native cultivars spread across the country, improve the qualitative and quantitative attributes of the local genotypes through modern breeding techniques, produce quality planting material and making them available across different areas with similar climatic conditions, explore their post-harvest potential for development of products and export.

As a result of agricultural evolution process, formerly underutilized crops are now being globally considered as potential crops, especially due to their significant nutraceutical value and improved market demand. Demand for cucurbitaceous vegetables like bitter gourd and sweet gourd has increased in international market due to the presence of rich health promoting compounds such as lycopene and  $\beta$ -carotene in sweet gourd, or charatin present in bitter gourd, which are known for significant health benefits. Indigenous cucurbits like *gantola* (*Momordica subangulata* subsp. *renigera*, *kakrol*) and *kundru* (*Coccinia grandis*) can be exploited for export market in the line of gherkin. Sweet gourd (*Momordica cochinchinensis*) also has huge export potential for its paste, powder, juice etc., due to its high nutraceutical value. Though cucurbits are being traditionally grown in India since long time, the crop improvement strategy using advance scientific technologies and utilization is still poor.

With this background, Society for Promotion of Horticulture, Bengaluru & Central Horticultural Experiment Station (CHES), Bhubaneswar, a Regional Research Station of Indian Institute of Horticultural Research, Bengaluru is organizing a "National Seminar-cum-Workshop entitled "Strategies for Improving Production, Productivity and Utilization of Cucurbits" to bring together the knowledge base of researchers engaged in research of various cucurbitaceous vegetables. The suggestions and recommendations of the researchers from ICAR institutions, SAUs and other institutions would be compiled, which would serve as a guide for future course of research activities on indigenous cucurbits. This Station has already explored and collected several indigenous cucurbits in its various programs and considerable efforts have been made for improvement through wide-hybridization.





# **The Participants**

The seminar aims to create a platform for exchange of ideas and thoughts among the scientific fraternity, entrepreneurs, farmer, growers etc. from ICAR institutions, SAUs and KVKs from different parts of the country who have been associated in area of Cucurbit research and farming.

#### **Technical Sessions**

There will be eight technical sessions spanning over three days. Each session will have four to five invited lectures from the specialized speakers, followed by discussions. The participants from different parts of the country are expected to deliberate during the post presentation discussions to share and gain some knowledge, and to finalize the future strategies for improving production, productivity and utilization of cucurbits in South-East Asia in general and India in particular.

The technical sessions are:

#### 8 August, 2014

Session I: Genetic resources: diversity, conservation and utilization

**Session II:** Progress in crop improvement: innovative breeding techniques and future strategies

# 9 August, 2014

Session III: Advances in crop production technology of cucurbits

Session IV: Status and vision for production of seeds and quality planting material

Session V: Biotic Stress: Current Scenario and Management strategies

#### 10 August, 2014

Session VI: Industrial and entrepreneur role in seed production and utilization of

cucurbits

Session VII: Presentation of current academic research work and concept notes

**Session VIII:** Panel discussion and formulation of action plan







#### **Poster Presentations**

The organizers also invite focused research abstracts on areas any aspect of cucurbitaceous vegetables to be presented as poster papers. Space of 90 cm (height)  $\times$  70 cm (width) will be provided for each poster. Posters pertaining to all the sessions will be exhibited at the designated poster session area in the seminar venue.

#### Guidelines for poster presentation

- Posters will be displayed on free standing boards. Each poster should have the size of 90 cm (height) x 75 cm (width).
- Posters must include the names(s) and affiliations of the author(s) and preferably a
  photograph of the presenter to facilitate identification at the conference.
- While preparing the poster, kindly present enough data to support conclusions or to explain the point(s) you wish to make.
- Please include a short and clear conclusion. Data should be kept to a minimum in favour of diagrams, figures and photographs.
- Lettering used for title should be a minimum of 24-point size, preferably Times New Roman font. All must be in English.
- Photographs, figures and diagrams should be large enough to be read at a distance of 1.5 m.
- The abstract of the conference will indicate a poster number and the session may be different from the session you proposed.
- The abstracts need to be forwarded in electronic form as an attached MS Word file to cucurbitseminar@gmail.com.

# Special program for the students

Apart from the abstracts from the researchers, students are encouraged to submit abstracts of research carried out during their Post Graduate research on any aspect related to cucurbits. Ten best research abstracts will be selected and the students will be invited to present their work in front of the leading scientists of the country. The invited students will be provided with return Second Sleeper expenses on a shortest route from their place. Three best presentations selected by the panel of judges will be awarded.

To encourage the problem solving imagination of the young research scholars, students are



