## **Short Communication**

## Constraints faced by farmers in adopting improved vegetable production technologies

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Vegetable production in India constitutes around 60 per cent of its total horticultural production. India is the second largest producer of vegetables in the world next to China having an area of 9.40 million hectares producing 162.90 million tons of vegetables during the year 2013-14. Vegetables play an important role in building nutritional and livelihood security in rural and peri-urban households due to their shorter duration, high yield and high value, nutritional richness, early economic returns and ability to generate on-farm and off-farm employment. The major states growing vegetables are West Bengal, Uttar Pradesh, Bihar, Madhya Pradesh, Gujarat, Maharashtra, Odisha, Karnataka, Andhra Pradesh and Tamil Nadu accounting for around 77 per cent of the total national vegetable production. With current level of vegetable production in the country (162.2 million tons), population (1.27 billion) and considering 25% postharvest losses and 5% export and processing, per capita availability of vegetables in our country is 250 g as against 300 g recommended dietary allowance (RDA). Thus, there is a shortage of about 50 million tons of vegetables. With projected population of 1.33 billion in 2020, 1.46 billion in 2030, 1.57 billion in 2040 and 1.65 billion in2050, there will be a gap of 190, 210, 225 and 240 million tonnes ofvegetables by respective years. With increasing trends in processing and export, the production targets are likely to further increase (Anonymous 2015). There are some gaps that need to be filled to achieve the targeted production in vegetables, firstly the lower productivity of vegetables in India (17.32 t/ha) which is lower than the world average productivity in vegetables (19.5 t/ha). Secondly, lack of adoption of new, cost effective & resource efficient technologies in

vegetable production and an appropriate policy framework to keep the interest of both vegetable growers and consumers. Keeping this in view, a study was undertaken to identify the constraints faced by farmers in adoption of improved vegetable production technologies.

ICAR-Indian Institute of Vegetable Research being a premier institute in vegetable research and extension had conducted many training programmes, exhibitions and demonstrations for vegetable growers at the main campus of the institute, KVKs and at villages during the year 2014-15. Vegetable growers from different parts of India participated in these activities who were the target group for the study. During such gatherings of vegetable growers, a survey was conducted through focus group discussions to analyze the constraints faced by the growers in adoption of improved vegetable production technologies. Focus Group Discussions were conducted for 345 farmers from Bihar and Madhya Pradesh during training programme at institute and 834 farmers during Farmers' Interface of 50 villages in Sonbhadra, Varanasi, Mirzapur, Jaunpur, Gazipur, Chandauli and Mau districts of Uttar Pradesh. Open-ended questions were raised and farmers were left for discussion on different constraints they faced in adoption of different vegetable production technologies and identification of major problems were highlighted among them and were asked to give the preference/ agree to the problems raised. The total respondents for this study were 1179 and the results were classified into 04 major categories viz, Social Constraints, Technological Constraints, Economic Constraints and Organizational Constraints.

Table 1 indicates the rank order of social constraints. First three social constraints are related to entrepreneurial characteristics of the vegetable growers. Adopting any innovative technology is risky affair. Lack of entrepreneurial ability (85.07%), less achievement

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