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The role of non-conventional food plants (PANC) in gastronomic innovation

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Abstract

Unconventional food plants or commonly called PANC's are plant species found and cultivated involuntarily in nature. Often classified as weeds or spontaneous herbs, they have several nutritional properties and are increasingly gaining ground in the areas of gastronomy, nutrition, food security and sustainability. We observed that there is a lack of use of these plants in our food due to the lack of information about the species that we have in our biodiversity. From this perspective, "spontaneous herbs" or "weeds" have a potential that many are unaware of. This article seeks to demonstrate that they are a considerable alternative for the gastronomic market, which is always in constant innovation, considering that at the same time that they provide low-cost food with important nutritional value, they offer a new experience to the consumer.

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Introduction

In contemporary times, food has increasingly undergone considerable changes, the ease provided by the food industry combined with consumers' constant lack of time leads to the minimization of consumption that prioritizes regional food. Food that brings with it cultural traditions is increasingly being left aside, especially in large urban centers where fast food consumption is predominant. According to França (2012), "today's diet is profoundly different from that of our ancestors, who lived in contact with nature, eating everything it offered them: slaughtered animals (meat), fruits, grasses, leaves, roots."

In contrast to the domination of large food industries, Nascimento (2013) ^[7] says that Brazil is rich in food biodiversity, which may involve more than 10 thousand native species. Within this context, studies and analyzes of some foods that are not conventional within the daily consumption of Brazilians have gradually come to the fore. Kinupp (2014) ^[4] conceptualizes unconventional food plants or commonly called PANC's as species that can be fruits, leaves, rhizomes, seeds, inflorescences and can be eaten raw or after cooking.

These spontaneous plants are plants that can be found in various types of soil and are often seen after a good rain, they can grow in flowerbeds, vacant lots and do not require human care for cultivation. They are easily accessible and our ancestors already used them either in food or as medicine. Currently, a part of our society has lost proximity to and knowledge about these plants. On the other hand, another part of the population is increasingly interested in new, cleaner and healthier types of food.

Within this context, together with new types of consumers, the concept of sustainable gastronomy emerges, which is concerned with reducing as much as possible the damage caused to the environment by the food consumption industry. The problem question of this study is: what is the importance of PANC's within gastronomy? As a way of responding to the problem, the objective is to demonstrate that the use of PANC's within the gastronomic market is both a viable and innovative option.

Methods

The Scielo, Google Scholar, Science Direct, Semantic Scholar databases were consulted.

Results and Discussion

Gastronomy has become increasingly present, giving voice to varied and pertinent subjects during various cultural transitions. In terms of respect for the environment, Sustainable gastronomy is premised on making it possible to manage and process food products without harming the land that provides us with this food. Starting from this concept we arrive at another, that of Ecogastronomy, which combines the pleasure of eating with food ethics, respecting food and especially the environment. These concepts have allowed, in recent years, the strengthening and favoring of research such as those used in this study.

Dias (2016) says that an ecologically complex system, in order to reach the fullness of its characteristics, cannot do without respect for the characteristics of the region considered (its *terroir*), so we conclude that the regional factor is essential within this new field of gastronomy. It is precisely within the *terroir* kitchen that we highlight the importance of using PANC's, which combined with the appreciation of the family farmer, the regional and seasonal consumption of inputs, highlights the inclusion of PANC's as a low-cost food alternative with a good concentration of nutrients.

"Inserting plants into the diet means varying the menu, learning new flavors combined with a diet rich in different nutrients necessary for the homeostasis of our body" (Liberato, 2019, p.106) So, why don't we consider PANC's as a daily alternative to our consumption? "Non-Conventional Food Plants are plants that could be part of our daily consumption. However, due to a lack of knowledge among a large part of the population, many of these plants are characterized as weeds and can be easily found in nature, considered as weeds and ignored." (Liberato, 2019, p. 105) if we take into account that the term PANC can be used for unconventional products in one region and not for another, knowledge about such products becomes even more difficult. The use of unconventional food plants brought to light a concept of innovation, knowledge, flavors and nutritional properties combined with spontaneous, low-cost natural production. And it is increasingly proving to be a good choice among dishes from famous chefs. Conducting studies and increasing use brings with it the possibility of having these plants as complements or substitutes for more processed foods governed by the large food industry.

General concept and use in Gastronomy

According to Kinupp and Lorenzi (2014) ^[4], PANC are "called 'weeds' or "Incesial" because they grow among cultivated plants. However, PANC are species with great ecological and economic importance" (Kinupp; Lorenzi, 2014, p. 1) ^[4]. The authors consider them genetic resources with unexplored potential uses.

Nassu (2015) complements this concept by saying that we do not consume PANC due to lack of custom or knowledge, but these types of plants "can be consumed by humans, raw and/or after culinary preparation. And, they have the potential to food complementation, diversification of menus" (Nassu, 2015, p. 1).

Although they can be cultivated, PANC usually sprout spontaneously without the need for soil correction, pesticides or improvement genetics to adapt to climatic conditions. Thus, each region has its own species in particular. In Brazil, they are commonly found, making up 15 to 20% of the planet's species (Kinupp; Lorenzi, 2014) ^[4].

Many researchers have tried to rescue this consumer culture from ancestral populations with the introduction of PANC into the current diet. "They are from easy to cultivate, many of them have high nutritional properties and most of them people don't know" (Ferreira; Barros, 201-, p. 5). In this context, gastronomy plays an important role in the dissemination, creation, innovation and valorization of PANC with different forms in their preparation and nutritional aspects, diversifying menu based on their application (Kinupp; Lorenzi, 2014) ^[4].

Importance of Information

PANC are important in expressing the culture of certain populations, in many cases, are related to the way of life, habits food and cultural identity of traditional populations, with the preparation and consumption being made in a characteristic way (Kinupp, 2014) ^[4].

Know how to identify these plants that were present in the meals of our ancestors contributes to the appreciation of food cultures, prevents they disappear from our daily lives. At some point, they consumed widespread in some regions and due to changes in diet, expression. economic and social reduction, they were losing market for new vegetables cultivated. "And for this reason the number of plants consumed fell from 10 thousand to 170 in the last hundred years." (Lara, 2019).

As they were easily accessible to our ancestors, they were widely used in food and as medicine. Currently we have lost this closeness and knowledge about these plants. This lack of custom is due to the information that lost over the years about the species we have in our biodiversity.

Knowledge about PANC is fundamental, as in addition to having potential to complement their diet, they can become sources of income through the sale of parts of plants at fairs and products such as jams and flour. However, production The quantity for family consumption is still limited.

Most of the knowledge about these species regarding cultivation and consumption is passed from generation to generation, with most crops found in backyards for the family's own consumption.

Conclusion

After analyzing the researched materials, it is possible to infer that PANC's are plants with low or zero production costs, as well as plants that carry a strong nutritional value. We can therefore consider that they constitute an innovative vision for the gastronomic market, as they provide a new experience of flavors and aromas in addition to proving to be a good alternative for reducing damage to the environment. However, careful research is necessary to ensure that the use of all substances present in these foods does not become toxic due to indiscriminate consumption.

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