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ADVANCED FARMING TECHNIQUES

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Introduction

The soil, and the use of organic farming, i.e. green manure, for yield under advanced. We can benefit from this by increasing the amount of fertilizer. It naturally nourishes agricultural techniques, does not harm the soil like chemical fertilizers. In fact, the nitrogen input obtained from the process of nitrogen fixation in the root nodules of leguminous plants is an attractive alternative natural source of nitrogen fertilizer, which is more sustainable than inorganic nitrogen fertilizers.

ADVANCED FARMING TECHNIQUES

India is an agricultural country, and as such, advanced agriculture is being prioritized and efforts are being made to achieve this. It is often observed that the traditional nature of Indian agriculture acts as a barrier to advanced agriculture. Today, the need is to develop Indian agriculture as a technology and adopt innovative agricultural techniques. Techniques of Advanced Agriculture.

- Solar agriculture is also an excellent option for advanced agriculture. Our country is blessed with abundant, sunlight, a natural gift that can prove extremely helpful in solar agriculture. We are fortunate that the annual incident radiation in our country is 60 multiply by 10⁹ MWh, and most parts of the country experience adequate sunlight for 250 to 300 days annually. This means there is immense potential to harness this resource for agricultural purposes. The possibilities are there.
- For better yields, we must promote the use of organic fertilizers. To increase soil fertility, we must focus on bacteria that improve soil health. These bacteria, can be used as organic fertilizers by inoculating them into suitable seeds using carrier materials, which improves soil quality and crop health.
- The usefulness of wind energy in the field of agriculture, especially in terms of innovative agricultural techniques, cannot be underestimated. It is a renewable energy source that can prove extremely useful in agriculture, provided it is used efficiently and systematically. We can benefit from wind energy by converting it into mechanical and electrical energy.
- We can benefit from increased use of organic farming, or green manure, to improve yields under innovative agricultural techniques. It naturally nourishes the soil and does not harm it like chemical fertilizers. In fact, nitrogen inputs obtained through nitrogen fixation in the root nodules of leguminous plants offer an attractive alternative natural source of nitrogen fertilizer, which is more sustainable than inorganic nitrogen fertilizers.
- By using agricultural residues and cow dung, we can naturally increase the soil's nutrient capacity and achieve good yields. In this regard, we must also encourage the use of biofertilizers, as bacteria contribute significantly to soil fertility. They are considered a vital component of fertile soil. They not only contribute to the development of soil structure but also increase nutrient levels. Without vital bacteria, soil fertility diminishes, making it extremely important to introduce these essential bacteria to enhance soil vitality.

- By introducing good and important bacteria advantage that once they have been applied to a field, they don't need to be applied again and again. This is not the case with chemical fertilizers. Another advantage of biofertilizers is that they protect plant roots from diseases, whereas chemical fertilizers lack this ability because they are inanimate. While chemical fertilizers are considered environmentally harmful, biofertilizers are considered environmentally friendly.
- We are all familiar with the harmful effects of chemical pesticides. They not only damage the environment but also make their home in the organisms we don't want to kill, Biopesticides don't pose such a risk. They don't persist in the environment for long and self-destruct after, some time. From an ecological perspective, biopesticide control is considered a better option, than chemical control. Therefore, adopting, biopesticide control can benefit us from improved agriculture and safe agriculture. By adopting nitrification inhibitors, we can not only reduce the risks of nitrogenous fertilizers but also achieve better yields. The increasing use of nitrogenous fertilizers causes transformation problems in agriculture. Their evaporation releases ammonia into the atmosphere, contaminating groundwater and harming the environment. Nitrification inhibitors exacerbate this damage. Therefore, we must promote biopesticides.
- Solar energy can only be used biologically through photosynthesis. By developing this technology, we can make significant progress in agriculture and energy conservation. This energy can also prove useful in drawing down developed groundwater. In fact, solar energy is a decentralized energy system, extremely useful for the Indian community. This energy can be effectively utilized through thermal conversion for cooking, water heating, air-heating, crop drying, and other purposes. This energy can also be used to run pumps. Solar photovoltaics are proving to be extremely useful for drinking and irrigation water in rural areas.
- By increasing, the use of cowdung in agriculture, we can become energy self-sufficient. This has a dual benefit. It not only meets the energy needs of agriculture, but the remaining material can also be used as fertilizer. The use of cowdung gas is extremely important in energy conservation. Cowdung gas is primarily methane. It can be produced by adding cowdung, wood, straw, newspaper waste, and natural organic matter to digesters. Its usefulness can be understood from the fact that this gas can be used for cooking, lighting and other energy needs. It can even be used to run tube wells. After producing cowdung gas, the residue contains good amounts of nitrogen, phosphorus, and potassium, and applying it to fields increases yields. Due to the presence of important bacteria, these residues also act as good fertilizers and naturally increase soil fertility. Keeping in view the wide social benefits of bio gas energy. 'Bio Gas Development Scheme' has been initiated in our country.
- While information technology has simplified many agricultural tasks, it has also served to raise awareness among farmers. It would be fair to say that information technology has its profound influence has permeated Indian agriculture. This technology is poised to modernize Indian agriculture.

Conclusion:-

Information technology is contributing to the development and promotion of Indian agriculture at many levels. Today's Indian farmer is benefiting from the services of the KIAAN call center. This is a gift of information technology. With this facility, Indian farmers no longer have to depend on anyone for solutions to their problems or suggestions. A call toll-free numbers like 1551, 180, and 1800 provides a solution to their problems. Innovative agricultural techniques are being used in some areas of the country. This means we are focusing on new experiments in agriculture, and only by doing so can we not only become self-sufficient in food grains but also raise the flag of advanced agriculture globally.

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