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A study on the attitude of youth towards agricultural science as higher studies in Dhemaji district

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Abstract

Agriculture is widely been regarded as the backbone of the Indian economy, an education in agriculture and allied sectors offers various career options to agricultural graduates and postgraduates. However, it is often seen that admission and seat limit struggle in other fields of education like medical sciences, engineering and compel a student to choose agricultural science. India has one of the best and world's largest agricultural education system in place (Rana *et al.* 2018). The country houses 63 state, 3 central and 4 deemed Agricultural Universities (Chandrakant, 2022). Despite these advantages, agricultural science as an academic choice is often not prioritized by the youth. Therefore, this conditions makes it absolutely necessary for one to identify and understand the present attitude of youth towards higher studies in the field of agricultural sciences and also to find out if their exists any gender differences in youths attitude towards choosing agricultural science for their higher studies. With this background "A study on the attitude of youth towards Agricultural Science as higher studies in Dhemaji district was conducted. A sample of 237 higher secondary science students were selected from Dhemaji educational block by using multi-stage sampling procedure and the sample size selection formula. A self-constructed questionnaire was prepared to collect data for the study. Findings revealed a positive attitude among the youth of Dhemaji district towards agricultural science as higher studies. However, no gender difference was found in respondents' attitude towards agricultural science.

Keywords: Attitude, agricultural science, youth, higher studies

Introduction

The United Nations defines youth as persons between the age of 15 to 24 years. They are the backbone of the society and hence determine the future of the country. According to the World Youth Report 2022, there are 1.2 billion young people of aged 15-24 years, and this number is anticipated to increase by 7%, reaching 1.3 billion by 2030. With this phenomenal population rise of youths, India is now a youngest nation of the world with 70 percent of its population below the age of 35 years. This demographic dividend can be utilized for taking Indian agriculture to new heights by channelizing the creative energies of the youth through development of appropriate skills, knowledge and attitude (Uttej *et al.* 2020) ^[18]. Youth are typically open to embracing new concepts and technologies, thus they can readily change how agriculture is currently being practiced. Many developing countries including India are giving utmost priority of engaging youth in agriculture (Tripathi, 2018) ^[17]. Students who had exposure and previous experience in agriculture knew more about agricultural science and are more likely to enroll in agricultural science for higher studies (Lynch, 2001) ^[10]. Their active participation in agriculture is possible only if they have requisite skills, information and a positive attitude towards agriculture (Uttej *et al.* 2020) ^[18]. But, personal interest, poor view of agriculture, and presence of other career choices with high payable jobs, inhibits the number of students to choose agricultural science (Onu and Ikehi 2013) ^[12]. A favorable attitude is one of the important prerequisites for their willingness to participate in agriculture and choose a career in agricultural science (GI, 2012) ^[6].

There was a time when educational system of India was limited within general courses of arts, science and commerce. Least was known about any agricultural science courses which imparts education on Agriculture, Forestry, Horticulture, Agricultural Engineering, Dairy Science, Food Technology, Fishery Science, Animal Husbandry etc. (Makwana, 2013). Tracing back to time the first Agricultural Science College in India was established in the State of Uttar Pradesh in 1960 as "Uttar Pradesh Agricultural University" now G. B. Pant University of Agriculture and Technology. The Assam Agricultural University was also established in the year 1969 at Jorhat district. A study found that, agricultural science was not a first choice for higher studies, but admission and seat limit struggle in other fields compelled the students to choose agricultural

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science (Onu and Ikehi 2013)^[12]. Youths equated agriculture with science, but not with computers, engineering, and teaching (Conroy, 2000)^[11]. If youths are not made aware and exposed to various facts and knowledge of agriculture, then they might not be aware of the extensive diversity of career opportunities that exists for the graduates in agricultural sciences (Esters and Culloh, 2008)^[14]. There is a substantial need to educate youth about agricultural careers and ultimately attracting them to careers of agricultural science (Thoron and Myers, 2008)^[16].

According to the statistics of the academic year 2020-21, Assam Agricultural University had 2789 students enrolled. Out of this 55 percent were female students (1,532). (source – Annual Report 2020-21, Assam Agricultural University). These statistics clearly shows that, gender has no significant influence on student's attitude towards the learning of agricultural science (Darko *et al.* 2016)^[2].

India has one of the best and world's largest agricultural education system in place (Rana *et al.* 2018). Despite these advantages, agricultural science is often not figured in the priority list of academic choices (Soam *et al.* 2021). Therefore, this condition makes it absolutely necessary for one to identify and understand the present attitude of youth towards higher studies in the field of agricultural sciences. Therefore, the study was conducted with the objectives as (i) to find out the attitude of youth towards Agricultural Science as higher studies in Dhemaji district (ii) to identify the gender differences in attitude of youth towards Agricultural Science.

