

Summary results of the EU-27 orchard survey

Table apples main fruit species

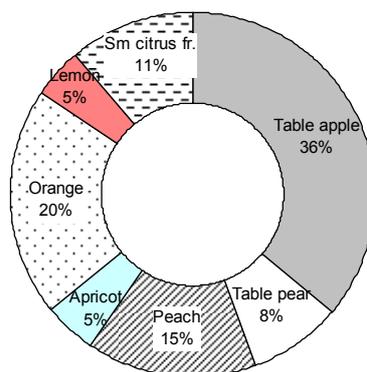
A basic survey of plantations of certain species of fruit trees (table apples, table pears, peaches, apricots, oranges, lemons and small citrus fruit) is carried out every five years to measure and characterise the production potential of fruit plantations intended to produce for the market. The total survey area is therefore smaller than the overall area of Member States' orchards registered in the annual statistics, as these are supposed to cover all production areas.

The 2007 survey was the first survey to cover all 27 EU Member States.

Data were collected on the areas under fruit trees, broken down by country, region (production zone), species, variety, density class (number of trees/ha), and age class.

1. Share of orchard area by species:

Figure 1: Total orchard area by species, 2007, EU-27



Given that around 85% of the surveyed orchard species of the new Member States (NMS-12) are apple trees, the share of EU-apple trees has increased by about 15% since enlargement and currently accounts for more than

In brief

EU-27 orchard (7 species surveyed):

- One third of the European orchard is located in Spain.
- About one third of the European orchard is planted with apple trees and another third is planted with citrus trees (orange, lemon and small citrus fruit).
- The Comunidad Valenciana region in Spain accounts for more than one third of the area under citrus trees.

Trend in EU-15

- With the exception of small citrus fruit and area under orange trees, the other areas surveyed have decreased in size since 2002.

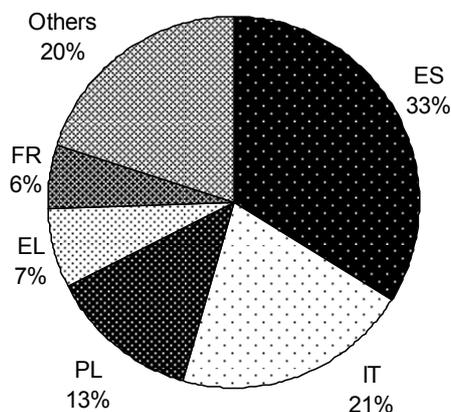
one third of the total surveyed European orchard area.

The second and third most cultivated species are oranges and peaches, with shares of 20% and 15% respectively.

Table 1: Area under the seven species of fruit trees, 2007, hectares

	Total	Table Apple	Table Pear	Peach	Apricot	Orange	Lemon	Small citrus fruit
EU-27	1,365,096	485,100	112,258	206,957	67,369	279,048	62,855	151,509
EU-15	1,028,745	200,644	95,772	189,943	52,958	277,494	62,190	149,744
NMS-12	336,351	284,456	16,487	17,015	14,410	1,554	666	1,765
Belgium	14,058	6,833	7,225	-	-	-	-	-
Bulgaria	10,518	4,121	298	3,488	2,610	-	-	-
Czech Republic	13,548	9,895	716	1,149	1,788	-	-	-
Denmark	1,886	1,486	401	-	-	-	-	-
Germany	29,469	27,888	1,581	-	-	-	-	-
Estonia	690	690	-	-	-	-	-	-
Ireland	150	150	-	-	-	-	-	-
Greece	94,771	9,337	3,127	34,127	3,929	32,440	5,180	6,632
Spain	459,524	24,822	25,976	75,118	18,700	158,824	39,859	116,225
France	76,638	40,113	6,707	14,308	13,804	29	23	1,654
Italy	279,120	55,225	32,075	63,754	15,649	73,786	16,634	21,998
Cyprus	5,937	925	146	614	268	1,554	666	1,765
Latvia	1,557	1,300	258	-	-	-	-	-
Lithuania	2,459	2,428	32	-	-	-	-	-
Luxembourg	39	30	9	-	-	-	-	-
Hungary	47,183	33,793	2,812	5,578	4,999	-	-	-
Malta	215	-	-	215	-	-	-	-
Netherlands	16,662	9,380	7,282	-	-	-	-	-
Austria	8,541	7,229	506	211	594	-	-	-
Poland	176,730	165,715	7,048	2,907	1,060	-	-	-
Portugal	39,792	11,711	9,228	2,424	283	12,416	494	3,235
Romania	70,659	60,494	4,834	1,897	3,434	-	-	-
Slovenia	3,089	2,438	196	431	23	-	-	-
Slovakia	3,765	2,656	148	734	227	-	-	-
Finland	437	437	-	-	-	-	-	-
Sweden	1,313	1,194	119	-	-	-	-	-
United Kingdom	6,346	4,810	1,536	-	-	-	-	-

