

An Analysis of Reasons of Non- adoption of Selecting different crop production practices by potato growers in Sub-Tropics of Jammu Division



Agriculture

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Quadri Javeed Ahmad Peer	Ph.D scholar, Division of Agricultural Extension Education, FoA, Chatha, SKUAST-Jammu- 180009
S.K.Kher	Professor, Division of Agricultural Extension Education, FoA, Chatha SKUAST-Jammu-180009
Nafees Ahmad	Associate Professor, Division of Agricultural Extension Education, FoA, Chatha, SKUAST-Jammu-180009
M.H Chesti	Junior Scientists, Soil Science, RARS, SKUAST-J, Rajouri-185131
J S Manhas	Junior Scientist, Agricultural Extension Education, RARS, SKUAST-Jammu, Rajouri-185131
Satesh Kumar	Assistant Professor, Division of Vegetable Science and Floriculture, FoA, Chatha, SKUAST-Jammu-180009
Bhavana Gupta	Ph.D scholar, Division of Agricultural Extension Education, FoA, Chatha, SKUAST-Jammu- 180009

ABSTRACT

Potato is widely grown at large scale and ranks fourth in food production following wheat, rice and maize. Potato crop have a great potential to meet the increasing food requirement. Potato continues to be among the most preferred and accessible food product especially for the poor. The present study was undertaken in purposively selected sub-divisions of Marh, R.S. Pura, Dayalchak and Samba of Jammu, Kathua and Samba districts of Jammu division. These are the main potato growing districts in Jammu division. Fifteen villages were selected from the selected sub-divisions by proportionate allocation method based on the maximum area under potato crop. A sample of 225 potato growers was selected randomly from 15 villages and from each village, 15 potato growers were selected randomly. The present study revealed that majority of the respondents (76.51%) did not follow interval of hoeing for manual weed control because of financial problems. In case of chemicals that majority of the respondents (76.03%) had applied chemicals on the advice of neighbor and 72.95 per cent of respondents reported that recommended varieties of potato requires more seed rate whereas, (47.88 %) reported that high cost as a reason for not using plant protection measures.

INTRODUCTION

Potato (*Solanum tuberosum* L.) popularly known as "The king of vegetables", has emerged as fourth most important food crop in India after rice, wheat and maize. Indian vegetable basket is incomplete without Potato. Because, the dry matter, edible energy and edible protein content of potato makes it nutritionally superior vegetable as well as staple food not only in our country but also throughout the world. Potato may prove to be a useful tool to achieve the nutritional security of the nation. It has been observed that during present trend of diversification from cereals to horticultural crops, shifting from wheat / barley cultivation to potato cultivation returns more to the farmers. Potato is a major food crop, grown more than 100 countries in world. The native South Americans brought Potato under cultivation possibly 2000 years before the Spanish conquest. Malaysia, China also have a great demand for processed potato products as well as fresh potato for processing purpose. Thus, the potato processing has opened a new dimension for development of agro based industries in the country. Indian potato preferred world wise for its taste and meets the international quality standards in terms of disease freeness, shape, size, skin colour, flesh and dry matter content. Keeping the above facts in view the present study entitled "An Analysis of Reasons of Non- adoption of Selecting different crop production practices by potato growers in Sub-Tropics of Jammu Division" was taken up.

MATERIALS AND METHODS

The study was conducted in the sub-tropical zone of Jammu Division. Three districts namely Jammu, Kathua and Samba were selected purposively on the basis of maximum area under potato crop. Seven villages from sub-division Marh; namely Pinjore, Dabsudan, Kalyanpur, Gajansoo, Dubditta, Kanachak and Ganguchak, four villages from sub-division R S Pura; namely Makhampur, Arnia, Mohanpur and Salahaar, three villages from sub-division Dayalchak namely Marheen, Khokhyal and Bhajwal and

one village from sub-division Samba namely Prithipur were selected purposively on the basis of proportionality of area under potato cultivation. The villages with highest area under potato crop in each of the three sub-divisions were selected for the present study. 15 respondents were selected randomly from each village, thus making a total sample size of 225 from 15 villages. Data were collected in person from the farmers by using well-structured interview schedule. The data were analyzed by using statistical tools such as frequency, percentage, mean and standard deviation.

