Unconventional food plants in teaching, research and extension activities at the Instituto Federal Baiano Campus Serrinha

As plantas alimentícias não convencionais nas atividades de ensino, pesquisa e extensão no Instituto Federal Baiano Campus Serrinha

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ABSTRACT
This article aims to highlight how Unconventional Food Plants – UFPs have constituted themselves as an interdisciplinary educational-investigative element in the courses offered at the Federal Institute of Education, Science and Technology, Serrinha campus, enabling the rescue, re-signification and construction of knowledge and knowledge based on the tripod of teaching-research-extension. To do so, a survey was carried out in the institutional documents, results of public notices, records of the teaching, research and extension coordinations of the IF Baiano Campus Serrinha, records of the Núcleo de Estudos em Agroecologia do IF Baiano Campus Serrinha – NEA Abelmanto, besides a survey of the productions of the teachers and students registered in the lattes curriculum. In five years, nine teaching, research and extension projects have been developed, addressing NCP as a central and/or auxiliary theme. In two projects, the planned actions were already articulating the teaching-research-extension tripod, three projects framed as extension projects, two as research projects, one as teaching projects and one as research and extension projects. Twenty nine publications and technical productions were surveyed, with the involvement of students, professors from the Serrinha campus and from the external community, resulting from the actions and projects with UFPs. The
unconventional food plants have been a formative element and integrator/articulator of the teaching-research-extension tripod at the Federal Institute of Bahia Campus Serrinha and have contributed to the realization of a holistic, integrated, dynamic and contributory PTE with the local development processes.

**Keywords:** UFPs, vocational and technological education, sisal territory.

**RESUMO**
O presente artigo pretende evidenciar como as Plantas Alimentícias Não Convencionais - PANC têm se constituído como elemento formativo-investigativo interdisciplinar nos cursos ofertados no Instituto Federal de Educação, Ciência e Tecnologia Baiano, campus Serrinha, possibilitando o resgate, reessignificação e construção de conhecimentos e saberes fundamentados no tripé de ensino-pesquisa-extensão. Para tanto, foi realizado levantamento nos documentos institucionais, resultados de editais, registros das coordenações de ensino, pesquisa e extensão do IF Baiano Campus Serrinha, registros do Núcleo de Estudos em Agroecologia do IF Baiano Campus Serrinha – NEA Abelmanto, além do levantamento das produções dos docentes e estudantes registrados no currículo lattes. Em cinco anos foram desenvolvidos nove projetos de ensino, pesquisa e extensão abordando as PANC como temática central e/ou auxiliar. Em dois projetos as ações previstas já articulavam o tripé ensino-pesquisa-extensão, três projetos enquadrados como de extensão, dois como de pesquisa, um como de ensino e um como de pesquisa e extensão. Foram levantadas 29 publicações e produções técnicas com envolvimento de discentes, docentes do campus Serrinha e da comunidade externa, resultantes das ações e projetos com PANC. As plantas alimentícias não convencionais têm se constituído elemento formativo e integrador/articulador do tripé ensino-pesquisa-extensão no Instituto Federal Baiano Campus Serrinha e contribuído para a realização de uma EPT holística, integrada, dinâmica e contributiva com os processos locais de desenvolvimento.

**Palavras-chave:** PANC, educação profissional e tecnológica, território do sisal.

**1 INTRODUCTION**
The Unconventional Food Plants - UFPs were first conceptualized by Valdely Ferreira Kinupp, in his doctoral thesis entitled Unconventional Food Plants of the metropolitan region of Porto Alegre - RS, by the Federal University of Rio Grande do Sul (Kinupp, 2007), when he studied the potential for food use of hundreds of species, or part of species not commercially cultivated for food purposes. Since then, several authors (Madeira, 2013; Kinupp & Lorenzi, 2014;
Kelen et al., 2015; Nascimento e Silva, 2020, Ranieri, 2021) and institutions (Brazil, 2010a; Brazil, 2010b; Sdr./Car, 2020a; SEBRAE and EMBRAE Rapa, 2021; Epamig, 2022;) have promoted discussions on different aspects involving NCPs, ranging from the valuation of the knowledge associated with these species, the potential use neglected for decades, mainly after the green revolution and the advancement in food standardization of the world population (FAO, 2016).

