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Germany

Fresh Deciduous Fruit

German Fruit Tree Census

2003

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Report Highlights:
This report summarizes the results of the 2002 German fruit tree census and developments in the variety mix of apples and pears. 22 percent of the German deciduous fruit farms have stopped operating since the previous census in 1997. The total planted area, apple area, and pear area decreased by 11, 13, and 5 percent, respectively.

Includes PSD Changes: No
Includes Trade Matrix: No
Unscheduled Report
Berlin [GM1]
[GM]

1. Introduction

EU-Member States carry out a statistical survey on deciduous fruit area and production capacity every five years. Details are laid down in EU directive 2001/109/EC. Results of the German survey have been recently published by the German Federal Office of Statistics, Wiesbaden and the German Central Market- and Price-Reporting Agency in Bonn 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, small yellow plums, apricots, peaches and walnuts.

The threshold for reporting was increased to 30 ar (3000 square meters or 0.3 hectares), compared to 15 ar (1500 square meters or 0.15 hectares) in the previous survey of 1997. This has to be kept in mind when comparing the results.

Abbreviations
ha = hectare(s), 1 ha = 10,000 square meters = 2.471 acres
ar = 1/100 ha= 100 square meters = 0.2471 acres =119.6 square yards
MT = metric ton(s)= 1000 kg

2. Development of Deciduous Fruit Farms and Area from 1997 to 2002

By excluding farms with more less than 0.5 ha, within the past 5 years, 22 percent of the farms have stopped farming, while the farmed area declined by 11 percent. All groups have lost farms, but the reduction is most evident among the smaller sized farms. These small farms consist of part time farms, which generate most of the household income outside of agriculture. For them it is equally challenging to keep up with the technical know-how as to find a successor upon retirement. Low fruit prices from 1998/99 through 2000/01 were an additional factor, which affected all farms irrespective of size. This explains why many of the larger farms have given up too, and why some of the land is not being purchased by the remaining farmers.

Table 1: Deciduous Fruit Farms and Farm Area in Germany 1997-2002 (The number of farms and area: change for 1997 - 2002)

	Farms			Area		
	1997	2002	% Change	1997	2002	% Change
Area from… to …. ha			1997-2000	(ha)	(ha)	1997-2000
0.5 – 1	4807	3486	-27	3359	2466	-27
1 – 2	3307	2533	-23	4584	3556	-22
2 – 3	1340	1037	-23	3235	2519	-22
3 – 5	1238	1040	-16	4757	4045	-15
5 – 10	1164	1032	-11	8221	7312	-11
> 10	1149			28355		
10 – 50		985	-8		17400	-5
> 50		77			9488	
Sum	13005	10190	-22	52511	46786	-11

Source: German Federal Office of Statistics, Wiesbaden
Central Market- and Price-Reporting Agency (ZMP), Bonn

3. Situation in 2002

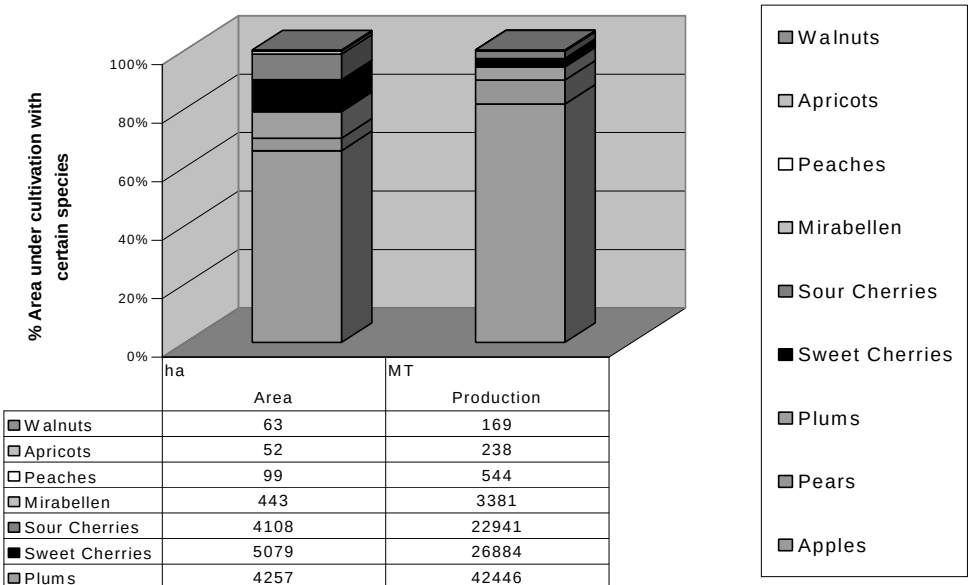
The following pages are based on data from all reporting farms, i.e. those larger than 0.3 ha, hence the difference in total area compared to the previous section.

