RESEARCH ARTICLE Agricultural Science Digest, Volume 40 Issue 4: 408-410 (December 2020)

Labour Usage and Productivity in Temperate Fruits Production in Himachal Pradesh A Study of District Shimla

K. Sikander, C. Vishal

10.18805/ag.D-5115

ABSTRACT

Background: Labour being a principle factor of production in the agriculture and has great influence in the crop production, therefore, a study was conducted to understand the labour Man-days and its efficiency in the production of different temperate fruits. From the study, we will try to found labour man-days used in different farm activities under different temperate fruits and its role in the production of the different fruits.

Methods: In this study field investigation was conducted during the year 2018-2019 and data of 200 farming households of different farm size were collected from 10 different panchayats of Jubbal & Kotkhai block of district Shimla.

Result: From our study, it was discovered that most labour man-days utilization per hectare can be seen in Apple production across all farm size as compare to other fruits production. As far as labour productivity per kg is concern it has been observed that it high in apple production as compare other fruit production, however, when we look it from farm size point small farm performance looks better in most of the crops.

Key words: Efficiency, Farm holding, Labour man-days, Labour utilization, Productivity.

INTRODUCTION

Factors of production *viz.*, land, labour, capital and management when combined in proper proportion can help to achieve higher level of efficiency in farm business. Use of any resource beyond its capacity can result in its rapid depletion and deterioration which may cause severe damage to sustainability of farming. Similarly, underutilization of resources or misutilization of resources may result in high cost of production and thus lower the efficiency of agriculture. Therefore, farm production is the resultant of transformation of various resources such as human labour, bullock power, mechanical power, water for irrigation, seeds, manures and fertilizers, insecticides and pesticides and cultivation practices *etc*. Study on productivity analysis of apple orchards in Shimla district of Himachal Pradesh with the regression analysis indicated that apple productivity in the study area can be increased by increasing the levels of the variables like FYM, chemical fertilizers, human labour and fixed costs (Kireeti, 2013).

Therefore, it is necessary to study the extent and magnitude of labour input in different size classes in the study area. An attempt had been made in this paper to know how much labour days a farmer is required on raising the different crops and what is the productivity level of labour of these crops. It is also of great importance to make practical recommendations for planning aimed at better allocation of existing resources.

MATERIALS AND METHODS

The present study has been conducted in district Shimla of Himachal Pradesh and out of ten blocks (Mashobra, Basantpur, Theog, Chiragon, Rohru, Jubbal and Kotkhai, Nankhari, Chopal, Chiragon, Narkanda, Rampur) in district Shimla one has selected Jubbal and Kotkhai block for the purpose of study and with multistage stratified random sampling one has randomly selected 10 different panchayats from the block and prepared the list of villages coming under these panchayats and randomly selected two villages from each panchayat and further selected 10 respondents/ farmers of different categories (marginal, small and medium) from each village randomly therefore making a total sample size of 200 farm households. Data from the farm households has been primarily collected with the help of personal interview, face to face association with farmer respondent, observation method and collected relevant information which has been analyzed with the help of the simple tabular analysis based on means, percentage and frequency *etc*., in order to found the answers of the objectives being framed in the paper.

Department of Economics, Himachal Pradesh University, Summer Hill, Shimla-171 005, Himachal Pradesh, India.

Corresponding Author: C. Vishal, Department of Economics, Himachal Pradesh University, Summer Hill, Shimla-171 005, Himachal Pradesh, India. Email: vishal.chauhan333.vc@gmail.com

How to cite this article: K. Sikander and C. Vishal (2020). Labour Usage and Productivity in Temperate Fruits Production in Himachal Pradesh A Study of District Shimla. Agricultural Science Digest. 40(4): 408-410.

Submitted: 25-12-2019 **Accepted:** 01-04-2020 **Published:** 29-09-2020

RESULTS AND DISCUSSION

Labor Days Utilization

Labour is one of the most important factor of production in agriculture which not only influence cost but also plays very

big role in resource efficiency therefore it becomes important for us to understand the labour utilization status in different temperate fruits production and Table 1.1 presents a comparative picture of human labour day's utilization in apple, almonds, cherry, pears, apricot and all crops production of the study area. Taking into account total labour input per hectare used in the cultivation of all crops is worked out to be 310 days and from the different crops point of view it was found maximum mandays has been utilized for apple cultivation 308.77 mandays followed by 293 for pears, 278 for almonds, 262.20 cherry and 262.02 for apricot fruit crop. The table further reveals that the pattern and intensity of labour use in different crops is varying across different farm size category.