The most complete work related to the theme is the book Unconventional Food Plants in Brazil, produced by Valdely Kinupp and Harri Lozenzi in 2014, which defines UFPs as plants used in human food in a direct and indirect way, or even with some potential use for human food. Direct uses include roots, tubers, rhizomes, stems, bulbs, stalks, leaves, flowers, fruits or seeds, including latex, resins and gums. Indirect forms are when these whole or part species are used to obtain edible oils and fats, spices, condiments and aromatics, meat softeners, food dyes and used in beverages, tonifiers and infusions (Kinupp and Lorenzi, 2014).

The Ministry of Livestock Agriculture and Supply (MLAS) points out that the cultivation and consumption of UFPs, mainly vegetables, has decreased in all regions of the country, in rural and urban areas and among all social classes, as a result of globalization and the growing use of industrialized food, with significant changes in the Brazilian food pattern and losses of cultural characteristics and identity with the consumption of local and regional food (Brazil, 2010b).

Normally, in all the regions there are food plants that are known and consumed, to a greater or lesser extent by the local population, who have developed this habit and the knowledge associated with them, depending on the relationships established over decades with the environment in which they live. From this, recipes and preparations were and are developed, generating what Cascudo (2004) calls traditional foods.

Actions aimed at encouraging the consumption of local varieties are fundamental for the diversity and richness of the diet of the populations, for the
perpetuation of good eating habits and valuing the socio-cultural heritage of the Brazilian people (Brazil, 2010b).

2 CONTEXT

The Serrinha campus of IF Baiano since its origin sought the implementation of courses with approaches linked to sustainability, being perceived this characteristic in the projects of agro-ecology courses (IF Baiano, 2016a), agribusiness (IF Baiano, 2016b), agribusiness (IF Baiano, 2016c), biology (IF Baiano, 2017a), cooperatives (IF Baiano, 2017b), social innovation (IF Baiano, 2016d) and field education (IF Bahia, 2016e).

Within this approach, discussions about biodiversity associated with agriculture or agro-biodiversity are essential tools for the lessons and for the construction of knowledge, in the Professional and Technological Education (PTE) offered/promoted by the IF Baiano campus Serrinha, since it associates the knowledge of the communities and peoples of the countryside, accumulated over centuries and generations of relationships established within their respective habitats.

In this sense, Miranda and Costa (2021), point out that the use of UFPs as a promoter of the PTE based on the perception and construction of knowledge/knowledge with the peoples of the field, has the "challenge of establishing dialogical processes in which popular construction is protagonist and makes possible the critical formulation of the actions of human beings who act in the transformation of nature", that is, the people of the field itself.

Thus, the UFPs has constituted as an interdisciplinary training-investigative element in the courses offered on the Serrinha campus, enabling the rescue, re-signification and construction of knowledge and knowledge based on the tripod of teaching-research-extension, being the objective of this article, evidence this experience developed in the period of implementation of the Campus.
3 DEVELOPMENT

3.1 METHODOLOGICAL PROCEDURES

The proposal of the article arises as the construction of the course completion work in the specialization in Docência na Educação Ambiental, of the first author, and to meet the proposal, a survey was carried out in the institutional documents, results of public notices, records of the teaching coordinations, research and extension of the IF Baiano Campus Serrinha, records of the Núcleo de Estudos em Agroecologia do IF Baiano Campus Serrinha – NEA Abelmanto, besides the survey of the productions of teachers and students registered in the curriculum lattes seeking to identify the projects developed and productions/publications generated from these and how the UFPs has placed itself as an element stimulator of the processes teaching, research and extension at PTE developed at/by the Serrinha campus.

To this end, it was considered in the projects and information relating to the period 2016 to 2021.

4 RESULTS ACHIEVED

In five years, nine teaching, research and extension projects have been developed, addressing UFPs as a central and/or auxiliary theme in a variety of ways and with the most different objectives, as listed in table 1. Two projects where the actions provided for already articulated the teaching-research-extension tripod in the proposal, one involving research and extension, three projects framed as extension projects, two as research projects and one as teaching. Among the projects, five were developed with financial support from institutional calls for support for research and/or extension, and four without financial support (table 1).