Justification: The term agricultural science itself becomes confusing for the youths since agriculture is always depicted and linked with farming and crop production only. The youths are unaware of the other allied sectors, which includes studies of community science, sericulture, horticulture, veterinary science, and fishery science. Agriculture as people know has been restricted to the production of essential food crops for human consumption until some time back. At present, agriculture includes farming, forestry, dairy, fruit cultivation, poultry, bee- keeping, mushroom, and arbitrary. The Dhemaji district is basically an agriculture driven district. The district also occupies a unique place in the production of the three different kinds of silks- Pat, Muga and Eri- which have a very high demand in the national and international markets. (Source – dhemaji.gov.in).

Keeping in mind the above mentioned opportunities in Dhemaji district this study was planned to be executed to find the attitude of youths towards agricultural science as their higher studies. The research also address if there exist any gender difference in attitude towards agricultural science as their higher studies.

Materials and Methods

The present study was conducted in Dhemaji district of Assam. The target sample for the study was restricted to the students of class 11 and 12 with science stream. A multi-stage sampling technique was adopted for selecting the respondents. At the first stage Dhemaji district was selected purposively. At the second stage the Dhemaji educational block was selected purposively, since more numbers of government and private higher secondary schools and colleges were found in this block. The total number of government and private higher secondary schools and colleges were collected from the selected educational block. Thereafter, in the third stage, only one

government college having higher secondary with science stream was found and therefore it was selected purposively. Also, out of two governments higher secondary school, one government higher secondary school with science stream was selected randomly. Five private junior colleges were found in the block and hence, one private junior college was selected randomly. From the selected educational institutions, the total number of students in class 11 and 12 were collected from the school authorities and thus in the final stage of sample selection a total of 237 respondents were selected using the sample size selection formula. Finally using the Probability Proportion to Size on the 237 respondents, 124 respondents were selected from the government college, 44 respondents were selected from the government higher secondary school and 69 respondents were selected from the private junior college.

Tools used: A self-constructed questionnaire was used for collecting data for the present study. The questionnaire was used to collect the background information of the respondents and their parents and to find out the attitude of the respondents towards agricultural science as their higher studies and also to find the gender differences in attitude towards agricultural science.

Scoring: The questionnaire consisted ten statements out of which seven were positive statements and were scored as 5,4,3,2 and 1 according to the five points Likert scale of “Strongly agree”, “Agree”, “undecided”, “Disagree” and “Strongly disagree” respectively. However, there were three negative statements and hence a reverse scoring was done accordingly.

The frequency and percentage was calculated to find out the responses in each statement. Thereafter, the median score was used to determine the youth's attitude as a whole since, it is the best measure in skewed distribution and is not affected by outliers or any asymmetric distribution of the scores. Total score of individual responses was calculated. The total scores that were found to be above the median value were grouped as positive attitude and the total scores that were found below the median value were grouped as negative attitude. The gender difference is calculated using the Z- test, as the sample size was large.

Results and Discussion

Youths' attitude towards agricultural science as higher studies

Findings of the table 1 reveals that higher percentage (48.9%) of the respondents strongly agreed that they preferred agricultural science as higher studies, results also indicates that majority (63.2%) of the respondents strongly agreed that agricultural graduates have many job prospects. It was also found that higher percentage (40.5%) respondents strongly agreed that agricultural science helps one to start some new enterprises. This may be due to the fact that, since the youths are aware of various job prospects, scopes and avenues for new enterprises under agricultural science, they might prefer agricultural science for their higher studies. Since knowledge about a subject, availability of scopes, jobs and future prospects motivates one to choose a subject for higher studies. Findings can be supported by a study conducted by Fizer (2013)^[5] which reveals that students are mostly influenced by parents, personal interest, job prospects and scopes when selecting a subject for higher studies.

Table 1: Distribution of respondents according to their attitude towards agricultural science as their higher studies

Attitude Statements	Total number of respondents n = 237									
	Strongly Agree (SA)		Agree (A)		Undecided (U)		Disagree (D)		Strongly Disagree (SD)	
	F	P	F	P	F	P	F	P	F	P
Preference will be given to Agricultural science after higher secondary	116	48.9	98	41.3	9	3.79	3	1.26	11	4.64
Agricultural graduates have many job prospects	150	63.2	67	28.2	5	2.10	7	2.95	8	3.37
Agricultural science helps one to start some new enterprises	96	40.5	71	29.9	11	4.64	18	7.59	41	17.29
There are ample opportunities to participate in various co-curriculum activities	80	33.7	68	28.6	10	4.21	38	16.0	41	17.2
One can become a contributor to national upliftment	86	36.2	178	75.1	15	6.32	38	16.0	20	8.43
Agricultural science will encourage in developing various scientific technologies	41	17.2	38	16.0	10	4.21	68	28.6	80	33.75
Foreign internships and scholarships motivates to choose agricultural science	120	50.6	60	25.3	15	6.32	26	10.9	16	6.75
Agricultural science degree will make eligible to appear for any competitive examination	110	46.4	68	28.6	10	4.21	18	7.59	31	13.0
One cannot earn any handsome salary with an agricultural science degree	12	5.06	18	7.59	13	5.48	90	37.9	104	43.88
Society does not give proper recognition to agricultural graduates compared to medical and engineering graduates	26	10.9	38	16.0	10	4.21	80	33.7	83	35.02

Findings also indicated that higher percent (36.2%) respondents strongly agreed that agricultural science will help one to become a contributor towards national upliftment. This may be due to the fact that being born and brought up in an agricultural based country, the youths are aware of how important agriculture is for the economy of the nation.

