

Effects of New Agriculture Techniques on World Hunger

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Introduction

Hunger is a big problem in the world as of 2019, 8.9 % of the world population is un nourished. About 690 million people are undernourished (FAO). According to the U.S department of health, male adults require about 2,000 to 3,000 calories per day and adult females require about 1,600 to 2,400 calories per day to maintain healthy body weight. As per increasing world population rate and continuing decrease in agricultural land, it seems difficult to produce food for such a huge population. To tackle this big problem we need to work more on agriculture techniques to improve the production from a unit of farm. Many institutions are working for the agriculture sector and have developed new technology for agriculture farms throughout the world and these technologies have helped a lot to provide sufficient food for the world population, but still we are unable to provide food for a large number of the population. The new technology in agriculture has made many changes in the system of food production and these technologies increased the productivity of crops.

Some new techniques in agriculture

- **Urban agriculture and vertical farming:** Urban agriculture is the production of agricultural commodities in metropolitan areas. Urban areas have less land for agriculture work and the cultivation of crops is difficult but some new techniques are developed which helps in production of crops in urban areas also. Urban people can plant vegetables on roofs and vertical farming will play an important role in



higher production.

- **Hybrid seed technology:** Hybrid seed technology plays a vital role in modern food production. Hybrid seeds are developed by crossing two varieties or species. Hybrid seeds are developed to get desirable results from a plant viz, high yield, resistance to disease, greater uniformity, improved colour etc.



- **Animal breeding:** Animal breeding is the process of selective mating of animals with desirable genetic traits, to maintain or enhance these traits in future generations. For livestock, this involves estimation of the genetic value of individuals for traits including growth rate and yield of products such as eggs, milk or meat.
- **Hydroponics:** This is the type of hydroculture by which production of vegetables is done without soil. In this system the solution of nutrients and minerals is added into the water which is used to produce vegetables.



- **Precision farming:** precision farming is a management approach to the farm through modern technology by applying various inputs to the field in an economical and sound fashion. It identifies the critical factor where yield is limited by controllable

factor and determines intrinsic spatial variability. It is essentially more precise farm management made possible by modern technology.



- **Protected cultivation:** Protected cultivation is a process of growing crops in a controlled environment. This means that the temperature, humidity, light and such other factors can be regulated as per requirement of the crop.



- **Agriculture robotics:** An agricultural robot is a robot deployed for agricultural purposes. Emerging applications of robots or drones in agriculture include weed control, cloud seeding, planting seeds, harvesting, environmental monitoring and soil analysis. These robots will help in proper field management and will reduce the cost of working expenditure.



- **Zero budget natural farming:** It is a low-cost, locally-sourced natural farming method that does not rely on the use of agrochemicals and has the potential to meet the twin goals of global food security and conservation of the environment. All the inputs which are used in crop production are produced in fields by using natural resources and milk products



- **Integrated pest and weed control:** IPM and IWM practices combines the use of biological, cultural and chemical practices to control insect pests and weeds in agricultural production. It seeks to use natural predators or parasites to control pests, using selective pesticides for backup only when pests are unable to be controlled by natural means.

These are some of the techniques and farming concepts which give higher production and help in sustaining the environment. Higher productivity is important for satisfying the demand for food that will help in the development of mankind. Some of the major effects of new agricultural techniques on world hunger are as follows.

Major effects of new agriculture techniques on world hunger

- ✚ New agriculture techniques increase the production of food, and which leads to higher supply of food and decreases the price.
- ✚ Agriculture practices give employment to the rural people which helps to generate more income.
- ✚ With the right tools and best practices, farmers can help mitigate greenhouse gas emissions, better adapt to the challenges presented by climate change, and help meet the challenges of our growing global community.
- ✚ New farm techniques can increase the diversification in agriculture activity that will help in production of other agriculture products as well.
- ✚ Some of the hybrid seeds that have built in protection against disease and weeds will reduce the need for chemical pesticides. This will give higher output from lesser input.
- ✚ These practices are sustainable and these will help in environment development and will also tackle hunger.

Conclusion

The FAO has found that climate change will increase the number of people struggling with food insecurity by 2030 if agriculture does not adapt to the new climate conditions. The number of people living in poverty could increase by between 35 million and 122 million by 2030. So, it is very necessary to adopt new agricultural techniques because these are eco-friendly and will reduce the unwanted change in climate.

Sustainable agriculture activities and these new developed agriculture techniques will increase the production of agricultural products and will maintain environmental conditions. Hunger is going to be a more and more difficult problem day by day because of the continuing increase in population, so it is very important to focus on global food production and peoples employment. It was found by FAO that poverty could increase more in the world by 2030. This situation will automatically lead to hunger of poor people because they will not have any source of income to buy food material, so that focusing more on employment and agriculture production will help in solving this big problem. New agriculture techniques have potential to increase the production, improve the nutritional values of food products. Higher the production will give rise to more supply and that will lead to decrease in prices of food



throughout the world. So first we need to convince farmers to adopt new techniques and to develop a proper supply chain for food transportation to provide food to needy peoples.

