University Students' Forest Fruits Preferences

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Abstract. Fruits generally have beneficial influences on health, however in recent years it has been discovered that some forest fruits have more active properties than the cultivated ones. The aim of this research is to present the Romanian university students' preferences to eat forest fruits, preferences that can be exploited by marketers. Research was conducted on October 2009 in Cluj Napoca city, using the non-probability sampling. Students answered a few questions about the kind of forest fruits they consume, the form of consumption, the preferred packaging type, and the place of acquisition.

Keywords: wild fruits, consumption, purchase, packaging, students, Romania

INTRODUCTION

Fruit consumption besides vegetables has many health benefices reducing the risk of chronic diseases according to World Health Organization (WHO & FAO, 2002).

With respect to fruits, recent studies show that forest berries have higher active proprieties good for health and disease prevention than the cultivated ones (Giovanelli and Buratti, 2009; Koka and Karadeniz, 2009).

Moreover, the developed countries started to pay increased importance to non-wood forest products, here included the wild fruits too, as an alternative source of income to excessive forests' cutting. All these facts show that in the future will increase the importance given to forest fruits worldwide.

On this idea, the aim of this paper is to present in whole the Romanian students' preferences to purchase and consume forest fruits. The results presented here are part of larger study detailed in a PhD thesis defended in November 2010.

MATERIALS AND METHODS

For the study a non-probabilistic sampling was used. The sample consisted of 79 students from the University of Agricultural Sciences and Veterinary Medicine Cluj Napoca, aged between 18 and 22 years, who participated in marketing and economics classes in October 2009.

The applied questionnaire contains 27 sets of questions, however in this paper are analyzed only five of them, concretely just those referring to students' consumption preferences.

The questionnaire was pre-tested in May 2009 on 32 respondents.

Data was processed with SPSS 16 and descriptive statistics analyses were performed.

RESULTS AND DISCUSSION

First the respondents were asked what kind of forest fruit they eat with the possibility to mark more than one answer and to add others types. The answers are presented in Figure 1.

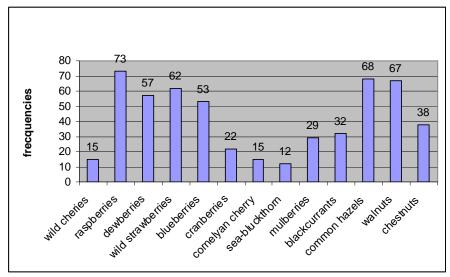


Fig. 1. Forest fruits consumed by students

The most consumed wild fruits are raspberries, hazelnuts, walnuts, blackberries, wild strawberries and blueberries. 92% of students eat raspberries and 86% hazelnuts. The least consumed wild fruits are sea-buckthorns (15%), wild cherries (19%) and cornelian cherries (19%).

These fruits are used for consumption under different forms: fresh, in cakes, jams, compotes and others. In the Table 1 it can be seen the predominant forms of consumption of these forest fruits by students.

At a first glance it can be observed that not all students eat fresh berries. Of 79 students, only 72, meaning 91%, eat fresh forest fruits. These could mean that some people eat forest fruits only transformed in different dishes.

Utilization frequencies for forest fruits

Tab. 1

Use	Responses
	Number
Fresh consumption	72
Cakes	54
Jams	54
Compote	48
Other use	5
Total	233

Another multiple response question targeted the place of purchase for the forest fruit. The considered variables were the farmers' market, vendors along main national roads,

groceries, and fruit and vegetables stores. Also was considered the option of self purchasing. After analyzing the questionnaires, the following options resulted (Tab. 2):

Place of purchase for forest fruits

 Responses

 N
 Percent

 Farmers' market
 42
 26.58228

 Along roads sellers
 7
 4.43038

 Groceries
 18
 11.39241

41

48

2

158

25.94937

30.37975

1.265823

100

Tab. 2

Tab. 3

It can be observed that among other alternatives, the majority of students purchase forest fruit by self picking. Other common alternatives are the farmers' markets and the F&V stores. The least used way of purchase is from the vendors who are on the main roads.

F&V stores

Self picking

Other place

Total

Students were also asked what type of packaging would prefer for the forest fruits. For this question the respondents received photos with the three proposed variants: berries in bulk without packaging, berries packaged in transparent plastic casserole and berries in a carton package without cover, asking them to classify these packaging options in order of preference. For the classification 1 meant the most favorite and 3 the least favorite pack, also was stated that there was no price difference for the berries regardless the type of packaging. The results show that half of the students preferred the carton package, one third the plastic package and 15% the fruits sold without package.

Packaging preferences

Responses N Percent no packaging 11 14.7% 34.7% pack_1_plastic 26 Pack pack_2_carton 50.7% 38 75 100.0% Total

CONCLUSIONS

Some conclusions can be drawn from this study:

purchase

- 1. Students eat a large variety of berries, the most commonly consumed being the raspberries, walnuts, hazelnuts, blackberries, wild strawberries, blueberries, which are the most easy to find in the forests of Transylvania or in the surrounding areas.
- 2. The least consumed forest fruits are the sea-buckthorns, wild cherries and cornelian cherries, possibly because they are less prevalent in this area and due to their high prices, especially for sea-buckthorns.
 - 3. The forest fruits are consumed in various forms fresh or processed.

- 4. The forest fruits are purchased in a high proportion directly from forests and are bought mainly from farmers' markets and fruit and vegetables stores.
- 5. Even if the forest fruits are sold mainly unpacked, it can be observed the preference of the students for packaging.

REFERENCES

- 1. Giovanelli, G. and S. Buratti (2009). Comparison of polyphenolic composition and antioxidant activity of wild Italian blueberries and some cultivated varieties. Food Chemistry. 112: 903-908.
- 2. Koka, I. and B. Karadeniz (2009). Antioxidant proprieties of blackberry and blueberry fruits grown in the Black Sea region of Turkey. Scientia Horticulturae. 121: 447-450.
- 3. World Health Organization & Food and Agriculture Organization. (2002). Diet, Nutrition and the Prevention of Chronic Diseases. Technical Report Series no. 916. Geneva: WHO.