Figure 2: Share of orchard area by main countries, EU-27, 2007



2. Share of orchard area among the EU-27 Member States

Four countries together account for almost three quarters of the EU-27 surveyed orchard species area. They are: Spain (459,524 ha), Italy (279,120 ha), Poland (176,730 ha) and Greece (94,771 ha).

Poland represents the third biggest area, accounting for 13% of the total EU-27 area. More than 90% of the

surveyed orchard area in Poland is under apple trees, which makes it the largest apple tree area in the EU-27.

In Spain, the country with the largest orchard area, citrus fruit accounts for 68% of its surveyed orchard area. This therefore means that Spain has the largest area under oranges, small citrus fruit and lemons in EU-27.

As already mentioned, the two most recent enlargements have led to a considerable increase in the area under table apples in EU-27. The two largest areas of apple trees are found in Poland (165,715 ha) and Romania (60,494 ha); Italy (55,225 ha) and France (40,113 ha) are ranked third and fourth respectively.

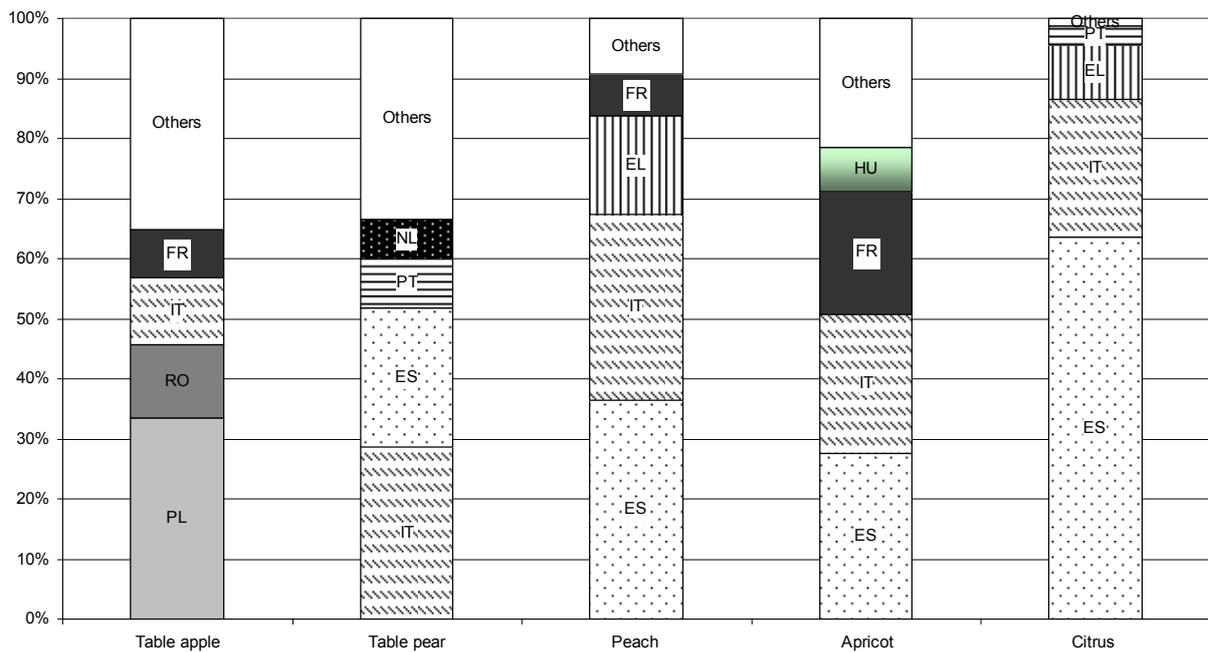
Italy still has the largest area under pear trees, and thus accounts for almost 30% of the area under pear trees in EU-27. It should be noted that the Netherlands has now become the fourth largest area of pear trees within the EU-27.

