

Importance and Advancement in Agriculture Technology

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Agriculture farming is very important part for life of people. It is the important source of economy and food. Over the previous years, this area has seen a lot of changes and advancement in the diverse cultivating approaches and techniques. For example, these days, there is the utilization of inorganic compost, the utilization of decreased amount of pesticides, the utilization of various work vehicles and machinery. The accessibility of such data sources has seen the requirement for the utilization of regular assets and cycle with point of improving agriculture yield and decreasing expenses. The utilization of new ideas in farming accompanies a great deal of advantages.

IMPORTANCE OF AGRICULTURAL TECHNOLOGY

There is no need to frequently apply water, fertilizers, and pesticides uniformly across entire fields. Instead, they can use the minimum quantities required and target very specific areas, or even treat individual plants differently. There are many benefits of agriculture technology.

- Higher crop productivity.
- Decreased use of water, fertilizer, and pesticides, which in turn keeps better food price.
- Reduced impact on natural ecosystems.
- Less runoff of chemicals into rivers and groundwater.
- Better facilities to provide workers.

In advance agriculture we have seen the robotic technology. These technologies enable more reliable monitoring and management of natural resources, such as air and water quality. It also gives producers greater control over plant and animal production, processing, distribution, and storage. The advantages of this technology are:

- Greater efficiencies and lower prices.
- Safer growing conditions and safer foods available in the market.
- Reduce the impact of environmental and ecological.

USE OF TECHNOLOGY IN AGRICULTURE

There are various uses of technology in agriculture including the

following.

• Farm machines

One of the challenges that farmers need to sufficient labor. There is an increasing cost of labor, which calls for better approaches to ensure less cost on labor. The introduction of combined harvesters and planters simplifies the process. Production and time are some of the important elements in agriculture. It is important, therefore, to plant early, harvest in time, as well as ensure that the yield is stored within the right time. The use of modern technology in agriculture ensures that farmers grow vast food within the shortest time possible.

GPS technology has been used in the development of autopilot sprayers and tractors that do not require any driver. Such technology is important in agriculture in that it promotes better and more efficient farming practices. For example, the autopilot tractors and sprayers are equipped with tracking systems that eliminates human error and in the end save on fuel and equipment.

• Crop sensors

Effective application of fertilizers and pesticides remains to be a big challenge in agriculture especially when it comes to the determination of what fertilizer works best for different plans, when to apply, as well as what quantities. The use of crop sensors can make it easy for farmers to effectively apply fertilizers and pesticides just as much as the crops need. Variable rate technology becomes useful in such cases. Such technology gives you the opportunity to sense how your plants are feeling and subsequently help you reduce the probability of leaching or surface runoff. Crop sensors are designed in a manner that they dictate to the application machinery the amount of the resource that a given crop needs, and at what time.

• Use of GPS in fields documentation

GPS is becoming a common technology in agriculture. For example, modern agriculture involves the use of GPS to document the status of the farmland. Through the GPS, it is easy to determine and document the yields from a given farm, as well as record the application rates. Such technologies are useful in that the farmers can rely on the collected and recorded data for reference when

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making any decisions. The recommendable documentation technology is the yield map, which can be used to offer a summary of entire year's activities. Such maps are highly useful as they can give a wide range of information about just anything such as the status of the drainage system in your field.

- **Biotechnology**

Biotechnology is also referred to as genetic engineering and the process of improving the genes of a given crop. In most cases, genetic engineering is carried out to increase the resistance of certain crops to farm inputs such the application of herbicides. Through biotechnology, farmers can plant on areas that were

otherwise considered dry or deserts. Reduced farm inputs implies that the farmer as well saves on the cost of farm resources.

Modern agricultural technology hopes to achieve among others, two important goals – profitable economy and better output. It is therefore, important to be careful with the goals and objectives that you set aiming upon the implementation of different technologies in agriculture. Some of the aspects that you should look at include how to apply and organize fertilizer, irrigation, theatre, intensive tillage, monoculture, and the application of other resources. However, in order to achieve these goals, farmers need to understand the concept of modern farming and the use of technology.