

A Study on Assessing the Perception of Girl Students of Horticulture Discipline towards Agricultural Education and Functioning of Krishi Vigyan Kendras

M.G.Basavanagowda¹, T.N.Devaraja², T.G.Avinash³ and Supriya P Patil⁴

¹Subject Matter Specialist (Horticulture)

²Senior Scientist and Head

³Subject Matter Specialist (Plant Protection)

⁴Programme Assistant (Home Science)

ICAR-Taralabalu Krishi Vigyan Kendra, Davanagere-577004 Karnataka, India

Abstract: ICAR-Taralabalu KVK aims to accelerate agricultural development in the Davanagere region by imparting training, demonstrations and extension activities from past two decades. The centre also serves as a hub for testing and adapting new technologies to meet the specific needs of the district local farmers. The KVK works closely with ICAR, State agricultural universities, local government bodies and other extension agencies to deliver relevant agricultural services and programs to farmers. As a part of placement training and industrial visit 26 girl students visited KVK to know the activities of KVK and also to study the technologies transferred by the KVK. The response of female horticulture students after visiting Taralabalu KVK, Davanagere was highly positive and insightful due to the practical exposure and hands-on experiences provided by the KVK. Questions were given in the form of questionnaire Google sheet to students at the end of their placement to obtain the feedback on their visit. All students accepted the truth that they had less than 25 per cent of practical knowledge in the field of Horticulture before the visit. The first impression of the students when they arrived in the campus was Very good (75 %) followed by Good (25%) and Fair (8.3%). More than 28 Demonstration units were visited by the students. But the response of the students in the Google form was that only 50 % of the students selected more than 15 units, followed by 41.7 % (10-15 units). The average rating regarding the infrastructure facilities available in the KVK gains 4.5 out of 5.0 point scale. Average footfall of the farmers for the advisory services to KVK was around 35-40 which more is when it was compared to department of Horticulture as observed by one of the respondents. They were often impressed by the exposure to modern technologies, such as polyhouse cultivation, integrated farming systems or post-harvest processing equipment's.

Key words: ICAR, Taralabalu, Horticulture, Exposure visit, Google form.

INTRODUCTION

Taralabalu Krishi Vigyan Kendra (KVK), Davanagere is a key agricultural extension centre located in the Davanagere district of Karnataka. It operates under the aegis of the Taralabalu Rural Development Foundation, Sirigere and it is sponsored by the Indian Council of Agricultural Research (ICAR). The KVK plays a vital role in bridging the gap between agricultural research and farming practices, by providing farmers with the newer technologies, best practices and expert advices tailored to the local agro-ecological conditions.

The primary aim of Taralabalu KVK is to accelerate agricultural development in the Davanagere region by imparting training, demonstrations, and extension activities. The centre also serves as a hub for testing and adapting new technologies to meet the specific needs of local farmers.

Taralabalu KVK sets up Technology Assessments and frontline demonstrations on farmers' fields to showcase the practical application of new technologies. This helps farmers to understand and adopt innovations in areas viz., improved crop varieties, water-saving technologies and integrated farming systems. The KVK conducts short and long-term training programs for farmers, rural youth and extension workers. These trainings cover a wide range of topics, including integrated nutrient management, pest and disease management, organic farming, aquaculture, dairy, and value addition.

The KVK provides advisory services through field visits, Whatsapp messaging, expert consultations and by other social media platform to help farmers solve on-the-spot agricultural issues. Farmer fairs,

exhibitions and seminars are regularly organized to promote knowledge sharing among farmers and scientists. The KVK works closely with ICAR institutions, State Agricultural Universities, local government agencies and other extension organizations to deliver relevant agricultural services and programs to farmers.

MATERIALS AND METHODS

Visit of Final Year B.Sc Horticulture students from College of Horticulture, Hiriya, KSNUAHS, Shivamogga to the ICAR-Taralabalu Krishi Vigyan Kendra (KVK) in Davanagere was organized so as to get an enriching educational experience, offering them practical insights into the latest agricultural techniques and innovations. As a part of Horticulture based Industrial Placement Training 26 girl students visited KVK to know the activities of KVK and also to study the technologies transferred by the KVK to farmers of the district.

A small assessment was conducted to get the feedback of students towards agricultural education and functioning of KVKs. After successful visit to KVK a questionnaire by scientists in the form of Google sheet, was handed over to the students for obtaining the feedback.

Questionnaire was comprising of following theme of questions to understand the overall attitude of the students. Total number of students participated in the visit was 26.

List of Questions in the Google form were categorized in different scale.

