

# Technology and its Role in Agriculture

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## Review Article

Received: 02/09/2016

Revised: 05/09/2016

Accepted: 08/09/2016

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**Keywords:** Agriculture,  
Genetic, Economies.

### ABSTRACT

For many of years, people have been occupied in enhancing the harvests and animals they raise. From past few years, researchers have attempted their endeavours by expanding and rectifying the methods of choice and breeding. Though significant progress has been accomplished, conventional determination and breeding are tedious and bear technical limitations.

## INTRODUCTION

Modern biotechnology can possibly accelerate the advancement and arrangement of improved crops and animals. Marker-assisted selection, for instance, builds the effectiveness of routine plant reproducing by permitting fast, research -based investigation of large number of people without the need to cultivate plants to development in the field. The method of tissue culture allows the rapid duplication of clean planting materials of vegetative proliferated species for distribution to agriculturists. Genetic engineering or modification-manipulating an organism's genome by initiating or removing particular genes-helps transfer desired traits between plants more rapidly and accurately than is possible in conventional breeding [1-24].

Projections demonstrate that there will be 9 billion people in the world by 2050. The Food and Agriculture Organization (FAO) approximately say we need a 70% expansion in food production from 2005 levels to feed all those people, and we need to grow, harvest, circulate, and consume our food more productively. Our developing population is turning out to be progressively urban: the World Health Organization (WHO) evaluated that out of 10

people 7 members will live in a city by 2050. We're not getting extra facilities includes land or water, nor are we gaining more farmers [21-30].

As economies keep on improving, the percentage of all populations employed in the agriculture sector declines. The region that will have the biggest population gains, Sub-Saharan Africa and South Asia; furthermore have the expanded percentage of their population working in agriculture. This will decrease significantly as their economies progress [31-50].

### ADVANTAGES OF TECHNOLOGY IN AGRICULTURE

Advantages of innovation in agriculture involve speeding up crop production rate and crop quantity, which in turn decrease the expenses of production for farmers and food costs for customers, and even makes crops more nutritious and livestock bigger and meatier. Technology in cultivation creates profits for limited farms and nationwide agricultural procedures alike. These skills comprise using ecologically sound and maintainable agricultural approaches, such as no-till farming, and sophisticated utensils, including biotechnology (Figure 1).



Figure 1. New technology for agriculture.

### INDIAN AGRICULTURE

The Budget of India is seventh-biggest on the earth by formal GDP and the third-largest by getting power equality. The agricultural division is important work in India's economy however donates to a declining part of its GDP (17% in 2013-14). India grades second worldwide in farm productivity. Agronomy and related subdivisions resembling forestry, logging and fishing accounted on behalf of 17% of the GDP plus employed 49% of the overall employees in 2014. It is the prime employment source and an important part of the overall socio-economic improvement of India [51-70].

Technology has transformed cultivating into an existent business, currently agronomists have electrified each method, a customer can submit a request specifically on the web, and the item will be transported from the plantation to the customer in time when it is still fresh. This protects the agriculturalist expenses and it removes mediators who tend to purchase low from farmers and sell high to end consumers. Each farmer utilizes this method

as per their convenience. Some people use it to produce fertilizers, some other people uses this technique to market their products, and others use it in manufacturing. Being as a farmer, they have to mention specifically what they need (Figure 2).



Figure 2. The following is a summary on the use of technology in agronomy.

#### Use of Machines on Farms

Presently an agriculturist can develop on more than 2 acres of land with fewer workforces. The use of planters and farmers creates the method so easy. In agriculture, time and production are so essential; you need to plant in time, harvest in time and transport to provisions in time. Recent agricultural knowledge allows a lesser number of people to cultivate huge amounts of food and fiber in a most limited timeframe [71-80].

#### Modern Transportation

This aide in making yields existing on markets in time from the farm. With modern transportation, consumers in Dubai will consume new carrots from Africa around the same time that carrot lives the greenery enclosure in Africa. Current transportation innovation facilities help farmers effectively transport fertilizers or other farm items to their farms, and it likewise speeds the supply of horticultural items from farms to the business sectors where shoppers get them regularly [81-83].

#### Cooling Facilities

These are used by agriculturists to supply tomatoes and other perishable yields to keep them fresh as they transport them to the business sector. These cooling facilities are connected in food transportation trucks, so crops like tomatoes will stay fresh upon conveyance. This is a win-win circumstance for both the customers of these agrarian items and the farmers [83-90].

#### Genetically Produced Plants

Like potatoes, can oppose sicknesses and pests, which compensates the farmer with great yields and spares them time. These harvests develop quickly and they produce healthy crops. Since these are impervious to

most infections and irritations, the rancher will spend less cash on pesticides, which consequently increments on their (RIO) rate of return.

### Development of Animal Feeds

This has undertaken the issue of chasing for grass to nourish creatures, now these encourages can be fabricated and devoured by creatures. The cost of this food is reasonable so that a low pay agriculturist can bear the cost of them. The vast majority of these produced creature nourishes have additional sustenance which enhance the creatures wellbeing and the output of these creatures will likewise increment. In farming, the strength of a creature will decide its yield. Ineffectively bolster creatures are constantly unfortunate and they deliver next to no outcomes in type of milk, meet, or hide [91-100].

### Breeding of Animals which are Resistant to Diseases

The vast majority of these hereditarily delivered creatures will deliver more drain or hide contrasted with ordinary creatures. This advantages the agriculturist in light of the fact that their generation will be high. Cross reproducing is great in creature brushing; cross breed creatures are more solid and profitable.

### Irrigation of Plants

In dry regions like deserts, agriculturists have grasped innovation to flood their products. A decent illustration is in Egypt, where ranchers use water pumps to gather water from streaming Nile to their yields. The majority of these agriculturists develop rice which needs a great deal of water, so they figure out how to develop this rice utilizing watering system techniques improved by cutting edge innovation. Propelled water sprinklers are being utilized to flood huge homesteads and this helps the harvests get enough water which is crucial in their development. A few ranchers blend supplements in this water, so additionally enhances the development of these yields.

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