According to size wise analysis the total labor man-days utilized per hectare in all crops in marginal, small and medium holding is 311.72, 301.79 and 312.54 labour days. As farm size increases the per hectare labour input is decreasing in Almonds, Pears, Apricot with the exception of apple and cherry. An interesting feature to note here is that the share of total labour input in the case of apple crop is higher on all farm size categories as compare to almond, cherry and apricot with only exception of Pears in marginal holding.

Therefore, from the study it is evident that labour occupies important place in all crops production as per hectare labour utilization in all the crops production is high. It can also be observed from the study that per hectare labour utilization is more in marginal and medium farms and most likely reason for the same is land holdings and more labour involvement.

Labour Productivity

Resource optimization determines the profits of the farms and labour being a principle resource in agriculture production influence the resource efficiency by its productivity therefore Table 1.2 displays figures about productivity per unit of labour (Family + Hired in) employed. The table illustrate that overall productivity per mandays had been worked out to 1.84 kg however different crops is concern it is 1 .96 kg for Apple, 1.23 kg for Almonds, 1.07 kg for Cherry, 1.10 kg for Pears and 1.19 kg for Apricot. It can also be observed from the table that labour productivity per mandays is higher on Apple crop as compare to other counter parts.

Table 1.1: Pattern of human labour days utilization in apple, almond, cherry, pears, apricot and all crops - A comparative picture.

Crops	(Standard man-days per hectare)			
	Marginal farmers	Small farmers	Medium farmers	Overall farmers
Apple	314.39	306.90	318.88	308.77
Almonds	293.53	289.74	273.82	278.74
Cherry	301.25	254.24	257.30	262.20
Pears	319.44	293.08	292.12	293.69
Apricot	296.47	261.82	254.19	262.02
All Crops	311.72	301.79	312.54	310.50

Table 1.2: Crop wise productivity as per worker employed.

Crops	Items	(Value in Kg)			
		Marginal farmers	Small farmers	Medium farmers	Overall farmers
Apples	Total production (Kg)	12384	48950	190485	251819
	Total worker (Mandays)	7011	22803	98565	128379
	Productivity (Kg)	1.77	2.15	1.93	1.96
Almonds	Total production (Kg)	512	1424	4593	6529
	Total worker (Mandays)	499	1101	3724	5324
	Productivity (Kg)	1.03	1.29	1.23	1.23
Cherry	Total production (Kg)	384	803	2260	3447
	Total worker (Mandays)	482	839	1904	3225
	Productivity (Kg)	0.80	0.96	1.19	1.07
Pears	Total production (Kg)	700	1910	8503	11113
	Total worker (Mandays)	575	1524	8004	10103
	Productivity (Kg)	1.22	1.25	1.06	1.10
Apricot	Total production (Kg)	383	990	2490	3863
	Total worker (Mandays)	504	864	1881	3249
	Productivity (Kg)	0.76	1.15	1.32	1.19
All crops	Total production (Kg)	14363	54077	208331	276771
	Total worker (Mandays)	9071	27131	114078	150280
	Productivity (Kg)	1.58	1.99	1.83	1.84

The table shows that overall productivity in all crops from size wise analysis point is estimated to be 1.58, 1.99 and 1.83 for marginal, small and medium farms which is showing erratic trend as compare to farm size. It can be noticed from the table that productivity per labour is maximum in small farms in all crops with the exception of Cherry and Apricot crop. However, in terms of individual crops it can be observed that labour productivity is maximum for Apple crops across all the farm size.

Therefore, study reveals that per hectare labour productivity is good in small farms as compare to other farm size in most of the crops production and possible reason for the same is land holding and proper resource allocation.

CONCLUSION

Labour is main factor of production in agriculture sector and from the study it is evident that per hectare labour man-days is very high in all the crops across all the farm size which specifies the importance of labour as important input in fruits production. Labor being principle resource in agriculture production hence determines farming cost of production and its productivity will leads to more resource efficiency and economics of scale therefore labour productivity per kg for small farms in most of the crops is high as compare to marginal and medium farms therefore leads to the rational of labour utilization which seems to be low in marginal farms due to low production and in medium farms it can be due to more labour per hectare hence specifies resources misallocation and suggest to manage the resource as per the need and requirement otherwise it will lead to low per kg production per labor which will lead to high cost per unit and decreasing returns to scale.

REFERENCES

Heady, E.O. and Jensen, H.R. (1954). Farm Management Economics. Prentice Hall.

Johl, S.S. and Kapur, T.R. (1987). Fundamentals of Farm Business Management. Kalyani Publishers, New Delhi.

Kireeti, K. (2013). Productivity Analysis of Apple Orchards in Shimla District of Himachal Pradesh. M.Sc. Thesis. Dr. YSPUHF, Nauni, Solan, Himachal Pradesh.