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Results of German Fruit Tree Census

Report Categories:

Fresh Deciduous Fruit

Stone Fruit

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Report Highlights:

This report summarizes the results of the 2012 German fruit tree census and developments in the planted varieties of apples and pears. Although 14 percent of German fruit farms have stopped operating since the previous census in 2007, total planted area only decreased by 3 percent. Apples are the most planted fruit trees and apple area expanded by 1 percent at the expense of tart cherries, plums, and pears, whose area decreased by 33, 11, and 4 percent, respectively. Jonagold remains the most popular apple cultivar in Germany but planting of Elstar, the current number two variety, are expanding significantly.

General Information:

1. Introduction

Every five years, EU-Member States carry out a statistical survey of deciduous fruit area and production capacity. Details are laid down in EU directive 2001/109/EC. Results of the German survey were recently published by the German Federal Office of Statistics (destatis) and are summarized in this report.

The survey covers cultivated area for market production, and does not include area for subsistence farming or house gardens. It reports on the following species: apples, pears, sweet cherries, sour cherries, plums, and small yellow plums (aka mirabelle). Reporting on apricots, peaches, and walnuts has been discontinued. The threshold for reporting was increased to 50 ar (5000 square meters or 0.5 hectares), compared to 30 ar (3000 square meters or 0.35 hectares) in the previous survey of 2007. This has to be kept in mind when comparing the results.

Abbreviations

ha = hectare(s), 1 ha = 10,000 square meters = 2.471 acres

MT = metric ton(s) = 1000 kg

Terms

ar = 1/100 ha = 100 square meters = 0.2471 acres = 119.6 square yards

2. Development of Deciduous Fruit Farms and Area from 2007 to 2012

By excluding farms with less than 0.5 ha, within the past 5 years, 14 percent of the deciduous fruit farms have stopped farming, while the farmed area declined by 3 percent. All groups have lost farms, but the reduction is most evident among smaller sized farms. These small farms are usually run part time, with the owners generating most of the household income outside of agriculture. For them it is challenging to both keep up with the technical developments and to find a successor upon retirement. Low fruit prices in 2009 and 2010 were an additional factor, which affected all farms irrespective of size. This explains why some of the larger farms also went out of production and why some of the land is not being purchased by remaining farmers.

Table 1: Deciduous Fruit Farms and Farm Area in Germany 2007-2012

Area from... to ... (ha)	Farms			Area		
	2007	2012	% Change 2007-2012	2007 (ha)	2012 (ha)	% Change 2007-2012
0.5 – 1	2787	2189	-21%	1968	1542	-22%
1 – 2	2079	1668	-20%	2917	2313	-21%
2 – 3	872	782	-10%	2126	1909	-10%
3 – 5	866	781	-10%	3349	3012	-10%
5 – 10	936	854	-9%	6747	6131	-9%
10 – 50	1069	1105	3%	20016	21373	7%
> 50	79	76	-4%	9769	9312	-5%
Sum	8688	7455	-14	46892	45 593	-3%

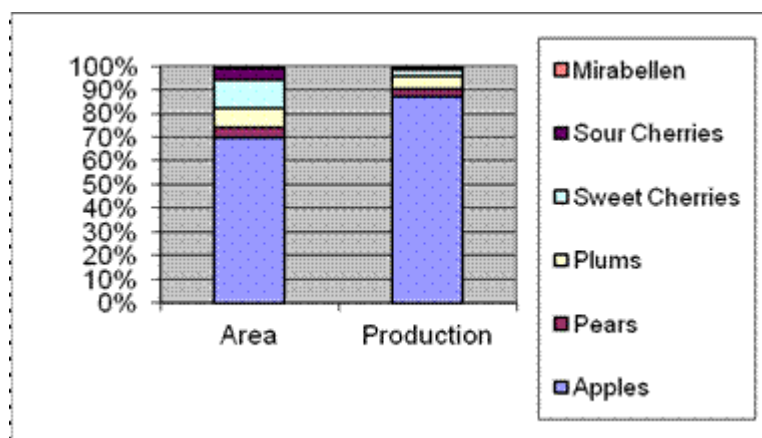
Source: German Federal Office of Statistics, Wiesbaden

3. Situation in 2012

3.1 Species of Deciduous Fruit

The following paragraph is based on data from all reporting farms in 2012, i.e. those larger than 0.5 ha. In terms of area, apples are by far the most important deciduous fruit species in Germany, which account for about two-thirds (31,738 ha) of total German deciduous fruit area. Following in area are sweet cherries (5,258 ha), plums (3,870 ha), sour/tart cherries (2,291 ha), pears (1,933 ha), and small yellow plums (also called: mirabellen, 502 ha). Reporting on peaches, apricots, and walnuts has been discontinued since German commercial production is very small.

