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Assessment of awareness among rural adolescents about agriculture

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Abstract

The present study was undertaken with the objective to assess about agriculture awareness among rural youths in Himachal Pradesh. The data were collected from two blocks of district Kangra of Himachal Pradesh. A sample of 150 (75 girls and boys from each village of selected two blocks) respondents in the age group of 12-18 years from 7th, 8th and 9th standards were selected. Self-structured interview schedule for the assessment of Socio-Economic Status and Awareness Checklist on Agriculture were administered on the respondents. Frequency and percentages were calculated. The results revealed that rural youths had average level of awareness about agriculture as they possessed only the basic knowledge of agriculture but were not knowing scientific and technical aspects of it.

Key words: Agriculture, youth, socio-economic status, and awareness.

Youth is the pillar of a community. Agriculture, the backbone of India's economy, is threatened by an ageing production population as young people turn away from farming, often thought to be difficult, time consuming, risky and not very profitable. Engaging youth in agriculture has been a prominent topic recently and has risen up the development agenda, as there is growing concern worldwide that young people have become disenchanted with agriculture. With most young people – around 85% – living in developing countries, where agriculture is likely to provide the main source of income it is vital that young people are connected with farming. Currently around the world we're living in an era where rapid urbanization has led to a decline in rural populations and for the first time ever the majority of the world's population lives in a city. The UN World Health Organization predicts that "by 2030, out of every 10 people will live in a city, and by 2050, this proportion will increase to 7 out of 10 people" meaning that more young people than ever before are moving to cities and towns to find work, leaving few behind to work in rural areas (United Nations, Department of Economic and Social Affairs, Population Division 2015.).

The future of agriculture rests on the shoulders of India's youth, and it is only the younger generation who can ensure a food-secure future for all. As a Chinese proverb goes, "We are indebted to nature for agricultural land". It is said in the Quran that "God is the only owner of all natural resources. We as human beings, have no right to besiege, maim or disfigure any of them." Hence, the present study was under taken to assess the awareness about agriculture among rural youth

Materials and Methods

Two villages i.e. Sidhpur Sarkari and Rajpur were selected randomly from two blocks (Bhawarna and Panchrukhi) of district Kangra Himachal Pradesh. From these villages a sample of 150 (75 from each village) rural adolescents in the age group of 12-18 years from three classes i.e. 7th, 8th and 9thwere selected. The sample comprised of school going girls and boys. The adolescents were administered with Socio Economic Scale and Awareness checklist on Agriculture. Respondents were contacted personally at their school / home and interviewed for data collection. Data were analyzed to obtain frequency and percentages.

Tools: Following tools were used for data collection those were developed collectively by team of scientists from the nine states of the country (Socio-Economic Status Scale, Aggrawal *et al.* 2005).

Socio-Economic Status Scale: The Socio-economic status scale consists of parameters such as caste, religion, family type and size, parents education and occupation, type of house and size, type of agricultural land (irrigated/ rainfed), milch animals, material possession, water facility, electricity and drainage. The summated score is categorized as low, medium and high.

S.No.	Category	Score
1	Low	1-31
2	Medium	32-51
3	High	52-72

Awareness checklist on agriculture: Checklist comprises of total 32 items scored 1 for yes and zero for no response respectively. It includes awareness on soil & water conservation, organic farming development, use of chemical fertilizer & pesticide, cropping system and food processing & livelihood security related questions.

S.No.	Score	Category
1	Below 10	Poor
2	10-21	Average
3	Above 21	Good

Results and Discussion

It is clear from the table 1 that the sample selected for the study was adolescents studying in 7th, 8th and 9thclasses; hence all the girls (100 %) were studying in high class. Half of the respondents' fathers (50.67%) were educated up to high school level, whereas one third (33.34%) and very less (6%) were educated upto senior secondary class and graduation level respectively. Regarding occupation of the fathers of the respondents, half of the respondents' (51.33 %) fathers were running small business shop followed by one fourth (24.0%) were working as labourer and were doing caste business (18.67%). None of the respondents' fathers were unemployed. Majority (68%) of the respondents' mothers were educated upto high school followed by 18.66 % of the mothers who were educated upto PUC level , 12.67 per cent mothers of respondents were educated upto fifth class and very few (0.67) per cent of the mothers were illiterate. Majority of the respondents' mothers (94.66 %) were unemployed and remaining i.e. 5.34 per cent were working as labourer.

