

National Apple Orchards Census 2007



Table of Contents

	Introduction	Page i
	Executive Summary	Page ii
Section 1	Orchard Area, Sales, Growers and Markets	Page 1
Section 2	Varieties and Orchard Age	Page 10
Section 3	Employment, Facilities and Barriers to Expansion	Page 16

Appendix Tables

Table 1.1: Apple Production Area (hectares) by Year of Planting and Apple Type in 2007

Table 1.2: Number of Apple Trees by Year of Planting and Apple Type in 2007

Table 1.3: Apple Sales (tonnes) for the 2006-2007 Season by Market and Apple Type

Table 1.4: Area (hectares) of each Apple Type by County* in 2007

Table 1.5: Number of growers of each Apple Type by County* in 2007

Table 1.6: Apple Sales (tonnes) for the 2006-2007 Season by Market and County*

Table 2.1: Production Area, Number of Growers and Sales for Most Popular Apple Varieties in 2007*

Table 3.1: On-farm Employment in Orchards by County* in 2007

Table 3.2: Apple Storage Facilities by County* in 2007

Table 3.3: Number of Orchards with Mechanical Harvesting and Chilled Transport by County* in 2007

National Apple Orchards Census 2007

Introduction

The 2007 National Apple Orchard Census was compiled from information provided by the 40 apple growers operating in the Republic of Ireland in 2007. The census provides an important overview of apple production in 2007, and comparisons are made to previous censuses (2002 and 1997) where possible. There are two organic orchards operating in 2007, but their information is not included in this report.

Bord Bia and the Department of Agriculture, Food and Fisheries wish to thank all apple growers surveyed, and Teagasc, for their co-operation in compiling this census.

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Notes:

For convenience, figures in this report are rounded.

Statistical analysis for this census was carried out by Franklin Research, Dun Laoghaire, Co. Dublin.

Executive Summary

This report presents the finding of a census of the 40* Irish orchards operating in 2007.

Total production area in 2007 is 579 hectares, representing an 8% decrease from the previous census in 2002. Of the three apple types, culinary apple account for 46% of production area, cider apples for 27% and dessert apples for 26%. The production area of both culinary and dessert apples has decreased since 2002 (down 12% and 11% respectively), while the production area for cider apples has increased marginally (up 2%).

The value of Irish apple production in 2007 is €3.93 million, an increase of 52% from 2002. Culinary and dessert apple production accounts for 80% of the production value (€3.15 million), and cider apple production accounts for 20% (€0.78 million). However, the value of cider apple production has more than doubled since 2002.

Culinary and dessert apples account for 80% of this figure and cider apples for 20%. However, the value of cider apples has more than doubled since 2002 (up 136% to €0.78 million).

The apple sector employs 58 people full-time and 269 people part-time, corresponding to 112 full-time equivalent jobs.

Dublin, Tipperary, Waterford and Kilkenny are the principal counties for apple production, accounting for 82% of total apple production area in 2007. Dublin production is primarily culinary apples, while Tipperary production is mostly cider apples. Production in Waterford and Kilkenny is more even spread across the three apple types.

Growers with larger orchards dominate apple production. Of the 40 orchards in 2007, the top 10 (in terms of orchard area) account for 64% of total production area.

The culinary variety *Bramley's Seedling* is by far the most common apple, accounting for 46% of total production area. The production area of *Bramley's Seedling* declined by 11% since the last census, though it remains the only important culinary variety.

Jonagold is the most important dessert variety (10% of total production area), followed by *Elstar*, *Katja* and *Golden Delicious* (5%, 2% and 2% respectively). Production of *Katja* has fallen substantially since 1997.

Dabinett and *Michelin* are the most important cider varieties, representing 13% and 9% of total production area respectively. The production area of *Dabinett* has increased 35% since 2002, while *Michelin* has decreased 11%. The production area of other cider varieties has declined by 28% since 2002.

Cider apple orchards have the youngest age-profile, reflecting the growth of this category in recent years. Trees of less than 10 years of age account for 56% of cider production area. Culinary apple orchards have the oldest age-profile, with 44% of culinary production area being trees of 20 years or more. This age profile of culinary apple orchards is a point of concern.

35% of orchards have mechanical harvesting equipment. Regarding storage facilities, 48% of orchards have refrigeration storage, 33% have barn storage and 63% have bin storage.

