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III UNIVERSITY EXTENSION FAIR IN AGRONOMY AT CJUR/UFOPA: A TOOL FOR PROMOTING THE COURSE AND INTEGRATING IT WITH SOCIETY

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Abstract: University extension makes it possible for universities to get closer to society through actions that publicize to the community the courses offered and the knowledge generated in the institutions. One way of doing this is by promoting Extension Fairs, which can take place in different areas of knowledge. With this in mind, the aim of this paper is to report on the III Agronomy University Extension Fair at CJUR/UFOPA, describing the activities developed by the students for presentation to the external community, in order to propose alternatives for entrepreneurship, sustainability and scientific knowledge. The CJUR/UFOPA Agronomy University Extension Fair (FEXAGRO) is an annual event organized by students and teachers linked to the course. The Extension Fair project is linked to the University Extension Program "Agronomy in Focus", which is provided for in the Course Pedagogical Project (PPC), and is of great importance in the qualified training of students. FEXAGRO was also linked to the Integrated Extension Practices I and III curricular components. To organize FEXAGRO, a team of 49 people was formed, including teachers and students, all linked to the Agronomy course. A number of steps were taken to put together the program for III FEXAGRO: i) Dividing the students into groups to come up with themes linked to agronomy, entrepreneurship and/or sustainability; ii) Selecting the students to be part of the organizing committee; iii) Presenting the proposals in the classroom to the teachers in order to obtain their collaboration and improvements in the activities; iv) Looking for sponsors to hold the Extension Fair; v) Publicizing the call for teams from other classes to take part in the Fair; vi) Publicizing the Extension Fair in the form of flyers on the Juruti Campus, the external community and social networks. In all, 8 stands were set up with the following themes: 1) Serraplant; 2) Coffee made from Açaí pits; 3) Sustainable bar soap; 4) Sustainable chairs;

5) Cassava ice cream; 6) Passion fruit albedo jelly; 7) Reusing instant coffee glass; and 8) Banana derivatives. The experience put into practice the activities organized during the period, arousing interest among students and the external community in business alternatives. Overall, the III Agronomy University Extension Fair is a valuable tool for promoting scientific and technological education in the municipality, because as well as publicizing the Agronomy course and UFOPA, it is also a means of reinforcing the university's mission of sharing and building knowledge.

Keywords: Teaching. Social interaction. Entrepreneurship. Sustainability. Agricultural Sciences.

INTRODUCTION

University Extension emerged in Brazil as an instrument of technological change and service provision. In addition, through the creation of Decree No. 19.851, of April 11, 1931, which provided for University Extension activities within higher education institutions, actions to promote the approximation of universities and society were encouraged (PAULA, 2013).

In 1980, until then, there was little talk of "public policies", an expression of progress towards democracy (PAULA, 2013). Within this estimate, according to this author, the Forum of Pro-Rectors of Extension of Brazilian Public Universities (FORPROEX) was created in 1987, a decisive milestone for defining public policies in the construction of University Extension.

According to the study carried out by the MEC (2006), the events known as Science Fairs are agents of communication for various areas of knowledge, since they are works developed and carried out inside or outside educational institutions. In this context, following the understanding of MEC (2006), we can affirm the importance of science fairs in encouraging integration between teaching, research and extension, since they can take place in different fields of knowledge. These events encourage students to develop investigative attitudes and to be active agents throughout the construction and execution process.

Extension activities seek to bring the learning and experience of students in the classroom to society, seeking to make the community in general aware of the possibility of access to continuing education, promoting benefits for both (RODRIGUES *et al*., 2013). In addition, University Extension is a two-way street, since both students and participants come out learning, as they build knowledge together.

According to Pereira, Guevara and Vasconcelos (2023), it is well known that holding extension fairs facilitates the teaching-learning process and represents an important connection between the university and society in general. With this in mind, the aim of this paper is to report on the III Agronomy University Extension Fair, describing the activities developed by students to present to the external community, in order to propose alternatives for entrepreneurship, sustainability and scientific knowledge, promoting learning through themed stands.

MATERIAL AND METHODS

The III Agronomy University Extension Fair (FEXAGRO), run by the Bachelor of Agronomy course at the Juruti University Campus of the Federal University of Western Pará (CJUR/UFOPA), has been held annually since 2022. The Extension Fair project is linked to the University Extension Program "Agronomy in Focus", which is provided for in the Course Pedagogical Project (PPC), and is a valuable tool in the qualified training of students. In addition, the event was held in partnership with the activities developed in the Integrated Extension Practices I and III curricular components.

