RESEARCH ARTICLE

PRODUCTION AND MARKETING PROBLEMS OF POTATO GROWERS

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ARTICLE INFO	ABSTRACT
	The study carry out in Lublin province. This survey was conducted using a questionnaire, where 128 household heads were sampled and interviewed, Objectives of study was describe the socio-economic characteristic of respondents; identify Production and Marketing Problems of Potato growers in Lublin province. Results show that. The most important production problems were High costs of fertilizers, pesticides and labor. And important Marketing problems were Low price of product, High costs of transportation, Perishability of product and Markets far away from farm. Also Results revealed significant relationship between Problems of Potato growers in and factors age, level of education, family size, and farming experience.

INTRODUCTION

Poland is the seventh biggest potato producer in the world and the second biggest one in Europe (Wróbel and Wąsik 2014). the potato crop in Poland plays an important role in the rural livelihood system. Because of high prospects for growth of the market for fresh potatoes (Scott *et al*. 2000), The unique position of this vegetable in Poland is not only due to the area of its cultivation but also because of the culinary traditions of Polish people (Leszczyński, 2000). but The harvest amounted to 6.7 million tones, and was by about 1.0 million tones smaller than in 2014, and in relation to the average yields from 2006-2010 the decrease was more than 32%. Due to the decrease in production, the prices of potatoes in Poland are also high. In the first few months of the 2015/16 season, the prices of potatoes in market trade are by a ten or so to several tens percent higher than the year before, and in wholesale trade they rose by nearly twice (Dzwonkowski, 2015). In order to identify and overcome on the problems which led to decline in production of the potato crop in recent times it must be activating the role of Agricultural Extension. Where, Agricultural advisory services are under an obligation to demonstrate that they have made an economic and social

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impact on the well-being of the farmers they serve, mainly through the quantitative and qualitative enhancement in crop productivity and in farmers' net income. This impact should be environmentally and economically sustainable. According to Swanson (2008), the term agricultural extension has changed over times. It is no longer restricted to the emphasis on technology transfer reflected by the Training and Visit (T and V) System but has moved towards broader concepts which include developing the skills and management capacities of farming families (Ovwigho *et al*, 2014). Where, Other purposes of agricultural and rural extension include marketing extension. Marketing extension (Narayanan 1991) provides information on the post-harvest treatment of speciality crops and provides an important service in countries trading in food crops, Other, different types of marketing information services referred to as «market extension» also exist; these services provide information on variations in commodity prices; knowledge about where to sell some products; information on problems to do with the quality, availability and prices of inputs, and on the actual level of competition in the markets (Crowder 1997; Shepherd 1997). These market information services should not be confused with marketing extension services that aim at improving the preparation and process of moving agricultural goods to market.(FAO, 2001). Extension helped to facilitate the access of farmers, their organisations and other market actors to knowledge and technology, and

facilitate their interaction with similar organisations (Ovwigho, *et al*, 2014).

MATERIAL AND METHODS

This study was conducted in Lublin region to determined socio-economic characteristics of farmers, and identifies Production and marketing problems of potato growers. Data for the study were collected through by interview using a questionnaire from a randomly selected sample of 128 farmers. The first part included the independent variables (farm size, farming experience and age) measured by number of years, and level of education included 5 levels the following: graduate of an elementary education, graduate of a secondary, graduate of School of Vocational Education, graduate of college, certificate highest. Marital status had four categories: single, married, divorced and widowed; and family size by number of persons. The second and third part included scale to measure production and marketing problems of potato growers, this scale consist of (13) items about production problems and (13) items about marketing problems respectively. The frequencies, weighted percentage and the correlations, were used to analyze the data.

