



Constraints encountered by farm women in vegetable farming in Mandi district of Himachal Pradesh

D S YADAV¹, V P CHAHAL², UMMED SINGH³, ARVIND KUMAR⁴ and PANKAJ SOOD⁵

Krishi Vigyan Kendra, Sundernagar, District Mandi, Himachal Pradesh 175 019

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India is the second largest vegetable producer with 14 percent share of the total world vegetable production accounting for about 162 million tonnes of vegetables with an area of 9.3 million ha (Anonymous 2015). Vegetable cultivation is important option for agricultural diversification and can play an increasingly important role in the nutritional security, poverty alleviation and employment generation. Himachal Pradesh is an important hilly state of India with ample potential for growing seasonal and off seasonal vegetables. During 2013-14, an area of about 86 600 ha was under vegetable cultivation with production level of more than 16 lakh tonnes.

Women are important half of society in our country and are intricately linked to various farming activities. Shiva (1991) suggested that increasing number of rural women in India are not simply housewives but are in fact farmers and women in deed contribute far more in agricultural production than has generally been acknowledged (Goswami and Bordoloi 2013). Farm women play a significant role in agricultural activities and their involvement in farming varies from region to region, ecological zones and farming systems that directly or indirectly influence the course of agriculture (Nain and Kumar 2010, Singh *et al.* 2004). In Himachal Pradesh, more than 85 per cent of the females are engaged in agriculture and allied sectors and spend maximum time in farm activities (Kanwar *et al.* 2003, Kishtwaria *et al.* 2009). In spite of significant contribution in performing agricultural operations, the women in state are considered as non-workers (Monga *et al.* 2008). Vegetable cultivation is fast emerging as an important farm enterprise in Mandi district of Himachal Pradesh in about

12 000 ha with annual production of 2.19 lakh tonnes where women are extensively involved (Yadav *et al.* 2014). However, the climatic and other socio economic constraints are restricting factors in harnessing the full potential of vegetable farming in the region. Hence, identification of such constraining factors and seeking suggestions of farm women involved in this enterprise are equally important for enhancing the productivity and profitability of vegetable production in the region. The present study was conducted during the year 2010-2013 in Mandi district of Himachal Pradesh due to considerable higher female population than males. Further, sufficient numbers of farm women are involved in vegetable farming. Out of the total 10 blocks of the district, two blocks namely Seraj and Gohar leading in vegetable cultivation were selected randomly. A list of villages wherein at least 25 respondents actively involved in vegetable farming was prepared from these blocks. Further, five villages from each block were selected randomly with total number of 10 villages for the purpose of study. One hundred farm women with more than five years active experience in vegetable farming were chosen from 10 randomly selected villages of two blocks of the district following multistage sampling technique for personal interview. The study was focused on studying personal and socio economic attributes of vegetable cultivating farm women and identifying the constraints faced by them. In order to study the perceived problems faced by the women farmers in vegetable farming, an exhaustive list of possible constraints/problems was prepared and response was obtained on 'Yes' (1) and 'No' (0) categories. The score obtained by each respondent was considered as the number of constraints faced by the respondent. The data was treated with statistical tools like cumulative frequency cube root technique (Singh 1975), frequency counts, mean, standard deviation and Pearson's coefficient of correlation to interpret the results.

The data given in Table 1 revealed that majority of the respondents' belonged to young to middle age group (87%), possessed matric and above standard of education (57%) and small and medium family size (90%). The study also

¹Extension Specialist (Extension Education) (dsyadavhpau@yahoo.com); ⁵Programme Coordinator (pankajplp@rediffmail.com), Krishi Vigyan Kendra, Sundernagar District Mandi Himachal Pradesh, ²Principal Scientist (AE), (chahalvp@gmail.com), Division of Agricultural Extension, KAB-1, New Delhi, ³Former Reader & Head, Department of Agricultural Extension, JV College, Baraut, Uttar Pradesh, ⁴Professor (Extension Education) (arvindkqp@hotmail.com), Krishi Vigyan Kendra, Una, Himachal Pradesh

Table 1 Socio-economic and personal attributes of the farm women (n=100)