There were 971 people from the external community of IF Baiano, 68 students who were directly involved in the actions of the projects and/or in some action, without taking into consideration the participation in the mini-course held during the I Biology Week, listed in table 2 and 10 teachers, totaling 1,049
persons involved in the actions and projects with UFPs in the period of five years (table 1).

Table 1. List of teaching, research and extension projects developed at the Federal Institute of Education, Science and Technology, Serrinha campus, in the period from 2016 to 2021.

<table>
<thead>
<tr>
<th>Project</th>
<th>Year (funding)</th>
<th>Nature</th>
<th>Purpose</th>
<th>Number of persons involved</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salad Project: Teaching, Research and Extension in agroecological olericulture and traditional foods</td>
<td>2016 (Financed through the internal call PROPES No. 05/2016 - Research Stimulus Program - First Projects)</td>
<td>Research, Teaching and Extension</td>
<td>To investigate knowledge about food crops in traditional communities and family farming, mainly horticultural and/or herbaceous species and from this to develop educational and extension actions with students and family farmers on agro-ecological olericulture.</td>
<td>Teachers 2 Learners 2 External 108</td>
</tr>
<tr>
<td>Propagation of Unconventional Caatinga Food Plants</td>
<td>2018 (Developed without funding)</td>
<td>Research, Teaching and Extension</td>
<td>To develop techniques for the propagation of species of the caatinga, which have unconventional food use and which can serve to support actions of replanting.</td>
<td>Teachers 2 Learners 5 External 83</td>
</tr>
<tr>
<td>Little deer papaya: from the tradition of sweet to sustainable management in the community of Ipiraí</td>
<td>2017 (Developed without funding)</td>
<td>Search, Extension</td>
<td>Understand the traditional ecological knowledge about the species of deer papaya and the extractive management adopted by farmers for the manufacture of artisanal sweets, as well as the potential of this knowledge as a tool for the construction of a sustainable management plan.</td>
<td>Teachers 2 Learners 4 External 100</td>
</tr>
<tr>
<td>PANC JOURNEY: Knowledge Day on</td>
<td>2020 (Developed without funding)</td>
<td>Teaching</td>
<td>Articulate knowledge about Agro-ecology and Agro-industry and its</td>
<td>Teachers 4 Students 10</td>
</tr>
<tr>
<td>Project Title</td>
<td>Year</td>
<td>Action</td>
<td>Description</td>
<td>Teachers</td>
</tr>
<tr>
<td>------------------------------------------------------------------------------</td>
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</tr>
<tr>
<td>Unconventional Food Plants</td>
<td></td>
<td></td>
<td>practical applications in the promotion of food and nutritional safety of participating students and family members from the topic of non-conventional food plants (UFPs).</td>
<td></td>
</tr>
<tr>
<td>Non-Conventional Food Plants of knowledge and use of the IF community</td>
<td>2019 (Developed without funding)</td>
<td>Search</td>
<td>Identify the knowledge and relationship of the IF community Baiano Campus Serrinha about Unconventional Food Plants (UFPs), with the perspective of promoting discussion and dialog about the variability of food offers in the Caatinga biome.</td>
<td></td>
</tr>
<tr>
<td>Ethnobotanical survey Unconventional Food Plants for food and nutrition security in the rural communities of Lamarão</td>
<td>2020 (Financed through Notice No. 136, of October 23, 2020, called PROPES/Campi - Research Notice)</td>
<td>Search</td>
<td>Know and rescue the known NCPs that were and/or are consumed by two rural communities of Lamarão, in the Sisal Territory, and assess the nutritional composition of these plants and their capacity to compose nutritionally rich diets.</td>
<td></td>
</tr>
<tr>
<td>Agroecological Caravan: knowledge, practices, culture and education in Sisal Territory.</td>
<td>2019 (Financed through extension notice No. 04/2019 PROEX/ CPPEX/ IFBAIANO Institutional Program of Initiation Scholarships in Extension - PIBIEX superior modality)</td>
<td>Extension</td>
<td>Strengthen the integration between teaching, research and extension, with the strategy of building a socio-technical network of actors involved in the construction, exchange of knowledge and promotion of agroecology as a practice, public policy and way of life, through</td>
<td></td>
</tr>
</tbody>
</table>
The first project developed, the "Salad Project: Teaching, Research and Extension in agroecological and traditional foods", was started in 2016 from the internal funding of IF Baiano, through the Programa de Estímulo à Pesquisa – Primeiros Projetos (IF Baiano/PROPES, 2016).