The Fair was organized by a team of 6 teachers, 17 students in curricular activity Integrating Extension Practices I and 26 students in Integrating Extension Practices III, totaling 49 participants. All were linked to the Agronomy course. The groups were made up of 4 to 5 students regularly enrolled in the curricular components mentioned above. The groups selected by the call for proposals were made up of 14 students taking part in extension projects, from the 10th period of the course and 2 high school scholarship students.

The following activities were organized for the III Extension Fair: i) Dividing the students into groups to come up with ideas with themes linked to agronomy, entrepreneurship and/or sustainability; ii) Selecting students to be part of the event's organizing committee; iii) Presenting the proposals in class to the teachers in order to obtain collaboration and improvements in the activities, since it is a way of obtaining a way of talking about the subject to different audiences; iv) Looking for sponsors to organize the Extension Fair; v) Publicizing a call for proposals with criteria for selecting other participants with projects and/or sales; and vi) Publicizing the Extension Fair in the form of flyers on the Juruti University Campus, the external community and social networks.

It's worth noting that throughout the period when the activities were being carried out and developed, the students had the support and advice of the course lecturers, but they were the main active agents in organizing and promoting the event. This methodology is valuable for contributing to the collaborative construction of knowledge between teachers and students, as well as promoting student autonomy in the teaching-learning process.

RESULTS AND DISCUSSION

The III Agronomy Extension Fair (FEXAGRO) was held in the main square of the municipality of Juruti, located in the west of Pará, in the Lower Amazon region. The event was held in November 2023, with the support of the Municipal Department of Culture, Sport and Tourism (SECDET) and the Department of the Environment (SEMMA).

At the start of the activities, the students enrolled in the Integrative Practices I and III curricular components were divided into 8 groups with different themes, as well as a group that made up the organizing committee, together with the teachers. In addition to the students involved, three other teams were formed to take part in the Fair's project selection process: a) the EDUCT-Juruti and Soil Science Project; b) CAAM Jr, the course's junior company; and c) the course's graduating class, selling delicacies.

The Extension Fair team held meetings to organize the event and present the proposals, given the possibility of collaborative construction between students and teachers, in order to bring knowledge more in line with the interests of the community in general. The activities were free and open to the public, with the aim of bringing the university closer to the local community. The population of Juruti was invited to take part in the Extension Fair by publicizing it on the social networks WhatsApp, Facebook and Instagram. In addition, leaflets were distributed on the Juruti University Campus, in high schools and also in some local shops.

Figure 1 - A) Publicizing the Extension Fair, B) Team responsible for holding the event.

Source: Project Collection, (2023).

The students involved in Integrative Extension Practices I and III presented 8 stands with the following themes: 1) Serraplant; 2) Açaí coffee; 3) Sustainable bar soap; 4) Sustainable chairs; 5) Cassava ice cream; 6) Passion fruit albedo jelly; 7) Reusing instant coffee glass; and 8) Banana derivatives (Figure 1).

At the first stand Sawdust in Art - SERRAPLANT, the team presented sawdust vases, built by the students themselves. They also showed the different types of wood waste, such as sawdust, shavings and chips. At each reception, external participants shared their experiences of making the pots and acquiring the materials. However, the stand's proposal was well received by the public, mainly because it presented a sustainable idea using wood sawdust as an alternative business for the population.

The second team, with the theme "Coffee made from açaí pits", sought to offer a sustainable alternative by using the seeds (pits) of the açaí tree (*Euterpe oleracea* Mart.) to make coffee. The name "coffee" was used in the proposal because of its similar taste to regular coffee. At the Extension Fair, the students presented the "coffee" powder with four different roasting times, exemplifying the processes and materials used. During the presentations, participants were offered tastings of the drink.

According to Costa *et al.* (2021), the roasted açaí stone has low nutritional value in terms of carbohydrates and proteins compared to traditional coffee, but the 81.33 mg of polyphenols quantified showed benefits as it has antioxidant activities, as well as not having caffeine in its composition.

Figure 2 - A) 1st Stand Wood Sawdust in Art - SERRAPLANT, vases made from wood sawdust; B) 2nd Stand "Coffee made from açaí seeds", sample of the final products.

Source: Project Collection, (2023).

Thirdly, the team presented their stand, "Sustainable bar soap", a product in solid form, highlighting an alternative sustainable item through its ingredients, encouraging an entrepreneurial option that is sustainable for the environment. Throughout the presentations, the students narrated the process of how to make homemade soap, distributed pamphlets with each stage of production and gave away samples to the participants.

The fourth stand, Sustainable Chairs, showed how reused tires can be turned into design pieces. For this theme, Agronomy students shared their experiences during the process of acquiring the materials and developing the project. In addition to mentioning the difficulties and techniques to facilitate the handling of tires, which would probably be disposed of inappropriately in the environment, they showed that these materials can be reused as furniture and decorative objects.

