FrutArt – Raising Young People's Awareness for the Importance of Fruit Production and the Benefits of Fruit Consumption

M.P. Simões and E. Rodrigues
Escola Superior Agrária
Instituto Politécnico de Castelo Branco, Portugal

J. Neves
Escola Superior de Artes Aplicadas, Instituto Politécnico de Castelo Branco, Portugal.

Keywords: Fruit valorisation, fruit consumption, fruit growing valorisation

Abstract

Fruit production requires high technological knowledge and it has an important role in creating wealth in different European agricultural regions. Although Portugal has a great potential for this activity, few young people apply for agricultural degrees, as they have a wide diversity of other higher education degrees to choose from. It is therefore needed to marketing the importance of this activity. On the other hand, fruit consumption is a dietary habit which contributes to a much better health and fights obesity, one of the worst health problems of the 21th century, affecting more than 50% of the adult population in Europe. With the aim of promoting the fruit production activity among young people, encouraging fruit consumption, and contributing to fruit valorisation, FrutArt competition was launched. The FrutArt competition, organized by the School of Agriculture of Castelo Branco, began with the production of four different life-size cold-porcelain fruits – pears, apples, peaches, and cherries. The fruits were designed by the School of Applied Arts of Castelo Branco. The white cold-porcelain fruits were distributed to students of 29 schools of the Beira Interior region, Portugal, who decorated them. The competition took place simultaneously with a national scientific meeting on fruit production, so as enhance the interaction among agriculture, education, and research. From a total of 2100 fruits produced, 1923 were distributed to the students of 9th form, as this is when students opt for the study area to continue their studies, and to students of 10th, 11th and 12th forms of Arts. From the 1351 decorated fruits which were collected, 232 were elected by the different schools and exhibited in different places of the country. The four best fruits were chosen by the participants of the National Fruit Symposium and received a money prize.

INTRODUCTION

Globalisation, a complex process that leads to global interdependence, has effects on the existence of similar habits in different countries and regions, including fashion, show business, and social behaviors among which are eating habits. In Portugal, as in other developed countries, the food intake of urban populations (which comprise most population) recorded an increase in the consumption of highly energetic foods over fresh plant products, such as soup and fruit (Chen, Q and Marques-Vidal, P. 2007, Marques-Vidal et al., 2006). The increase in calorie and sugar contents has lead to a weight increase of the populations (Moreira, 2007) and to associated diseases such as diabetes and metabolic syndrome. In this state of affairs, many countries have developed harmonised programmes against obesity (e.g. EPODE, Platform against obesity), that,

among other measures, place emphasis on fruit consumption. The low caloric value of most fruit species (compared with more or less processed desserts) as well as the high content in vitamins and antioxidants, turns fruits into a first choice food in programmes to combat obesity. Together with this change in eating habits, a population withdrawal from the primary sector has been observed. In Portugal, farming activities have very low social value, resulting in a continuous decrease in the number of students who attend or apply for degrees in agricultural sciences.

In order to actively contribute to the increase of fruit consumption and to the importance of agriculture in higher education and fruit growing, the School of Agriculture of Castelo Branco (**ESACB**) in collaboration with the School of Applied Arts of Castelo Branco (**ESART**), both of the Polytechnic Institute of Castelo Branco, and sponsored by the City Council of Castelo Branco (**CMCB**), the Polytechnic Institute of Castelo Branco (**IPCB**), and the Regional Agriculture and Fisheries Services (DRAPC) organised the FrutArt Competition. This competition included the decoration of cherries, apples, pears, and peaches made of cold-porcelain by secondary school students. The main objectives were to promote and value the role of fruit consumption on health and nutrition; to publicize the importance of fruit growing as a farming activity and to promote interaction among the sector of college education, agriculture, and research, since this competition was carried out during the 2nd Portuguese Symposium of Horticulture (**2nd SNF**). Simultaneously, it sought to encourage and develop of young people´s creative skills.