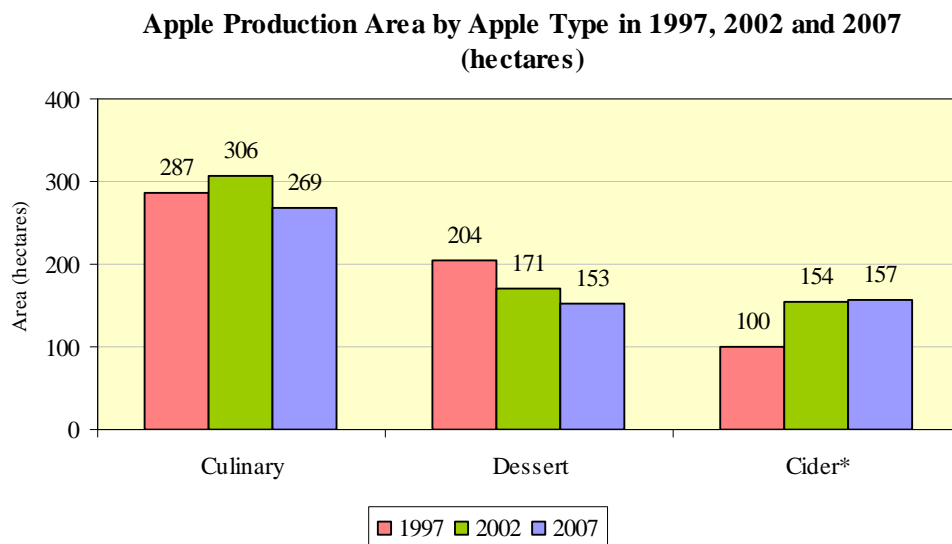
Grower comments on barriers to expansion are dominated by profitability issues (i.e. high investment and operating costs but low prices and lack of markets).

* Note: there are 2 organic orchards in 2007, but these are excluded from this report.

Section 1 Orchard Area, Sales, Growers and Markets

This section provides an overview of apple production in Ireland. The charts illustrate the key trends in orchard area, sales, growers and markets.

Chart 1



* The 1997 cider apple figure is based on a Teagasc estimate.

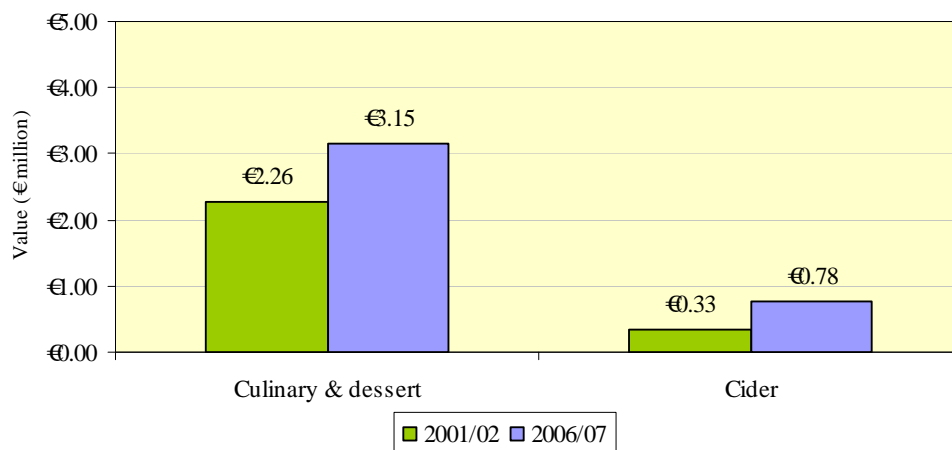
The total production area of the three apple types (culinary, dessert and cider) in 2007 is 579 hectares. This is an 8% decrease from the total production area recorded in the 2002 census (631 hectares) and a 2% decrease on the 1997 census (591 hectares).

Culinary apple production area in 2007 is 269 hectares, representing 46% of total production area. Cider apple production area is 157 hectares (27% of total production area) and dessert apple production area is 153 hectares (26%).

Culinary apple production area is down 12% since the 2002 census (from 306 hectares in 2002 to 269 hectares in 2007). Cider apple production area increased 2% (from 154 hectares in 2002 to 157 in 2007) and dessert apple production area decreased 11% (from 171 hectares in 2002 to 153 hectares in 2007).

Chart 2

Farmgate Value of Apples in 2001/02 and 2006/07 (€million)*



* 1996/97 value figures not available. Culinary and dessert combined because 2007 census asked growers for the combined value of culinary and dessert apple sales.

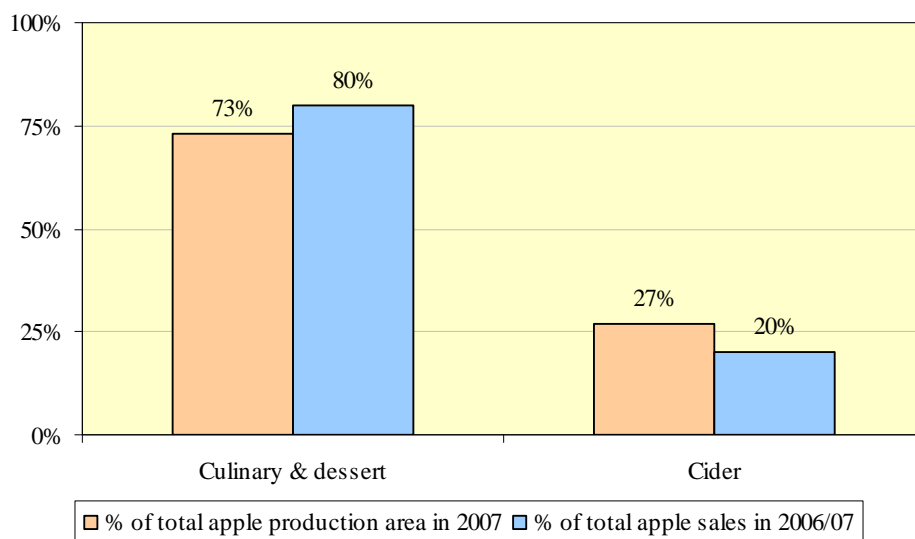
Total farmgate sales value of Irish apples for the 2006/2007 season is €3.93 million. This is a 52% increase from the €2.59 million value recorded in 2002.

