



Sustainable agriculture in drylands of India : Unlocking the water constraint

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Abstract : There are lot of key topics which are concerned with real world resources development and management problems in India. Sustainable agricultural development considering the water constraint is one of them. By 2020, India has got to increase productivity above 340 million tonnes of foodgrains in view of population growth, so the President of India appealed to agricultural scientists and technologists to work hard to double the productivity of available land in view of less area being available for cultivation, with limited water supply and diminishing number of available farmers. The drylands have to be targeted to increase productivity of foodgrains through sustainable agriculture, if India has to succeed in a second green revolution, without creating serious negative consequences to natural environment. So in present article focuses on key water constraints in Indian dryland agriculture and some solutions are suggested in brief.

Key Words : Genotypes, Micronutrient, Tillering behavior, Direct seeding, Seed treatment

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The President of India, A. P. J. Abdul Kalam has called for a second green revolution, while inaugurating the triennial conference on Global Forum on Agricultural Research at New Delhi on 9 November 2006. This is not the first time that he has spoken about this issue. Three years ago, he had outlined the applications of technological innovations to meet future foodgrain needs demanded by the increasing population growth. By 2020, India has got to increase productivity above 340 million tonnes of foodgrains in view of population growth, so the President appealed to agricultural scientists and technologists to work hard to double the productivity of available land in view of less area being available for cultivation, with limited water supply and diminishing number of available farmers. The drylands have to be targeted to increase productivity of foodgrains through sustainable agriculture, if India has to succeed in a second green revolution, without creating serious negative consequences to natural environment.

At the 1992 Earth Summit in Rio De Janeiro, FAO defined

“Sustainable Agriculture and Rural Development” as, it is a development and management of natural resource base and orientation of technological and institutional change in such a manner as to ensure the attainment and continued satisfaction of human needs and present and future generation. Such sustainable development (in agriculture, forestry and fisheries sector) conserves land, water and animal genetic resources is environmentally non-degrading, technically appropriate, economically viable and socially acceptable. Sustainability is the successful management of resources to satisfy the challenging human needs, while maintaining or enhancing the quality of environment and conserving natural resources. Effective management of agriculture extension has special relevance in Indian content where agriculture plays a key role in meeting food requirement and supporting raw materials, also is crucial for obtaining high returns from a production system on sustained basis.

Drylands, which cover about 41 per cent of Earth's land surface and are inhabited by more than 2 billion people (about

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