

PLASTICULTURE: A NEW TECHNOLOGY IN AGRICULTURE PRODUCTION AND POST HARVEST MANAGEMENT

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INTRODUCTION

Plasticulture is a new method of enhancing the agriculture production by using the plastic materials in agricultural applications. In this technology soil mulching is done with polythene sheet that conserves the soil moisture and also checks the weed growth. This technology is being used in agriculture, horticulture, water management, food grain storage and in a variety of areas. Plastic is used in this technology because it is cheap, affordable, easy to handle and durable for a longer period. Various plastics are used in agriculture sector such as Polyethylene (PE), Polypropylene (PP), poly-vinyl chloride (PVC) etc.

Plasticulture Technology applications are playing an important role in agriculture sectors such as:

Drip and sprinklers, sub-surface drainage etc. are used for water management. Plastic mulching, polyhouses/ green houses, shade net house, plastic tunnels, plant protection nets such as insect proof nets, hail protection nets, fencing nets provides controlled environment for agriculture practices. Nursery management is done by using plastic bags, pots, pro-trays, hanging baskets, soil solarization etc.

BENEFITS OF PLASTICULTURE TECHNOLOGY

- It helps in reducing the water-loss and also conserves the soil moisture.
- Suppress the weed growth and hence reduces the competition for nutrients, sunlight and water.
- It provides protection to plants from insect, diseases etc.
- Improves production in quantity and quality of agriculture produce by using less fertilizers and pesticides.



ROLE OF PLASTICULTURE TECHNOLOGY IN POST-HARVEST MANAGEMENT

Plasticulture can play a significant role in preserving and maintaining the longevity of harvested produce.

- Plastics are used to make several items that can make the packaging, handling as well as transportation of harvest easy such as crates, bins, boxes, seals, unit packaging products and leno bags, modified atmospheric packaging etc.
- Plasticulture technology helps in preservation of agriculture produce by drying process.
- Plasticulture technology is used to store the agriculture produce from a very short time to the longer period. It can be used for short as well as long term storage of harvested produce and thus helps in extending the shelf life of the product.

CONCLUSION

Plasticulture is playing an important role in enhancing the agriculture production. Plastic used in plasticulture process helps in conserving the water and soil moisture which can be used to address various challenges faced in agriculture sector due to water stress and shortage. The use of plasticulture enhances the output of farms as well as optimize input factors and thus leading to high productivity of crops. It is very important to sustain the agriculture productivity to meet the food grain requirement of the increasing population and plasticulture can play a very important role in same. Through plasticulture technique growers can double the yields and harvest the crops two to three weeks earlier as compared to traditional growing practices. Thus by adopting this technology farmer can make a good income from his farm. For that reason, more awareness must be spread among the farmers regarding the importance and benefits of plasticulture technology.