Chart 1: Percentage of Total Fruit-bearing Tree Area and Production by Species in Germany in 2012



	Area (ha)	Production (1000 MT)
Apples	31738	875
Pears	1933	32
Plums*	3870	59
Sweet Cherries	5258	23
Sour/Tart Cherries	2291	13
Mirabellen*	502	5

*= Production data for mirabellen refers to 2011 (latest available data)

Source: FAS/Berlin based on data from:
German Federal Office of Statistics, Wiesbaden

3.2 Apples

From 2007 to 2012, the reported figures (table 2) show a marginal decrease in total apple area of 24 ha. However, when comparing only farms with more than 0.5 ha, apple area has actually increased by 405 ha or 1 percent.

The 2012 survey reports on 65 different apple varieties that are currently grown in Germany. Most of these varieties have a limited or regional importance. Only 22 varieties are grown on more than 100 ha each, less than ten cover more than 1000 ha. More than half of the area (57 percent) is covered by one of the top 5 varieties. The top 10 varieties take up 70 percent of the area. They are shown in table 2.

The share of each variety as a percentage of the total apple area is illustrated in chart 2.

Table 2: Top 10 Apples Varieties by ha

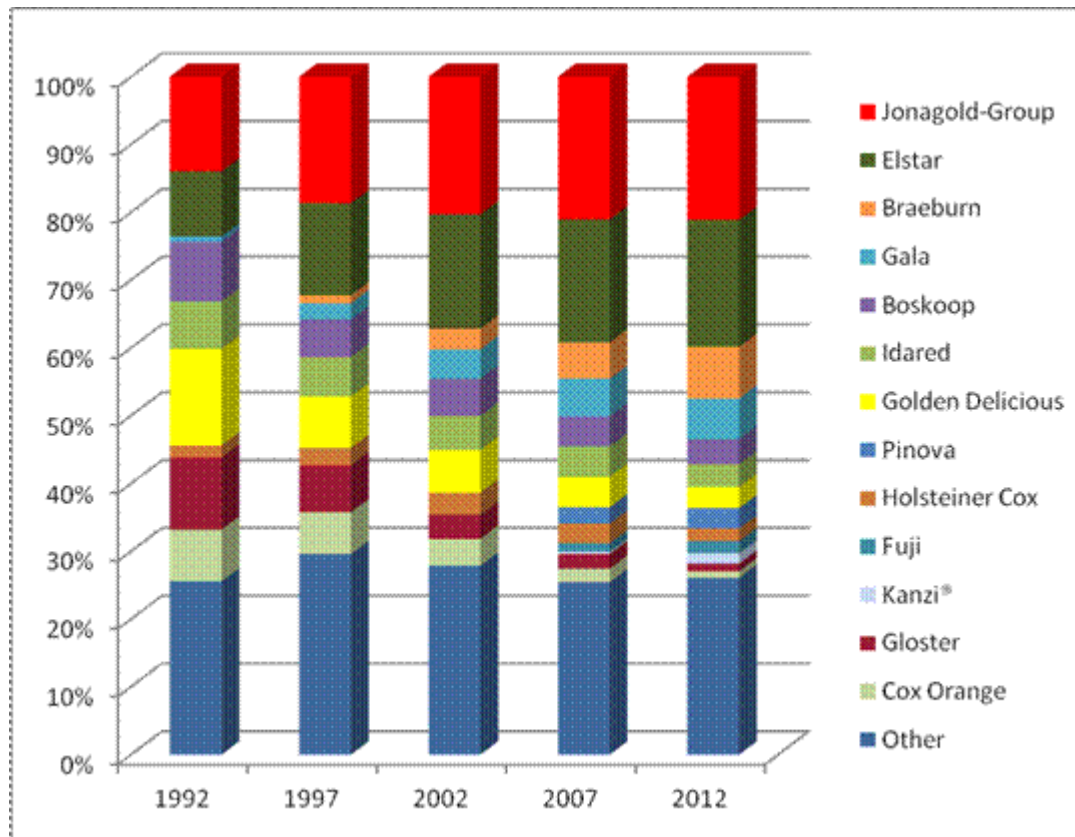
	1992	1997	2002	2007	2012	change in percent	
						2007- 2012	2002- 2012
Jonagold-Group	4,994	6,684	6,339	6,687	6,705	0%	6%
thereof:							
Jonagold	4,251	5,275	4,529	3,807	3,036	-20%	-33%
Jonagored	743	1,409	1,810	2,366	2,476	5%	37%
Jonaprince				514	1,193	132%	
Elstar	3,416	4,861	5,271	5,770	5,948	3%	13%
Braeburn		418	952	1699	2,415	42%	154%
Gala	295	860	1,346	1,770	1,908	8%	42%
Boskoop	3,143	1,975	1,710	1,389	1,168	-16%	-32%
Idared	2,487	2,078	1,575	1,442	1,073	-26%	-32%
Golden Delicious	5,076	2,732	1,964	1,416	982	-31%	-50%
Pinova				768	964	26%	
Holsteiner Cox	650	918	1,022	919	589	-36%	-42%
Fuji				404	568	41%	
[...]							
Kanzi®				94	483	414%	
[...]							
Gloster	3,791	2,471	1,103	693	349	-50%	-68%
Cox Orange	2,720	2,204	1,234	634	312	-51%	-75%
Other	9,125	10,592	8,703	8,077	8,274	2%	-5%
Total	35,697	35,793	31,219	31,762	31,738	0%	2%