RESULTS

Identify The personal, social and economic characteristics of the farmers

Table 1 represents six demographic information of the respondents including age, education level, marital status, farming experience, farm size and family size. Table 1 shows categories, frequencies and percentage for all these demographic variables. According to the data presented in Table 1, reveal that the mean score for the respondents' ages was (35.8) years, most percentage of farmers (54.68%) were between 19 to 29 years of age as compared to (29.68%) who were between 30 to 39 years of age flowed by more than 40 years of age (15.64%). The distribution of respondents into categories based on their education level is shown in table 1. The percentage graduates of elementary reached (11.71%), secondary was (7.03%). The percentage of respondents who have a certificate of the School of Vocational Education and College was (30.46%) and (35.15%) respectively. While percentage of who have high certificate was (15.65%). Most of the respondents (52.36%) were married. The percentage of respondents who were single was (25.78%). The percentage of respondents who were Divorced and Widowed was (5.46%) and (16.40%) respectively. The years of experience of respondents ranged from (7 to 33) years and the mean of their experience was 18.5 years. years of experience of respondents ranged from 7 to 33 years and the mean of their experience was (18.5) years. The percentage of respondents who have a number of years of work in agriculture between (9-17 years) was (27.34%) and the percentage of respondents who work for (18-26 years) was (21.87%), while the percentage of respondents who work in agriculture for (27-35 years) was (50.79%), This is mean that three-quarters of the respondents were working in agriculture for long period of time. Farm size of the farmers ranged from (14 to 49 ha) with an average was (25.8). The highest proportion (60.15%) of the farmer had (26-37 ha). The percentage of respondents who have farm size between (14-25 ha) was (25.78%), while the percentage of respondents who have farm size between (38-49 ha) was (14.07%). Number of family members of the farmers ranged

from (2 to 12) with an average was (6.4). The highest proportion (54.68%) of the farmer had number of family (4-6). The percentage of respondents who have family size between (≤ 3), 7-9 - was (21.87%), (14.84%) respectively. While the percentage of respondents who have family size between 9> was (8.61%).

Table 1. Categories of the selected characteristics of the farmers

Mean	%	Frequency	Categories
Age			
35.8	54.68	70	(19-29) year
	29.68	38	(30-39) year
	15.64	20	(more than 40) year
Education Level			
	11.71	15	elementary school
	7.03	9	Secondary school
	30.46	39	School of Vocational Education
	35.15	45	College
	15.65	20	High certificate
Marital status			
	25.78	33	Single
	52.36	67	Married
	5.46	7	Divorced
	16.40	21	Widowed
Farming experience			
20.4	27.34	35	(9-17) year
	21.87	28	(18-26) year
	50.79	65	(27-35) year
Farm size			
25.8	25.78	33	(14-25) Ha
	60.15	77	(26-37) Ha
	14.07	18	(38-49) Ha
Family size			
6.4	21.87	28	≤ 3
	54.68	70	4-6
	14.84	19	7-9
	8.61	11	9 >

Identify The Production and Marketing Problems of Potato growers

The table 2 reveals that the problems faced by the farmers in potato production. (High costs of pesticides) was ranked first by the selected sample respondents. (High costs of fertilizers) was ranked second, and (High costs of labor) was ranked third. From the first three items it can be said that most of the respondents were agreed that these of important Production requirements. where, can resist diseases and pests, which rewards the farmer with good yields and saves them time. These crops grow very fast they produce healthy yields. Since they are resistant to most diseases and pests.

Table 2. Production Problems of Potato growers

SL.No	problems	Frequency	%
1	High costs of pesticides	79	61.71
2	High costs of fertilizers	76	59.37
3	High costs of labor	71	55.46
4	Spread of weeds and insects	56	43.75
5	Small holdings	49	38.28
6	Late farm operations	39	30.46
7	Weak role of agriculture extension	36	28.12
8	Water scarcity	29	22.65
9	Spread of mice	27	21.09
10	Lack of farm machinery	21	16.40
11	Low used of technology	19	14.84
12	Lack of technical know how	14	10.93
13	Irrigation irregular	9	7.03

While, the item (Irrigation irregular) was ranked the last, it can be said that most of the respondents they were not used any

system of irrigation in their farm, this might be due to be the Rainfed agriculture on the search region and it is depends on rainfall. for this reason, most of the farmers do not used any irrigation system in the farming, except in rare and few cases.

Also table 3 showed the important marketing problems were (low price of product) was ranked first, Polish farmers experience serious problems with potato sales, However, there have been no reasons for joy yet, because potato prices are still extremely low. The wholesale prices decline lower than $0.08-0.12/kg;at the same period of time past year the prices for potato were 2-2.5 times as high. To compare: according to the data provided by the analysts of "Agrooglyad: Vegetables and Fruits"weekly, the average price for potato is $0.22-0.28/kg in Ukraine, i.e. 2.5-3 times as high than in Poland. (high costs of transportation), was ranked second, Transport problems are faced by some growers due to higher charges of transport and moreover the roads in the rural areas are not well developed. and (perishability of the product) was ranked third. Most of agricultural products are of perishable nature, but all are not equally perishable within same duration of time. Some perish within shorter time and some others remain usable for little longer. Special cold storage is needed to keep such goods safe and fresh. remain usable relatively for long time. Potatoes need to be kept away from light as they will start sprouting. therefore must Keep potatoes in a cool, dark, well ventilated place to avoid greening and sprouting; remove from plastic bags and place in a strong paper bag, box or in a wire or plastic bin. While, the item (Inaccuracy of weigh) was ranked the last because this problem is unimportant between most of the farmers.