- I. Visibility of the demonstration units
- II. Landscape of the KVK campus such as Fair, good, Very good, Excellent
- III. Carrier preference of students after completion of their degree
 - a. Government Job
 - b. Banking sector
 - c. Master Degree
 - d. Competitive examination
 - e. Private Job
 - f. Entrepreneur
- IV. Preferred discipline of interest in the degree programme
- V. Impression about the KVK
- VI. Extension methods adopted

After collecting the data/observations, it was grouped in to different scale and represented in the table form.

The Education status of the family, residential place and family income had great influence on motivating girl students to take admission to farm science courses as reported by Mohanty N and Patel N. R (1998)

Horticulture offers pathways into agribusiness including floriculture, landscape design, organic farming and food processing. Many girl students see the potential to start their own businesses or farms, particularly in urban and peri-urban settings. Women interested in research can contribute to innovation in horticultural practices, plant breeding and plant protection. Extension services also offer opportunities to work closely with farmers and communities, empowering women in rural areas.

It was observed that majority (58.33 %) of the girl students belonged to nuclear family, having farming (55.00 %) as main occupation and having completed higher secondary education respectively. The finding showed that majority of Agricultural students had medium level of aspirations (78.33 %) with mean score of 14.01 as reported by Niketha *et.al.* (2014)

Girl students are often drawn to the field of horticulture because of its connection with sustainability and organic farming. This aligns with global trends of environmentally sustainable food production and women are making increasingly leading efforts in these areas. Governments and institutions are encouraging women to enter agriculture and horticulture through scholarships, reserved seats in agricultural universities and gender-sensitive policies that promote inclusivity in higher education. Universities and KVKs (like KVK Davanagere) are increasingly offering gender-specific programs and opportunities for women in horticulture, ensuring that girl students have access to resources, internships and training that cater to their interests.

Katole *et al.* (2017) revealed that, majority of the respondent's fathers were in service, having graduate level education, possessed semi-medium land holding category with 2.1 to 4.0 ha, having family annual income in between Rs. 1.1 lakh and Rs.2.0 lakhs. Majority of the respondents belonged to nuclear type of family (76.74%) and having urban family background (69.77%).

The response of girl horticulture students after visiting Taralabalu KVK, Davanagere was higher positive and insightful due to the practical exposure and hands-on experiences provided by the KVK. Set of questions in

the form of Google sheet was given to students at the end of the day to obtain the feedback on their visit.

RESULTS AND DISCUSSION

Out of 26 students 91.7 percent of them were visiting Taralabalu KVK for the first time, remaining one student visited often as her native place was Davanagere. The first impression of the students when they arrived in the campus was Very good (75 %) followed by Good (16.7 %) and Fair (8.3%). This might be due to the visibility of the farm with technologies and the diversity of the crops grown in the demonstration fields.

The kind of response for the reception of the students after the arrival to the campus was measured in 5.0 star rating. Majority of the students (75%) provided full marks and three students provided 4.0 star rating. This opinion may be attributed to its religious background of the host institute and focus will be to treat the guests respectfully.

The Knowledge level of the students in the field of practical experience in Horticulture crops was measured with scale from 0-100 percent. Interestingly observations indicated that students accepted the truth that they had less than 25 percent of practical knowledge in the field of Horticulture before the visit. This is mainly due to concentration of the students will be more on obtaining the best grade points by studying the theoretical knowledge rather than acquiring the practical skills. Students are exposed to the practical classes in very few instances in the college as mentioned by one of the respondent.

Laxman M Ahire *et al.* (2020) reported that the attitude on 'Only students with farm background should pursue a career in agriculture' was disagreed and strongly disagreed by 67.43 percent of the students which implies that agriculture and allied sciences education can be pursued by anyone irrespectively their rural/urban background.

Students were exposed to all the demonstration units of the KVK farm with the guidance of the Horticulture Scientist. More than 28 Demonstration units were visited by the students. But the response of the students in the Google farm was surprising that as only 50 percent of the students selected more than 15 units, followed by 41.7 % (10-15 units). This clearly indicates the attention of the students in practical classes. As the younger generation is highly adopted to social media concentration and interest span of

present day students is seemingly reduced, may be attributed to exceeding social media influence.

Three fourth of the students agreed that the practical classes, village visits, study tours were conducted to provide an opportunity to students to become closer to their real life situation. Teachers in the college used to keep the students informed about the update knowledge of the subjects and this was agreed by nearly fifty per cent of the students. Practical sessions are correlated to theory and this was agreed by 62 per cent of students, as they get opportunity to learn by doing as it is known that "practice makes perfect" found in the research findings of Govindagowda V *et al.* (2012)

However Table 1. Indicates that 57.69 percent of the students feel the Technology Assessment trials play a major role in showing the worthiness of the technology followed by Frontline Demonstrations (23.07%). As the technology assessment trials involves more than three technologies, it's easy for the farmer to assess the performance of few technologies simultaneously time in the same piece of land. But in case of frontline demonstration only single technology will be tested in the given period.