Table 1. Socio-economic characteristics of the respondents n=150

S.No.	Socio-Economic profile	n	%
1.	**Education of the respondents father**		
	Illiterate	-	-
	Primary education	-	-
	High School	76	50.67
	PUC	65	33.33
	Degree	9	6.00
2.	**Occupation of the respondents father**		
	Unemployed	-	-
	Labourer	36	24.0
	Caste occupation	28	18.67
	Small business/Shop	77	51.33
	Cultivation	-	-
	Business / Agriculture	10	6.67
3.	**Education of the respondents mother**		
	Illiterate	1	0.67
	Primary education	19	12.67
	High School	102	68.0
	PUC	28	18.66
	Degree	-	-
4.	**Occupation of the respondents mother**		
	Unemployed	142	94.66
	Labourers	8	5.34
	Caste occupation	-	-
	Small business/Shop	-	-
	Cultivation	-	-
	Business / Agriculture	-	-

The demographical data of the respondents is given in Table-2, according to which more than half of the adolescent girls (55.33%) were in the age group of 13-15 years of age followed by 44.63per cent who were in the age group of 10-12 years whereas none of the girls were above 15 years of age. Regarding ordinal position, 52.67 per cent of the adolescent girls were first born and remaining (47.33%) were later borns. Regarding the type of family majority (78.00%) of the respondents belonged to nuclear family and remaining 22 percent belonged to joint family. Size of the family revealed that 53.34 per cent of respondents had medium (5-8) family size followed by small (40%) and 6.67 per cent respondents had large family size. Non-Consanguineous type of marriage of the parents was reported by 100 per cent of the respondents. All the respondents (100%) were Hindu by religion. Regarding the caste of the respondents less than half of the respondents i.e. 41.33 per cent belonged to backward caste whereas nearly half (48 %) and one tenth (41.33%) belonged to lower and backward caste respectively. Bhamare *et al.* (2006) stated that almost all of respondents were from agricultural family background and were exposed to information and knowledge about agriculture frequently and had a mindset to know more about agriculture.

Table 2. Socio-Demographic Characteristics of the Respondents N=150

Sr.No	Socio demographic characteristics	N	%
1.	**Present age of the respondents**		
	10-12 years	67	44.67
	13-15 years	83	55.33
	>15-17 years	-	-
2.	**Ordinal Position**		
	1st born	79	52.67
	Later borns	71	47.33
3.	**Type of Family**		
	Nuclear	117	78.00
	Joint	33	22.00
4.	**Size of the family**		
	Small (1-4)	60	40.00
	Medium (5-8)	80	53.33
	Large (>9)	10	6.67
5.	**Type of marriage of the respondents parents**		
	Consanguineous		
	Non-consanguineous	150	100.00
6.	**Religion**		
	Hindu	150	100.00
	Muslim	-	-
	Jain	-	-
7.	**Caste**		
	Upper	16	10.67
	Backward	62	41.33
	Lower	72	48.00

Table 3 revealed that majority (60%) of the adolescent girls had kuccha type of house, followed by 11.34 per cent who had thatched house, 20 % had mixed houses both kuccha and Pucca houses. Only 8.67 per cent had Pucca house. Regarding the size of house 60 per cent of respondents reported medium size of house. On the other hand 28.67 per cent of the respondents reported to have small size of house. Only 11.34 per cent respondents had spacious house. More than half of the respondents (58.67%) had less

Table 3. Distribution of the sample according to facilities available **N=150**

S. No	Particulars	N	%
1	**Type of house**		
	Thatched	17	11.33
	Kucha	90	60.00
	Mixed	30	20.00
	Pucca	13	8.67
	Mosaic floor	-	-
2	**Size of house**		
	Spacious	17	11.33
	Medium	90	60.00
	Small	43	28.67
3	**Land Holding**		
	Landless	62	41.33
	< 2.5 acres	88	58.67
	2.5 to 5.0 acres	-	-
	>5.0 acres	-	-
5	**Milch Animal**		
	No animal	45	30.00
	<2animals	92	61.33
	>2-5 animals	13	8.67
	> 5 animals	-	-
6	**Material Possession**		
	No materials	-	-
	1-10 materials	29	19.33
	11-20 materials	121	80.67
	>20 materials	-	-
7	**Drinking Water facility**		
	At home	9	6.00
	In front yard/well	81	54.00
	Community tap/ bore well	60	40.00
	Open tank	-	-
8	**Electricity facility**		
	Yes	150	100.00
	No	-	-
9	**Drainage System**		
	No facility	-	
	Kucha	112	74.66
	Pucca	38	25.34