Peach trees occupy the third biggest orchard area in EU-27. Two countries alone (Spain and Italy) account for over 65% of the total EU-27 area.

Spain, Italy and France each account for more than 20% of the total EU area under apricots. Hungary has the fourth biggest area, with a share of over 7% of the EU-27 area.

Citrus fruits are concentrated in the Mediterranean countries (Spain, Italy, Greece, Portugal, Cyprus and France). Spain accounts for more than 60% of the whole EU-27 citrus area. Of the newly acceding countries, only Cyprus has citrus trees, but takes up less than 1% of the total EU-27 area.

Figure 3: Area shares of apples, pears, peaches, apricots and citrus among EU-27, 2007



Regions:

Table 2: Most important regions by species

	Region with the biggest area	Area in hectare	Area share (%) of this region in the EU-27
Table apple	PL- Mazowieckie	66,567	13.7
Table pear	IT- Emilia-Romagna	20,363	18.2
Peach	EL- Makedonia	32,902	15.9
Apricot	ES- Region de Murcia	10,479	15.6
Orange	ES- Comunidad Valenciana	76,593	27.4
Lemon	ES- Region de Murcia	24,561	39.1
Small citrus fruit	ES- Comunidad Valenciana	90,879	60.0

Some regions in EU-27 are clearly specialised in the production of certain types of fruit. The Comunidad Valenciana region in Spain specialises in growing citrus fruit, especially small citrus fruit and oranges, while this region also has the third biggest area of lemon trees. Mazowieckie accounts for 40% of the apple tree area in Poland.

Emilia-Romagna represents more than 60% of the area under pear trees in Italy. In Greece, around 96% of the area under peach trees is concentrated in the Makedonia region. Región de Murcia has more than 55% of the apricot trees in Spain, making it the largest area under apricots in EU-27.

