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## **INTRODUCING SWEET POTATO IN TOURIST OFFER: CASE STUDY OF PUSTARA VIŠNJICA**

### **UVODENJE BATATE U TURISTIČKU PONUDU: PRIMJER PUSTARE VIŠNJICA**

#### **ABSTRACT**

*Modern tourists are becoming more and more demanding; they are traveling more often and are turning towards specific types of tourism. Their motives are more complex and they include, among other things, different activities in nature, visiting ecologically clean areas, having meaningful tourist experiences and so on. Furthermore, the healthy lifestyle is becoming more present as well as our need to eat healthily and live in harmony with nature. Therefore, rural tourism, and especially agricultural tourism, may be defined as a tourist activity, organized by farmers who own their own family farms, which includes ecological agriculture, and it is becoming more and more important part of the tourist offer of Croatia. Sweet potato is mentioned as one of the unique agricultural products which, thanks to its nutritious and medicinal properties as well as undemanding farming requirements and full utilization, makes it ideal for growth on family farms. The growth of the sweet potato can contribute to the improvement of farming, increase the farmers' income and through putting it in the tourist offer, it can create a recognizable image of a particular family farm. according to everything mentioned so far, the main aim of this paper is to demonstrate the cultivation of the sweet potato, its nutritious and medicinal properties, the representation of the sweet potato on the Croatian market and the ways to use it in the farms' tourist offer by analyzing the case study of Pustara Višnjica, which was awarded the Certificate of the European destination of Excellence, EDEN, in September 2011. For the requirements of this paper, we interviewed the co-owner and director of Pustara Višnjica, aiming to determine the ways Pustara Višnjica included the sweet potato in its tourist offer, from cultivating seedlings to offering sweet potato delicacies in its restaurants. Moreover, offering agricultural products into family farms' offers opens the possibility to improve their business success and is key for their survival in a competitive environment.*

**Key words:** *sweet potato, family farms, agricultural production, tourist offer*

## SAŽETAK

*Suvremeni turistički potrošači postaju sve zahtjevniji, češće putuju i sve se više okreću specifičnim oblicima turizma. Motivi njihovih putovanja su sve kompleksniji, a uključuju, između ostalog različite aktivnosti u prirodi, posjet ekološki čistim područjima, sadržajna turistička iskustva i sl. Također, sve je prisutniji i trend zdravog života te u skladu s njim potreba za zdravim načinom prehrane i življenja u skladu s prirodom. Stoga ruralni oblici turizma, a naročito agroturizam, koji se može definirati kao turistička aktivnost organizirana od strane poljoprivrednih proizvođača na vlastitom gospodarstvu i s njim povezana ekološka poljoprivreda, postaju sve značajniji u turističkoj ponudi Hrvatske. Kao jedan od jedinstvenih poljoprivrednih proizvoda ističe se batata koja je zahvaljujući svojim hranidbeno-ljekovitim vrijednostima te jednostavnom načinu uzgoja i potpunoj iskoristivosti idealna za uzgoj na poljoprivrednim gospodarstvima. Uzgoj batate na poljoprivrednim gospodarstvima može doprinjeti oplemenjivanju poljoprivredne djelatnosti, povećati dohodak poljoprivrednicima, a njegovim uvrštavanjem u turističku ponudu može se kreirati prepoznatljiv imidž gospodarstva. Slijedom navedenog, temeljna svrha ovoga rada je prikazati uzgoj batate, njegova hranidbeno-ljekovita svojstva, zastupljenost batate na Hrvatskom tržištu te na koji način se može iskoristiti batata u turističkoj ponudi poljoprivrednog gospodarstva na primjeru Pustare Višnjica, dobitnice priznanja Europske destinacije izvrsnosti EDEN u rujnu 2011. Za potrebe ovoga rada napravljen je intervju sa suvlasnikom i direktoricom Pustare Višnjica, s ciljem da se da se utvrdi na koji je način Pustara Višnjica u svoj turistički program uključila batatu, i to od uzgoja presadnica do ponude delicija od batate u svojim restoranima. Naime, uključivanjem poljoprivrednih proizvoda u turističku ponudu na obiteljskim poljoprivrednim gospodarstvima, otvara mogućnost za poboljšanje njihove ekonomske uspješnosti te je od ključnog značenja za njihov opstanak u konkurentnom okruženju.*