than 2.5 acres of land. About 41.34 per cent of the respondents were landless. Whereas none of the respondents possessed land holdings more than 2.5 acres. Availability of dairy animals was found to be less than two for 61.34 per cent of the respondents. On the other hand 30 per cent of families had no dairy animals at all. Whereas none of the respondents reported more than five animals in their house. Most of the respondents (80.67%) reported to have 11-20 materials in their homes followed by 19.34 per cent, who possessed 1-10 materials in their homes. None reported possession of more than 20 materials at home. Little more than half (54 %) of the respondents reported to have water facility in their front yard followed by (40%) who used community tap/bore well for water usage. Very small percentage (6%) had water facility at their homes. Regarding electricity, 100 per cent of the respondents reported to have power supply in all their rooms. Most of the respondents (74.66%) reported to have kuccha drainage system in their homes; whereas remaining (25.34%) had pucca drainage system.

Table 4 showed that the overall socio-economic status of the respondents. Majority of the respondents (71.34%) belonged to low and 28.66 per cent of the respondents belonged to medium level of socio-economic status.

It is clear from the table5 that majority of the respondents (63.3%) were aware about increase in crop production due to use of pesticides and remaining (36.7%) had no knowledge. Majority (69.34%) of adolescents had knowledge about research leading to improved farming and remaining (30.65%) had no knowledge. Most of the adolescents (80.66 %) were not aware that lakes and rivers do not pollute soil erosion whereas remaining 19.34 per cent had awareness on this. More than half of the respondents (52.66%) did not know the use of pesticides in organic production. Most of the respondents (74.66%) had knowledge about role of biotechnology in pest resistant of plants and rest (25.34%) had no knowledge. Majority of adolescents (73.34%) were knowing about kharif crop sown in rainy season and one fourth (24.66%) did not know about kharif crop. Most of the adolescents (76%) were aware about importance of agriculture in Indian economy. More than half (59.34%) of the adolescents had no knowledge that agriculture feeding the Indian population. Regarding awareness related to Indian agricultural system dependent largely on Nature system, half of the (51.33%) respondents did not have knowledge and rest of them (48.64%) were aware about that. About the production and marketing of plants and animals, majority of adolescents (64.66%) did not know and remaining (35.34%) were aware about that. Less than one fifth (16.66%) respondents were aware about soil degradation due to use of unwise land and majority (89.34%) of them were not aware about soil degradation. More than half of the adolescents (57.33%) were aware about the contents of agriculture education and remaining (42.67%) had no knowledge about the contents of agriculture education. In this context many studies have been reported: Okiror *et al.* (2011) concluded that the methods used to present agricultural education to students can greatly influence students' attitudes towards learning material. Riedmiller (2002) stated that the quality of a school garden or agricultural learning material is the single most important factor influencing the knowledge, skills, and attitudes of youth learning about agriculture. Ricketts and Place (2005) expressed the importance of youth "learning by doing / experiential learning" and the belief of allowing learners the opportunity for self-discovery learning.

Most of the adolescents (66%) did not know about the use of fertilizers in enhancement of soil health and rest were aware about that.

Table 4. Socio Economic Status of the respondents N=150

Categories	Frequency	%
Low (1-31)	107	(71.34)
Medium (32-51)	43	(28.66)
High (52-72)	-	-
Total	150	100

Table 5. Statement wise responses of respondents regarding their awareness about agriculture **N=150**