The Salada Project investigated the knowledge about food crops of family farming, with emphasis on UFPs, as a precursor activity of education and extension actions. Starting from the project, an ethnobotanical survey of UFPs, workshops and training courses was carried out, with the participation of students...
from the IF Baiano in all the stages of the process, from the conception of the idea, to the planning and execution of the actions. And involving rural youth, rural schools, and farmers and family farmers as subjects of the ethnobotanical survey and target audience of workshops and courses (Gama, 2016).

The second project "Propagation of Unconventional Food Plants of the Caatinga" involved five students from the Integrated course in Agroecology and the Subsequent one in Agriculture and Livestock Farming who developed studies of the propagation of little deer papaya, licuri, pitomeira-da-baia. As a result, the project has achieved success in the process of spreading deer papaya, and the technique is shared with family farmers in the municipalities of Capela do Alto Alegre and Araci, through workshops on the propagation and management of the species, as well as the production of a folder describing the process (Silva and Gama, 2018).

The project "Mamãozinho-de-veado: from the tradition of sweet to sustainable management in the community of Ipiraí", was conceived and developed by student Neliane Santos Rios, linked to the postgraduate course in Social Innovation, with an emphasis on solidarity economy and agroecology, and supervised by professors Erasto Gama and Carla Marques.

The project focused on a single species, the small deer papaya (*Jacaratia corumbensis*) and had as its methodological proposal action research, the procedure of which implied the participation of the population of the community as an active agent in the knowledge of its own reality. To this end, the research was developed in a participatory way, considering the involvement of family farmers who carry out this extractive practice and culminating in an extension workshop with an interventional character in the local school community.

The project "UFPs Day: UFPs DAY: Knowledge Day on Unconventional Food Plants" was the only one registered as teaching, among the registered projects, and sought to articulate the knowledge on Agroecology and Agro-industry and its practical applications in the promotion of food and nutritional safety of the participating and family students from the topic of unconventional food plants (UFPs) (table 1). It was carried out during the period of social
distancing caused by the COVID 19 pandemic, the project held conceptual meetings, exchanges of experiences and experiences related to the theme, as well as the survey of accumulated knowledge about UFPs in the families of the students involved and the preparation and sharing of food recipes using UFPs (Marques, 2020).

From the research project "Unconventional Food Plants of knowledge and use of the IF community Baiano campus Serrinha" 48 students were interviewed from the seven face-to-face courses offered on the Campus at the time, including the technical levels (Agroecology, Agriculture, and Agro-industry), undergraduate (Biological Sciences and Management of Cooperatives) and postgraduate degree latu sensu (Social Innovation and Education of the Field). The results showed that 56.3% of the participants of the research have heard about UFPs, being the best known term among students of the technical course in agroecology, where the approach is carried out from the perspective of teaching. The study also pointed out that 93.8% of respondents have already experienced some CBP, but their consumption is not frequent (Santos et al., 2021).

In the research project "Ethnobotanical Survey Unconventional Food Plants for food and nutrition security in the rural communities of Lamarão", the aim was to find out and rescue the known UFPs that were and/or are consumed by two rural communities of Lamarão, in the Territory of Sisal, and to evaluate the nutritional composition of these plants and their capacity to compose nutritionally rich diets (table 1).