Characteristics	Frequency/Percentage	Mean (SD)
<i>Age</i>		36.41
Young	42	(9.89)
Middle	45	
Old	13	
<i>Formal education</i>		8.26
Illiterate	9	(3.93)
Primary	21	
Middle	13	
Matric	35	
Above Matric	22	
<i>Family size</i>		5.13
Small	42	(1.64)
Medium	48	
Large	10	
<i>Social participation</i>		1.35
Nil	11	(0.99)
Low	62	
Medium	14	
High	13	
<i>Experience in enterprise</i>		11.98
Less	65	(7)
Moderate	25	
More	10	
<i>Socio-economic status</i>		157.99
Low	59	(78.83)
Medium	34	
High	7	
<i>Land holding</i>		0.62
Marginal	82	(0.63)
Small	9	
Semi medium	9	
<i>Size of enterprise</i>		1.66
Small	57	(0.83)
Medium	28	
Large	15	
<i>Income from enterprise</i>		52426
Low	50	(34493)
Middle	32	
High	18	
<i>Total annual income</i>		157795
Low	59	(78806)
Middle	34	
High	7	

revealed that majority of the respondents were low in social participation category (62%) and less experienced (65%). Non-availability of government jobs might have motivated the young to middle aged respondents to practise vegetable farming to secure their livelihood. The awareness regarding the importance of family planning of the educated respondents might have helped them to maintain small to medium size family while lack of interest, motivation and perceived no economic gain from participation in social

Table 2 Progressive and scientific outlook of the farm women (n=100)

Characteristics	Frequency/Percentage	Mean(SD)
<i>Marketing orientation</i>		1.66
Local	25	(-0.86)
Nearby	16	
Away	59	
<i>Information sources utilisation</i>		17
Low	42	(-4.84)
Medium	49	
High	9	
<i>Training received</i>		0.72
Nil	83	(-1.77)
< 3 days	6	
3-6 days	11	
<i>Scientific orientation</i>		14.89
Low	25	(-2.22)
Medium	27	
High	48	

organization might be the reason for low social participation of the respondents. These findings are in conformity with that of Mundhwa and Padheria (1998), and Nath and Kumar (2008).

The study also revealed that majority (82%) of the respondents belonged to the marginal land holding category, possessed small size of enterprise (57%) and had low to medium socio economic status category (59%). The increased human population, further division of family land and small land holdings are the main reasons. Earlier, Kanwar *et al.* (2003) also reported low socio economic status of hill farm women. A perusal of the data furnished in Table 1 also revealed that half (50%) of the respondents belonged to low income group from their enterprise while majority (59%) had low total annual income which might be due to small size of land holdings as well as meagre other sources of income. The results with respect to progressive and scientific outlook of respondents given in Table 2 revealed that majority (59%) of respondents availed marketing facilities away from their villages. It could be interpreted that marketing facilities were significantly distantly located because of respondents produce the vegetables as off seasonal and sell their produce in Delhi and Chandigarh markets for remunerative returns. The results also indicated that majority (91%) of respondents had low to medium level of information sources utilisation, not received any formal training (83%) but had medium to high level of scientific orientation (75%). It is accepted that education makes an individual to think logically and analytically to acquire latest knowledge from various sources of farm information. Vegetable farming is an information intensive enterprise that requires more information from different sources to compete in wider market besides other obvious reasons related to management practices. Lack of awareness about personal

and impersonal information sources could be the probable reason for lesser utilization of information sources while higher formal education of the respondents might be the reason for their scientific orientation temperament. Similar observations were also made by Nath and Kumar (2008).

The data revealed that 46.00 per cent of respondents perceived moderate while nearly one fourth (23%) of the respondents perceived high extent of constraints in running their enterprise. Low level of constraints was perceived by 31.00 per cent of the respondents.

As such majority of respondent's perceived moderate to high extent of constraints regarding vegetable farming that requires specific knowledge and skill. Earlier, Banerjee and Talukdar (1997) reported low to moderate constraints by majority of the respondents in relation to establishing and managing their enterprise.

The personal and socio economic characteristics could not establish any significant relationship with the extent of constraints perceived by the respondents. It means that respondents of the study area irrespective of their characteristics had more or less similar constraints.

The data with respect to the types of constraints faced by the respondents have been analyzed and given in Table 3. The major cognitive constraints expressed by the respondents included poor knowledge about enterprise (84%), lack of knowledge about marketing linkage (70%), lack of knowledge about schemes of various departments related to enterprise (62%), lack of knowledge about training institutions (55%) and lack of knowledge about financial institutions (54%). Vegetable farming demands more technical knowledge and hence, respondents might have perceived training needs and support from the concerned department. Lack of awareness might be another possible reason for these constraints.

Lack of financial institutions in the rural areas and difficulty in getting loan were the major credit related constraints as reported by 54.00 and 27.00 per cent of the respondents respectively (Table 3). This enterprise require relatively more investment hence, they feel that lack of such institutions act as obstacles in the growth of the enterprise. Similar results were also reported by Gupta *et al.* (2013) and Das *et al.* (2014).

