

Executive Summary of the National Consultation on Certification of Tissue Culture Raised Plants

The National Consultation on Certification of Tissue Culture raised plants sponsored by Department of Biotechnology (DBT) and organized by Biotech Consortium India Limited was held in New Delhi on 19th April 2005 at Annexure-I and list of participants is at Annexure-II.

1. Inaugural Session

The welcome address was delivered by Dr. S. Natesh, Sr. Advisor, DBT who stressed on the need for development of certification system to promote the Tissue Culture Industry. The objectives of the consultation were listed by Dr. Renu Swarup, Director, DBT

Dr. M.K Bhan, Secretary DBT and Prof. Anupam Varma, National Professor and project Coordinator gave an overview for the national facility for virus diagnosis, inaugurated the National Consultation. Delivering the inaugural address Dr. Bhan emphasized on the need for interagency coordination to achieve the targets of the proposed programme. He mentioned that this programme on certification is of importance since quality is the prime factor governing the market potential of any product, be it for the export or domestic market. Secretary further emphasized on the need for developing a conceptual framework for the proposed certification system and suggested that a Standing Committee be constituted to oversee the implementation of the programme.

Delivering the keynote address Dr. Mangala Rai, Secretary, DARE and DG, ICAR reiterated the importance of quality planting material to meet the enhanced agricultural productivity requirements. He mentioned that tissue culture has an important role to play especially in the domestic market and its potential has yet to be fully exploited. To ensure a proper crop based certification system he mentioned that it is essential that the programme has an integral research

component. To successfully develop a certification mechanism, he enumerated few issues that need to be addressed:

- Development of protocols, guidelines, test procedures for different priority crops
- Guidelines and mechanisms for accreditation of Tissue Culture Units – including training of personnel
- Development of crop based management practices
- Development of system for certification which should clearly list out the roles and responsibilities of different agencies
- Training of personnel-capacity building for each step of quality control
- Regulatory framework
- Interagency coordination.

Dr. M.L Choudhary, Horticulture Commissioner delivered the special address and mentioned that quality planting material raised, through tissue culture has enormous potential specially in view of the Horticulture mission programme to be launched shortly. Under this proposed mission it is envisaged that the production of horticulture crops would be doubled by the end of 11th plan with just 5 million ha additional area being taken under plantation. This would therefore require a substantial increase in the productivity, which could be obtained from high quality planting material.

Dr.S.R Nair, Managing Director, BCIL made his remarks regarding association of BCIL with this important event sponsored by DBT. Dr. Purnima Sharma, General Manager, BCIL delivered the vote of thanks.

2. Technical Session-I

The first technical session was chaired by Shri. Prem Narain, Joint Secretary (Seed), Ministry of Agriculture. There were three speakers in this session. Dr Anupam Varma presented an overview of the proposed National Programme for Certification of Tissue Culture plants giving details regarding the present status of the National facility, present policies and notification and the proposed strategy

for developing the Nation Programme of Certification of Tissue Culture plants. Prof. Varma raised certain issues for discussions in his presentation related to identification of more test centers, training of personnel, identification of the nodal agencies etc.

Dr. O.R Reddy, Joint Director Plant Protection and Quarantine thereafter made a presentation on the framework for implementation of the proposed certification programme, listing out clearly the implementation structure, the work plan, the training and funding needs, expected outputs and issues for discussion. In his presentation Dr. Reddy stressed on the need for identification of implementing agency, constitution of an apex committee and technical working groups, standardization of procedures and guidelines and developing of training manuals.

The industry perspective was thereafter presented by Dr. Manmohan Attawar, CMD, Indo American Hybrid Seed, who listed out the issues from the industry point of view not only in terms of the requirement of certification but also for promotion of industry. He made concrete suggestion with regard to the import export rules, accreditation of test centers at different locations including test centers in the private sector. He further listed certain barriers in the growth of Tissue Culture industry and steps that need to be taken for consideration by the appropriate agency. Suggestions regarding the incentives to be provided for tissue culture industries were also enumerated.

The presentations were followed by a detailed interactive discussion.