MATERIAL AND METHODS

The initial organisation of the FrutArt competition started in May 2009, conceiving the idea and contacting the ESART for possible collaboration in cast design. Simultaneously, the CMCB was contacted in order to assess the possibility of obtaining sponsorship. In June 2009, ESART conceived the casts using real fruits from local shops, to be specific fruits: cherries cv. Summit, apples cv. Golden Delicious, pears cv. Rocha, and peaches cv. Rich Lady.

In July 2009, a survey was carried out to find out the number of students of 9th form, as this is when students opt for the study area to continue their studies, and to students of 10th, 11th and 12th forms of Arts in the Beira Interior region. It was considered as main objective the participation of students of the 9th form from general education to promote ESACB and farming, and of the students of the 10th, 11th, and 12th forms from Arts to promote ESART.

In early September, having already the casts, we continued to look for a factory that could produce the fruits on a large scale. FrutArt Competition started only after confirmation of the factory production capacity, contacts with the schools, and their motivation to enter the competition. Simultaneously, a poster was design to promote the Competition. Schools were initially contacted by mail to inform them of all the competition rules. Later, all schools were contacted by phone. At the same time, it was necessary to finished the cherries. Stalks were made in three stages – to cut a piece of wire covered with paper (with strong similarities to the real stalk), to make a small screw with glossy wire which simulates the area of union of the stalk to the tree, and finally to glue it together wth the cold-porcelain material with hot glue (Figure 1). In the first fortnight of November, the blank cold-porcelain fruits were delivered to every school (Figure 2). The number of fruits distributed was equal to the number of students who were able to participate, so that each species was equally represented and each student had to choose the species he/she would like to decorate. In total, 1930 fruits were

distributed in 29 schools. In December, the leaves corresponding to each species were produced (Figure 4). The leaf casts were created by ESART and, on the leaf underside, the logos of CMCB, IPCB, and 2nd SNF were printed and also a blank space to be used by the student author and the school identification.

Each secondary school elected the two best fruits of each species decorated by their own students and only those fruits entered in the competition that were voted by the 2nd SNF delegates. In several participating schools, the choice of their finest fruits was a process involving teachers, students, and parents. The collection of fruits from each secondary school was done on January 15 and 28, 2010.

RESULTS AND DISCUSSION

Of the 34 schools invited there was a participation of 88%, and only one school that had accepted to enter the competition returned the fruits without decoration. Therefore there was an active participation of 97% of schools. A total of 1351 fruits were received which corresponds to 70% of the fruits distributed to the schools. The students artistic work were documented and a film was done by a local net television with free access on net (http://www.youtube.com/watch?v=51XKc9-wUN8).

The FrutArt exhibition consisted of the fruits chosen by each school which included 230 fruits, 58 of each species. The remaining fruits were displayed for sale during the 2nd SNF, on 4 and 5 of February 2010, and 17% of the available fruits were sold. The option of selling the fruits decorated by the students had as main objective the valorisation of school work, and the percentage of fruits sold was a good indicator of the artistic quality. The decorated fruits sale intended to continue dissemination and valorisation of the 2nd SNF for an extended period of time. Also, the students involved in the competition were encourage to visit ESACB and the 2nd SNF during the exhibition.

The students' creativity and the diverse materials used in collages, paintings, fabrics, and embroidery stands out in the fruits received (Figure 3).

Only 36% of the 2nd SNF delegates voted, and the fruits listed in Figure 4 won the competition.

In March 2010, after the 2nd SNF, the FrutArt exhibition opened in Shopping Center in Castelo Branco, and it could be seen by the general public of the town and/or region, and 3,000 visitors were expected. In April, the FrutArt exhibition opened in the Centre for Living Science of the Forest (*Centro Ciência Viva da Floresta*) in Proença-a-Nova and it was seen by 200 people.

The prizes were awarded to the winning fruits at the 2nd Fruit Gala, on June 2, 2010, a prestigious social event for the horticultural sector in Portugal. Since two of the chosen fruits (pear and peach) were from the same school, the teachers in charge were also present in this event with all the students who had participated in the competition.

