| Research Paper |

Economics of onion production in Nashik district of Maharashtra

■ **P. K. Makhare and V. C. Korade**

Correspondence to :

P.K. Makhare
Department of Agricultural
Economics, K.K.Wagh
College of Agriculture
Business Management,
Nashik (M.S.) India
Email : pradipmakhare07
@gmail.com

ABSTRACT : Nashik district is leading in onion production it covers 12.38 per cent of total in the State. A sample of 80 onion growers was selected randomly from 4 villages in Niphad tahsils of Nashik district of Maharashtra State. Onion cultivation is concentrated in the eastern part of the Nashik district. The selected cultivators were classified into three categories *i.e.* small (below 2 ha), medium (2-4 ha) and large (above 4 ha) based on land holding size of the farmers. The primary data were collected by survey method with the help of pre-tested schedule of questionnaire through personal interview. In view of this, an attempt in this study is made to study profitability and resource productivity in onion production in Nashik district. The average price received was Rs. 910.20, Rs. 977.00 and Rs. 1020.00 per quintal for small, medium and large farmers, respectively. The average net returns over cost 'A', cost 'B' and cost 'C' obtained was only cost 'A' Rs. 4121.39, Rs. 6653.29 and Rs. 4810.12 and negative return s obtained were cost 'B' and cost 'C' Rs. -3215.31, Rs. -1349.56 Rs. -3636.60, Rs.-7346.81, Rs. -5338.56 and Rs. -6920.60 for small, medium and large farmers, respectively. The average cost of production per quintal of onion were worked out of be at cost 'A', cost 'B' and cost 'C' was Rs. 818.61, Rs. 831.41 and Rs. 915.65 for small farmers, Rs. 981.65, Rs. 1006.53 and Rs. 1098.88 for medium farmers and Rs.1073.46, Rs.1093.81 and Rs. 1170.12 for large farmers. The average input-output ratio at cost 'A', cost 'B' and cost 'C' were worked out to be 1:1.11, 1:1.17, 1:1.11and 1:0.92,1:0.97, 1:0.92 and 1:0.84, 1:0.89, 1:0.87 for in large farmers followed by medium and small farmers group.

KEY WORDS : Economics, Cost, Cultivation, Production

INTRODUCTION :

Onion is one of the most popular vegetable that form of daily diet. In India, onion an important commercial crop. It is widely grown is different parts of the country. At present, India stands second larger producer of onion in the world, next only to China (FAO, Production Year Book). Indian onions are famous for their pungency and are available round the year. At least 175 countries grow onions. According to the United Nations Food and Agricultural Organizations. There are estimated 6.7 million acres of onion is an indispensable item in every kitchen as condiment and vegetable. It is used either in raw form and dehydrated form to add favour and taste to Indian cousins. Since onion has medicinal value, it is used in some pharmaceutical preparation also. It has many uses as, folk remedies and recent report suggests that onion play a part in preventing heart diseases and

other ailments. Onion bulb is rich in minerals like phosphorous, calcium and carbohydrate. It also contains proteins and vitamin C. China ranks first in area and second in onion production in the world. It is grown in three seasons of the year (i) *Kharif*, (ii) late *Kharif* and (iii) *Rabi*. The major onion productions are Maharashtra, Gujarat, Uttar Pradesh, Rajasthan, Orissa, Karnataka, Tamil Nadu, Madhya Pradesh and Bihar. Maharashtra ranks first in onion production with a share in terms of productivity. The principal onion growing districts in the Maharashtra State are Nashik, Jalgaon, Pune, Solapur and Ahmednagar, Satara, occupying about 94.68 per cent of area under cultivation of onion in the State of onion production, different cost in medium farmers, major cost consuming items were concept such as cost 'A', cost 'B' and cost 'C' were used.

Objective of the study:

To study profitability and resource productivity in onion production in Nashik district.

