

Cultivation of safed musli (*Chlorophytum tuberosum* L.) by *Azolla* as green manure

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SUMMARY

The whole world including India, demand of natural ecofriendly or organic cultivation of medicinal plants and cereal crops is rapidly increased in last 2-3 decades. At present a number of methods of organic farming are popular for cultivation of crops as well as medicinal plants. *Azolla* a genus of water fern has specific place among various types of biofertilizers. It occurs in fresh stagnant water bodies of tropical, semitropical and warm temperate regions of entire world. Present study is based on effect of *Azolla* as organic compost on growth and composition of 100 days old safed musli (*Chlorophytum tuberosum* L.) plants. Safed musli plants were cultivated in soil-pot culture conditions and treated by different doses of *Azolla* as green manure. After 100 days of cultivation plants were studied for dry matter yield, chlorophyll, ascorbic acid, nitrogen and crude protein contents showed remarkable and significant growth. Thus *Azolla* can be better organic compost for cultivation of safed musli.

Key Words : Organic cultivation, *Azolla*, *Chlorophytum tuberosum*, L., Safed musli

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Throughout the history agriculture has been a major activity of human beings since ancient times. Man cultivated useful plants from the very beginning of human civilization. All traditional Agricultural methods were based on organic farming. In ancient India agricultural practices were closely related with cow farming. Bulls were used for different agricultural processes and their excretory products were used as valuable organic compost. After industrial revolution, use of chemical fertilizers rapidly increased in whole world. In India excessive use of chemical fertilizers kept on increasing day by day since the beginning of green revolution. The uncontrolled use of agrochemicals creates various

environmental problems as well as health hazards of human beings. Changes of soil characteristics, destruction of useful microbes and worms, chemical defects on vegetables, fruits cereals and agro products, decreasing the water holding potential of agriculture soil, increasing the water supply demand for irrigation, decreasing the ground and surface water quality, increasing the production cost of agriculture, infertility of soil, harmful effects on animals birds and human beings are the major losses of using chemical fertilizers. On accounts of these reasons entire globe is returning towards organic fertilizers in agriculture practices.

The beginning of 21st century Indian agricultural system is facing a number of problems like high investment, low return of agro products, decreasing the fertility of agriculture soil, decreasing the cultivation area of agriculture etc. Now sometimes loan, sometimes natural problems, sometimes very low return of crop is making our farmers to stay away from agricultural activities. A great number of subsidies of farmers in recent two decades create a great question mark on our agriculture pattern policies, as well as achievements of green

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