

Vegetable Forcing: An Advance Physiological Approach in Off-season Vegetable Growing

Rakesh Kumar, Sandeep Chopra, Manohara Reddy and Vijay Chibbi

*Division of Vegetable Science and Floriculture,
SKUAST, Jammu-180009, India
E-mail: *rakeshrajtnau@gmail.com*

Abstract—Vegetables are recognized as health food globally and play important role in overcoming micronutrient deficiencies and providing opportunities of higher farm income. Vegetables are generally sensitive to environmental extremes, and thus high temperatures and limited soil moisture are the major causes of low yields and will be further magnified by climate change. In spite of all these achievements, per capita consumption of vegetables in India is very low against WHO standards (180 g/day/capita against 300 g/day capita recommended by FAO). There are different ways and means to achieve this target, e.g., bringing additional area under vegetable crops using hybrid seeds, use of improved agro techniques. Another potential approach is perfection and promotion of protected cultivation of vegetables. In natural season local vegetables flood the markets substantially bringing down the prices. In the absence of storage infrastructure and vegetable processing industry in the country, off-season vegetables farming is the only viable option that can add value to the farmer produce. Vegetables can be cultivated in off-season, with the induction of an artificial technique like greenhouse technology, in which temperature and moisture is controlled for specific growth of vegetables. Vegetable forcing relates to the growing of vegetables to maturity or to edible size in greenhouses, hotbeds, cold frames, or other special structures. The cultural conditions are usually artificial throughout the growing period. The cultural conditions must be created and kept under absolute control, in order that the best results may be realized. Because of this possibility, vegetable forcing is often regarded as the most certain or most reliable branch of vegetable production. There are distinct types of vegetable forcing, namely by the use of manure heated hot beds, cold frames, large and medium scale production by greenhouse, among this protected cultivation off season vegetable is predominant importance in vegetable forcing.

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