

Proceedings of Panel Discussion on “Medicinal and Aromatic Plants Research: A Way Forward” held during 1st October, 2015

One-day panel discussion on “*Medicinal and aromatic plants research: A way forward*” was organized on 1st October, 2015 by Medicinal and Aromatic Plants Association of India (MAPAI) in association with ICAR-Directorate of Medicinal and Aromatic Plants Research, at Anand, Gujarat. Prof. Harish Padh, Vice Chancellor, Sardar Patel University, Vallabh Vidyanagar was the Chairman, Dr. S.B. Dandin, Liaison Officer, Biodiversity International & Former Vice Chancellor, University of Horticultural Sciences (UHS), Bagalkot and Dr. Jitendra Kumar, President, MAPAI and Director, ICAR-DMAPR Co-chaired the sessions. Dr. P.L. Saran and Dr. Hemlata Bharti served as rapporteurs. The meeting was attended by more than hundred delegates.

During the inaugural session, Dr. Harish Padh, Chairman emphasized on the need based research on conservation, cultivation, supply of quality raw materials to the user industry, adulteration and substitution of MAPs and bio-fortification. He also stressed the need to document, verify and utilize the tribal based knowledge on medicinal and aromatic plants. Dr. S.B. Dandin highlighted about the loss of biodiversity in MAPs and need for *in situ* and *ex situ* conservation through thematic gardens and large scale multiplication of genuine quality planting material. He also emphasized on implementing the strong law and need for policy changes for collection, cultivation and utilization of non timber forest products (NTFPs). Dr. Jitendra Kumar in his speech emphasized on the isolation of bio-active compounds from various MAPs, their identification and product development to address today's life style diseases. He also stressed the need of the availability of genuine MAP raw materials, scientific cultivation, bio-fortification, formulation, and extraction and novel drug preparations.

Dr. Smitha, G.R., Secretary-MAPAI briefed the importance of the Panel discussion. There were eight panelists who were experts from different fields of medicinal and aromatic plants. They made their deliberations on different aspects of MAPs as listed below.

Topics of Panel discussions

1.	Medicinal plants and their conservation- Indian perspective	Dr. S. B. Dandin, <i>Liaison Officer, Biodiversity International</i>
2.	PGR in Medicinal and Aromatic Plants: Concepts understood and mis-understood	Dr. S. Ganeshan, <i>Principal Scientist and Head, PGR Division, IIHR, Bengaluru</i>

3.	Breeding for bio-farming of Medicinal and Aromatic Plants	Dr. Ravinder Raina, <i>Principal Scientist, Dr. YSP University of Horticulture & Forestry, Solan</i>
4.	Diversification of Medicinal and Aromatic Plants for commercialization	Dr. K. Rajamani, <i>Professor & Head Dept of MAP, TNAU, Coimbatore</i>
5.	Good agricultural and collection practices of medicinal plants for better quality and return	Dr. R.S. Jat, <i>Senior Scientist (Agronomy), ICAR-DMAPR, Anand</i>
6.	Pest Management in Commercially Cultivated Medicinal Plants	Dr. M. Suganthi, <i>Assistant Professor (Agri. Entomology), Dept of MAP, TNAU, Coimbatore</i>
7.	Phytotherapy Movement from Grams to Milligrams	Dr. Satyanshu Kumar, <i>Principal Scientist (Organic Chemistry), ICAR-DMAPR, Anand</i>
8.	Medicinal plants in the Ayurvedic system of medicine	Dr. M.K.Sirdeshpande, M.D. (AYU.), <i>Principal, G.J.Patel Ayurveda College, New V.V.Nagar</i>

The following points were discussed in the different topics of panel discussion

1. Medicinal plants and their conservation- Indian perspective: Prof. S.B. Dandin in his presentations, emphasized on the need for conservation of medicinal plants which is important for maintenance of biodiversity and preservation of indigenous knowledge. Emphasis should be given on conservation of MAPs through thematic gardens like *rasi vana*, *nakshtra vana*, *navagraha vana* etc. Besides traditional methods, new approaches like seed vaults can be considered for rare medicinal plants. He also emphasized the need to minimize bio-diversity loss through organized cultivation of MAPs.

2. PGR in Medicinal and Aromatic Plants: Concepts understood and mis-understood: Dr. S. Ganeshan emphasized on a complete re-look in to the genetic resource management of MAP which is a deviation from conventional PGR management of other crops. The requirements for germplasm registration, IC number allotment for accessions need to be modified.

3. Breeding for bio-farming of Medicinal and Aromatic Plants: Dr. Ravinder Raina stressed the need of bio-farming or systematic cultivation of MAPs as the only possible solution to save the precious inheritance of mankind. This approach will also provide benefits to the rural people and satisfy the needs of urban people who want to go back to nature.

4. Diversification of Medicinal and Aromatic Plants for commercialization: In his presentation Dr K. Rajamani pointed out that the availability of good quality raw material is the major problem in medicinal plants based industries; therefore, thrust should be given to diversification of MAPs for commercialization.

5. Good agricultural and collection practices of medicinal plants for better quality and return: Dr R.S. Jat emphasized on good agricultural and collection practices of MAPs for better quality

and returns. Research is greatly needed to improve the agronomy of cultivated medicinal plants. Large scale trainings should be organized to create awareness.

6. Pest Management in Commercially Cultivated Medicinal Plants: Dr. M. Suganthi in her presentation listed the economically important insect pests of MAPS and discussed their integrated management techniques for reducing the damage caused due to these biotic stresses.

7. Phytotherapy Movement from Grams to Milligrams: Dr Satyanshu Kumar highlighted that the poor quality of raw drugs as well as efficacy of plant based medicines is today's cause of concern. He also emphasize on modifying the main active compound by semi synthesis and nanotechnology to meet out the requirement of these billion dollar compounds.

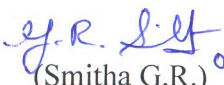
8. Medicinal plants in the Ayurvedic system of medicine: Dr. M.K. Sirdeshpande talked about the major medicinal plants used in the *Ayurveda* for different human ailments.

The panel discussion was appreciated by Prof. Harish Padh. He emphasized the need of multidisciplinary approach in medicinal and aromatic plants research. Novel drug research from medicinal plants should take leads from Indigenous traditional knowledge (ITKs) and scriptures.

At the end, the Panel discussion was ended with vote of Thanks proposed by Dr. Thania Sara Varghese.

Recommendations made out of the Panel Discussion:

- Emphasis should be given on *in situ* and *ex situ* conservation of MAPs
- Implementing the strong law and need for policy changes for collection, cultivation and utilization of non timber forest products (NTFPs)
- Crop diversification through cultivation of MAPs in different cropping systems and problematic areas
- Supply of quality and genuine raw materials to the user industry by regulating adulteration and substitution of MAPs
- Isolation of bio-active compounds from various MAPs, their identification and product development to address today's life style diseases
- Indigenous traditional knowledge (ITKs) should be documented and preserved


(Smitha G.R.) 01/10/15
Secretary – MAPAI

Submitted to the President, MAPAI for approval Pl.


Jilendra
1/10/15