

Sustavi proizvodnje u južnoj Europi: Huelva (Španjolska)

Production systems in southern Europe:
huelva (Spain)

López-Medina, J. and Blanco, C.

SAŽETAK

Jagoda je jedan od najvažnijih usjeva u pokrajini Huelva, jugozapadna Španjolska. Više od 90% nacionalne proizvodnje dobiva se na tom području, što znači preko 36% ukupne proizvodnje EU. U sezoni 2007-2008. površina namijenjena tom usjevu procijenjena je na preko 6,000 ha a proizvodnja na 240.000 tona. Najviše upotrebljavan kultivar jagode bio je Camarosa (70%), a slijedili su Candonga (12%) manjih prinosa ali bolje kakvoće voća, zatim Festival (12%) Ventana (2%) te druge manje varijante kao Chiflon i Coral.

Površina malina za 2007-2008 procijenjena je na oko 1.330 ha s povećanjem preko 2.5% u usporedbi s prethodnom sezonom. Većina biljaka za nasade se razmnaža u rasadnicima niskog rasta unutar područja proizvodnih nasada i samo malen broj biljaka dolazi iz rasadnika biljaka visokog rasta na sjeveru Španjolske. Najčešći kultivar je Glen-Lyon s više od 90% površina.

Razvoj nasada borovnice u Helvi također je važan za to područje zadnjih pet godina. Trenutačno više od 750 ha pokriva ova kultura ali samo 26 ha je pod ekološkom proizvodnjom a 90% te površine nalazi se u selu Almonte. U Njemačku, Ujedinjeno Kraljevstvo, Belgiju, Nizozemsku i Švicarsku izvozi se 95% proizvodnje borovnica. Rani kultivari kao Misty, Sharpblue i O Neal naširoko se upogrebljavaju (70%) ali isto tako i kultivari koji dozrijevaju sredinom sezone kao Star mogu se naći u ovom području. Sezona izvoza počinje u veljači i traje do lipnja, ali branje za trgovinu obično se odvija u travnju, svibnju i lipnju. Svaki kultivar ima drugačiju sezonu branja a to razdoblje može trajati 45 dana.

Ključne riječi: jagoda, malina, borovnica, Helva (Španjolska)

ABSTRACT

The strawberry is one of the most important crops in the Province of Huelva, south western Spain. More than 90% of the national production is harvested in this area, which means over 35% of the total production of the EU. During the 2007-2008 season,

the acreage used for that crop was estimated at over 6.000 ha, and the production of 240.000 tons. The most widely used strawberry cultivar was ‘Camarosa’ (70%) followed by ‘Candongá’ (12%), with lower yields but better fruit quality, ‘Festival’ (12%), ‘Ventana’ (2%) and other minor varieties like ‘Chiflón’, ‘Aguedilla’ and ‘Coral’.

The raspberry crop acreage for the 2007-2008 season has been estimated at around 1.330ha, increasing over 2.5% compared to the previous season. Most plants used to set the crop are multiplied in low elevation nurseries within the same area of the production fields, and only a small amount of plants come from high elevation nurseries in the north of Spain. The most common cultivar used is ‘Glen-Lyon’, with more than 90% of the acreage under the crop.

The development of the blueberry crop in Huelva has also been important for the area during the last five years. Currently, more than 750 ha are used for the crop, but only 26 ha are in ecological production, and 90% of this acreage, is located in the village Almonte. 95% of the blueberry production is exported to Germany, United Kingdom, Belgium, the Netherlands and Switzerland. Early-season yield cultivars like ‘Misty’, ‘Sharpblue’ and ‘O’neal’ are widely used (70%) but also mid-season yield cultivars, like ‘Star’, can be found in the area. The export marketing season starts in February and lasts until June, but market picks are usually found in April, May and June. Each cultivar presents a different harvest season which period can take more than 45 days.

Keywords: Strawberry, Raspberry, Blueberry, Huelva (Spain).

1.- STRAWBERRY. THE STRAWBERRY CROP IN THE PROVINCE OF HUELVA (SPAIN).