3. Density and trend of the density for the main fruit tree areas

Figure 4: Density by age class - Orange trees

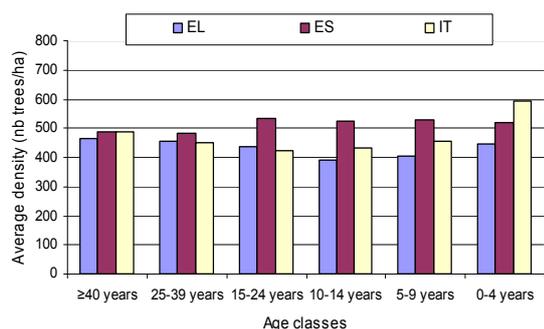


Figure 6: Density by age class - Peach trees

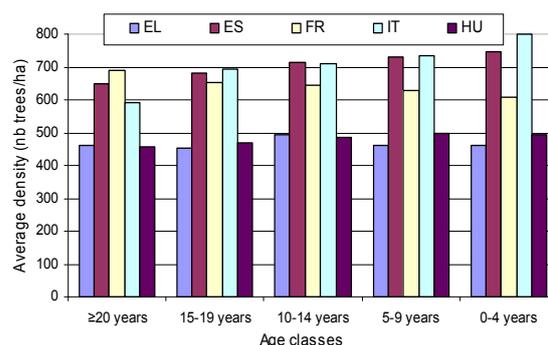
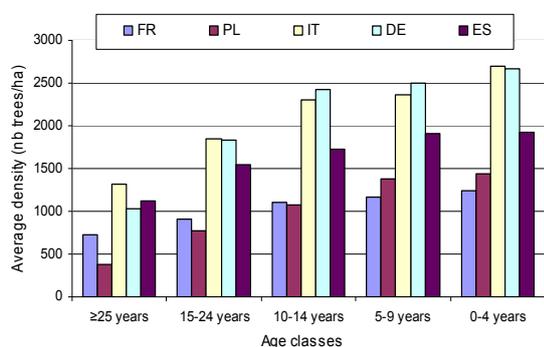


Figure 5: Density by age class – Table apple trees



The breakdown by age classes enables the density of plantation to be compared over time. Here, only the main countries have been considered.

A comparison of the average number of trees per hectare of fruit tree plantations by age class (i.e. according to the year of planting) clearly shows an increasing density of apple trees, especially in Poland.

The density of orange and peach trees does not appear to have increased to the same extent.

The density of orange trees seems to be relatively even among Member States.

Given that plots with low densities of old trees are being grubbed up, the trend described above is showing a tendency to increase with time; theoretically, the increase in density should be greater.

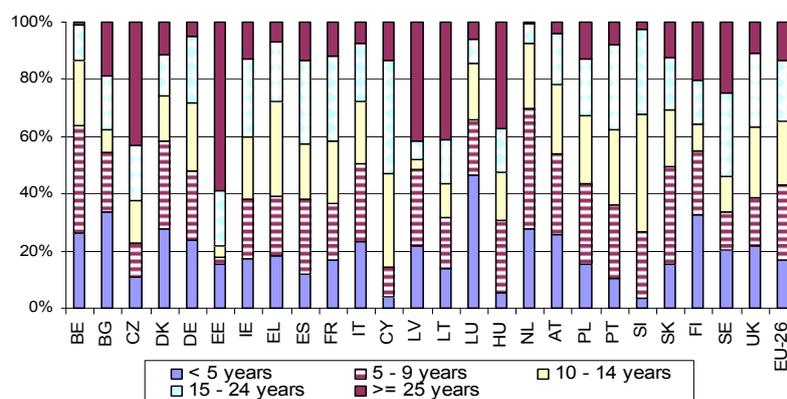
4. Age class distribution of certain species

As apple and orange trees together occupy the largest area (more than 50 % of the total EU-27 orchard area), the analysis of age class distribution has focused on these two species.

In Poland, which has the largest area of apple trees in the EU-27, the age structure of this species can be regarded as fairly well balanced. While 43% of apple trees are under 10 years of age, 26% are between 10 and 15 years and 32% are over 15 years.

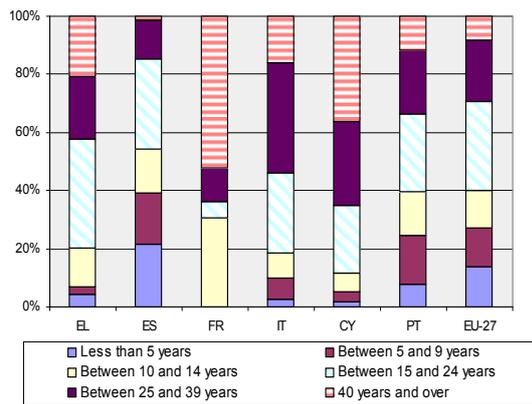
Some countries, such as Belgium, Luxembourg and Netherland, are characterised by a "young" apple orchard, where over 60% of the apple trees are under 10 years old. In comparison, other countries such as Estonia or Czech Republic have a relatively "old" apple orchard with respectively almost 60% and 43% over 25 years old.

Figure 7: Age class distribution of table apple trees by country and at EU-26 level*



*Romania is exempted from sending data by age classes.