MATERIALS AND METHODS :

For present study Niphad tahsil from Nashik district was purposively selected. Total four villages and twenty farmers from each village *i.e.* 80 farmers were selected randomly as sample size. The primary data were collected by survey method with the help of pre-tested schedule of questionnaire through personal interview. In view of this, an attempt in this study is made to study profitability and resource productivity in onion production in Nashik district. Collected data then tabulated according to need and purpose of study. Simple tabular analysis was made. To workout economics onion production, different cost concept such as cost 'A', cost 'B' and cost 'C' were used. The selected cultivators were classified into three categories *i.e.* small (below 2 ha), medium (2-4 ha) and large (above 4 ha) based on land holding size of the farmers.

RESULTS AND DATA ANALYSIS :

The results obtained from the investigation are presented in Table 1 and 2. To work out gross returns, input-output ratio, net returns over various costs it is necessary to work out cost of cultivation of onion crop. From Table 1. It is revealed that, per acre average cost 'A' of selected farmers was Rs. 36837.61, Rs. 37995.61 and Rs. 42211.88 for small, medium and large farmers, respectively. It was seen higher in large farmers followed by medium and then small farmers. Cost 'B' was Rs.44174.314, Rs.5998.46 and Rs. 50658.60 for small, medium and large farmers, respectively. It was higher in large farmers followed by medium and then small farmers. Cost 'C' estimated was Rs.48305.81 Rs. 49987. 46 and Rs. 53942.60 for small, medium and large farmers, respectively. It was higher in large farmers followed by medium and then small farmers. Cost 'A' was found to be 76.25 per cent, 76.01 per cent and 76.01 per cent to Cost 'C' for small, medium and large farmers, respectively. In small farmers, major cost consuming items were hired female labour (18.01%), seeds (15.52%), rental value of land (14.13%), irrigation (8.91%) and plant protection chemicals (5.48%). In medium farmers major cost consuming items were hired female labour (18.70%), seeds (15.30%), rental value of land (14.88%), manures (10.03%) irrigation (8.62%) and plant protection chemicals (5.30%) and in large farmers, major cost consuming items were hired female labour (17.57%), seeds (14.34%), rental value of land (14.53%), manures (10.88%) and irrigation (8.91%) . The share of machineries cost 'C' was (1.70%), (1.66%) and (1.69%) in case of small, medium and large farmers, respectively and the cost of family male labour to cost 'C' was (4.18), (4.04) and (3.03) for small, medium and large farmer respectively and the cost of female labour to cost 'C' was (4.36), (3.93) and (3.06) for small, medium and large farmers, respectively. In all categaries of farmer among variable cost, cost of labour was seen as the major component of cost 'A' and rental value of land was seen the major component of cost 'C'.

From Table 2 it is revealed that the average yield of onion was 45.00 qtl., 45.70 qtl. and 46.10 qtl. per acre in small, medium and large farmers, respectively. The average price received was Rs. 910.20, Rs. 977.00 and Rs.1020.00 per quintal for small, medium and large farmers, respectively. The average net returns over cost 'A', cost 'B' and cost 'C' obtained was only cost 'A' Rs. 4121.39, Rs. 6653.29 and Rs. 4810.12 and negative return s obtained were cost 'B' and cost 'C' Rs. -3215.31, Rs. -1349.56 Rs. -3636.60, Rs.-7346.81, Rs. -5338.56 and Rs.-6920.60 for small, medium and large farmers, respectively. The average cost of production per quintal of onion were worked out of be at cost 'A', cost 'B' and cost 'C' was Rs. 818.61, Rs. 831.41 and Rs. 915.65 for

Table 1: Per acre cost of cultivation of onion for selected farmers of different size group (Units/Acre)