3. Technical session-II (Panel Discussion)

The Panel discussion on modalities for implementation of National Consultation Programme was chaired by Prof. Anupam Varma , the panelist were:

- Dr. Dinesh Kumar, Whitefield Agrotech
- Shri, Bipin Bihari, Chambal Agrotech
- Shri. Jose Samuel, Additional Commissioner, Ministry of Agriculture
- Dr. Krishna Reddy, IIHR Bangalore

- Dr. T.S Lokeshwari, Chennai
- Shri. S. Dave, Director, APEDA
- Dr. O.R Reddy, Joint Director, PPQS
- Dr. Renu Swarup, Director, DBT

Issues related to the modalities for implementation of the proposed certification programmes were discussed specifically in relation to the need for certification identification, additional test centers, process for accreditation, development of standards and guide lines, implementing agency, training requirements etc. in addition issues related to incentives for promoting Tissue Culture industry were also raised for consideration and discussion.

The salient recommendations are as follows:

a. Need for certification:

It was agreed that certification is essential for import/export material as per the rules/procedures laid down in the Plant Quarantine order 2003. As regards domestic market it was agreed that a crop based certification system needs to be developed. This will include standards/procedures for plantlet development, guidelines for accreditation of Tissue Culture Units and test centers etc. the standards for mini tuber potato have already been developed and the guidelines for other priority crops identified such as banana, sugarcane, vanilla and black pepper are under preparation. It was suggested that guidelines for Bamboo may also be developed on priority. The participants were requested to send their recommendations in respect of the priority crops that should be included in the list.

b. Identification of a nodal agency:

There was a general agreement that the main responsibility for National Certification programme should be with DBT, which in turn should steer the programme in consultation/association with other related ministries /departments, -Ministry of Agriculture, ICAR, Research Institutes, Universities, Industries etc.

c. Identification of Test Centers

The need for identification of more centers was recognized in view of the large volume of material to be tested. It was felt that the three test centers may not be able to cope up with the increased demand. It was suggested that region based centers may be considered especially around the ports of entry and also at locations where there is a hub of Tissue Culture Units. The Test Centers may be identified based on the guidelines/criteria established depending upon the expertise and infrastructure available. Some suggestions were made with regard to the Institute/Laboratory, which could be considered, however it was desired that the participants might send their suggestions regarding laboratories which could be considered. It was also agreed that private laboratories could also be considered if they meet essential requirements.

d. Accreditation Mechanisms:

It was recommended that for the Accreditation at Apex Committee should be constituted by DBT, which would have separate accreditation panel for accreditation of Tissue Culture Production Units and Test Centers as per the standards/guidelines. There should be a biannual assessment of the centers units and information with regard to the accreditation and rating of units should be made available in the public domain.

e. Issue of Certificates:

As per the existing notification, the virus test centers of the National Facility are authorized to issue the test reports/certificates on behalf of PPQS for both import/export material. For the certification for domestic products the authorized centers would be notified for each crop by Ministry of Agriculture.

f. Development of Standards/Guidelines:

Standards/Guidelines need to be developed for test procedures, accreditation and production of Tissue Plant (crop based). This would include detailed manual, guidelines protocols etc., which would then be adopted uniformly by all centers. Technical working groups would be constituted for preparation of different standards/guidelines. The scientists/representatives from different research

institute, industries, universities and other stake holders would be members of these technical working groups. The standards developed should be in conformity with the international standards.

g. Training:

It was agreed that the National facility for virus diagnosis would provide training on the testing/certification. Need based training/capacity building would be taken up for the industry.

e. Other Issues:

Issues related to promotion of tissue culture industry was raised during the presentation and discussed in detail. Following issues were flagged for consideration.

- The current plant quarantine order needs to be reexamined and only harmful pathogens should be included in the restricted category and the other plants should be permitted under general SPS.
- The PEQ fees should be fixed for all centers
- Power tariff should be at par with the Agriculture Sector
- Plant Tissue Culture should be given priority status under the Agriculture/Horticulture sector
- Freight subsidy should be provided for Tissue Culture plants incentives/subsidy need to be provided for energy saving equipment/devices.

4. Concluding Remarks :

In his concluding remarks Prof. Varma, summarized the action points in respect of recommendations detailed above. Dr. S. Natesh, Sr. Advisor, DBT concluded by mentioning that since this an industry driven programme the success rate would be very high. The existing mechanism is working very well and therefore there is substantial scope for expansion at a National level. He desired that the Action Points should be pursued and mentioned that DBT would take necessary action as required urgently in consultation with all concerned agency/stake

holders. The effort is to have a National Certification programme in place by December 2005.