**Ključne riječi:** batat, obiteljska poljoprivredna gospodarstva, poljoprivredna proizvodnja, turistička ponuda

## 1. Introduction

Today's modern conditions present on the tourist market, competitive advantages of a certain tourist destination must be based on its authenticity, high quality and well-educated human resources, creative and innovative management solutions as well as environmental purity. The tourist demand is becoming more demanding, tourists travel more often, but for shorter time and concentrate more towards specific types of tourism searching for new experiences (Čavlek, 2011, 75), they are well informed, seek a more individual approach to tourist organization, are unpredictable, spontaneous, sensitive to quality of services offered, look for more meaningful tourist experiences but also require more than a relaxing holiday (Vrtiprah, 2006). Therefore, the research "TOMAS Ljeto 2010 – Stavovi i potrošnja turista u Hrvatskoj" showed that the main motives of tourists arriving to Croatia in 2010 were passive holiday and relaxing (75%), fun (44%), new experiences (25%) and cuisine (22%) as well as getting to know natural beauties (21%) (Marušić et al., 2010). Consequently, the tourist offer should adjust to the new conditions and alongside its business component should offer the tourist a cultural, healthy and useful experiences and improve them by contributing to their physical and psychological development and social well-being (Jadrešić, 2001). In this context, agricultural tourism, as one type of rural tourism, is becoming an increasingly important sector in tourism. It is contemporary and traditional at the same time, imbedded in local

tradition and based on its geographical features, tradition, culture and customs (Franjić and Cunj, 2007). Rural forms of tourism regard all those values which are appreciated in rural areas and which allow an individual to return to nature, to release one's stress caused by urban areas which greatly limit one's freedom (Ružić, 2009, 17). When we speak of agricultural tourism, we speak about having a holiday at a farm (a registered family farm, farming company which is either a limited company or an incorporation) which uses the services of accommodation, catering, offers beverages, recreational fun and other services in farms houses and accommodation premises (camp, bed & breakfast, hotel) within the family farm (Demonja and Ružić, 2010). Developing agricultural tourism is stimulated by a truly adventurous need of a modern consumer (tourist) to spend time in the countryside and taste regional cuisine. Furthermore, agricultural tourism sets business and non-business activities in motion within a rural area such as the cultivation of natural and healthy food; it contributes to the revival of farming on small parcels and enables tourists staying in rural areas to have an active relationship with nature and farming included in the rural forms of tourism. Every family farm or farming household which desires to do agricultural tourism must aim to ensure its own agricultural production and attractive tourist offer. Sweet potato, because of its simple and undemanding production, high utilization and high nutritious properties, is an ideal vegetable for family farms aiming to get involved in tourism as additional activity to its own farming business. Therefore, many farms could enhance their agricultural activities and their tourist offers through the cultivation of the sweet potato and by offering attractive and recognizable products, but also include tourists in the process of cultivation and harvesting of the sweet potato, learning how to use the sweet potato in making delicious meals and tasting them at the farm.

## **2. Characteristics of the sweet potato: cultivation, production, nutritious and health properties**

Sweet potato (lat. *Ipomoea batatas*) is a perennial tropical plant that belongs to the family Convolvulaceae, originally from the north and central part of South America and it has a high nutritious value and medicinal properties (Dobričević et al., 2008). There are many types of sweet potato on the market, but the most used are with orange skin and meat, red-purple skin and white meat, and white skin and meat. The sweet potato is most often cultivated vegetatively, "seedlings" (rooted offshoots from the root). This vegetable cannot tolerate frost and low temperatures and it is therefore recommended that it is planted in the open continental part of Croatia after the 15<sup>th</sup> of May, and in the Mediterranean area around the 15<sup>th</sup> of April, provided the soil temperature is not lower than 10 degrees Celsius. The seedlings are cultivated for two months in closed, heated and humid rooms. In order to have a satisfactory yield it is important to prepare the soil for planting. In the first 3-4 days the seedlings need to be watered in order to ensure they take root, and later as needed, depending on weather conditions. It is recommended that the sweet potato is planted on clay-sandy soils, and the acidity should be around pH 6. When planting sweet potatoes it is important to respect the rotation so that the plant is not planted in the same area for three years. The cost of cultivation of sweet potato, soil tillage, fertilization, mulching, seedlings, irrigation, harvesting, sorting and storage of 1 ha of land is about HRK 120,000.00.

