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Marketing Practices of Potato Growers – A Study of Malwa Region of Madhya Pradesh

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ABSTRACT

Efficient and modern post-harvest marketing practicesplay a critical role inincreasing the participation of farmers both in input as well as output markets by commercializing their activities, subsequently improving their ability to engage efficiently in these markets. Better post-harvest management of agricultural produce through sorting, grading and value addition, if adopted by farmers can lead to their enhanced economic standing, increase their incomes and their overall welfare. To better understand the local prevalence of such practices, a survey of potato growers from Hatod and Mhow tehsils of Indore district was done after applying stratified sampling technique. Using the pre-tested structured questionnaire, personal interviews were conducted with farmers from the identified areas. The analysis revealed few interesting insights such as despite possessing knowledge about value addition of produce resulting into higher income, very few farmers apply the same. Similarly, very few farmers have associated themselves with FPOs and contract farming, hence were unable to leverage collective and better bargaining. Also, just 29 per cent of surveyed farmers had availed various government schemes, price initiatives and subsidies *i.e.*, government's policy interventions are unutilized for a large section of the farmers. Very few farmers store their produce and prefer to sell it off instead of waiting for a favourable price. These aspects are acting as hinderances towards income growth avenues for many farmers and can potentially turn things around significantly if more and more farmers start deploying these practices.

Key Words: Grading, Marketing Practices, Post-harvest management, Processing, Value Addition.

INTRODUCTION

Potato can be compared only with rice, wheat and maize for its contribution towards securing the food and nutrition of the burgeoning population in the developing countries (Pandey and Sarkar, 2005). Indian potato meets the international quality in terms of disease freeness, shape, size, skin, colour etc. and the processing of potato gives it more economic value (Marwaha and Sandhu, 2003). Within India, the state of Madhya Pradesh is currently the fifth largest producer of potato. The state's share in percentage was 6.68 and the production average for five years between 2014-15 to 2018-19 was 3225.95 (000 t) (Anon, 2019). Among the many agro-climatic zones of Madhya Pradesh, Malwa region plays significant role in potato production in Madhya Pradesh and its importance can be

gauged from the fact that most of the potato-based industries either procure significant quantity of raw material or have established their processing units in the state especially in this region. Malwa is already a preferred potato procurement center by most of the processing industries, thus fetching higher prices to the farmers then the normal potatoes. Also, the small-scale processing units set up for potato provide employment opportunities to hundreds of people and women of Malwa region. Indore district alone is contributing around 30 per cent in area as well as in production in the state of Madhya Pradesh. Potato is predominantly cultivated in Indore district of Madhya Pradesh in soybeanpotato, soybean- potato - Wheat cropping systems (Mishra et al, 2009). As evident from the following table 1, Indore had the maximum area under potato

Table 1. Madhya Pradesh District wise Area and Production details of Potato.

Sr. No.	Districts	2014-15		2015-16		2016-2017	
		Area	Production	Area	Production	Area	Production
1	Indore	51.10	887.00	39.00	858.00	45.40	1021.50
2	Shajapur	11.08	205.20	12.10	256.52	15.10	320.88
3	Chhindwara	7.10	177.48	7.31	182.80	8.00	200.00
4	Ujjain	6.06	158.88	12.12	233.31	15.80	304.15
5	Dewas	7.51	146.98	7.88	154.38	8.10	159.61
6	Sagar	4.79	143.75	5.18	129.53	6.00	187.50

A: Area in '000 Ha, P: Production in '000 MT

Source: Horticultural Statistics at a glance; 2017

cultivation 45.40 ha producing 1021.50 MT of potatoes in 2016-17.

MATERIALS AND METHODS

Two tehsils namely Mhow and Hatod from Indore were selected, subsequently, two villages from each tehsil were chosen as the representative village and 30 farmers from each village were selected. 120 farmers from these randomly selected villages were personally interviewed on the identified variables; termed here as marketing practicesnamely mode of transport, selling place, time of sale, marketed surplus, grading and standardization, weighing behaviour, sale agency, payment pattern, method of packing, sources of market preferences and time devoted (Raahinipriya and Jansi Rani, 2018). Post-harvest management practices and problems encountered during the marketing of potatoes were also examined and evaluated along with the constraints as perceived by the farmers.

RESULTS AND DISCUSSION

Key demographic pointers

The data showed that majority of the farmers (60.0%) were in the category of middle age (between 31-50 yr) with 50 per cent of them to have attained education up to high school leveland 17 per cent were found to be graduates, a positive aspect that emerges from this study. 65 per cent were small and marginal farmers, 12 per cent medium and 23

per cent large farmers. Most of the respondents (65.83%) were engaged only in farming followed by farming along with agricultural labour (33%), with few large farmers engaged in dairy business and farming.