RESULTS AND DISCUSSION

Reasons for not using recommended seed rate

The figures in Table 1 indicates that overall 72.95 per cent of respondents reported that recommended varieties of potato requires more seed rate, so they did not use recommended seed rate, 63.93 per cent of respondents were satisfied with old practice and 40.98 per cent of respondents reported lack of knowledge. About 39.34 per cent of total respondents reported non-availability of recommended seed. Majority of the respondents (72.95%) had reported that recommended varieties of potato requires more seed rate out of which 86.67 per cent respondents were from Marh Subdivision, 63.63 per cent of respondents from R S Pura Subdivision, 65.38 per cent of respondents from Dayalchak Subdivision and 50.00 per cent of respondents from Samba Subdivision had reported that recommended varieties of potato requires more seed rate. The above findings got support from the study of Prakash (2009) and Sharma (2009) who reported that respondents had not used recommended seed rate because they were satisfied with old practice, recommended varieties requires more seed, non-availability of seed and lack of knowledge.

Reasons for not using recommended interval of hoeing

A perusal of data presented in the Table 2 reveals that major-

ity of the respondents 76.51 per cent did not follow interval of hoeing for manual weed control because of financial problems followed by other reasons such as non- availability of labour (67.42%), lack of time (60.60%) and lack of knowledge (32.58%).

Reasons for not using recommended dose of plant protection measures

The data in Table 3 reveals that overall 50.00 per cent of respondents of Sub-divisions did not use proper dose of plant protection measures as they follow the advice of their neighbor for potato crop, followed by 43.93 per cent of respondents who had expressed the reason of lack of knowledge about plant protection measures .About 38.00 per cent of respondents also did not use proper dose of plant protection measures as they follow the advice of their dealer.

Reasons for not using recommended plant protection measures

It is evident from the data presented in Table 4 that majority of the respondents 47.88 per cent reported that high cost as a reason for not using plant protection measures followed by non- availability of plant protection measures at proper time (26.77%), and lack of knowledge (25.35%). These findings are in agreement with those of Chander et al.(1990), Dhammu (1991), Puranika and Verma (1992),Sarda and Khurana (1994),Thippeswamy et al. (2008) and Prakash (2009).

Reasons for not adopting recommended timely application of plant protection measures

The data in Table 5 indicates that majority of the respondents 76.03 per cent had applied chemicals on the advice of neighbor, followed by .Non- availability of plant protection measures in time (57.85%), lack of knowledge (42.14%), on advice of dealer (32.23%) and financial problem (39.75%). These findings are in agreement with Shaikh et al. (1993), Sarda and Khurana (1994), Hakim (1998) and Sharma (2009), who had reported that farmers did not apply chemicals at proper time because they had not any information about time of application of chemicals.

Reason for not adopting of dehauling practice by potato growers

A perusal of data presented in the Table 6 reveals that overall majority of the respondents (42.85%) had not done dehauling of potato crop due to lack of technical know how followed by the other reasons like .Lack of time (25.16%), lack of knowledge (19.86%) and Non- availability labour (23.28%)respectively.

Conclusion

It can be concluded that the potato growers were of the opinion that the old practice they follow gives them satisfaction as local seeds requires low seed rate and grow well in our local conditions. Reasons for not using recommended interval of hoeing, the results of the study revealed majority of the overall respondents did not use recommended interval of hoeing for manual weed control. It may due to financial problem and non-availability of labour. With regard to reason for not using recommended dose of plant protection measures, the results reflected that the respondents of all Subdivisions did not use proper dose of plant protection measures the probable reasons as lack of knowledge and advice of their neighbour regarding the dosage of plant protection measures for potato crop. Reason for not using recommended plant protection measures, it is evident from the results that majority of the overall respondents(54%) reported that high cost of plant protection measures and (26.53%) non-availability of plant protection measures at proper time were main reasons for not using plant protection measures. The reason for not adopting dehauling practice as per the study is that majority of the them lack technical know-how followed by lack of time, non availability of labour and lack of knowledge.