Culinary and dessert apples sales in 2006/07 were €3.15 million, representing 80% of total farmgate value. Cider apples sales in 2006/07 were €0.78 million, representing 20% of total farmgate value.

The value of culinary and dessert apple sales increased by 39% (from €2.26 million in 2002/02 to €3.15 million in 2006/07), while the value of cider apple sales increased by 136% (from €0.33 million in 2001/02 to €0.78 million in 2006/07).

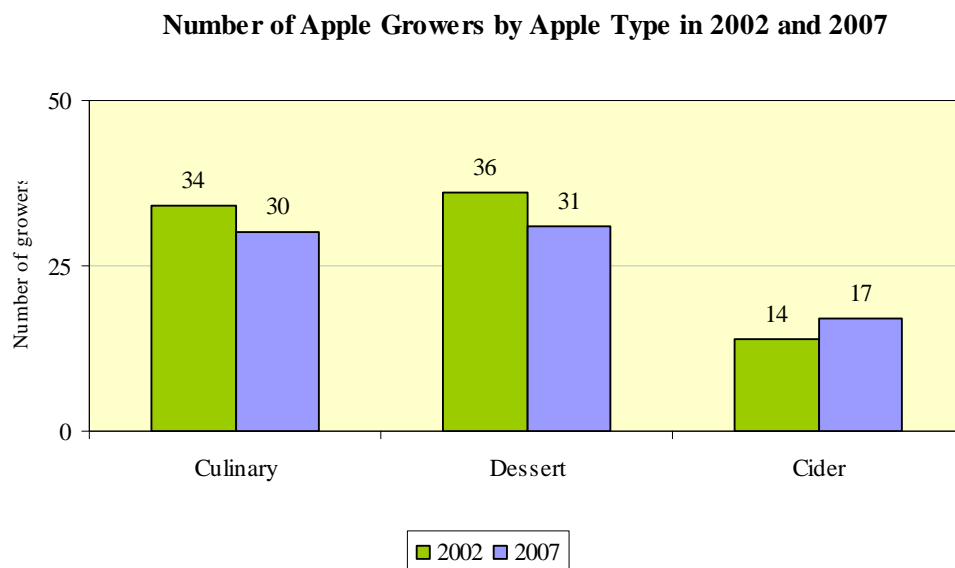
Chart 3

Apple Type by Orchard Area in 2007 and Farmgate Sales Value (€) in 2006/07 Season



Culinary and dessert apples in 2007 account for 73% of total production area and 80% of total apple sales value. Cider apples account for 27% of total production area and 20% of total sales area.

Chart 4



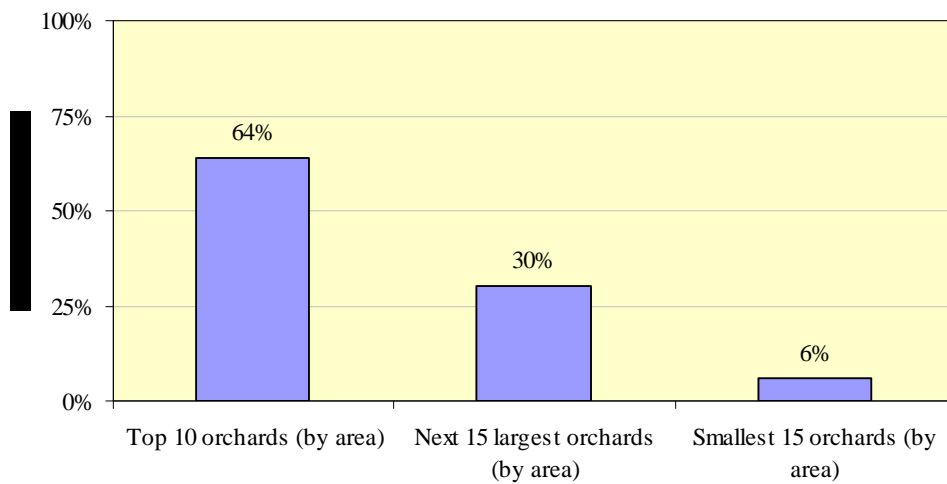
There are 40 apple growers in Ireland in 2007, of which 30 grow culinary apples, 31 grow dessert apples and 17 grow cider apples.

The number of apple growers has decreased 13% since 2002 (from 46 growers in 2002 to 40 growers in 2007).

The number of growers growing culinary apples is down 12% (from 34 growers in 2002 to 30 growers in 2007) and the number of growers growing dessert apples is down 14% (from 36 growers in 2002 to 31 growers in 2007). However, the number of growers growing cider apples is up 21% indicating a few new entrants (from 14 growers in 2002 to 17 growers in 2007).