With regards to constraints on inputs, the respondents reported high cost of inputs, non-availability of fertilizers and other inputs in time, lack of quality input material and untimely supply of inputs which might be due to poor paying capacity of respondents, shortage of man power in public sector as well as lack of private input supply institutions in the area. Agripreneurship development may be visualized whereby individual's motivations and aspirations trigger entrepreneurial competencies and adoption of best practices to effectively manage the inhibitive factors present in the rural environment. For developing agripreneurs, it is essential that an effective network is built consisting of various stakeholders like input suppliers, mentors, technical experts, marketing and supply chain agencies (Singh *et al.* 2014). Contrary to that majority

Table 3 Area wise constraints faced by the farm women in vegetable farming (n=100)

Types	Constraints	Frequency/ Percentage
Cognitive	Poor knowledge about enterprise	84
	Lack of knowledge about marketing linkage	70
	Lack of knowledge about schemes of various departments related to enterprise	62
	Lack of knowledge about training institutions	55
	Lack of knowledge about financial institutions	54
Credit	Lack of financial institutions in the rural areas	54
	Difficulty in getting loan	27
Input	High cost of inputs	80
	Non availability of fertilizers and other inputs in time	66
	Lack of quality input material	64
	Untimely supply of inputs	57
Extension service	Lack of entrepreneurship development oriented training	73
	Lack of support from concerned department	42
Marketing	More distance from market	82
	Lack of marketing Centres	75
	Low price	46
Miscellaneous	Lack of demand in local market	40
	Lack of storage facilities	81
	Lack of irrigation facilities	76
	Monkey menace & stray animals	70
	Non availability of labour	49
	Lack of family support	26

of the respondents reported lack of entrepreneurship development oriented training (73%) and lack of technical support from concerned department (42%) as the major constraints under extension services, more distance from market (82%), lack of marketing centres (75%) and low price of produce (46%) were the major extension service related and marketing related constraints (Table 3.). This might be due to un-organized marketing on the part of some respondents however, being off season production of vegetables in the area, most of respondents get the remunerative returns.

The major general constraints expressed by the vegetable entrepreneurs were lack of storage facilities (81%) and lack of irrigation sources (76%). Vegetables are perishable items and require cold storage facilities hence; respondents might have perceived necessity of such infrastructure. Topographically, area is hilly and irrigation sources are meagre hence, respondents also felt necessity of providing irrigation facilities to increase the productivity. Non-availability of labour after the implementation of MNREGA was perceived as constraint and suggested to include provision of MNREGA for own farm activities. Monkey menace and stray animals were the major constraints in the area causing huge economic loss. Hence, respondents expect its permanent solution from the policy planners. Similar types of constraints were also noticed by

Table 4 Distribution of respondents based on their suggestions to improve the vegetable enterprise (n=100)

Suggestions	Frequency/ Percentage
Organization of training, demonstrations and exposure visits	85
Development of storage facilities	80
Creation of marketing facilities	78
Strengthening of irrigation facilities	75
Organization of training on entrepreneurship development	72
Policy for monkey menace and stray cattle	70
Promotion of processing units	68
Timely availability of quality inputs at subsidized rates	64
Encouraging financial institutions in the villages	50

Singh (2008) and Jaisawal and Patel (2012) from their respective studies.

In order to make the progress in vegetable farming in the region, the suggestions of respondents were also sought and findings have been given in Table 4. The data given in Table 4 indicated that majority of respondents suggested to strengthening the irrigation facilities (75%) and development of storage facilities (80%) in the area. The majority of respondents (78%) also offered suggestions to strengthen the marketing facilities. By creating irrigation, storage and marketing facilities in the study area, the productivity from this enterprise could be enhanced and vegetable growers can get the more remunerative returns. All such suggestions would be useful for harnessing the full potential of this venture.

SUMMARY

The study identified constraints encountered by farm women in vegetable farming in Mandi district of Himachal Pradesh. The data were personally collected from 100 farm women of two vegetable growing blocks of the district by using multi-stage sampling technique. Overall, majority (69%) of respondents encountered medium to high extent of constraints. The study revealed that lack of knowledge about enterprise, marketing linkages, schemes of developmental departments, training and financial institutions, lack of financial institutions and difficulty in getting loan, high cost and non-availability of quality inputs in time, lack of entrepreneurship development oriented trainings and requisite support were the major constraints. Lack of marketing centers, low price of produce, lack of storage and irrigation facilities, non-availability of labour, and stray animals were the major general constraints. Effective policy at government level for stray animals and monkeys, timely availability of quality inputs at subsidized rates, promotion of processing units and financial institutes at village level and trainings on entrepreneurship development for socio economic upliftment of farm women are the prime concerns to be looked upon.

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