Harvesting the sweet potato is a demanding job because it requires precision of pickers in order to damage sweet potato roots as little as possible. Picking is done mostly by hand with spades or mechanization on larger areas, from August to October depending on the type, planting time and climate. The sign of technological maturity of the sweet potato is a thick white juice that appears after the sweet potato is cut (80 days after planting). It is possible to

expect an average yield of about 25t/ha. The damaged parts of the roots are removed, which is followed by classification and storage, and preparation for sale. Desirable roots for sale are considered to be those that reach a size of over 150 g, without major damage to the skin. They are put in a dry and warm storage, with a relative humidity around 75%, for a short term, until they are dispatched to the market (<http://www.magicus.info/hr/magicus/tekst.php?id=10750>).

The sweet potato plant has a very interesting flavor, and is also rich in minerals, vitamins and antioxidants. For the preparation of dishes the thickening roots and young leaves are used (which are commonly used as a stew and salad), but previously it is necessary to thermally process them. The medicinal properties are primarily attributed to the sweet potato for the high presence of vitamins A, B, C and E, minerals K, Ca, Mg and Fe, antioxidants that increase good functioning of the brain as well as dietary fibers, which affect the proper functioning of digestion. Additionally, the sweet potato is also low in fat and cholesterol. Due to the high energy value and low calories, the sweet potato is useful for children and athletes. The recommended daily dosage is 200g of sweet potato 2-3 times a week. There are many proven recipes in which the sweet potato is the main ingredient. It is mostly prepared in the same way as potatoes: boiled, broiled, fried, mashed, etc., and the healthiest preparation is by steaming (30-40 min) to keep the taste, flavor and nutrients. In addition to heat treatment, the sweet potato can be processed into flour, chips, mashed potatoes, etc.

The world's largest producers of sweet potato are Asia (China), America, Africa, India and Japan with the production area of about 10 million ha and an average yield of 15 t / ha. In Europe the only major producers are Portugal, Spain and Italy, with an average yield of 20 t / ha on approximately 5000 ha. In Croatia, this vegetable crop, the sweet potato, is still a novelty in terms of technological production and processing but also from the nutritional standpoint. That is why the sweet potato production was recorded on only 50 hectares in 2011 (<http://www.agroklub.com/povrtlartstvo/batat-uzgoj-i-korist/2893>).

The planting of the sweet potato is acceptable on abandoned farming land which there are a lot on the Croatian territory. The sweet potato is an ideal crop for the production on small family farms because of its simple cultivation and full utilization (the root and the leaf are both used) for both human and animal nutrition. According to the five-year research of the Faculty of Agriculture, certain locations of the mainland are suitable for the cultivation: Međimurje, Drava region, eastern and western Slavonia, Prigorje, Moslavina and some micro-locations with a suitable climate. In the Mediterranean area suitable areas include Istria, coastal area and islands in the Adriatic, Dalmatia and the islands of the Dalmatian hinterland (<http://www.magicus.info/hr/magicus/tekst.php?id=10750>).

### **3. Methodology**

For the purposes of this paper, we conducted research using the interview method. A co-owner and director of Pustara Višnjica, Ksenija Plantak, was interviewed on the 20<sup>th</sup> of March 2012. The interview was conducted with the purpose of determining the manner in which the Pustara Višnjica includes the sweet potato in its tourist offer, from the cultivation of seedlings to offering sweet potato dishes in its restaurants and whether the sweet potato, an integral part of their tourist offer, contributed to the recognition of Pustara Višnjica as a tourist destination.

### **4. Sweet potato in the tourist offer of Pustara Višnjica**

Pustara Višnjica is located in the municipality of Sopje in the Virovitica-Podravina County, on the 200 year old farm. Due to the efficient management of the estate, the two companies