Note: year on year comparison is somewhat flawed as data collection has changed: 2012 includes data from farms larger than 0.5 ha, 2007 and 2002 larger than 0.3 ha, 1997 larger than 0.15 ha.

Source: FAS/Berlin based on data from German Federal Office of Statistics, Wiesbaden

Chart 2: The Share of the Top 10 Apple Varieties in Germany

as a Percentage of Total Apple Area* from 1992 to 2012



* excluding apples for processing

Source: FAS/Berlin based on data from:
German Federal Office of Statistics, Wiesbaden

3.2.1 Factors influencing the variety mix

The variety mix of apples grown in Germany is largely determined by climatic factors, consumer and retail preferences. Compared to some other big apple regions, e.g. France or the southern hemisphere, Germany has a cooler climate and a shorter growing season. It is therefore not suitable for some of the popular new varieties, such as “*Pink Lady*”.

The majority of German consumers favor “sweet and sour” tasting apples as opposed to “just sweet” apples. *Jonagold*, *Elstar*, and many of the old traditional varieties serve this taste. However, some of the old traditional varieties are difficult to handle, such as *Berlepsch* which is very susceptible to bruising. Others do not fit the retail requirements in size or appearance. Most of these varieties are not well received by the retail sector and are therefore grown less and less for the “big market.” However, they do continue to have some importance with farmers, who grow these varieties for direct sale to the consumer either on their farm-site or at farmers’ markets.

Retail chains favor bi-color apple varieties, a fruit diameter of 75 – 80 mm, and a long shelf life.

3.2.2 Changes in the variety mix

Over the past twenty years there has been quite some change in the ranking of apple varieties grown in Germany. *Golden Delicious*, which ranked first in 1992 and third in 2002, lost 50 percent of its area compared to 2002 and by 2012 dropped to number eight. *Jonagold*-group gained 34 percent in acreage compared to 1992 to become the new most grown variety. However, within the *Jonagold* group there is a clear trend towards the red strains *Jonagored* and *Jonaprince* at the expense of the “standard *Jonagold*” variety. This is largely due to the fact that the standard *Jonagold* tends to develop difficulties in fruit coloring when the trees get older.

