

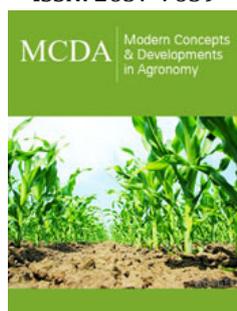
Agriculture: New Perspectives with the Advancement of Technology

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Opinion

Today farmers are essentially using new modern and scientific methods in agriculture. The demand for modern agricultural products is increasing and farmers want to know more about modern methods. Chemists, biologists, engineers are also contributing for mass production. The modern farming system has made a significant contribution to the global expansion of grain output. The globe can reach adequacy in food grain production by employing current farming systems. The use of better seeds, correct irrigation, and chemical fertilizers to deliver adequate amounts of nutrients to the plants, are all modern approaches useful in agricultural operations. There has been a great contribution of science in the branch of agriculture, which is not possible to describe. Science has worked in a large area for the modernization of agriculture. Science has used totally different types of hybrid crops i.e. crops and fine chemicals.

Mechanization started in the field of agriculture for the increase of production on vast areas. All the processes related to agriculture on large areas of land can be made possible by mechanization in a short period of time. At the same time, with the help of machines, the crop reaches the market as soon as possible. Agriculture in developing countries was dependent on labor, but due to the migration of large numbers of rural people to the cities, the number of workers on the farms decreased [1]. To deal with this new challenge, there is no option other than mechanization of agriculture to complete the agricultural tasks. Some of the machines working on the fields are as follows-water pumps, tillers, combine harvesters, land leveling machines, tillers, spraying equipment by tractors powered by energy, sowing machines, trolleys, etc.

Intensive farming is very necessary to solve the food problem of the increasing population of the world. By this method, many crops can be grown in a single field in a year. For this, along with the proper arrangement of improved seeds, chemical fertilizers, insecticidal medicine, and water, the use of modern agricultural machines is also very necessary to do agricultural work on time [2]. In agriculture, it is possible to do almost all the work with agricultural machinery, such as plowing, sowing, irrigation, harvesting, threshing, and storage etc. Mechanization in agriculture has a remarkable contribution to increase agricultural production. Mechanization increases both production and productivity. With mechanization, more work can be done with efficiency in less time. Mechanization in agriculture can bring the following benefits:

- a) Agricultural productivity can increase by 12-34 percent.
- b) Seed cum manure drill saves 20 percent seed and 15-20 percent manure.
- c) Crop intensity can be increased up to 05-12 per cent.
- d) The total income of the farmers can be increased by 30-50 percent.

The main objective of modern agriculture should be good harvest as well as protection of air, water, land and human health. Farmers should be taught that chemical fertilizers can reduce the productivity of the land to an extent. The use of excessive fertilizers reduces the fertility of the land. How much organic and inorganic manure should be used, it completely depends on the nature of the land. If we want to increase our food supply, not only should production be improved, but improved farming methods must be adopted. Along with scientists, farmers have also contributed immensely to the development and success of the agriculture sector. Farmers have taken the techniques into their own hands and used them in farming. The laboratory should be designed and built close to the fields. New agricultural research centres should be opened all over [3]. The foundation of Agricultural Universities has been a good start. Research experts from universities will spread to other parts of our larger country and will tell the farmers about the use of new modern technology related to agriculture. It is a happy sign and a matter of pride that there is enough food in India today. India's screening plan now produces 20 million tons of food crops a year. India has now reached the status of food exports.

In the period of agricultural innovation, agriculture is transformed through the extensive diffusion of new species

introduced from regions' new agriculture techniques such as complex crop rotation patterns, and new institutional innovations affecting various operational practices [4]. The consequence is a boost up in agriculture production and productivity sustains and rising populations and rapid urbanization in the core region of industrial take-off. Agriculture is revolutionized by the widespread application of industrial innovations, mechanization, synthetic factor inputs in the form of fertilizers and pesticides and new high yield plants varieties developed through agriculture research and development these innovations result in unparalleled increase in output and productivity.

Adopting technologies for sustainable farming systems is multi-disciplinary. Taking into account the wider range of objectives related to moving towards a more sustainable agriculture, compared to those targeting farm production, more disciplines have to work together. The agricultural sector is currently facing major challenges to feed a growing world population in a sustainable way, whilst dealing with major crises such as climate change and resource depletion and technology innovation is playing a very important role in this condition.

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