Ranking of the demonstration units present in the KVK by the respondents showd that Arecanut based demonstration units ranked number one (30.76 %) followed by Mixed fruit orchard (19.23 %). Arecanut demonstration units got the highest attraction as it was the main commercial crop grown in the district. This was followed by the mixed fruit orchard as it involved number of fruit plants with different nutrition value as indicated in the Table.2

Regarding number of days for visiting the kvk, all students felt that one day is not sufficient to cover all the aspects. As Taralabalu KVK is functioning like one Agriculture University, at least minimum five days required for complete study of the KVK as mentioned by one of the respondents.

Yousra O. Osman *et al.*(2021) reported that 49.64 per cent of the responding students had high level of confidence whereas, majority (79.86%) had medium to high level of occupational aspiration

Exactly half of the respondents felt excellent for the landscape of the KVK which was followed by Very good (35%) (Fig.1).Only one student felt that landscape was fair. This may be due to the design and

layout of the demonstration plots and also the biodiversity present in the campus.

The average rating regarding the infrastructure facilities available in the KVK gains 4.5 out of 5.0 point scale. The drawback of the 0.5 percent of the scale might be due to Poor main road. However it could be rated cent percent in the future if this issue was corrected felt by majority of the students.

After complete study of the activities by the KVK, 83.3 percent of the respondents felt that ICM Technologies in the field of Arecanut stands first place in the list of Horizontal spread of the technology. It was followed by technologies demonstrated in the field of Onion. This might be due to extensive extension activities performed by the scientific team in these crops.

The farm advisory services from the scientist to the farmers either through personally or telephonic gains 4.58 points out of 5.0 point scale. They may feel that good advisory services helps farmers in correcting their problems with less time. Average footfall of the farmers for the advisory services to KVK was around 35-40 which was more when compared to the department of Horticulture as observed by one of the respondents. Use of Digital microscope in the advisory attracting the more farmers as they can see the infection level with the help of the Scientist. This is accepting the principle of extension "Learning by Doing and Seeing is Believing".

For Better understanding of the technologies from the farmers point of view, it's only by Visiting Krishi Vigyan Kendras one can get complete knowledge on transfer of technologies. However they felt visiting Department of Horticulture we can able to obtain the knowledge on the schemes operating in the department rather than the technologies. From the academic point of view studying in the colleges helps to gain the theoretical knowledge rather than the field problems.

For better and fast spread of the technology Social Media play a major role (83.3 %) than the other Media (16.7%). This might be due to use of mobile by all age group people and the internet facilities available at affordable rate. The accessibility of the network in the rural areas in also better nowadays like cities. So use of what's App and Facebook is more common among the rural community as well.

Yousra O et al (2021) states that more than one third students (35.25%) under study were found using

internet at medium level. More than three-fourth (75.54%) of the students' parents had agriculture, animal husbandry and service as their occupation whereas majority (63.31%) of them was small and marginal farmers. On further analysis, it was seen that 49.64 % of the responding students had high level of confidence whereas, majority (79.86%) had medium to high level of occupational aspiration.

All the respondents felt that the climatic conditions, Soil parameters, use of good quality seeds and planting materials play major role in influencing the productivity of any crop. This is practically true that if one of the above components is altered, farmers face lot of sever problem with respect to production.

Interestingly the most preferred career in the future of these girl students was to continue in the academics viz., doing post-graduation degree (42.30 %) followed by attempting competitive exam (23.07%) as indicated in the Table 3. This might be due to that girl students prefer to work in the office rather than in the field and also they prefer white colour jobs. The risk bearing ability of the girl students is relatively less compare to boys in these aspects.

The most preferred branch of horticulture in the degree programme was Post-Harvest Technology (34.61%) which was followed by Pomology (19.23 %) as indicated in Table 4. This might be due to that, they know the health benefits of fruits and vegetables and they have confidence that they can become an entrepreneur if they didn't get the job. They willing to work in processing units.

Results of Lakhani M.M. and Gohil G.R. (2020) revealed that Career is a regular occupation or profession in which one is makes a living. Career preferences of girl students in agricultre are to be studied due to increased employment opportunities and economic motivations. They do intend for a lucrative job as a fruit of their hard labour and have their own likings and disliking for various career avenues.