Figure 8: Age class distribution of orange trees, by country and at EU-27 level



In Spain, which has the largest area under orange trees, more than 20% of the orange trees are less than 5 years old and 15% are over 25 years old. This area under orange trees, most of which is relatively new, offers good prospects for orange production in the coming years.

Conversely, Italy – with the second largest area under orange trees (73,786 ha) – has only 2.5% of orange trees under 5 years old; on the other hand, more than 50% of its orange trees are over 25 years old. Unless the orange tree plantations in Italy are renewed, the country's potential production is likely to decrease significantly in the coming years.

France, with only 29 hectares, has the oldest orange trees, more than 62% of which are over 25 years old.

5. Varieties

Figure 9: Main varieties or groups of varieties by species

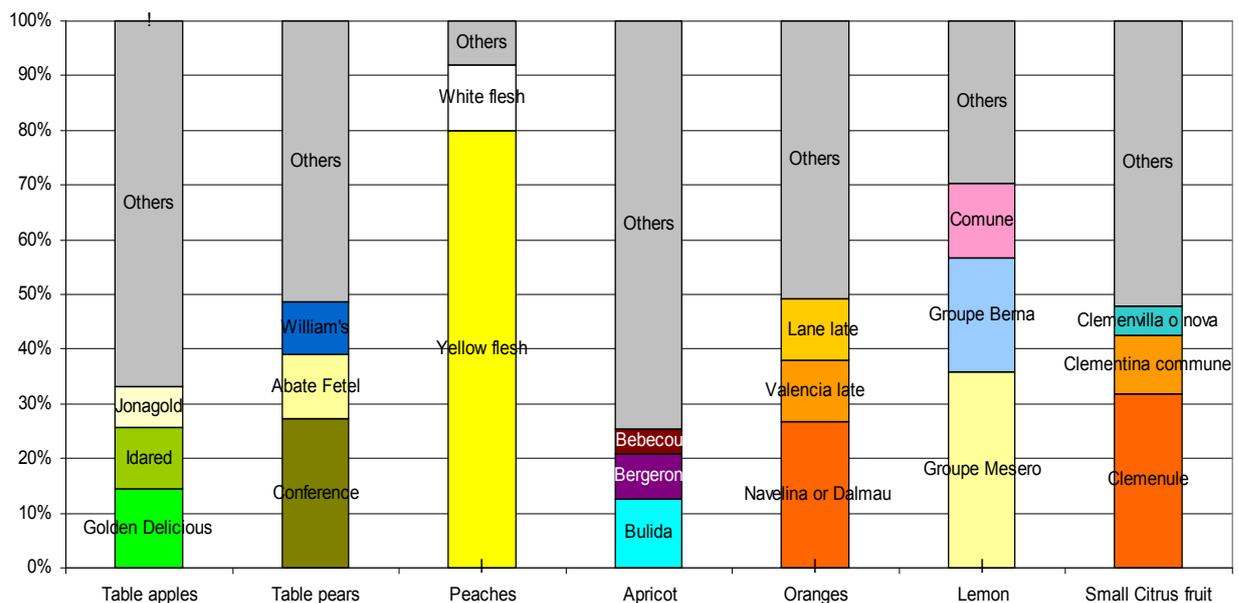


Figure 9 presents the share of the most important varieties or groups of varieties by species. The greater the size of the "Others" category, the greater is the diversity of the varieties of the corresponding species.

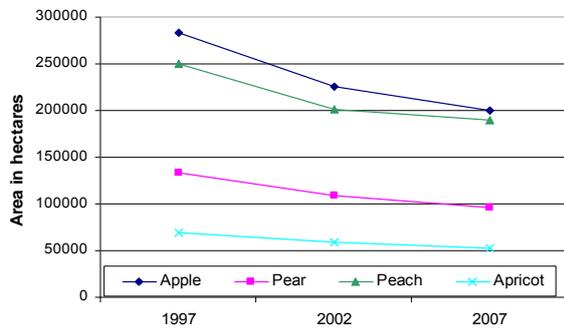
Orange varieties can be separated into two groups: sweet oranges (navel oranges and non-blood oranges) and blood oranges. They represent 90% and 10% respectively of the area under orange trees.