Chart 5

Apple Production by Orchard Size in 2007

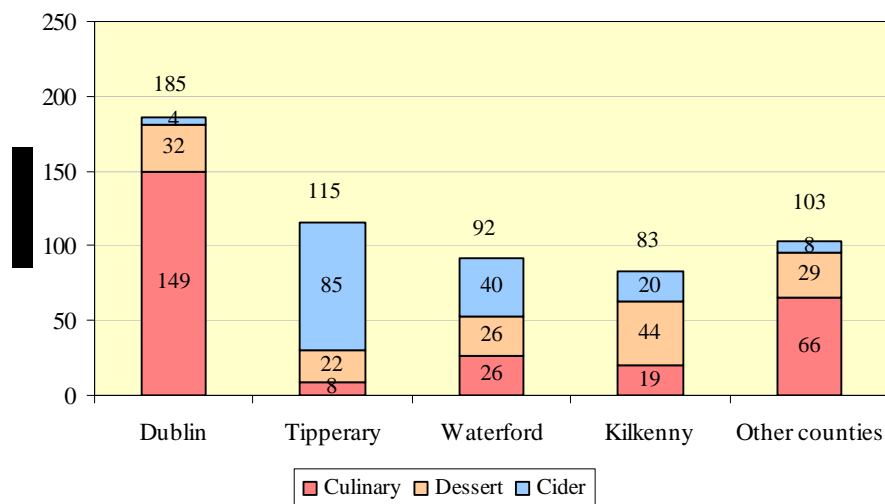


Total number of orchards in 2007 is 40.

Apple production is dominated by growers with larger orchards. Of the 40 orchards in 2007, the top 10 (in terms of orchard area) account for 64% of total production area. The next 15 orchards account for 30% of total production area, while the smallest 15 orchards account for 6%.

Chart 6

Production Area of each Apple Type by County in 2007 (hectares)



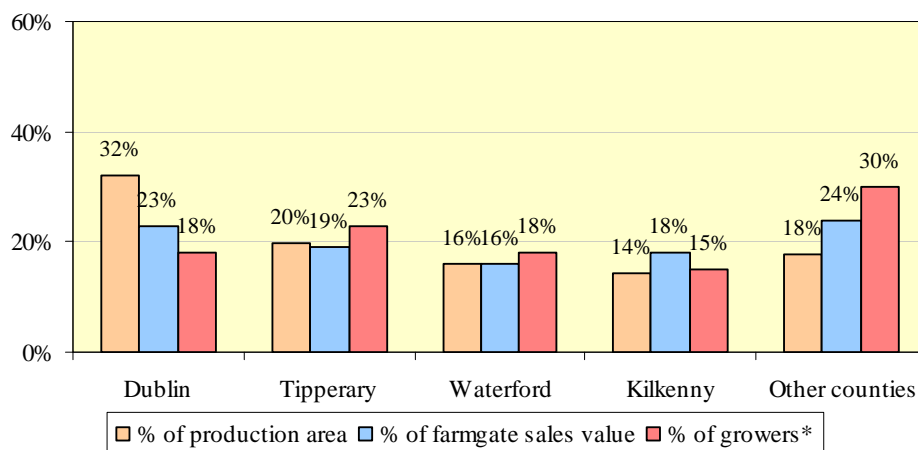
Four counties (Dublin, Tipperary, Waterford and Kilkenny) account for 82% of total apple production area in 2007.

Dublin has the highest production area, with 185 hectares (representing 32% of total production area), followed by Tipperary with 115 hectares (20% of total production area).

Dublin production is mostly concentrated in culinary production, with 149 hectares of culinary apples (out of a total production area of 185 hectares). Tipperary production is mostly cider production, with 85 hectares of cider apples (out of a total of 115 hectares). Production in Waterford and Kilkenny is more even spread across the three apple types.

Chart 7

Apple Production Area, Farmgate Value and Number of Growers by County in 2007



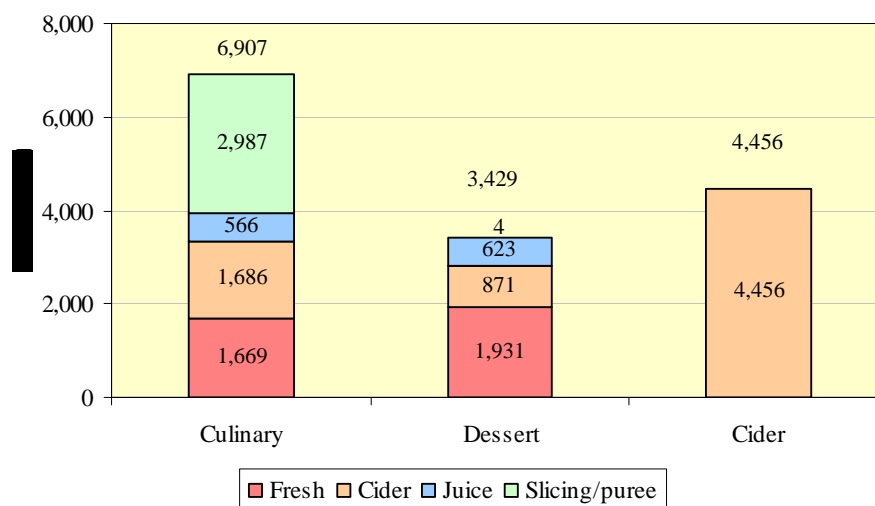
* Adds to 103% due to rounding on small base size (40 growers).

