

## **5<sup>th</sup> National Symposium**

**Dates: 25-26 November 2008**

**Place: A.A.I, Allahabad**

**Theme:** Environment pollution and its effect on agricultural production and human health

### **The following recommendations emerged:-**

1. Industrial effluents under strong Act should be analyzed critically for heavy metals, toxicity before they are recommended as source of irrigation / organic matter/ as nutrient supplement.
2. Use of urban and agricultural waste through state act be promoted in crop cultivation as far as possible to save on or augment chemical fertilizers for high productivity and soil health.
3. Union /State government /AUs through act must offer some incentives to the organizations/ NGOs and the farmers who are making use of Industrial effluents/ urban and agricultural waste for higher crop production.
4. Peri-urban waste water also be critically analyzed and be categorized for use with preference to floriculture rather than to grain crops/vegetables/horticultural crops Fertilizer and pesticide use in high productivity area be advised cautiously with the analysis of toxins in AUs, of the under ground water and soil through state act to protect human, animals and crops health under high productivity areas.
5. Use of industrial effluents, urban and agricultural waste and peri-urban waste be looked into as coordinated projects for solutions to generate employment opportunities, and income to economize fertilizer use in agriculture.
6. Conservation of Bio-diversity in plants, animals, fish and microbes be fully recognized through act as means of pollution mitigation efforts.
7. Invasive bio-diversity and taxa introduction be established with systematic risk analysis before accession for this effective legal regulations may be put in place. Central role of live-stock and horticulture be recognized for sustainability in agriculture in reference to climate change poverty alleviation, availability of nutritive food to generate pollution free environment and revamp of fatigued crop production system.
8. There is a strict need to enforce noise pollution act 2000, with public awareness and change in the attitude of the stake holders i.e. industries, traffic, agricultural machineries to check adverse effect on health of the crops, live-stocks (eggs, meat, milk production) fishes, microbes.
9. Use of Bio-fertilizer, bio-pesticides, afforestation, zero-tiltage, conservation tillage, use of sprinkler/drip irrigation be encouraged through rewards and training to scientists, students and to the farmers to check pollution. Burning of any agricultural and industrial by-products be banned through legislation until and unless it is required to check pollution.
10. Agricultural scientists who undertake research on and off the campus, involved in teaching, research guidance and also undertake agricultural extension activities be encouraged by giving extra allowance (like medical doctors get no-practicing allowance)
11. AUs and ICAR scientists/teachers be paid at least 25% more salary as compared to scientists/teachers in traditional universities looking into their load of work. Each AU should undertake detailed study on solid waste management in the cities around for its effective utilization and pollution control with funds from state Government. ICAR/State Governments should award the universities which adopt the model in most efficient manner.

12. To effectively mitigate and minimize dangerous effects of "acid rains pollution" a systematic long term measures and policies be undertaken to analyze the rain water and its effect on soil profiles and its biota, crops in the fields on animals and human health too.
13. A pollution mitigation cell be created in each AU for fore warning in its vicinity / jurisdiction with the help of community radio for which state Govt. /ICAR should finance.