were established in 2005: Agricultural Cooperative Ergela Višnjica, which raises horses and wildlife (deer) and the cultivation of functional foods (sweet potatoes) and herbs and Pustara Višnjica Ltd., which is involved in restaurants and tourism. Since 2005 more than five million Euro has been invested in the development of the Agricultural Cooperative Ergela Višnjica and Pustara Višnjica Ltd. through five programs that make up the core business of Pustara Višnjica: horse breeding (stud farm has about seventy horses), wildlife (deer farm on 40 acres), sweet potato cultivation, the cultivation of medicinal plants and rural tourism, which is being developed within Pustara Višnjica Ltd. Furthermore, the collected interview data showed that Pustara Višnjica provides accommodation in its tourist offer (accommodation capacity of one hundred beds), conference halls with the capacity of 20 to 60 people equipped with audio-visual equipment for holding business meetings, congresses, conferences, seminars and presentations and a restaurant with authentic cuisine. Also, its tourist offer includes a stable with seventy horses, deer farming and the production of oyster mushrooms, asparagus, herbs and sweet potato seedlings. As a result, at Pustara Višnjica tourists can enjoy various sports and recreational services such as riding schools, riding four wheelers, school excursions, paintball, cycling and gastronomic delicacies made from agricultural products produced and grown at the sight, one of which is the sweet potatoes, which is especially popular.

It is at the Ergela Višnjica where the commercial production of sweet potatoes started for the first time in Croatia in 2006. In 2011 about 400 000 seedlings of sweet potatoes were planted on the area of 15ha. About 15% of the produced crop is sold to small producers or retailers, and the rest to retail chains such as Mercator and Kaufland (on the basis of signed contracts). Also, Pustara Višnjica, as one of the largest producers of sweet potatoes in Croatia, exports about 15% of the produced sweet potato to several neighboring countries: Serbia, Macedonia and Greece, and plans to expand to the Austrian and Russian markets soon, which show an interest in this vegetable. Only the 1<sup>st</sup> class sweet potatoes are exported while products of 2<sup>nd</sup> and 3<sup>rd</sup> class are currently used for the feeding of deer. The short-term development plan includes the construction of a processing plant for the 2<sup>nd</sup> and 3<sup>rd</sup> class sweet potato, for they hope to gain financial means from the pre-accession EU funds. These are the final products, flour and concentrate, which could be used in pasta, cream soups, desserts. Furthermore, it is planned to switch from conventional to organic production due to the fact that organic farming is becoming an increasingly important factor in the survival of farms.

Pustara Višnjica sells its sweet potato under the name "Višnjica sweet potato" and so it became the farms' "brand", by which the farm is well known within the wider area. Tourists and other visitors of Pustara Višnjica have the option to purchase seedlings of sweet potatoes on the farm, but also to taste a variety of sweet dishes. Specifically, it is the gastronomic restaurant located on the farm that promotes and offers the sweet potato to tourists. Tourists and other visitors have the option of tasting the sweet potato produced from their own cultivation in a variety of different ways: from appetizers, side dishes, main dishes to desserts. The Pustara Višnjica's restaurant offers, among other delicacies: Cream of sweet potato, the sweet potato Mediterranean style, spaghetti with sweet potato sauce, pasta carbonara with sweet potato, salted cookies with sweet potato, sweet corn bread with sweet potato, sweet potato pies, sweet potato tiramisu and sweet custard with sweet potato.

In this way, Pustara Višnjica has successfully blended its agricultural activities with tourism through which it presents and sells its produce. The success and quality of such a connection of agricultural production with rural tourism has been rewarded in September 2011 by the high recognition of the European destinations of excellence, EDEN, which was awarded

during a ceremony in Brussels, thus allowing Pustara Višnjica to enter into a European network of the finest and most attractive tourist destinations.

## 5. Conclusion

Based on the above mentioned data, we can conclude that the introduction of the sweet potato to family farms, and thus the Croatian market, can improve the quality of life and sustainable economic development of rural areas. Due to distinct nutritional and medicinal properties of the sweet potato this vegetable crop should come to dominate many family farms and become one of the more represented ingredients on our menus. Furthermore, the sweet potato is a crop that requires no special breeding conditions, and possesses a high level of utilization and is therefore very suitable for the production on small family farms. The example of Pustara Višnjica indicates how cost-effective this culture is and therefore its contribution to the development of tourism on family farms and thereby the development of agricultural tourism as a form of rural tourism. Offering innovative tourist products such as the sweet potato can provide the recognition of a farm on the tourism market, and contribute to better sales of its agricultural products through the tourism industry, or direct sale of products to tourists on their own premises. It is therefore necessary to turn agricultural products into the tourist offer in a manner that will ensure its direct sales to tourists, such as through cuisine. Also, it is necessary to invest in marketing in terms of strengthening the development of brand products, which will provide the product to be more recognizable on the market, but also of the farm on which the product is offered, as well as organizing its own sales network for products, product marketing, promotion and the sale of tourist services.

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