Elstar, the current number two variety is steadily on the rise. It gained 13 percent from 2007 to 2012 and a total of 74 percent compared to 1992. In consumer apple tastings, *Elstar* usually receives better results than *Jonagold*. In addition, it does not have the *Jonagold* problem of oversized fruit.

Other expanding varieties are *Braeburn*, *Gala*, *Pinova*, *Fuji*, and *Kanzi*®. For a long time “Gala” and “Braeburn” were not considered suitable for the German climate, and were restricted to the most southern regions of Germany. However, these varieties are now also increasingly grown in more northern parts of Germany.

Among the top 10 of new plantings other varieties include “*Pinova*”, “*Topaz*”, “*Delbardestivale*®”, and “*RubINETTE*®” (see table 3). “*Pinova*” was bred in Saxony in 1986, and is very popular in East Germany. Lately, producer organizations in the West, especially along the river Rhine are pushing this variety, which is known for its outstanding shelf-life. “*Topaz*” is prized for its tolerance against the scab fungus (*venturia inaequalis*). “*Delbardestivale*®” is an excellent early variety, with a good taste and comparatively good shelf-life for an early variety. It was bred in France in 1976. “*RubINETTE*®” is a variety of Swiss origin (1966) with a superb taste. This makes it very popular with farmers, who sell directly to the consumer. It is less popular for the retail sector, as its appearance does not compete with “*Elstar*” or “*Jonagold*.”

Other high ranking varieties from 1992 have lost ground. The varieties “*Gloster*”, “*Cox Orange*”, “*Boskoop*”, and “*Idared*” have declined from 1992 to 2012 by 91, 89, 63, and 57 percent, respectively. Among these only “*Boskoop*” and “*Idared*” reached the top 10 of plantings in 2012. “*Boskoop*” has a good reputation among consumers for baking and cooking. “*Cox Orange*” was bred in the U.K. in 1825 and is a variety with a long tradition in Germany. In recent years low crops and its variety-inherent small fruit size have decreased the popularity of “*Cox Orange*” with growers. “*Gloster*” was bred in Germany in 1951 and had its peak in the 1970s and 1980s. It is a high yielding red variety, with a rather neutral taste.

Table 3: Variety mix in young apple orchards in 2012 by age

	<1 year (ha)	1-4 years (ha)	Total <5 Years (ha)
Jonagold-Group total	285	1118	1403
Thereof:			
Jonaprince	169	478	647
Jonagold	76	315	391
Jonagored	40	325	365
Elstar	269	966	1235
Braeburn	192	699	891
Kanzi ®	72	336	408
Gala	133	268	401
Boskoop	57	273	330
Pinova.	57	196	253
Topaz	44	163	207
Fuji	43	147	190
Delbarestivale ®	22	79	101
Other varieties	284	753	1037
Total	1458	4998	6456

Source: FAS/Berlin based on data from German Federal Office of Statistics, Wiesbaden

3.3 Pears

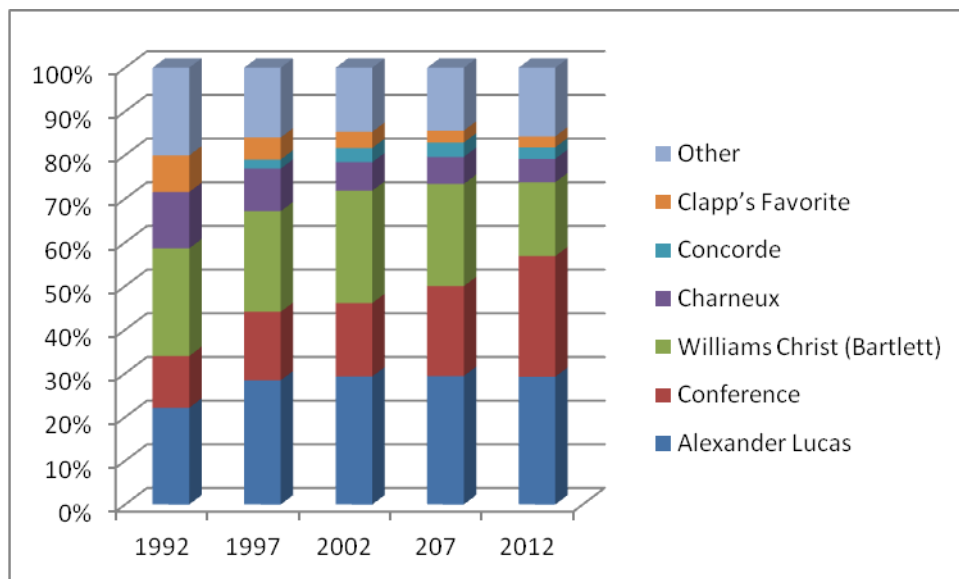
The number of pear varieties is much smaller than those for apples. The survey reports on 13 varieties, with the top 5 varieties accounting for 82 percent of the pear area. The sector is also less dynamic concerning variety changes. From the 1800s until 2007 “Alexander Lucas” and “Bartlett.” were the two leading varieties. However, in recent years, “Conference” has gained popularity among growers and by 2012 managed to become the second most grown variety in Germany (see table 5). Among the newly planted trees (less than 1 year), Xenia®/Novembra® is the most popular variety. This variety displays a reduced susceptibility for pear scab (*venturia pirina*) and canker (*nectria galligena*), which is especially important for organic production (table 5).