Awareness on various aspects of marketing

The data suggested that information gathering on the prices prevailing in the local markets was found to be undertaken by almost 77 per cent of the small farmers and 100 per cent by both the medium and the large ones, signifying the pivotal role that prices play in their sustenance and day to day household and significant agricultural related expenses. Also, that because there are price fluctuations in the market, the farmers take decision regarding whether the same variety needs to be continued to be sown in the next season. All category of farmers gathered information on the prices prevailing in their local market. Information on prices in other markets was found to be collected mostly by large farmers 100 per cent and 79 per cent of medium farmers as it helped them assess the corresponding change in the local markets, and it was found that large farmers gathered information on prices prevailing even in the far-flung markets such as Rajasthan, Gujarat, Maharashtra and Southern India, and none of the small and marginal ones tried gathering information on this aspect.

Best practices in production was found to be an important aspect, as 83 per cent of the small

Table 2. Awareness on different aspects of marketing potatoes. (N=120)

Awareness on aspects of marketing of	Small/Marginal Farmers (78)		Medium (14)		Large (28)	
potatoes	No.	Percentage	No.	Percentage	No.	Percentage
Best practices in production	65	83	14	100	28	100
Prices in local markets	60	77	14	100	28	100
Quality and grade norms	70	90	10	71	28	100
Prices in other markets	0	0	11	79	28	100
Demand in different markets	0	0	10	71	20	71
New buyers	0	0	14	100	25	89
Post-harvest processing technologies	0	0	9	64	12	43
Policy issues and govt. schemes-loans, subsidies, support prices, new techniques etc.	10	12.8	5	35.7	20	71.4

farmers and 100 per cent by both the medium and large farmers tried their level best to produce the best quality, by adopting all possible measures starting with the best quality/variety of seeds, timely measures to control pests and insects, better crop management practices with adequate nutrition and irrigation, farmers give more importance to this aspect as it assures them of high yields with good quality, ultimately improving their bargaining positions and primarily because it's their only source of income and livelihood. Information on quality and grade norms were gathered by 90 per cent of small farmers and 71 per cent medium and 100 per cent of the large farmers. This information helped them in assessing their prices and position in the market. This showed that there was much awareness now on the quality and grading among the farmers and now they also focus on quality, rather than just quantity as was the case few years back.

Awareness on policy issues and govt. schemes such as loan, subsidies was found among 12.8 per cent small farmers and 35.7 per cent medium farmers, as the farmers feel that the schemes do not reach them at all. Information on post-harvest processing technologies came out to be of little interest to the farmers, as these technologies are

mostly used by industries and are expensive, hence farmers do not generally gather information on this aspect. The results revealed that usually the farmers were not very keen on finding or enquiring about new buyers, as they have their fixed buyers.

Marketing Practices of potato producers

Farmers in general and potato producers in specific face a lot of issues in the marketing of their produce. The existing agricultural markets suffer from inefficiencies, a disconnect between prices received by the producers and the prices paid by the consumers, the fragmented marketing channels, poor infrastructure and policy distortions (Chand, 2012). Concerns in the recent past have been raised regarding the efficiency of marketing of fruits and vegetables, and studies have pointed out that marketing of horticultural crops is complex especially because of perishability, seasonality and bulkiness, and this leads to price fluctuations and lesser share of consumer rupee reaching the producer (Gandhi and Namboodari, 2004). The findings suggested that the small and marginal farmers were forced to sell their potatoes immediately after the harvest, irrespective of the prices, favourable or otherwise, while in case of large farmers, storage was found as an essential practice. As large farmers

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Table 3. Marketing Practices by Potato Growers. (N=120)

Sr. No.	Behavioural attribute	Frequency	Percentage
(1)	Time of sales		
a	Immediately after the harvest whatever the prices may be	75	62.5
b	In case of low price, the produce shall be stored	40	33.3
с	Intermittently as per needs	35	29.1
(2)	Mode of transport		
a	Own vehicle – tractor/bullock cart	20	16.6
b	Tempo/lorry on rent	110	91.6
c	FPO vehicle	-	-
d	Traders vehicle	10	8.0
(3)	Reasons for selling immediately after harvesting		
a	Financial urgency	70	58.0
b	Highly perishable	45	37.5
c	Indebtness	50	41.6
d	Non availability of cold storages	60	50.0
e	High prices	40	33.3
(4)	Reasons for not selling immediately after harvesting		
a	Option available for cold storage	35	83.0
b	Unfavourable prices	40	95.2
c	Keep it for processing	10	23.8
d	Keep it for self-consumption	-	-
(5)	Buyer		
a	Directly to the consumer	-	-
b	To the Commission agents-Mandi	100	83.0
c	To the Govt. agencies	-	-
d	To the commission agents-other mandi	15	12.5
e	To the private agencies/companies	35	29.1
f	Aggregator/loader	25	20.5
g	Internet	05	0.6
h	Other forms of marketing	-	-
(6)	Market Place		
a	Weekly Markets/haats	-	-
b	Local mandi of the area	70	89.7
c	In a distant mandi	30	71.4
d	Mandi -other states	30	71.4
(7)	Reasons for selling at a particular place		
a	better connectivity and transport	100	83.0
b	better market facilities available in that market	90	75.0
c	better prices are available in that market	60	50.0
d	Nearness to the village	70	56.6

 $^{* \}textit{Multiple Responses of the farmers were recorded}$

Marketing Practices of Potato Growers

Table 4. Post-Harvest Management Practices adopted by Potato Growers.