The four counties, Dublin, Tipperary, Waterford and Kilkenny account for 82% of total production area, 76% of total farmgate sales value and 74% of all growers.

Dublin represents 32% of total production area but only 18% of growers, indicating a higher than average orchard size in Dublin.

Chart 8

Markets for Irish Grown Apples in the 2006-2007 Season (tonnes)



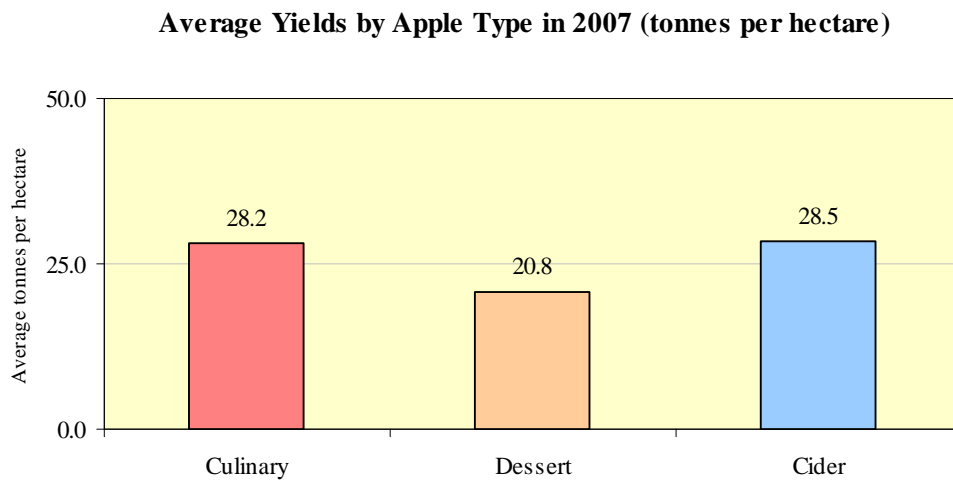
Approximately fifteen thousand tonnes (14,792 tonnes) of apples were sold in the 2006/07 season.

Culinary apples sales tonnage was 6,907 tonnes in the 2006/07 season, representing 47% of total sales tonnage. Of this, 2,987 tonnes were sold into the slicing/puree market, 1,686 tonnes were sold into the cider market, 1,669 tonnes were sold into the fresh market and 566 were sold into the juice market.

Dessert apple sales tonnage was 3,429 tonnes, representing 23% of total sales tonnage. Of this, 1,931 tonnes were sold into the fresh market, 871 tonnes were sold into the cider market, 623 tonnes were sold into the juice market and 4 tonnes were sold into the slicing/puree market.

Cider apple sales tonnage was 4,456 tonnes, representing 30% of total sales tonnage.