S.No.	Statements	Yes	%	No	%
1.	Use of pesticide has increased the yield of crops.	95	63.34	55	36.66
2.	Research has improved farming method in our country.	104	69.34	46	30.66
3.	Soil erosion does not pollute lakes and river.	29	19.34	121	80.66
4.	Pesticide cannot be used in organic production.	71	47.34	79	52.66
5.	Biotechnology has increased the pest resistant of plants.	112	74.34	38	25.66
6.	Crop sown in July-Aug and harvested in Oct. is called kharif.	110	73.34	40	26.66
7.	Agriculture is the major sector of Indian economy.	114	76.00	36	24.00
8.	Agriculture provides sufficient food supply to India population.	61	40.67	89	59.33
9.	Indian Agricultural system largely nature dependent.	73	48.67	77	51.33
10.	Agriculture includes plant & animal production and its marketing.	53	35.34	97	64.66
11.	Unwise agricultural land use results in soil degradation.	16	10.67	134	89.33
12.	Agricultural education includes crop production, livestock management, and soil& water conservation.	86	57.34	64	42.66
13.	Fertilizers are used for enhancing soil health	51	34.00	99	66.00
14.	Agriculture employs a large number people in India.	80	53.34	70	46.66
15.	Pesticides should be used safely.	75	50.00	75	50.00
16.	The world food supply has increased as a result of improved technology.	99	66.00	51	34.00
17.	Organic method of farming is more useful.	94	62.67	56	37.33
18.	Farmers should not use chemicals in crop production.	30	20.00	120	80.00
19.	Processing adds more to the cost of food than raw food.	93	62.00	57	38.00
20.	Pesticides are used for pest control.	120	80.00	30	20.00
21.	Weeding is necessary for good yields.	118	78.67	32	21.33
22.	Over or under watering is harmful for crops.	97	64.67	53	35.33
23.	Banks and other finance organizations provide loans for Agriculture purpose.	65	43.34	85	56.66
24.	Fruits and Vegetables are perishable in nature.	67	44.67	83	55.33
25.	Technology is an effective way of preservation of fruits and vegetables.	69	46.00	81	54.00
26.	Proper manuring increase crop production.	27	18.00	123	82.00
27.	Agriculture is multi-disciplinary science.	75	50.00	75	50.00
28.	Bee keeping is done to obtain honey.	50	33.34	100	66.66
29.	Crop yield depends on quality of seeds.	107	71.34	43	28.66
30.	Use of high yielding seed variation increase crop production.	57	38.00	93	62.00
31.	Damage by insects in crops can be reduced by taking proper measures.	93	62.00	57	38.00
32.	Animals and birds provide rich manure.	84	56.00	66	44.00

More than half of the respondents (53.34%) knew that agriculture has major share in providing employment to the people in India. Half of the respondents (50%) were aware about the safe use of pesticides. Most of the adolescents (66%) were aware about the role of improved technology in increase in world food supply and remaining (34 %) were not aware of this. Majority (66.66%) of respondents were aware about the merits of use of organic methods whereas rest of them had no knowledge about this. Majority of the respondents (80%) did not have knowledge about harmful effects of chemical in crop production. Most of them (62 %) were aware about the food processing leading to increase in food cost rather than raw food. Majority of the respondents (80%) had knowledge about use of pesticides whereas only one fifth (20 %) were not aware. Most of the respondents (78.66%) were aware about importance of weeding for good production, remaining (21.34%) had no knowledge about this. Majority (64.66%) of them had knowledge about watering of plants in appropriate quantity whereas remaining (35.34%) were not aware about that. More than half of the respondents (56.66%) were not aware about banks and other organizations providing loans for agriculture purpose and remaining had knowledge about this. Little less than half (44.66%) were aware about perishable nature of fruits and vegetables remaining (55.34%) were not aware about this. Half of the respondents (54%) were not aware about preservation of fruits and vegetables due to the use of technology in an effective way and remaining (46%) had knowledge about that. Majority of the respondents (82%) were not aware about use of manuring in increase in crop production and only 18 per cent had knowledge about that. Half of the respondents (50%) were aware of multidisciplinary nature of agriculture. Majority of the adolescents (66.66%) did not know about use of bee keeping and only one third (33.34%) were aware about this. Most of the respondents (71.33%) were aware about good quality of seeds leading to good crop yield and rest of them (28.67%) had no knowledge about that. Only one third (38%) of respondents were aware about use of high yielding seed varieties to increase crop production whereas majority of the respondents (62%) had no knowledge about that. Majority of the adolescents (62%) had knowledge about insects damaging the crop and remaining (38%) were not aware about that. About half of the respondents (56%) were aware about role of animals and birds in providing manure and remaining (44%) had no knowledge about role of animals and birds in providing manure. The present study results were nearer to the finding of Bala and Singal (2003) that all the farm respondents were aware about the technical and advanced information about agriculture. On the basis of scores obtained majority of the respondents (78.66%) belonged to average level of awareness, followed by 11.34 per cent having good awareness and rest (10%) had poor knowledge about agriculture (Table 6).

Table 6. Awareness level of respondents about agriculture **n=150**

Awareness level	Frequency	Percentage (%)
Poor	15	10.0
Average	118	78.66
Good	17	11.34
Total	**150**	**100.0**

Conclusion

It can be concluded from the results that the agriculture awareness among rural youths was at average level. Since India's economy depends largely on agriculture, the need of the hour, therefore, is to enhance their knowledge through implying best teaching practices right from the schools and to educate the youth of the country to a proper appreciation of the role that agriculture plays in the national economy It is of utmost importance that the best practices in agricultural education are identified to ensure agricultural literacy in future generations.

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