Great majority (94 per cent) wish to get higher academic degree from abroad, 18 per cent of scholars utilize library daily, most preferred job for girl scholars was academic and 58 per cent of scholars had high level of achievement motivation as reported by Haseena Bibi (2017).

CONCLUSION

The visit could broaden their understanding of career possibilities within horticulture. Interacting with KVK experts may encourage them to consider paths such as agronomy, research, extension services or entrepreneurship in areas like nursery production and landscape gardening. They are often impressed by the exposure to modern technologies, such as polyhouse cultivation, integrated farming systems or post-harvest processing equipment. Many report that these innovations make horticulture seem more dynamic and relevant, encouraging them to stay engaged with technological advancements.

Overall, a visit to Taralabalu KVK Davanagere could significantly enhance the learning experience for girl horticulture students, making them more enthusiastic and better informed about their future in the field of horticulture. In future, State Agriculture Universities need to make a guideline that students must undergo minimum of one month training or attachment in any one of the KVKs which is nearer to them. In degree academic curriculum, it needs to be added for the benefit of the students.

REFERENCES

[1] Govindagowda,V. Thimmegowda, M.N. and Ashoka Doddamani, (2012). Attitude of students towards agricultural education and their perceived organizational atmosphere, Advance Research Journal of Social Science, Vol3, Issue 1: 77-80.

[2] Haseena Bibi, Meena. C. Patel and J. B. Patel.(2017). Dynamic profile of PG girl

scholars of Anand Agricultural University and their scope in participating in extracurricular activities, Gujarat Journal of Extension Education, Vol. 28: Issue 2.

[3] Katole R T, Chinchmalatpure U R and MORE G. B.(2017). Aspirations of under graduate girl students of Dr. Panjabrao Deshmukh Krishi Vidyapeeth, Akola, Agric. Update, 12(4): 676-680.

[4] Lakhani M.M, and Gohil G.R. (2020). Career preferences of agriculture girl students of junagadh agricultural university for different occupations, International Journal of Agriculture Sciences, 0975-9107, Volume 12, Issue 3.

[5] Laxman M Ahire, B S Sontakki, P Venkatesan and M A Basith. (2020). Student’s attitude on agricultural education and perception towards institutional issues, Multilogic in Science, VOL. X, ISSUE XXXIV.

[6] Mohanty N and Patel N.R. (1998). Motivating factor of girl students for Agriculture Degree course, Gujarat Journal of Agriculture Extension, VIII and IX, 69-73.

[7] Niketha L, Pallavi D, Suryavanshi, Amit singh and Sajad Ahemed Wani.(2014). Aspirational analysis of girl students involved in agricultural profession, Agric. Sci. Digest., 34 (4) : 263 – 267.

[8] Yousra O. Osman1 , Angad Prasad, M. Deepa Devi , Krishna P. Chaudhary and Narendra K. Soni.(2021). Profile of Girl Students Studying in Higher Agricultural Education, Asian Journal of Agricultural Extension, Economics & Sociology, 39(11): 128-137.

Table 1: Response of Students on Better Mandate of KVK to show the worthiness of the Technology.

N=26

Sl.No	Mandate of KVK	Number Responded	Percent
1	Technology Assessment	15	57.69
2	Technology Refinement	2	7.69
3	Frontline Demonstration	6	23.07
4	Trainings	3	11.53

Table 2. Ranking of Demonstration units in terms of visibility according to respondents

N=26

Sl.No	Demonstration Unit	Number Responded	Percent	Ranking
1	Areca nut Based units	8	30.76	I
2	HDP in Mango	3	11.53	III
3	Jackfruit unit	2	7.69	IV
4	Mixed fruit orchard	5	19.23	II
5	Animal Science unit	3	11.53	III

6	Fisheries unit	2	7.69	IV
7	Paddy and cotton unit	2	7.69	IV
8	Azolla unit	1	3.84	V

Table 3. Preference of the students after completion of degree programme

N=26

Sl .No	Student Preference	Number Responded	Percent	Ranking
1	Government jobs	04	15.38	III
2	Banking Sector	02	7.69	V
3	Master degree	11	42.30	I
4	Competitive Examination	06	23.07	II
5	Private job	03	11.53	IV

Table 4. Most preferred Branch in the degree programme

N=26

Sl .No	Student Preference	Number Responded	Percent	Ranking
1	Olericulture	03	11.53	IV
2	Floriculture	02	7.69	V
3	Pomology	05	19.23	II
4	Plantation crops	04	15.38	III
5	Post-Harvest Technology	09	34.61	I
6	Medicinal and Aromatic crops	03	11.53	IV

Fig.1: Response of the Students for the Landscape of the KVK

