

XIII ISST- NATIONAL SEED SEMINAR (June 8-10, 2013), Bengaluru  
**INNOVATIONS IN SEED RESEARCH AND DEVELOPMENT**

## **RECOMMENDATIONS**

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### **Technical Session I: Impact of climate change on seed set, viability and vigour**

1. New provenance exploitation for quality seed production with required infrastructure and marketing set-up.
2. Seed multiplication of identified genotypes suitable for biotic and abiotic conditions.

### **Technical Session II: Variety maintenance and seed production challenges and advances**

3. Enhancing the availability of quality seeds in cereals - single cross hybrid maize; exploitation of heterosis in wheat, cucurbits, *Solanaceous* vegetables, seed spices and flowers.
4. Intensive research on application of micronutrients for enhancing seed quality and availability.
5. Intensification of research efforts in production of inbred lines and hybrid seed production of vegetable crops.

### **Technical Session III: New frontiers in seed research**

6. Dynamics of seed deterioration at molecular level for breeding varieties with higher field emergence and seed longevity.
7. Seed quality enhancement using non-conventional approaches *viz.* electron treatment of seed.

### **Technical Session IV: GM technologies: Prospects, perspectives and challenges**

8. Prioritization of crops for application of GM technologies.
9. Awareness generation - More interactive sessions on GM technologies amongst all stake holders including researchers and policy makers.

10. Human resource development to exploit the application of GM technologies.

**Technical Session V: Regulatory system for ensuring quality seed supply**

11. Harmonization of various prevailing regulations with respect to seed trade – both domestic/international.
12. Establishment of seed herbarium to facilitate taxonomic identification of weed species.
13. Seed law enforcement - its success/impact and bottlenecks to ensure the availability of quality seeds to farmers.
14. Development of seed standards for uninvestigated crop, and revisit to prevailing seed standards.

**Technical Session VI: Food security through seed replacement and adopting novel approaches**

15. Seed industry vis-à-vis food security in the context of ongoing programmes- private/public sector role.
16. Replication of success story of paddy *viz*, Swarna **sub-1**-popularisation in UP.

**An interactive session with young researchers: Career option for seed technologists**

17. Building of career opportunities in seed science and technology including NE regions.
18. Adoption of dual degree programme on the pattern of TNAU (course work in parent university and research work in other university).
19. Internship (10 days to three months) for PG students at centre of excellence (both public/seed companies) as a part of course curriculum in the discipline of seed science and technology.

**General points**

20. There is a strong need to increase seed replacement rates (SRR) for enhanced productivity with a slogan “SEED BREED FEED”.
21. To use local infrastructure, like milk unions and others for timely quality seed distribution.

**22.** Need to develop climate-resilient new varieties and appealed to the farmers to become self sustained in seed production and not to depend too much on Govt. seed supply on subsidy.