Table 1-Distribution of non adopter potato growers on the basis of reasons for not using recommended seed rate n=122

Reason	Sub-Division-wise percentage of respondents				Overall %age of respondents from all sub divisions
	Marh n=53	R S Pura n=33	Day-alachak n=26	Samba n=10	
Satisfied with old practice	77.35	57.57	46.15	60.00	63.93
Recommended varieties requires more seed	86.67	63.63	65.38	50.00	72.95
Non-availability of seed	37.73	42.42	42.30	30.00	39.34
Lack of knowl- edge	50.94	36.36	26.52	40.00	40.98

Multiple Responses

Table 2- Distribution of non- adopter potato growers on the basis of reasons for not following interval of hoeing for manual weed control n=132

Reason	Sub-Division-wise percentage of respondents				Overall %age of respondents from all sub divisions
	Marh (n=63)	R S Pura (n=38)	Day-alachak (n=23)	Samba (n=8)	
Lack of knowledge	30.15	31.57	39.13	03.75	32.58
Lack of time	61.90	52.63	73.91	50.00	60.60
Financial problem	73.01	73.68	82.60	100.00	76.51
Non-availabil- ity of labour	63.49	65.78	78.26	75.00	67.42

Multiple Responses

Table 3- Distribution of non-adopter potato growers on the basis of reason for not using recommended dose of plant protection measures n=66

Reason	Sub-Division-wise percentage of respondents				Overall %age of respondents from all sub divisions
	Marh (n=29)	R S Pura (n=19)	Day-alachak (n=13)	Samba (n=5)	
Lack of knowledge	41.37	47.36	46.15	40.00	43.93
On advice of neighbor	37.93	63.15	53.84	60.00	50.00
On advice of dealer	34.48	47.36	46.15	00.00	37.87

Multiple Responses

Table 4- Distribution of non adopter potato growers on the basis of reasons for not using recommended plant protection measures n=71

Reason	Sub-Division-wise percentage of respondents				Overall %age of respondents from all sub divisions
	Marh n=35	R S Pura n=18	Day-alachak n=18	Samba n=0	
Lack of knowl- edge	25.71	16.66	33.33	00.00	25.35
High cost of plant protec- tion measures	45.71	55.56	44.44	00.00	47.88
Non-availability of plant protec- tion measures at proper time	28.58	27.78	22.23	00.00	26.77

Multiple Responses

Table 5- Distribution of non adopter potato growers on the

basis of reason for not adopting recommended timely application of plant protection measures n=121

Reason	Sub-Division-wise percentage of respondents				Overall %age of respondents from all sub divisions
	Marh n=53	R S Pura n=33	Day-alachak n=25	Samba n=10	
Lack of knowledge	39.62	48.48	44.00	26.67	42.14
Non-availability of plant protection measures in time	49.05	57.58	72.00	70.00	57.85
On advice of neighbor	71.69	75.76	84.00	53.33	76.03
On advice of dealer	33.96	33.33	28.00	20.00	32.23
Financial problem	28.30	27.27	24.00	80.00	39.75

Multiple Responses

Table 6- Distribution of non adopter potato growers on the basis of reason for

Practice	Sub-Division-wise percentage of respondents				Overall %age of respondents from all sub divisions
	Marh (n=84)	R S Pura (n=50)	Day-alachak (n=40)	Samba (n=15)	
Lack of knowledge	16.66	20.51	21.21	30.76	19.86
Lack of time	27.27	23.07	27.27	15.38	25.16
Lack of technical know how	41.66	48.00	37.50	46.66	42.85
Non-availability of labour	30.30	16.00	22.50	15.38	23.28

not adopting dehaulming practice of potato n=189

Multiple Response

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