Chart 9

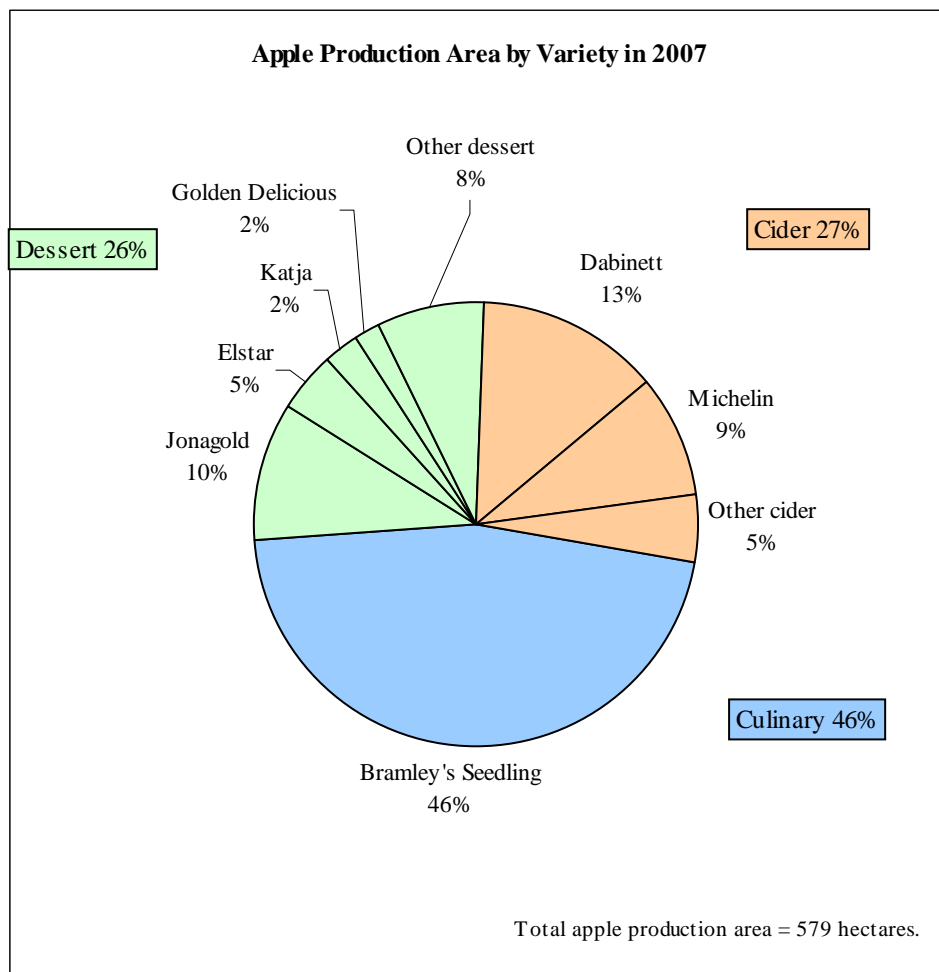


The average yield per hectare is 28.2 tonnes for culinary apples, 20.8 tonnes for dessert apples and 28.5 tonnes for cider apples.

Section 2 Varieties and Orchard Age

This section provides a breakdown of the census information by variety of apple grown. Information about the age profile of apple trees is also provided.

Chart 10



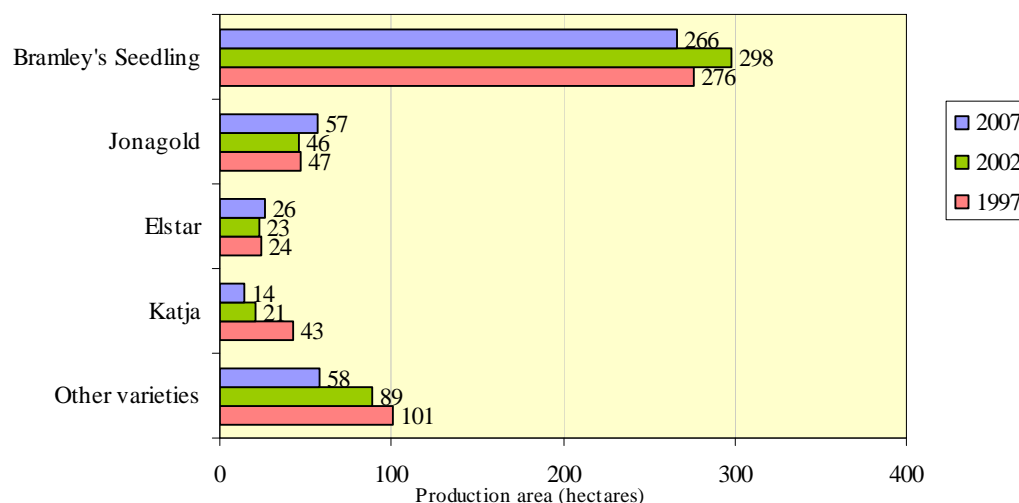
Culinary production: culinary apples account for 46% of total apple production area in 2007. *Bramley's Seedling* accounts for virtually all culinary apple production (269 hectares of culinary apples, of which 266 hectares are *Bramley's Seedling*).

Dessert production: dessert apples account for 26% of total apple production area. *Jonagold* is the most produced dessert variety accounting for 10% of total apple production area, followed by *Elstar* (5% of total apple production area), *Katja* (2%) and *Golden Delicious* (2%).

Cider production: cider apples account for 27% of total apple production area. *Dabinett* is the most produced cider variety accounting for 13% of total apple production area, followed by *Michelin* (9% of total apple production area)

Chart 11

Most Important Culinary and Dessert Apple Varieties (hectares) in 1997, 2002 and 2007



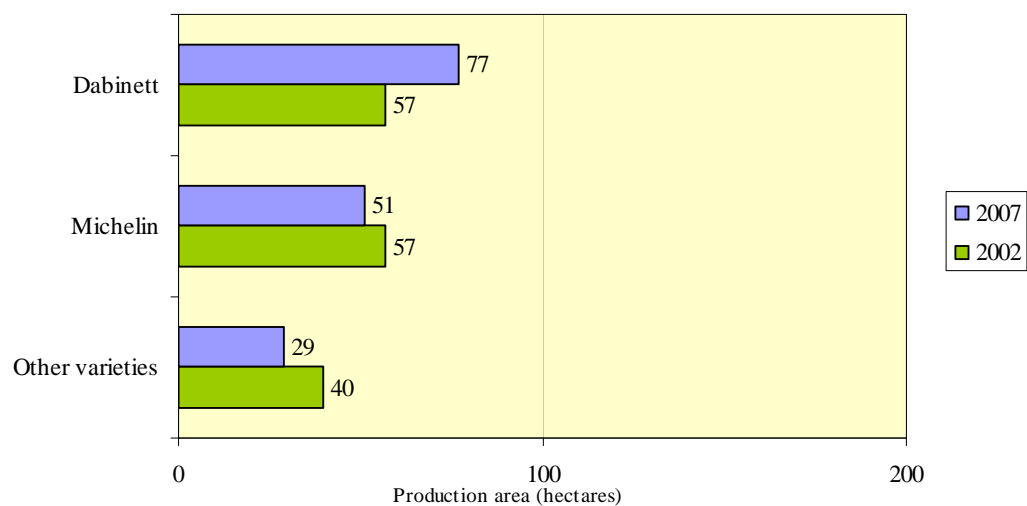
The production area of the culinary variety *Bramley's Seedling* in 2007 is 266 hectares, down from 298 hectares in 2002 and 276 hectares in 1997.