Navelina or Dalmau and Lane late varieties belong to the navel orange group, which accounts for over half of the oranges. The fifth most represented variety is Tarocco (8%), which belongs to the blood orange group.

For peaches, among the yellow flesh variety the most common variety is Andros, which belongs to the Cresthaven group. This variety makes up 6% of the area under peach trees.

6. Evolution of the orchard area

Figure 10: Trends in the area under apple, pear, peach and apricot trees in EU-15



Although the area under apple, pear, peach and apricot trees in the EU-15 is constantly shrinking, the downward trend over the past five years appears to be flattening out. In some Member States, the trend is actually being reversed.

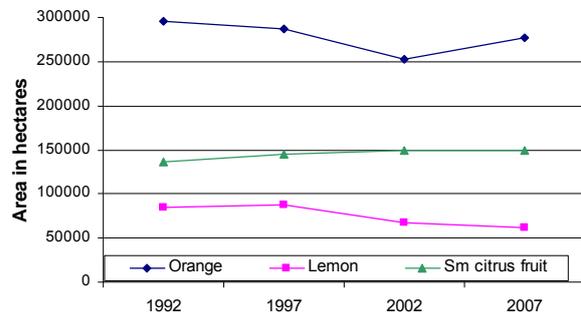
Since 2002, the area under table apple trees has decreased by almost 10%. The largest decreases were seen in Spain (-32%, i.e. a decrease of 11,470 ha). In Denmark, the area under table apple trees has increased by 8%.

Peach tree plantations have decreased since 2002 in the EU-15 (-6%). Only in Spain, there has been an increase in the area under peach trees (+8%). The largest decrease is to be found in France (-27%).

In EU-15, the area under table pear trees has fallen by 11% since 2002. However, the situation regarding pear tree plantations differs from one Member State to another. Whereas the three countries with the biggest pear plantations (Italy, Spain and Portugal) have significantly reduced their area (-17%, -17% and -8% respectively), some countries – such as the Netherlands and Belgium – have increased their area (+24% and +13% respectively). The Netherlands now has the fourth biggest area under pear trees.

Apricot tree plantations have decreased by 10% since 2002, most noticeably in Portugal, Greece and Spain (-42%, -21% and -17% respectively). The area under apricot trees in Italy (the second biggest area) is stable.

Figure 11: Trend in the area under citrus fruit trees in EU-27



Apart from Cyprus, no other new Member State produces citrus fruit. Given that Cyprus makes up 0.8% of the total area of EU-27, the present analysis considers the trends in EU-15 in the same way as for EU-27.

The different sub-species of citrus fruit production are evolving in different ways depending on the particular area.

Small citrus fruits at EU-27 level are continuing to increase. Nevertheless, the Member States exhibit contrasting trends in terms of the number of small citrus tree plantations. While Italy (the second biggest area under small citrus fruit), Portugal and France have reduced their areas (-42%, -23% and -24% respectively), the areas in Spain and Greece have increased (by +21%, i.e. 116,225 ha and +46%, i.e. 6,632 ha respectively).

Until 2002, the EU-27 area planted with orange trees decreased, but between 2002 and 2007 it rose by 10%. This increase is due to the sharp rise of Spain (+21%), which accounts for more than 56% of the EU-27 area under orange trees.

The area under lemon trees in the EU-27 fell by almost 29% between 1997 and 2007. The biggest producers, Spain and Italy, which together account for almost 90% of all lemon tree plantations, have significantly reduced their area (-15% and -47% respectively).

Conclusion

With the exception of lemons, there are clear signs of an increase in citrus fruit plantations as a whole at EU-27 level, even if some Member States (particularly Italy) are reducing their area. However, other countries, such as Spain, are significantly increasing their area. Also in Spain, apart from citrus and peach areas, other orchard areas have been drastically reduced. In fact, Spain seems to be specialising more and more in citrus fruit production.