Strawberries are very important in the economic structure of the province of Huelva, south west Spain. With more than 6000 ha under that crop, the estimated production for the 2007-2008 is of 240.000 t., which means 90% of the national and 35% of the EU production respectively. Therefore the mean yield for the 2007-2008 season is estimated at 40.000 kg/ha (727 gr/plant).

In the area we can find more than 2.000 strawberry growers. The mean acreage of the farms is around 2.5ha. 80% of the growers are members of the Strawberry Producers and Exporters of Huelva (FRESAHUELVA).

Table 1. Strawberry production in the last seasons and estimation for the 2007-2008 season in the province of Huelva.

Season	Acreage (Ha)	Production (Tm)	Yield (K/ha)
1998-99	8.267	334.000	40.402
1999-00	8.750	306.000	34.971
2000-01	7.500	281.325	37.510
2001-02	6.658	248.576	37.335
2002-03	7.047	237.773	33.741
2003-04	6.539	313.872	48.000
2004-05	6.692	290.000	43.335
2005-06	6.800	312.065	45.892
2006-07	6.008	244.849	40.754
Average	7.140	285.384	40.215
2007-08	6.000	240.000	40.000

Source: Junta de Andalucía. D. P. of Agriculture and Fisheries.

The 80% of the strawberry production is exported to the EU for the fresh market, mainly to Germany and France, but also to the United Kingdom, Italy, Belgium and Switzerland. In 2006 the total amount exported was 186.000 Tm, worth 286.753.000 €, being the fourth most important agricultural product exported from Andalucía (5.48%), only after olive oil (18.12%), tomatoes (8.46%) and olives (6.45%).

Production for the food industry counts only for 10-20% (40.000-50.000 Tons) of the total production, depending on the fresh fruit price and industry demands.

Strawberries are grown in big plastic tunnels (80% approximately 4.500ha) or small plastic tunnels (20% approximately 1.200ha), in plastic mulched beds with drip irrigation, normally two rows of plants per beds are used. The most widely used cultivar is 'Camarosa' (70%) followed by 'Candongá' (12%), with lower yields but better fruit quality, 'Festival' (12%), 'Ventana' (2%) and other minor varieties like 'Chiflón', 'Aguedilla' and 'Coral'.

Soilless culture is not very usual, with no more than 200 ha. Soilless production means higher costs, but this system renders better quality yields, with lower diseases incidence and better post-harvest and shelf-life behaviour of the fruit and therefore growers can obtain better prices.

The integrated management of the strawberry crop is very important in the area, as it gives high quality fruit and allows the growers to obtain quality certifications like Poducción Integrada de Andalucía (Integrated Production). More than 59% of the strawberry production (3.550ha) is under this quality certification for the 2007-2008 season.

Table 3. Strawberry acreage under Producción Integrada quality certification

Season	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07
P.I.	2.860	3.600	4.100	4.500	3.100	3.809	3.800
TOTAL	7.500	6.658	7.047	6.539	6.692	6.800	6.416
%/TOTAL	38,1	54,1	58,2	68,8	46,3	56,0	59,2

The evolution of the strawberry market price is shown in Table 4.

Table 4. Mean strawberry market price paid to the growers (€/kilo)

Season	Fresh market	Industry
2006-07	1,05	0,32
2005-06	0,83	0,19
2004-05	0,77	0,15
2003-04	0,76	0,29

Source: Junta de Andalucía, D.P. of Agriculture and Fisheries, Huelva.

2.- RASPBERRY. THE RASPBERRY CROP IN THE PROVINCE OF HUELVA

Table 5. Evolution of the acreage, production and prices for the raspberry crop in the province of Huelva

Season	Acreage (Has)	Production (TM)	Price (€/kilo)
1995/96	50	500	8,35
1996/97	87	900	6,60
1997/98	200	2.000	6,31
1998/99	410	4.400	6,01
1999/00	475	4.527	6,61
2000/01	550	4.800	5,41
2001/02	624	5.000	5,41
2002/03	759	6.500	5,40
2003/04	858	8.300	5,60
2004/05	815	5.200	6,40
2005/06	928	8.500	5,74
2006/07	1.301	10.800	-

Source: Junta de Andalucía, D.P. of Agriculture and Fisheries, Huelva.