Among the dessert varieties, the production area of *Jonagold* is down slightly from previous years (57 hectares in 2007, from 46 hectares in 2002 and 47 hectares in 1997). The production area of *Elstar* is virtually unchanged (26 hectares in 2007, from 23 hectares in 2002 and 24 hectares in 1997), while the production area of *Katja* is down substantially (14 hectares in 2007, from 21 hectares in 2002 and 43 hectares in 1997).

Appendix 2 provides production areas for other culinary and dessert varieties.

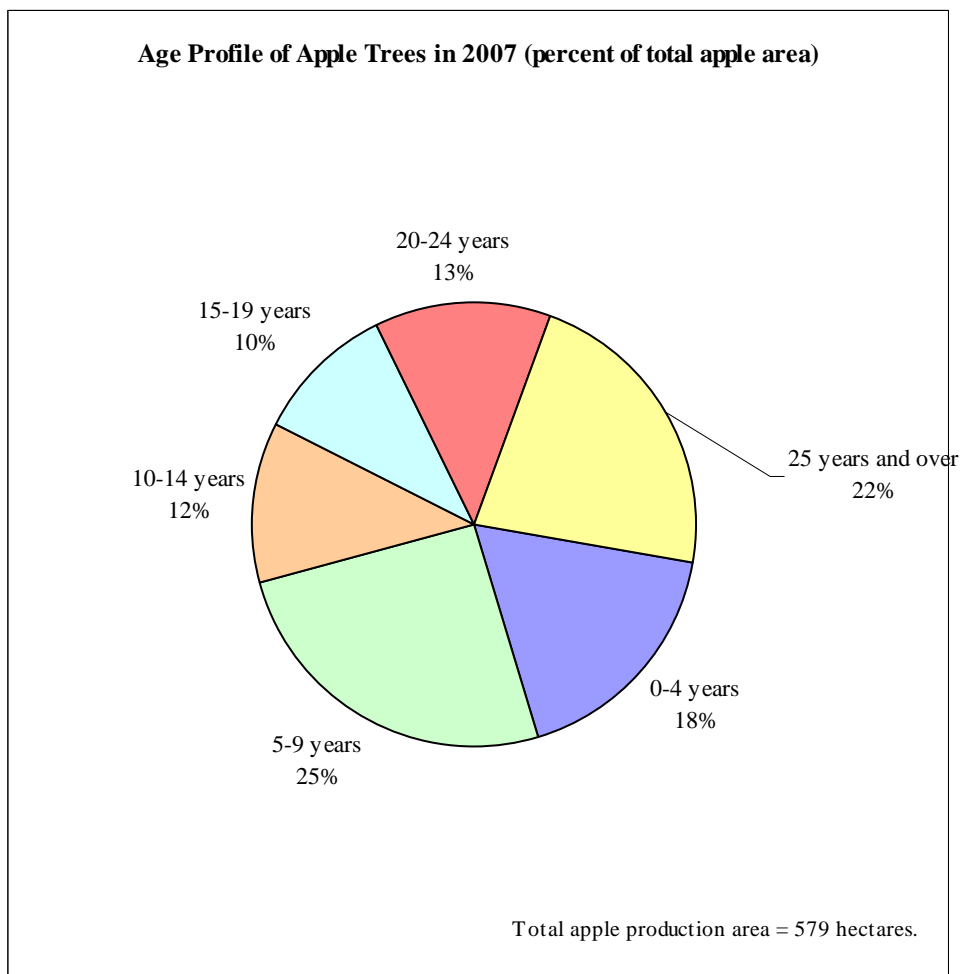
Chart 12

Most Important Cider Apple Varieties (hectares) in 2002 and 2007



Among the cider varieties, the production area of Dabinett is 77 hectares in 2007 (up from 57 hectares in 2002) and the production area of Michelin is 51 hectares (down from 57 hectares in 2002).