In the extension project "Agroecological Caravan: knowledge, practices, culture and education in Sisal Territory", a group of students of the technical course in agroecology, mobilized by the project team, prepared samples of UFPs found in spontaneous vegetation or cultivated in the Campus itself, in its backyards or acquired in the fair free, for exhibition and in the form of juices and in natura for tasting of the participants (Marques et al., 2020). The form of exposure adopted by the team consisted of displaying samples of UFPs, taken fresh and packaged in dessert-type packages, for the participants' appreciation.
Starting from the curiosity and surprise of people, dialog was initiated, the exchange of knowledge and reports of the experiences involving the species of UFPs, their uses, forms of preparation, nutritional and medicinal properties, the importance of this knowledge for food sovereignty and security, prejudice as to the consumption of some species and the experience of proving others, often for the first time (Marques et al., 2020 p.62).

The extension project "Sustainable practices for a healthy diet: a training proposal for lunchmakers from the Municipal Teaching Network in the city of Serrinha - Bahia" sought to promote awareness of the rational and sustainable preparation of food for school meals, through practical training - educational of lunchmakers from the Municipal Teaching Network, through thematic workshops (Macedo, 2020).

In the project, UFPs were addressed through the organization of the training workshop "UFPs (Unconventional Food Plants): a possibility to diversify school meals". The teachers in charge of the workshop say that:

the inclusion of UFPs in the school space, either through actions that bring students closer to the areas of cultivation and learning, such as school gardens and/or by including them in school food, may not only contribute to the provision of a balanced and biodiverse diet, but also present students with possibilities to diversify their home feeds, with the options available in the community/property or family unit (Marques; Gama, 2021 p.37-38).

Also in this sense, Kinupp and Lorenzi (2014) point out that stimulating and fostering the inclusion of UFPs in school food would turn canteens into "pedagogical canteens" by allowing children a learning space where they "would grow up knowing and educating their palate for different fruits, vegetables and vegetables".

Finally, in the last one related here "Dialogs and knowledge about Unconventional Food Plants in the rural communities of Serrinha", it was sought, by means of extension activities, to stimulate improvements in food security through the rescue and valorization of dialogs and knowledge about unconventional food plants (UFPs) in rural communities of Serrinha (table 1) (Gama, 2020).
The projects were made possible through the liaison of several researchers linked to the Laboratory of Public Policies, Ruralities and Territorial Development (LaPPRuDes), the Research and Studies Group on Xerophile Crops and the Center for Studies in Agroecology of the IF Baiano Campus Serrinha and they generated 29 publications and technical productions with the involvement of students, professors from the Serrinha campus and from the external community. It was an e-book, two articles in magazines, two book chapters, two articles in international events, seven expanded abstracts in events, six abstracts, one final integrative seminar work, one course, one formative workshop, two lives, two educational conference calls, one specialization course completion work, and one folder.

By the project and production records of the five years (2016 to 2021) the UFPs were part of the teaching activities developed, especially, in the technical course in agroecology where the approach of the theme is carried out in the discipline fundamentals of agroecology, taught to the entering classes (IF Baiano, 2016a; IF Baiano, 2019).

In addition to the projects and actions developed, in terms of teaching, the use of UFPs is a fundamental element in the search for an association between the traditional knowledge of the peoples of the countryside and the city, to the students' prior knowledge about the local agro-biodiversity and its potentialities and uses, and how this knowledge has been lost over the years in the communities/families of origin of the students.

To do so, they are raised with students, from the perspective of the development of the curricular activities of the discipline Foundations of Agroecology, in the first series of the Technical Course in Agroecology, where the UFPs known and consumed by these and their family members and the factors associated with the consumption or not of these plants in the present day become objective of study, discussion, reflection and contextualized learning builders.

In the same vein, the UFPs become research and extension objectives in the operational dynamics of the time community of the Technical Course in
Agriculture, where through the integrative project component, which articulates learning from the other curricular components, students conduct diagnoses, build projects and intervention proposals and execute them in their productive units and/or communities in such a way that unconventional food plants are always related. The records of productions presenter in Table 2, evidence such actions and dynamics and the formative impact of them in the PTE of the campus Serrinha.