Sr. No.	Particulars	Units	Small			Medium			Large		
			Quantity	Total cost	% of cost 'C'	Quantity	Total cost	% of cost 'C'	Quantity	Total cost	% of cost 'C'
1.	Hired human labour										
	Male labour	Days	13.4	2680	5.54	14.3	2860	5.72	16.15	3230	5.98
	Female labour	Days	58.0	8700	18..01	62.10	9350	18.70	63.21	9481.5	17.57
2.	Bullock labour	Days		800	1.65		810.12	1.62		900.02	1.66
3.	Seeds	Kg	5.00	7500	15.52	5.10	7650	15.30	5.16	7740	14.34
4.	Manures	Qtl.	2.20	4950	10.24	2.23	5017.50	10.03	2.61	5872.50	10.88
5.	Fertilizers										
	N	Kg	95.20	628.32	0.67	95.30	628.92	1.26	98.44	649.70	1.20
	P	Kg	48.60	408.24	0.84	49.10	412.44	0.82	51.12	429.40	0.80
	K	Kg	25.15	452.70	0.93	26.05	468.90	0.93	26.13	470.34	0.87
6.	Irrigation	Rs.		4306	8.91		4310	8.62		4415.20	8.18
7.	Plant protection measures	Rs.		2650	5.48		2650	5.30		2700	5.00
8.	Machineries and implements	Rs.		830.11	1.70		834.12	1.66		914.01	1.69
9.	Land revenue and other cesses	Rs.		41.10	0.08		41.14	0.08		42.05	0.77
10.	Depreciation	Rs.		806	1.66		812.16	1.62		844.10	1.56
11.	Interest on working capital	Rs.		2085.14	4.31		2150.69	4.30		4522.66	8.38
	Cost 'A'	Rs.		36837.61	76.25		37995.61	76.01		42211.88	78.25
12.	Rental value of land	Rs.		6826.50	14.13		7440.80	14.88		7837	14.53
13.	Interest on fixed capital	Rs.		510.20	1.06		522.05	1.04		610.12	0.57
	Cost 'B'	Rs.		44174.31	91.44		45998.46	92.01		50658.60	93.91
14.	Family labour										
	Male labour	Days	10.12	2024	4.18	10.12	2024	4.04	8.17	1634	3.03
	Female labour	Days	14.05	2107.50	4.36	13.10	1965	3.93	11.00	1650	3.06
	Cost 'C'			48305.81	100		49987.46	100		53942.60	100

Table 2: Economics of Onion production in different size group (Units/Acre)

Sr. No.	Particulars	Small	Medium	Large
1.	Average yield (qtl/acre)	45.00	45.70	46.10
2.	Average price received per quintal	910.20	977.00	1020.00
3.	Gross returns (Rs.)	40959	44648.90	47022
	Cost of cultivations (Rs.)			
4.	Cost 'A'	36837.61	37995.61	42211.88
	Cost 'B'	44174.31	45998.46	50658.60
	Cost 'C'	48305.81	49987.46	53942.60
	Net returns over cost (Rs.)			
5.	Cost 'A'	4121.39	6653.29	4810.12
	Cost 'B'	-3215.31	-1349.56	-3636.60
	Cost 'C'	-7346.81	-5338.56	-6920.60
	Input-output ratio at			
6.	Cost 'A'	1:1.11	1:1.17	1:1.11
	Cost 'B'	1:0.92	1:0.97	1:0.92
	Cost 'C'	1:0.84	1:0.89	1:0.87
	Cost of production Rs./Qtl			
7.	Cost 'A'	818.61	831.41	915.65
	Cost 'B'	981.65	1006.53	1098.88
	Cost 'C'	1073.46	1093.81	1170.12

small farmers, Rs. 981.65, Rs. 1006.53 and Rs. 1098.88 for medium farmers and Rs.1073.46, Rs.1093.81 and Rs. 1170.12 for large farmers. The average input-output ratio at cost 'A', cost 'B' and cost 'C' were worked out to be 1:1.11, 1:1.17, 1:1.11and 1:0.92,1:0.97, 1:0.92 and 1:0.84, 1:0.89, 1:0.87 for in large farmers followed by medium and small farmers group. For small, medium and large farmers, respectively. A return per rupee of investment was higher in small farmer than medium and large farmers (Barakade *et al.,* 2011; Jagtap *et al*., 2012 and Pokharkar *et al.,* 1994).

Conclusion:

The area under onion crop increased with increased in size of holdings. Per acre cost 'c' was higher in large farmers followed by medium and the small farmer group. The average yield and gross returns per acre increased in size of farms. There is need to devope the labour saving practices such as use of weedicides, improved

techniques. Appropriate extension method may be adopted to evaluate the farmers on optimum use of inputs.

Authors' affiliations:
V.C. Korade, Department of Agricultural Economics, K.K.Wagh College of Agriculture Business Management, **Nashik (M.S.) India**

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