Table 4: Top 6 Pear Varieties in ha

	1992 (ha)	1997 (ha)	2002 (ha)	2007 (ha)	2012 (ha)	Change in Percent	
						2007-2012	2002-2012
Alexander Lucas	441	475	467	465	398	-14%	-15%
Conference	236	262	268	325	376	16%	40%
Williams Christ (Bartlett)	491	385	410	370	230	-38%	-44%
Charneux	257	163	104	98	73	-26%	-30%
Concorde	-	35	52	52	36	-31%	-31%
Clapp's Favorite	167	84	59	43	34	-21%	-42%
Other	400	267	234	228	214	-6%	-9%
Total	1992	1671	1594	1581	1361	-14%	-15%

Source: FAS/Berlin based on data from German Federal Office of Statistics, Wiesbaden

Chart 3: The Share of the Top 10 Pear Varieties in Germany as a Percentage of Total Pear Area* from 1992 to 2012



* excluding pears for processing

Source: FAS/Berlin based on data from:
German Federal Office of Statistics, Wiesbaden
Central Market- and Price-Reporting Agency (ZMP), Bonn

Table 5: Variety Mix in Young Pear Orchards in 2012 by Age

	<1 year (ha)	1-4 years (ha)	Total <5 Years (ha)
Conference	11	51	62
Alexander Lucas	7	31	38
Novembra®/Xenia®	16	5	21
Williams Christ (Bartlett)	2	12	14
Concorde	1	3	4
Other varieties	6	24	30

Source: FAS/Berlin based on data from German Federal Office of Statistics, Wiesbaden

4. Related Reports:

Report Number	Date	Title
E70039	10/29/2012	EU-27 Fresh Deciduous Fruit Annual Report Unfavorable Weather Affects 2012 Crop Fresh Deciduous Fruit Vienna EU-27 11/5/2012 The production of MY 2012/13 is characterized by unfavorable weather conditions like cold and wet conditions in spring, local hailstorms, high winds, and drought in summer in many of the major producing countries. This is expected to lead to significant lower fresh deciduous fruit production. Commercial apple production is forecast to be at 9.8 MMT (minus 9 percent), commercial pear production at 2.1 MMT (minus 22 percent) and table grape production at 1.8 MMT (minus 5 percent). Fresh Deciduous Fruit Annual_Vienna_EU-27_10-29-2012

		Fruit Logistica 2012 Again Highly Successful Showcase for U.S. Exhibitors http://www.usda-mideurope.com/detail.php?iid=28&id=19
GM1006	02/08/2011	Product Brief Fresh Deciduous Fruit Berlin Germany 2/18/2011 Germany is one of the largest markets for fruit in Europe. The relative affluence of its population of 82 million people makes it an attractive outlet for exporters from many countries. This product brief highlights certain aspects of the German fruit market for U.S. exporters to utilize existing market opportunities and properly market their product in Germany. Product Brief Fresh Fruits Berlin Germany 02-08-2011

These reports can be accessed through the FAS website:

<http://gain.fas.usda.gov/Lists/Advanced%20Search/AllItems.aspx>