The trend as regards other species at EU-15 level has been falling, although the nature of this downward trend has changed during the last five years. Some countries have recently been increasing their area under apple and pear trees. The next survey, due in three years time (2012), will show whether or not this trend is continuing at EU-27 level.

More detailed results of the orchard survey can be found in Eurostat's New Cronos database.

Essential information- Methodological notes:

The 2007 survey covered all agricultural holdings having an area planted with fruit trees (apple, pear, peach, apricot, orange, lemon and small-fruited citrus) provided that the fruit produced is entirely or mainly intended for the market.

The 2007 survey was

- a complete enumeration in Belgium, Bulgaria, Czech Republic, Cyprus (95% of the area planted with fruit trees), Denmark, Germany, Ireland, Latvia, Lithuania, Luxembourg, Netherlands, Austria, Finland, Slovakia, Slovenia, Sweden and United Kingdom (for large holdings);
- area frame sampling in Spain;
- a farm sample survey in the other Member States.

The following species were surveyed:

- table apples (in all Member States with the exception of Malta)
- table pears (in all Member States except Estonia, Ireland, Malta and Finland)
- peaches (in Bulgaria, Czech Republic, France, Greece, Spain, Italy, Cyprus, Hungary, Malta, Austria, Poland, Portugal, Romania, Slovenia and Slovakia only)
- apricots (in Bulgaria, Czech Republic, France, Greece, Spain, Italy, Cyprus, Hungary, Austria, Poland, Portugal, Romania, Slovenia and Slovakia only)
- oranges (in France, Greece, Spain, Italy, Cyprus, Malta, and Portugal only)
- lemons (in France, Greece, Spain, Italy, Cyprus, Malta and Portugal only)
- small-fruited citrus fruit which include mandarins, clementines, satsumas and hybrids (in France, Greece, Spain, Italy, Cyprus, and Portugal only).

The symbol "-" in Table 1 means that no survey has been conducted for that species in the country.

Abbreviations used:

EU-27: the current European Union of 27 Member States.

EU-15: the European Union of 15 Member States, before 1 May 2004.

NMS-12: the 12 new Member States which joined the EU in 2004 (CZ, EE, LV, LT, HU, CY, MT, PL, SI, SK) and 2007 (BG and RO).

Country codes

BE: Belgium, **BG:** Bulgaria, **CZ:** Czech Republic, **DK:** Denmark, **DE:** Germany, **EE:** Estonia, **IE:** Ireland, **EL:** Greece, **ES:** Spain, **FR:** France, **IT:** Italy, **CY:** Cyprus, **LV:** Latvia, **LT:** Lithuania, **LU:** Luxembourg, **HU:** Hungary, **MT:** Malta, **NL:** Netherlands, **AT:** Austria, **PL:** Poland, **PT:** Portugal, **RO:** Romania, **SI:** Slovenia, **SK:** Slovakia, **FI:** Finland, **SE:** Sweden, **UK:** United Kingdom

Some useful concepts used:

Net area planted – surface solely occupied by trees, (in contrast to 'gross area planted', i.e. the total area of the plot – the net area does not cover service areas, roads, irrigation ditches, headwaters etc.). Of the areas under related crops, the surface under area fruit trees is calculated on a "pro rata" basis. Individual trees (or trees in rows) are not covered.

Average density or average number of trees per hectare:

The average planting density for fruit trees was calculated approximately, on the basis of the assumption that the planting density corresponds to the mean value of the relevant density class limit.

The average of the minimum density class (less than x years) has been calculated as follow: $(0+x)/2$

The calculation of the average of the maximum density class ("y trees and over") is based on the following assumption: y was taken to be the average of this class.

Further information

Data: [Eurostat Website: http://ec.europa.eu/eurostat](http://ec.europa.eu/eurostat)

Select your theme on the left side of the homepage and then 'Data' from the menu.

Data: [Eurostat Website/Agriculture and Fisheries](#)

Agriculture

  Orchard survey

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