The acreage under the raspberry crop, for the 2007-2008 season, in the province of Huelva is around 1.330 ha, with an increase of 2.5% when compared to the previous season.

In Huelva, raspberries are usually grown in big plastic tunnels in drip irrigated preformed beds without mulching. Potted plants can also be found in some farms. Plant density varies among growers, with values between 20.000 to 50.000 plants/ha, but the average is 30.000 plants/ha with an average yield of 8.000 kg/ha (275g/plant)

Two different types of plants can be described depending on the nursery in which the plant has been propagated. Those multiplied in the so called high nursery, located in the north of Spain (Ávila, Segovia, Palencia), and those multiplied in the low nursery located in Huelva. Most of the acreage devoted to that crop is established with plants from the low nursery.

The cultivars obtained in the high nursery put an extra cost for the grower (0.72€/plant) and also have problems in adequate development of the root system. Therefore the use of this type of plants has decreased in the last years. The most usual cultivar of this type of plant is 'Tulameen'. Originated in Vancouver, British Columbia, Canada, is a vigorous plant with prickles evenly distributed all along the stem. The fruit is big conic, thick, pale red and sweet. The cultivar is very productive and the harvest is late in the season. The plants only have one profitable yield in the Huelva growing conditions, therefore, the crop has to be established every season with new plants.

The cultivars from the low nursery are usually multiplied by the grower himself. Once the harvest season is over, the aerial part of the plant is cut, leaving the root system to facilitate the growth of new stems. These are allowed to grow for four to five months in order to accumulate nutrients. After this period, the plants are pulled up and stored in cool chambers (-2° C) from 40 to 50 days in order to achieve enough chilling hours. The most usual cultivar of this type of plants is 'Glen-Lyon', actually found in more than 90% of the area under the crop.

This cultivar presents medium vigour plants, with fewer rooting problems than 'Tulameen', without prickless and with big leaves. Fruits are aromatic, pale red and thick. A new cultivar, 'Polska', originated in Poland is actually been introduced in Huelva. This cultivar can be grown for two seasons, but the yield in the second will be lower as not enough chilling hours can be achieved, and the cost of maintaining the furrows clean of new stems is high.

3.- BLUEBERRY. THE BLUEBERRY CROP IN HUELVA

Blueberry crop development in the province of Huelva is described in Table 6.

Table 6. Evolution of the acreage, production and prices for the blueberry crop in the province of Huelva.

Season	Acreage (Has)	Production (Tm)	Yield (K/ha)	Price (€/kilo)
2002-03	208	1.445	8.500	7,50
2003-04	228	1.976	9.500	8,50
2004-05	270	1.482	7.125	7,40
2005-06	285	2.190	8.725	7,20
2006-07	343	2.556	8.784	-
2007-08	750	3.000	6.857	-

Source: Junta de Andalucía, D.P. of Agriculture and Fisheries, Huelva.

Blueberries are grown in Huelva in plastic tunnels. Plant density varies between 2.500 and 4.500 plants/ha. The current cost per plant is 4.5 euros. Plants are imported from the United States. The first fruits can be harvested three years after the establishment of the crop, but full yields are obtained after the sixth year. The plants are productive between 15 and 20 years. Average yields are between 7.000 and 10.000 kg/ha.

The more used cultivars are ‘Misty’, ‘Sharpblue’ and ‘O’neal’ with an early harvest season and ‘Star’ with late production. The export marketing season starts in February and lasts until June, but market picks are usually found in April, May and June. Each cultivar presents a different harvest season and this period can take more than 45 days. 95% of the production is exported to Germany, the United Kingdom, Belgium, The Nederland and Switzerland.

Adresa autora – Author's address:

LÓPEZ-MEDINA, J.¹ and BLANCO, C.²

¹Dpto. CC. Agroforestales. E.P.S. “La Rábida”. University of Huelva (Spain).
21819 Palos de la Frontera (Huelva).

²Centro IFAPA Las Torres. Junta de Andalucía. Sevilla, Spain.