3.1 Species of Deciduous Fruit

Areawise, apples are by far the most important deciduous fruit species in Germany, which are grown on about two-thirds (31,219 ha) of the German deciduous fruit area. Following in area are sweet cherries (5,366 ha), sour cherries (4,197 ha), plums (4,519 ha), pears (2,090 ha), small yellow plums (also called: mirabellen, 474 ha), peaches (101 ha), walnuts (72 ha) and apricots (53 ha).

When comparing production, the ranking is somewhat different. Apples still take the lead with 762,800 MT, followed by pears (76,139 MT), plums (42,446), sweet cherries (26,884 MT), sour cherries (22,941 MT), small yellow plums (2,111 MT), peaches (494 MT), walnuts (169 MT), and apricots (238 MT).

Chart 1: Percentage of Total Fruit-bearing Tree Area and Production by Species in Germany in 2002



	ha Area	MT Production
Walnuts	63	169
Apricots	52	238
Peaches	99	544
Mirabellen	443	3381
Sour Cherries	4108	22941
Sweet Cherries	5079	26884
Plums	4257	42446
Pears	1997	76139
Apples	30690	762800

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

3.2 Apples

From 1997 to 2002, the reported figures (table 2) show a decline in total apple area of 13 percent. Keeping in mind the different reporting requirements of the two surveys, the actual decline can be assumed to be somewhat lower.

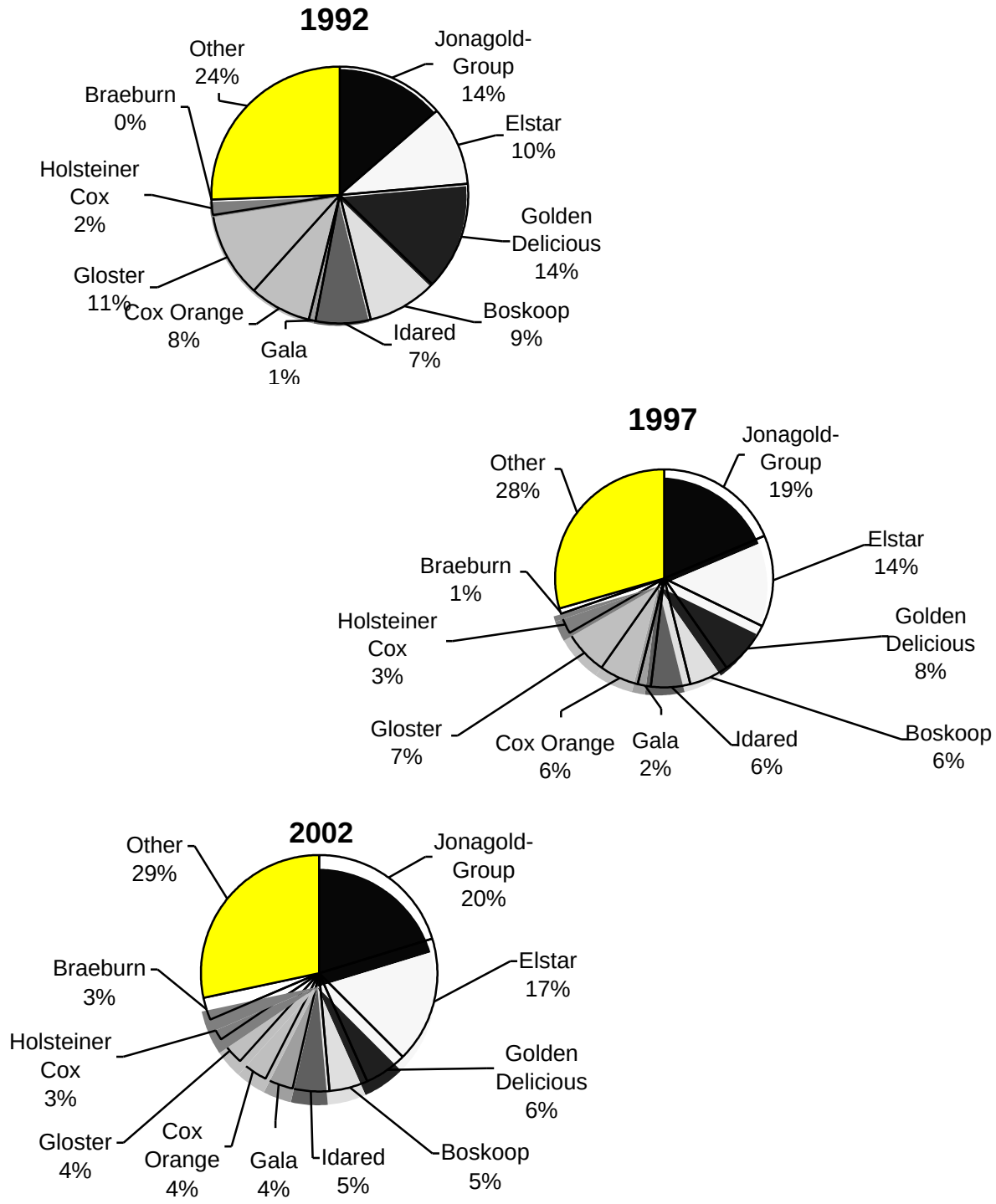
The 2002 survey reports on 69 different apple varieties that are currently grown in Germany. Most of these varieties have a limited or regional importance. Only 23 varieties are grown on more than 100 ha each, less than ten cover more than 1000 ha. More than half of the area (54 percent) is covered by one of the top 5 varieties. The top 10 varieties take up 72 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**	change in percent 1997-2002	1992-2002
Jonagold-Group	4,994	6,684	**6,339**	-5	27
thereof: Jonagold	4,251	5,275	**4,529**	-14	7
Jonagored	743	1,409	**1,810**	28	144
Elstar	3,416	4,861	**5,271**	8	54
Golden Delicious	5,076	2,732	**1,964**	-28	-61
Boskoop	3,143	1,975	**1,710**	-13	-46
Idared	2,487	2,078	**1,575**	-24	-37
Gala	295	860	**1,346**	57	356
Cox Orange	2,720	2,204	**1,234**	-44	-55
Gloster	3,791	2,471	**1,103**	-55	-71
Holsteiner Cox	650	918	**1,022**	11	57
Braeburn	-	418	**952**	128	
Other	9,125	10,592	**8,703**	-18	-5
Total	35,697	35,793	**31,219**	-13	-13

