

Sustainability in agriculture resources for global food security

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The global food security is in question today with ever increasing food prices resulting from adverse climatic effects on agricultural production, rise in oil prices, increasing use of grains for biofuels, and almost a 50 per cent reduction in public spending on agricultural sector over the last three decades. The environmental sustainability has also become more elusive due to rapid industrial and population growth, urbanization, and with the lack of public realization about the sheer effects of environmental pollution. Asiatic countries and their economy largely depend upon agriculture. With the technological breakthrough, significant level of food grain production has been achieved and large stocks of food grains have been piled up to meet exigencies. Importantly, this large stock of food grains is being infested with insects' and pests that have increased the cost of storage, besides deterioration in the quality of food grains. Secondly, the use of food grains for manufacturing of bio fuel to meet the energy need of industrial and transportation sector has resulted in diversion of main crop like corn, maize and beans. With this the question of food security of the increasing population has emerged.

In future, the problems of dwindling food security and environmental sustainability will aggravate because the total food production remained constant over the last two decades with growing environmental and socio-economic challenges. Use of bio fuel may encourage a war between food and fuel. Production of bio fuel may lead to decrease in land available for food production creating scarcity of food.



Under the global village, food is becoming the scare and prospectus of agribusiness increases gradually. India is a global agricultural powerhouse. Agri-business are fast realizing the importance of providing quality products and value-adding in the sector by providing modern technology, knowledge and financial assistance to the farmers. Further, post liberalization the sector has witnessed opening of new vistas for the development of the rural economy, and thereby, strengthening the domestic market as well. The need of the hour is to combine entrepreneurial expertise with Government initiatives to help the agri-business sector grow rapidly.

While determining fertility of soil, only NPK ingredients of soil are considered and wherever soils are deficient in NPK, balancing is done by topical soil applications of chemical fertilizers. Indiscriminate use of chemical fertilizers led to establishment of chemical agriculture which resulted in reduction of fertility of soil and thus rendering soil totally alkaline. This led to advent of organic agriculture which is basis of sustainable development. Indian farmers are practicing organic agriculture from ancient times. Soil, a live medium, due to its porosity breathes air and keeps soil organisms thriving. If naturally found ingredients are used to produce organic fertilizers and pesticides for agricultural use, then such practices do not have adverse effect on fertility of soil and once soil regains its

fertility then there is no need of any repetitive applications of chemical fertilizers every season.

This is achievement of organic agriculture. It is a cry in wilderness of misguided scientists and a group supporting them that organic agricultural practices are anti-capitalist. If coal is not available on enduring basis, then it is a big cause of concern for producers of electricity but same is not true in case of those units producing electricity from wind and solar energy as these being sustainable natural energy resources and this is an important point to be remembered by practitioners of organic agriculture. Even if end values of crop are same as those of chemical agricultural practices, plus point of organic agriculture is that it is less expensive and is sustainable.



Conclusion

“Sustainable food security” means enough food for everyone at present plus the ability to provide enough in future as well. To cope with such situations, agricultural package of practices and policies should adopt efficient measures for increasing production without degrading environment. Efficient handling, storage, and processing technologies are also needed to reduce postharvest losses of farm produce and increase value addition to processed products. Research and development activities can play a pivotal role in attaining these goals. There is a greater need for our farmers to have an easy access to modern and eco-friendly technologies and quality agricultural inputs to ensure food security and environmental

sustainability. Under such conditions, it is imperative for the scholars to ponder over the issue and provide solution to meet the needs of rising population and sustainability of a decent life. The aim of this compilation is to build a roadmap for achieving food security and environmental sustainability.