FrutArt exhibition was shown at the International Horticultural Congress in Lisbon, which was attended by 3,500 delegates from different countries.

CONCLUDING REMARKS

The FrutArt competition included cold-porcelain fruit decorated by teenagers with the aim of promoting fruit consumption, disseminating and promoting fruit growing, and fostering interaction among secondary and high education, the agriculture sector and researchers.

Literature cited

Silva N. 2010. 2ª Gala Viva Fruta e Legumes. Fruta, legumes e flores, 112: 14-15.

Moreira P. 2007. Overweight and obesity in Portuguese children and adolescents. J. Public Health, 15:155-161

Marques-Vidal P, Ravasco P, Dias CM, Camilo ME. 2006. Trends of food intake in Portugal, 1987-1999: results from the National Health Surveys. Eur J Clin Nutr. 60 (12):1414-22. Epub 2006 Jun 21.

Chen Q, Marques-Vidal P. 2007. Trends in food availability in Portugal in 1966-2003: comparison with other Mediterranean countries. Eur J Nutr: 46 (7): 418-27. Epub 2007 Sep 19.

Figures

Fig. 1. Placing the cherry stalks.

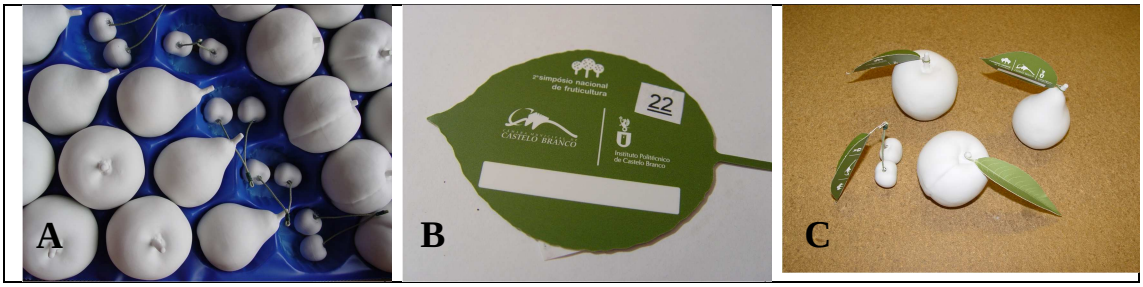


Fig. 2. Cold-porcelain fruits in a fruit box before delivering (A), apple leaf (B) and cold-porcelain fruits with leaves (C).

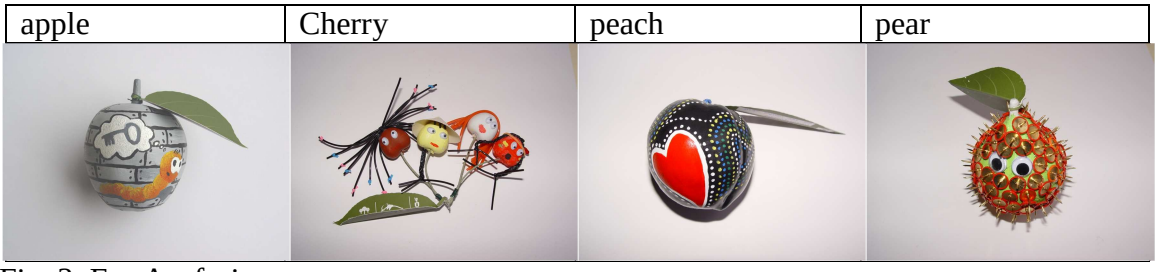


Fig. 3. FrutArt fruits.

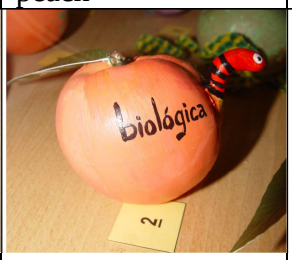
apple	cherry	peach	pear
			

Fig. 4. FrutArt winners.