Source: German Federal Office of Statistics, Wiesbaden
Central Market- and Price-Reporting Agency (ZMP), Bonn

Chart 2: The Share of the Top 10 Apple Varieties in Germany as a Percentage of Total Apple Area* from 1992 to 2002



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

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.

The ideal apple for the retail chains is a bi-color variety with a diameter of 75 – 80 mm, and a long shelf life.

3.2.2 Changes in the variety mix

Over the past ten years there has been quite some change in the ranking of apple varieties grown in Germany. "Golden Delicious," which was the number one in this period, lost 61 percent of its area and dropped to number three. "Jonagold"-group gained 27 percent in acreage compared to 1992 to become the new most grown variety, despite a 5 percent decline between 2002 and 1997. This masks different patterns of the "standard Jonagold" and its red mutant "Jonagored," which almost tripled its area from 743 ha in 1992 to 1810 ha in 2002, 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 42 percent from 1992 to 1997 and another 8 percent from 1997 to 2002. In consumer apple tastings, "Elstar" usually receives better results than "Jonagold," plus it does not have the "Jonagold" problem of oversized fruit.

Other expanding varieties are "Gala," "Holsteiner Cox," and "Braeburn." 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. With the ongoing climate change to warmer summers, however, these varieties are 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."

The varieties "Gloster," "Cox Orange," "Boskoop," and "Idared" have declined from 1992 to 2002 by 71, 55, 46, and 37 percent, respectively. Among these only "Boskoop" reached the top 10 of plantings in 2001/2002. "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 2002 by age

	>1 year (ha)	1-4 years (ha)	Total > 5 Years (ha)
Elstar	291	1232	1523
Jonagold-Group	292	526	818
Braeburn	156	382	538
Pinova	136	144	280
Gala	135	465	600
Topaz	38	104	142
Delbardestivale	30	121	151
Rubinette	21	106	127
Boskoop	16	104	120
Golden Delicious	15	130	145
Holsteiner Cox	12	386	398