In the 2016 registrations, 30 student entrants participated in the activity and cited 46 UFPs as gifts within their environment and knowledge. It has been found that the species best known by these are the Cow's tongue (*Talinum triangulare* (Jacq.) Wildd, Portulacaceae), the mandacaru (*Cereus jamaicaru* P.DC, Cactaceae), licuri (*Syagrus coronata* (Mart.) Becc., Arecaceae) and palm (*Opuntia ficus indica* (L.) Mill., Cactaceae), being reported by 73.3%, 66.6%, 63.3% and 50% of respondents, respectively (Marques *et al.*, 2017).

Understanding the level of knowledge of young family farmers about UFPs serves as an important parameter for determining how knowledge about eating habits and how the forms of relationship between rural populations and the environment in which they are embedded are passed on between generations. The knowledge about UFPs, expressed by the students, does not mean that these plants are present in their eating habits or even in their families (Marques *et al.*, 2017), but it contributes to the construction of reflection on their relationship with their families with the environment/biome where they live, on the local agro-biodiversity and on the potential of these plants, especially the food.

The results of Marques *et al.*, (2017) indicate that 60% of the students have already consumed or currently consume licuri, and 50% of the tongue-of-cow and 20% of the bredo, the passion fruit, the umbuzeiro root, the quixaba and the maxixe.

In the 2017 records, the students reported knowing 56 UFPs, the best known (cited by more than 10 interviewees): umbu, licuri, cajá, cambucá, carambola, tamarindo, jenikkela, seriguela, jamelão, pinha e mangaba, of fruitful
use; and maxixe and bredo of horticultural use. Of the 56 known UFPs, 24 have never been tried by students (Santos; Gama, 2018).

In 2018, a somewhat broader diagnosis was carried out, involving all the courses of the Serrinha campus at the time (Santos; Marques; Gama, 2019; Santos et al., 2021), with another nature, with the intention of promoting a broader debate about the UFPs across the campus student community. Thus, it was possible within the same project, as well as in the Salad Project (Gama, 2016) in an articulated way research, teaching and extension actions. Thus from the year 2018, were articulated beyond the research actions, with diagnosis carried out with the courses, the teaching actions aimed at the discipline Foundations of Agroecology, in the first series of the Technical Course in Agroecology, already as extension actions. From the performance of this study were triggered some actions such as: the realization of mini-course during the I Biology Week of IF Baiano campus Serrinha (Sembio, 2019), the creation of a dissemination channel on the social network Instagram®.

In the survey conducted by Santos et al., (2021) with 48 students from seven IF Baiano campus Serrinha courses, 56.3% of students had already heard about UFPs, and students from the Agro-industry and Agro-ecology courses presented the highest percentages of knowledge about UFPs, 83.3% and 81.3%, respectively.

The same authors also report on the consumption of UFPs by the students, where 93.8% of the participants in the study stated that they have experienced some species throughout their life and that UFPs were part of their eating habits as children (Santos et al., 2021), but over the years the consumption of these UFPs has decreased (Kinupp; Barros, 2004).

The data presented by Melo et al., (2022) demonstrate that the 37 students participating in the activity for the discipline in 2019, said they knew 53 UFPs, 51 of which have already been tried by them and 40 are commonly consumed by at least one of the students. The best known among the students were: tamarindo and cambucá, known by 84% of the students, seriguela by 70%, jaca by 68%, lingua-de-bové by 62%, mandacaru (fruit) by 43%, licuri and bredo by 41%,
palma and beriberi by 35%, and pinha by 30%. The UFPs consumed by a greater number of students are: umbu (73%), tamarind and seriguela (59%), cambucá (49%), jaca (38%), licuri (32%), pinha (24%) and lingua-de-vacà (16%).

It was possible to perceive, with the realization of the survey, that the fruitful UFPs were listed by more students as known and consumed more frequently, pointing out aspects, still, to be studied as to the food acceptance, knowledge and offer of these UFPs in the communities and free fairs of the region (Melo et al., 2022).

5 SKETCHING A DISCUSSION

Miranda & Costa (2021) suggest that the use of UFPs as a theme in professional and technological education, especially “through the established alliance between extension and bioculturality can help us overcome the sociocultural contradictions observed in the globalized world”. For the authors, this is possible because the starting point is the experience accumulated by the peasants “to perpetuate a more holistic and integrated agricultural practice”.

