Potato Production

under Organic Farming and IFS

Mohit Singh1 and Amandeep Sharma2

TA, Department of Agriculture, MMDU, Mullana, Ambala-133207

Assistant Professor, Department of Agriculture, Sadopur, Ambala-133001

Email ID: ramveer5251@gmail.com

Received: **Feb 23, 2022;** ***Revised:*** **Feb 26, 2022** ***Accepted:*** **Feb 28, 2022**

Potato is one of the important crops that is consumed all over the world both as a food as well as vegetable that's why it is called the king of vegetables and poor men's food. The post green revolution leads to tremendous increase in the production of the food crops while on the other hand it destroyed soil health and results to the environmental pollution. In India the nutrient requirement of the potato crop is mainly fulfilled by the chemical fertilizers but the dependence on these chemical fertilizers leads to many problems such as depletion of soil organic matter, soil erosion, contamination of food and water, nutritional imbalance, adverse effects on bio-diversity and on the health of humans and animals. As the universe is going on

the way of sustainable agriculture and minimizing the adverse impact of chemicals on the environment.

Keeping in view the above effects of chemical fertilizers on soil and environment we should find out the alternative that not only improves the productivity and quality of the potato but should also be ecofriendly to the environment. Thus, the best alternative is the organic farming. Nowadays the trend of organic farming is increasing because people became more health conscious and they want to consume vegetables which are free from chemical residues. The organic manures not only supply the nutrient but also improve the physical environment for the better growth of the plant and tubers. Organic farming also improves the soil fertility, productivity, micro-organism population, soil physico-chemical environment etc. But production of potato by organic farming is not up to satisfactory level. The organic sources alone are poor sources of nutrients, they contain the nutrient in very low amount so they are required in high quantity to fulfill the need of crop.

So, we need for other technology which can maintain soil fertility and crop production. Therefore, it is the need of the hour to follow integrated nutrient management. By this way we can reduce our dependence on the chemical fertilizers and also obtain the healthy food with the use of organic manures and in the meantime, it will also improve the fertility status of the soil. Application of the plant essential nutrients through organic and chemical fertilizers will enhance the agro-ecosystem health including bio-diversity, biological cycles and soil biological activities as well as maintain the nutrient status in the soil solution. FYM (Farm Yard Manure), bio fertilizers (Azotobacter and Phosphobacteria) are recognized as the cheapest source of plant nutrients that can be used as a supplement to chemical fertilizers for the better production of Potato in the developing nations like India.

Application of organic manures in combination with the chemical fertilizers will improve the physical, chemical and biological status of the soil. The use of organic manures along with the low amounts of chemical fertilizers will enhance the soil enzyme activities, microbial population as well as organic carbon in soil. Thus, the integrated use of organic and inorganic source of nutrients will have the positive effects on yield of potato and soil health. It will also help to meet the future demand of the people.