Source: German Federal Office of Statistics, Wiesbaden

3.3 Pears

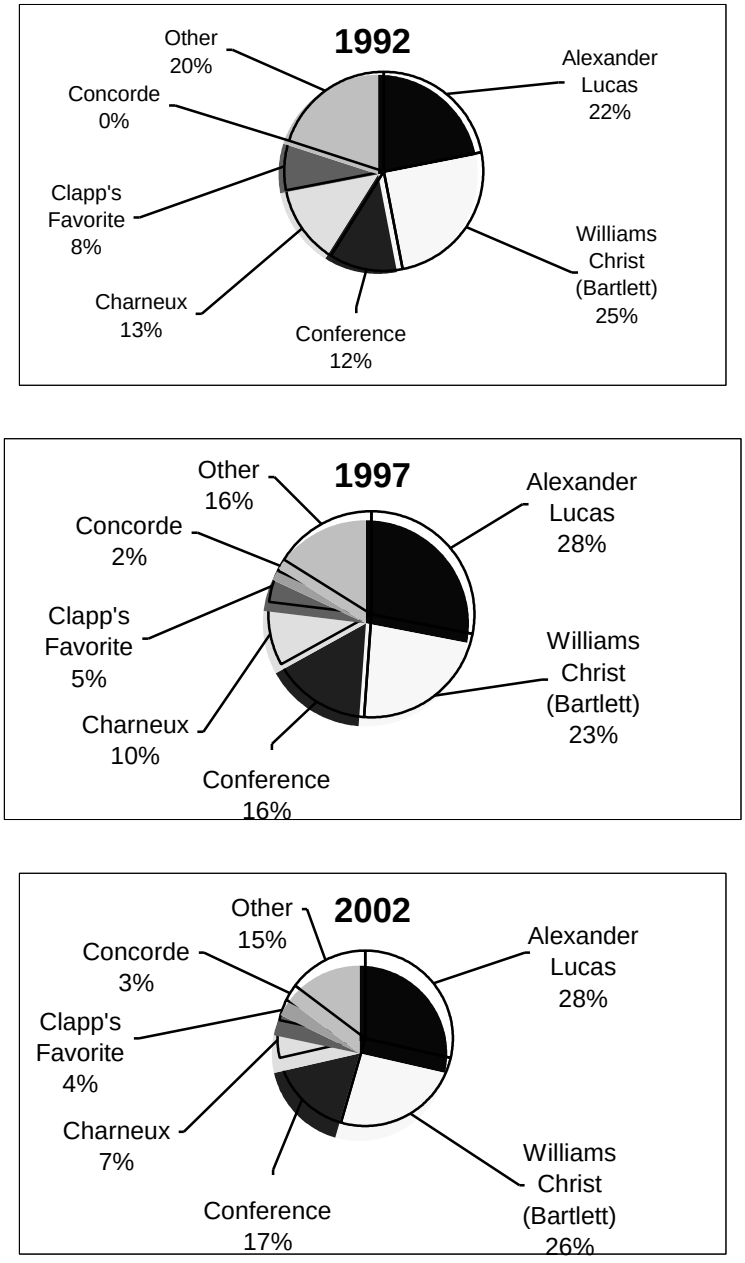
The number of pear varieties is much smaller than those for apples. The survey reports on 19 varieties, with the top 5 varieties accounting for more than 80 percent of the pear area. The sector is also less dynamic concerning variety changes. According to ZMP, the two leading varieties are the same today as in the 1800s, "Alexander Lucas" and "Bartlett." Statistics about plantings of new pear orchards suggest that this trend will continue, although the variety "Conference" is catching up (see table 5).

Table 4: Top 6 Pear Varieties in ha

				Change in Percent	
	1992 (ha)	1997 (ha)	**2002 (ha)**	1997-2002	1992-2002
Alexander Lucas	441	475	**467**	-2	6
Williams Christ (Bartlett)	491	385	**410**	6	-16
Conference	236	262	**268**	2	14
Charneux	257	163	**104**	-36	-60
Clapp's Favorite	167	84	**59**	-30	-65
Concorde	-	35	**52**	49	
Other	400	267	**234**	-12	-42
Total	1992	1671	**1594**	-5	-20

Source: German Federal Office of Statistics, Wiesbaden
Central Market- and Price-Reporting Agency (ZMP), Bonn

Chart 3: The Share of the Top 10 Pear Varieties in Germany as a Percentage of Total Pear Area* from 1992 to 2002



* 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 2002 by Age

	>1 year (ha)	1-4 years (ha)	Total > 5 Years (ha)
Alexander Lucas	12	65	77
Williams Christ (Bartlett)	12	52	64
Conference	15	45	60
Concorde	3	14	17
Clapp's Favorite	1	6	7
Charneux	0	6	6

Source: German Federal Office of Statistics, Wiesbaden