Sr. No.	Practice	Frequency (N=120)	Percentage
1	Benefits derived	10	8
2	Member of any cooperative/FPO/Contract farming etc.	20	17
3	Involvement in value addition	25	21
4	Storage (a) Personal storage(b) Rent- Private/Govt.	30	25
5	Try growing them	40	33
6	Avoid selling immediately after harvesting	40	33
7	Keeping regular updates on prices	65	54
8	Packaging in standard bags	80	67
9	Information on value addition	85	71
10	Weighing in standard bags	90	75
11	Grading	90	75
12	Awareness on varieties fetching premium prices	110	91
13	Cleaning	120	100
14	Sorting	120	100
15	Branding activities undertaken	00	0

have shares in Govt. Cold Storages, they are the priority customers for these warehouses. Majority of the farmers use private mode of transportation. Financial urgency and indebt ness were cited as the reasons behind selling immediately after harvest by the small and marginal farmers, even sometimes by the medium farmers. 89 per cent of small and marginal farmers sold their produce in their nearby mandi, as it saves them the transportation costs, whereas almost 71 per cent of the large and medium farmers sold their produce in in distant mandis as well as other states due to the business term/networking they have developed with the commission agents there earning them better prices. None of the farmers sell the potatoes at the village level.

The prevalence of traditional channels highlights the fact that the farmers do not have many options in selling their produce and thus face exploitation by the traders of their area. Some of the small farmers have also opted out for aggregation/loading of the produce of their area, because of their limitations on yield and income; they find this profession as remunerative and augmenting their income, a good beginning, though limited to just a handful. Inaccessible markets and absence of necessary support in infrastructure and marketingprevents the participation the small and marginal farmers from diversifying towards high-value crops and allied activities and thus excludes them from potentially rewarding market mechanisms.

Post-Harvest Practices

Almost all the respondents (95%) irrespective of their land size adequately clean, sort, grade, weigh and package their produce. Still only a handful of them were involved in value addition and tried growing premium varieties. Costly seeds, lack of knowledge and training about processing, equipment, skills about handling different machines and high cost to set up a processing unit were the main reasons stated by the respondents for not adopting value addition. The findings are similar to (Kumar *et al* ,2010).71% of respondents were well aware of value addition in potatoes such as chips, French fries and its use in other savouries. Lack of knowledge and high costs prevents them

Table 5. Marketing Challenges as perceived by the potato producers.

Sr. No.	Challenge	Frequency (n=120)	Percentage	Rank
1.	Price Instability	102	85%	1
2.	Diminishing Margins on Sales	90	77%	2
3.	Lack of market information	85	70%	3
4.	Unattainable grade/quality norms	70	55%	4
5.	High Margins by intermediaries	40	33%	5
6.	Delayed Payments	30	25%	6
7.	Markets- far and few	22	18%	7

from undertaking any such activity at their level, thus only 21 per cent of the survey farmers are into value addition. FPO/contract farming and branding exercise/efforts were also found to be almost absent among the producers despite the fact that potatoes from MP are widely known and preferred by many of the local and international industries. However, private branding in form of aggregators was found prevalent in few cases.

Challenges faced by Potato Growers

There are various factors that inhibit profitable marketing of potatoes. The top three constraints as highlighted by the study were price instability similar to the findings by (Modi, Verma and Chavan, 2019, Maratha and Badodiya, 2017) diminishing margin on sales and lack of market information. Price instability via frequent fluctuations leading to smaller value realizations were cited by 55 per cent of the small and marginal farmers (Mahendra Dev, 2012). The rising costs of potatoes seeds, fertilizers, technology and transportation subsequently resulting into the lowering down of the margins was reported in the study. Information related to market was mostly not available thus forcing them to depend on market intermediaries/ agents. Unattainable grades/standards – as asked by the processing units, high costs and lack of training and resources point towards the low capacity of the farmers and their negligible participation in the value addition of potatoes.

CONCLUSION

Farmers collaborations such as collectives/ cooperatives and FPOs will enhance the scope of participation of small and marginal farmers in many commercial activities such as value addition and Processing in the state. Also, capacity building programs in form of training, adequate infrastructure, introduction of new channels such as export hubs, branding and special events to promote exports can bring in more inclusive development among the potato producers of the area. Since potato is an irrigation intensive crop, special and focused package on irrigation of potatoes will also help the farmers in addressing their escalating costs. Inclusive policies should be adopted by the government and also new channels such as Export hubs, inclusion of potato in all mid-day meals across the country, buying the potatoes for the security forces are some such potential areas where government can step in and facilitate the sales of potatoes by the small and marginal farmers

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