



## **Analysis of the standardization of medicinal teas marketed in Castanhal-PA**

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### **ABSTRACT**

The World Health Organization (WHO) stipulates that approximately 80% of the population residing in developing nations employs traditional practices as an integral part of their primary health care. This trend can be attributed to several factors, such as the lack of access to conventional health services and the high costs associated with conventional treatments, which motivate the population to seek more affordable therapeutic alternatives. In this scenario, phytotherapy emerges as a relevant practice, anchored in historical and cultural aspects that legitimize the search for traditional forms of care.

**Keywords:** WHO, Developing nations.

### **1 INTRODUCTION**

The World Health Organization (WHO) stipulates that approximately 80% of the population residing in developing nations employs traditional practices as an integral part of their primary health care. This trend can be attributed to several factors, such as the lack of access to conventional health services and the high costs associated with conventional treatments, which motivate the population to seek more affordable therapeutic alternatives. In this scenario, phytotherapy emerges as a relevant practice, anchored in historical and cultural aspects that legitimize the search for traditional forms of care.

The imperative of providing the population with comprehensive information about the appropriate use of medicinal plants, including their indications, application modalities, and potential associated risks, is supported by both historical foundations and contemporary pharmacopoeias. In this context, scientific evidence substantiated in research activities, as demonstrated by Nascimento et al. (2005), ratifies the therapeutic properties of certain medicinal plants, as well as the appropriate methods of preparation.



The Ministry of Health enacted Normative Instruction No. 02, which catalogs herbal medicines subject to simplified registration, as well as traditional herbal products also subject to simplified registration. This list includes *Pimpinella anisum* L., popularly known as fennel, whose fruit is used with therapeutic indications that include expectorant, antispasmodic, carminative properties and in the treatment of functional dyspepsia.

The method of administration is oral, and marketing is allowed without the need for a medical prescription. In addition, *Peumus boldus*, known as Boldo or Boldo-do-Chile, is part of this list, with its leaves recommended for the treatment of functional dyspepsia and gastrointestinal disorders, through oral administration and availability for sale without a medical prescription, as established by the Ministry of Health in 2014.

## 2 OBJECTIVE

The purpose of this study was to evaluate the conformity of the standardized information on the labels of products based on *Pimpinella anisum* L. (fennel) and *Peumus boldus* (boldo) teas, comparing the results with the guidelines established by the Collegiate Board Resolution (RDC) 277/05 and RDC 259/02 of the National Health Surveillance Agency (Anvisa). These resolutions approve technical regulations in order to improve the standardization of the registration of herbal medicines, as discussed by Fernandes et al. (2023).

## 3 METHODOLOGY

The method used in this study is analytical and qualitative, based on the information available on the labels of fennel (*Pimpinella anisum* L.) and boldo (*Peumus boldus*) teas in the locality of Castanhal, located in the northeast of the state of Pará. Teas sold in supermarket chains were randomly purchased and selected for further detailed analysis of labels and package inserts. The objective was to verify the adequacy of the information presented to the consumer in accordance with the regulations of the Collegiate Board Resolution (RDC) 277/05 and RDC 259/02 of the National Health Surveillance Agency (Anvisa).

## 4 DEVELOPMENT

In this study, we analyzed items that should be present on the labels of fennel (*Pimpinella anisum* L.) and boldo (*Peumus boldus*) teas.

- (1) As for the name Tea: the name "Tea" must be indicated followed by the common name of the plant species used or the name consecrated by use. (2)
- (2) Next to the name "Tea" should come the expression "Soluble", and there may be expressions related to the process of obtaining it. When two or more plant species are used, the product



should be designated "Soluble Mixed Tea" or "Tea" followed by the common names of the plant species used or the name established by use.

- (3) The list of ingredients must appear on the label preceded by the words "ingredients:" or "ing".
- (4) The following must be indicated: the name (corporate name) of the manufacturer or producer or fractionator or owner (owner) of the trademark; full address; country of origin and municipality; Registration number or identification code of the manufacturing establishment with the competent body.
- (5) One of the following expressions shall be used in the identification of origin: "manufactured in...", "product..." or "industry..." Every label must be printed, engraved or otherwise marked with an indication in a clear code or language that makes it possible to identify the batch to which the food belongs, in such a way that it is visible, legible and indelible.
- (6) To indicate the batch, a key code preceded by the "letter" L may be used. It must show the date of manufacture, packaging or expiration date whenever it indicates at least the day and month or the month and year (in that order).
- (7) Regarding the expiry date, it must be stated by means of one of the following expressions: "use before..."; "valid until..."; "validity. val:."; "wins..."; "maturity..." "vto"; "venc."; "preferably consume before..".
- (8) The label must contain instructions on the appropriate mode of use, including reconstitution, thawing or treatment that must be given by the consumer for the correct use of the product.

In the total number of items evaluated on the *Peumus boldus* (boldo) had 7 items in accordance with the current legislation, while the *Pimpinella anisum* L. (Fennel) had all items evaluated as non-compliant.

## 5 FINAL THOUGHTS

Considering the legislation in force, it is pertinent to highlight the non-conformities evidenced, notably those related to the absence of essential and mandatory information on labels and packaging. In the set of elements evaluated, it was found that the label of *Peumus boldus* (boldo) showed compliance with the legislation in seven aspects, while *Pimpinella anisum* L. (Fennel) showed non-compliance in all items evaluated. This scenario denotes the inadequacy of the information made available to the consumer on the packaging, leading to health risks and transgressions of consumer rights.

The proper elaboration of labels and packaging is extremely important as a means of guidance and information to the user about their choices. Therefore, the performance of studies aimed at the analysis of tea labels is essential, aiming at the evaluation of compliance with the standards established by ANVISA and ensuring the integrity of the user. In this context, it is essential to implement a rigorous quality control and to intensify inspection by the competent bodies.



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