What Miranda & Costa point out reinforces the data presented in this work, since the projects, whether of teaching, research and/or extension, always had as their starting point the contradictions between the food knowledge developed over centuries by the peoples of the field and the reality of standardized food dominated by agri-food oligopolies, as evidenced by Pinheiro (2005), which directly affects the knowledge of the new generations, especially about food and food.

For Kelen et al., (2015), with the population growth of urban centers there is a pressure to increase the production of industrialized food and in quantity that, in turn, draw more attention and the taste of consumers, so unconventional food plants end up being neglected. This has been a cause for concern in international organizations such as the Food and Agriculture Organization (FAO), especially in view of the need to ensure food and nutrition security in Latin America (FAO, 2017).
And in this context, the enhancement of UFPs and its traditional food uses and innovations, in the production of knowledge, do and flavors symbolize forms of cultural resistance against the standardization of our food (Castro; Devide, 2015).

Furthermore, there is an urgent need for interrelation between scientific and popular knowledge, besides the quest for greater integration between the economy and biodiversity, promoting the conservation of our biomes in a sustainable manner - with sustainable use, including in food, which is possible by means of agroecological knowledge. Because, according to Brack (2016), the construction of agroecological knowledge makes it possible for agro-food systems to develop ensuring the strengthening of the organic links between biological diversity and cultural diversity that form biocultural heritage of human populations, recognized as sociobiodiversity.

Another aspect observed, in the data presented and in the productions generated, is that even if they do not consume frequently, the majority of the interviewees have already consumed some kind of UFPs throughout their life, even among those who in the first part of the questionnaire said they did not know the concept and said they had never experienced it. Pointing out that the local cultural elements of food and food apply to PTE, as Miranda & Costa (2021) suggests.

This corroborates Kinupp and Barros (2004)'s claim that the use of these plants was common in the past, but, with the predominance of economic interests, as well as the development of monocultures tied to the globalization of the market, such traditional knowledge has been disused, even among many people in the rural area, this practical knowledge related to the use of these plants in food has been lost.

This discussion is not concluded here and is not proposed in this article, after all many other elements can and should still be discussed and other elements raised, and this text presents only a small contribution from the developed experience.
6 FINAL CONSIDERATIONS

From the text/experience developed it is possible to make some considerations:

1. Unconventional food plants have been an integral and integrating element/articulator of the teaching-research-extension tripod at the Federal Institute of Bahia Campus Serrinha and have contributed to the realization of a holistic, integrated, dynamic and contributory PTE with local development processes;

2. Integrated the teaching actions, at IF Baiano campus Serrinha, the UFPs have: a) enabled actions/reflections and the development of learning contextualized to the reality of the students; b) acted as an articulator-integrator element of inter-pluri-multidisciplinary activities; c) enabled the teaching of science and scientific approaches within the disciplines and teaching approaches; d) enabled the teaching of botany and ethnobotanical learning integrated and related to the contents and themes of the curricular structure menus.

3. From the perspective of the extension of the IF Baiano campus Serrinha in the PTE, the UFPs: a) provide the recovery, valorization and dissemination of a balanced, biodiverse diet suitable to the local characteristics and culture; b) allow the contemplation of study proposals and actions to make feasible and operationalize the curricularization of the extension; c) integrate generations and knowledge around a captivating theme; d) bring the institute closer to local demands; e) made possible the promotion/realization of relevant social and educational impact interventions in school and rural communities of Serrinha and adjacent municipalities.

4. From the research point of view, the UFPs, at the IF Baiano campus PTE Serrinha: a) point to unlimited possibilities of carrying out research and technological development projects linked to technical, undergraduate and postgraduate courses, which can act as stimulators of verticalization in the institute; b) has made possible the realization of scientific initiation
projects; c) has contributed with the scientific and technological production of teachers and students; d) has sought to solve local problems, from the presented social demands; e) stimulated/aroused the (ethno) botanical investigation from the actions and/or projects of teaching, research and/or extension.
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