Results depicted that 50.6 percent respondents strongly agreed that foreign internships and scholarships motivates them to choose agricultural science. While higher percent (46.4%) respondents also strongly agreed that agricultural science degree will make them eligible to appear for any competitive examination. This may be due to the fact that youths are always motivated by various experiential and real time learning experiences, whereas the scope to appear for any competitive examination aspires and attract more towards a subject. Findings can be supported by a study conducted by Ekhande (2021) [3] which indicates that, educational tours, internships and experiential learning programs influence a student's attitude towards agricultural science positively. However, studies also found that agricultural science is one of the most preferred branches of study for youths who aspires to appear for competitive examination (Rajappa, 2019) [14].

Data shows that higher percent (43.88%) respondents strongly disagreed that one cannot earn any handsome salary with an agricultural science degree. While 33.7 percent respondents strongly disagreed that, agricultural graduates are not given proper recognition in society as compared to medical graduates or engineering graduates. This is because youths are aware that apart from giving proper recognition in the society, agricultural science degree will help one earn a very handsome salary. Studies shows that perception towards agricultural science has changed over the last few years, demand for trained professionals in agriculture is high. Banking, insurance, regulated markets, central and state agricultural departments, irrigation industries, Non-Government Organisation (NGOs) are some of the most prominent areas where agricultural graduates are in demand (Kumari, 2019) [9].

Level of attitude towards agricultural science as higher studies

Table 2: Youths' attitude towards agricultural science

Attitude of youths	Total Respondents		n=237		Median
	Positive		Negative		
	F	P	F	P	
Agricultural science	147	62.02%	90	37.97%	37

F= Frequency, P = Percentage

Results of the table 2 depicts that majority (62.02%) of the respondents had a positive attitude towards agricultural science. This can be due to the fact that being brought up in a district with limited access of educational institutions and minimal exposure of various courses or degree programmes. Therefore, agricultural science seemed like one of the best preferred choices for their higher studies. Unlike medical and engineering entrances they were also found to be equally interested for the Common Entrance Test (CET) held for admission under Assam Agricultural University.

Respondents were also found to be aware of the varied jobs for agricultural graduates in the banking sector, agricultural offices, handloom industries, welfare offices, and textile department. These might be responsible for forming a positive attitude towards agricultural science. A study conducted by Gowda *et al.* (2012) [7] revealed that students showed a higher attitude towards agricultural sciences and its allied courses as it is affordable, highly specialized and provides exposure to a wide range of subjects including crop production, animal and veterinary science, fisheries, psychology, social sciences, economics and also business administration.. The findings of the study can be supported by the findings of Kidane *et al.* (2013) [8] which indicated that majority of students had high favorable attitude towards agricultural education. Oiotosin and Oluwaseun (2020) [11] reported in their study that 93.3 percent of the students were fascinated about agricultural education.

Gender differences in attitude of youth towards agricultural science

Table 3: Gender difference in attitude of youth towards agricultural science

Sex	Mean	S.D	Z-value	Table value
Male	3.541	1.644	-23.401	1.644
Female	3.159	1.959		

Significant at 0.01 probability level

Results of table 3 indicated that there is no difference in gender on attitude of youth towards agricultural science. It may be because, although both the genders are brought up with different responsibilities but, today the parents of the youths are equally enthusiastic and serious of educating and empowering their daughters along with their sons. Females no longer think that they will be incapable of doing something that males do. The myth that science and technical subjects are for males and nursing or fashion designing courses are only for females no longer prevails.

The scenario of females wrapped up with only domestic chores is declining. Since the district has immense scopes for poultry, sericulture, weaving and textile industry. Therefore, girls are equally enthusiastic about studying agricultural science. The findings can be supported by a study conducted by Darko *et al.* (2016)^[2] which showed that attitude of female student towards agricultural science is not different from a male student. The study also depicted that gender had no significant impact on students' attitude towards the learning of agricultural science.

Conclusion

Agricultural science is a broad multidisciplinary field that combines natural and social science, along with economics, engineering and management. Experts speculate that there is a wide range of career opportunities and jobs for the agricultural graduates and post graduates in India. However, youths rarely prefer agricultural science for their higher studies (Kumari *et al.*, 2019)^[9]. Studies shows that agricultural science is often perceived to be a poor man's job, a demeaning industry (Zaki *et al.*, 2018)^[19]. Besides contributing to the Indian economic growth agricultural sector is constantly upgrading and consistently evolving.

Since, the respondents were found to have a positive attitude towards agricultural science for their higher studies, they can be motivated and guided to prepare for the Common Entrance Test (CET) held for enrollment in agricultural university. Awareness can also be provided on various allied courses under agricultural science which includes, studies of community science, fishery science, horticulture, sericulture and veterinary science. So that, they can opt for their most desirable and appropriate course for their higher studies.

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