Table 3. Marketing Problems of potato Growers

SL.No	Problems	Frequency	%
1	Low price of product	75	58.59
2	High costs of transportation	69	53.90
3	Perishability of product	61	47.65
4	Lack of storage facility	54	42.18
5	Markets far away from farm	46	35.93
6	High costs of loading	42	32.81
7	Delay of harvest the crop	37	28.90
8	High ratio of defects	35	27.34
9	Delay of delivery of product	28	21.87
10	Shortage of transportation Means	22	17.18
11	Lack of government support	20	15.62
12	Steal of product during transportation	18	14.06
13	Inaccuracy of weigh	13	10.15

Relationship between selected characteristics of the farmers and the production and marketing problems of potato growers

Coefficient of correlation was computed in order to explore the relationships between the selected characteristics of the farmers and the production and marketing problems of potato. The null hypothesis was "there was no statistically significant relationship exists between the selected characteristics of the farmers and their problems in production and marketing of potato crop". Relationships between the selected characteristics of the farmers and their problems in production and marketing in Table 4. The age had significant relationship with the production and marketing problems of potato when 'r' value was (0.420**) at 1% level of significance. This agree with (Matsane.and Oyekale, 2014) and disagree with (Bhoopathy, 2016, Gichangi, *et al*, 2012). This is indicating that young farmers are more active and this Representing economically active stage and as such, can undergo the stress

and this has implication for productivity of the farmers. The education level had significant relationship with the production and marketing problems of potato when 'r' value was (0.217*) at 5% level of significance. This agree with (Bhoopathy, 2016, Gichangi, *et al*, 2012, Iyagba and Anyanwu, 2012, Asfaw Negassa *et al*, 1997). The more education a farmer receives the more likely to implementation of agricultural technologies.

Table 4. Relationship between selected characteristics of the farmers and their problems in production and marketing of potato crop

Variables	Coefficient of correlation (r)
Age	0.420**
education Level	0.217*
Marital status	0.189*
Farming experience	0.370**
Farm size	0.29
Family size	0.381**

This might be due the fact that educated person has greater chances to access information about the technology and where and how he or she can be supported (Deshmukh *et al*., 2007; Junge *et al*., 2009). Marital status had significant positive relationship with the production and marketing problems of potato when 'r' value was (0.189*) at 5% level of significance. So The assumption here is that the married respondents they more willing to receive or accept new farming techniques than unmarried respondents because, they have a larger family labour force, high capital base and their demand for socio-cultural and economic needs for their families. Farming experience had significant relationship with the production and marketing problems of potato when 'r' value was (0.370**) at 1% level of significance. This agree with (Bhoopathy, 2016). and disagree with (Gichangi, *et al*, 2012).

This is indicating that the increase in the number of years of work in agriculture have a significant impact on the accumulation of experience related to the agricultural practices and raised their awareness in using the technologies. There are no significant relationship between farm size and the production and marketing problems of potato. The reason behind this result may be that the larger farms require inputs such as seeds, fertilizer, pesticides, and more at rates which are stressors on farm budgets, this agree with (Matsane and Oyekale, 2014). and disagree with (Iyagba and Anyanwu, 2012). Family size had significant relationship with the production and marketing problems of potato when 'r' value was (0.381**) at 1% level of significance.

Conclusion

The agricultural growth strategy of the past has intensified the interclass inequalities. This should be considered by the Government. The Government can pay attention by providing transport facilities, maintaining good roads and providing subsidies for suckers and fertilizers, so that the small and medium farmers may be benefited. The most problems which faced by the farmers in potato production are (High costs of pesticides), (High costs of fertilizers) and (High costs of labor). While, the most problems which faced by the farmers in potato marketing are (Low price of product), (High costs of transportation), and (Perishability of product). There are significant relationship between Problems of Potato growers in and factors age, level of education, family size, and farming experience.

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