Figure 3 - A) Homemade soap made from recycled ingredients from the 3rd Stand "Sustainable bar soap"; B) Table kit with chairs made from recycled tires from the 4th Stand "Sustainable chairs".

Source: Project Collection, (2023).

At the fifth stand, the team showed the theme "Cassava ice cream", the preparation of cassava ice cream (*Manihot esculenta*), a traditional crop in the municipality of Juruti, with the state of Pará being the largest producer in the country (IBGE, 2022). The students made information folders with the ice cream recipe, highlighting the ingredients and how to prepare it, as well as detailing the step-by-step process. The group distributed samples of the manioc ice cream to visitors, and it was very well received.

The sixth stand presented the theme "Passion fruit albedo jelly", in which the students presented a recipe using an *in natura* by-product as the main ingredient, the passion fruit albedo. In the presentation, the team reinforced an option for using a part of the passion fruit peel that is normally discarded by most consumers. The team distributed the jams along with cookies to people who visited the stand, and they were surprised to discover which part of the passion fruit they had obtained. The students also had the opportunity to exchange experiences with the public, enabling them to learn together.

Figure 4 A) 5th stand "Sorvete de macaxeira" (cassava ice cream) offered ice cream tastings to visitors to the fair; B) 6th stand "Geleia do Albedo de Maracujá" (passion fruit albedo jam) offered jam tastings to the public.

Source: Project Collection, (2023).

The seventh stand presented the idea of "Reusing instant coffee glass", a simple but very important act for the environment. The students talked about the importance of recycling glass jars as an entrepreneurial alternative, as well as being a sustainable option, especially for places that don't have access to electricity, which is often the case in the municipality's rural communities. At the Fair, the team set up a table decorated with aromatic candles, made by the group itself, which was well received by the public.

The eighth stand presented the theme "Banana peel derivatives", covering how to prepare sweets, with an emphasis on the possibility of entrepreneurship. The group presented banana peel brigadier with chocolate, as well as a creamy banana peel jam, which was well received by the public and is considered by many to be a business idea for the municipality.

Figure 5 A) 7th stand "Reusing instant coffee glass", where the public was shown the aromatic candles; B) 8th stand "Banana peel derivatives", where the public was shown the brigadeiro and jam made from banana peels.

Source: Project Collection, (2023).

Three teams were selected to take part in the III Extension Fair, distributed as follows: 1) EDUCT and Soil Science Project; 2) Caam Jr; and 3) Graduating class selling delicacies.

The university extension project "Access to scientific and technological education by young people from public schools in the municipality of Juruti - EDUCT Juruti" has been working since 2020 to bring students from the Agronomy course at CJUR/UFOPA closer to the local community. For the Extension Fair, the project, together with the Soil Science Project, brought scientific and technological knowledge to the local community. The team was made up of 2 students from the agronomy course and 2 high school scholarship students, presenting the theme "Colors of the earth - dynamic activities using sustainable paints". The theme showed the different colors present in soils collected in the municipality, providing fun through the painting of drawings, especially for young people, children and teenagers.

At the stand of the CJUR/UFOPA Agronomy Degree Junior Company, Consultoria Agrícola da Amazônia (CAAM Jr), the aim was to publicize the services provided by the company, as well as selling ornamental plants, pot holders made from wood scraps, decorative materials made from wood trunks, and free-range chicken eggs. The company brought business possibilities to the public, showing them ideas for products to sell, as well as offering guidance and tips on the local and regional market.

Finally, the last stand was made up of students from the Agronomy and Mining Engineering courses, from the 2018.2 classes, who would be graduating during the semester in which the Fair was held. The aim of the stand was to promote the courses, but also to raise funds for the graduation ceremony. The stand offered a wide range of delicacies, including porridge, cake, juice, water, soft drinks, hot dogs and vatapá.

In general, the experience was enriching for the entire team of students and teachers involved, as well as helping to publicize the university and the Agronomy course to a significant audience in the city. It was important to observe the interest of the participants/visitors in business alternatives, and it was also possible to verify the interest of some in going on to higher education.

CONCLUSIONS

The III Agronomy University Extension Fair is a valuable tool for promoting scientific and technological education in the municipality of Juruti, in the Lower Amazon region. The experience of university students in constructing, developing and carrying out academic extension activities provides autonomy in the construction of knowledge, as well as enhancing knowledge of the reality of the place of training. During the event, it was possible to observe the effective participation of the general population, appreciating the topics presented, questioning and interacting with the course students, and above all, sharing experiences.

These kinds of demonstrations and dialogues on topics involving agricultural sciences, entrepreneurship and sustainability are important for society in general, because as well as publicizing the Agronomy course and its various areas of activity, they are also a way of reinforcing the university's mission of sharing and building knowledge.

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