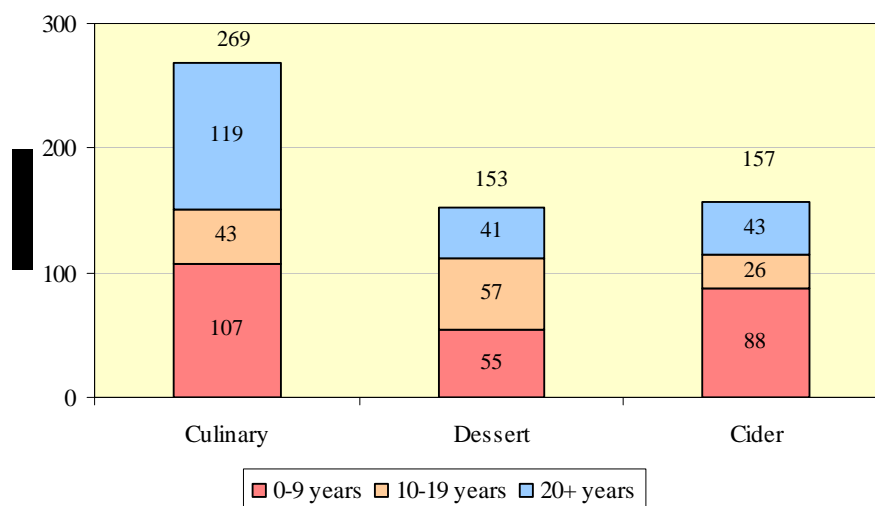
Chart 13



Irish orchards have a balanced profile between younger trees and trees that have reached maturity. In 2007, 18% of production area (102 hectares) is trees of 0-4 years of age and 25% (148 hectares) is trees of 5-9 years of age.

Chart 14

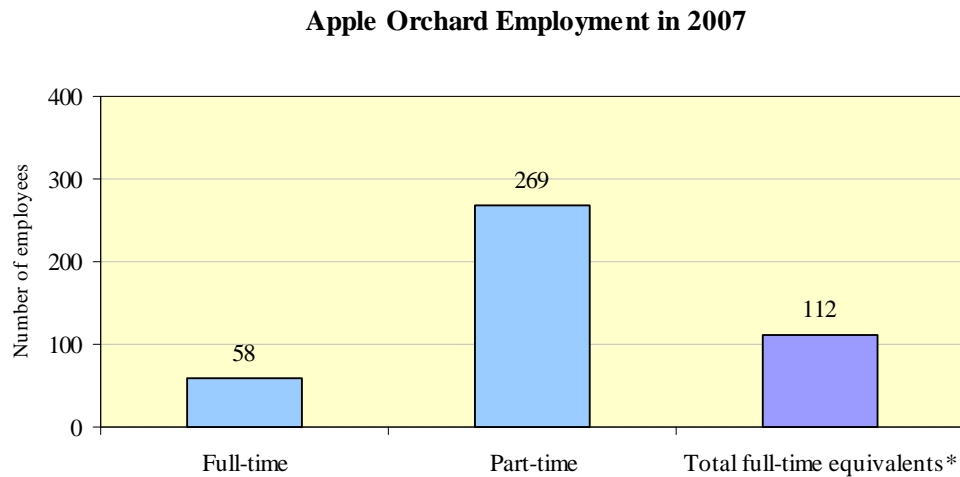
Age Profile of Apple Trees by Apple Type in 2007 (hectares)



Cider apple trees have the youngest age-profile, with 56% (i.e. 88 hectares of the total cider area of 157 hectares) being trees of less than 10 years of age. Culinary apple trees have the oldest age-profile, with 44% (i.e. 119 hectares of the total culinary area of 269 hectares) being trees of 20 years or more. As the production life of a *Bramley's Seedling* tree is approximately 30 years, the age-profile of culinary apple trees is a point of concern.

Section 3 Employment, Facilities and Barriers to Expansion

Chart 15

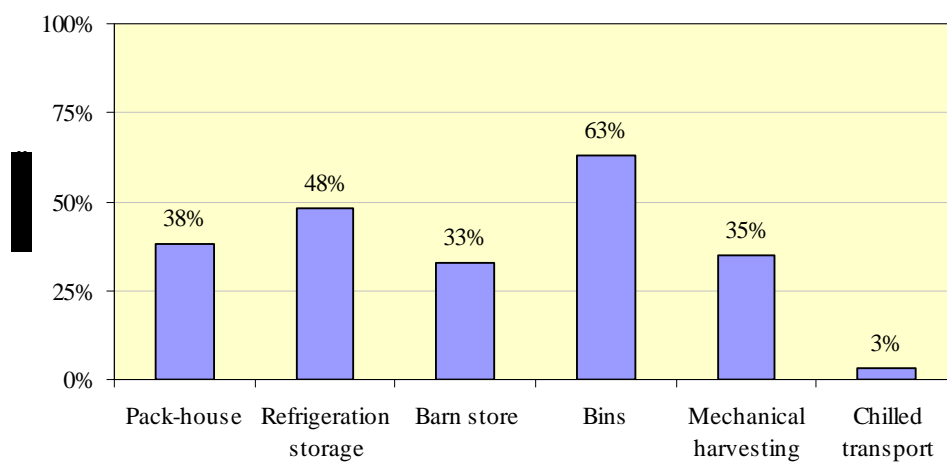


* Full-time jobs plus part-time jobs aggregated to the number of full-time jobs they would represent.

There are 58 people in full-time employment on Irish orchards in 2007 and 269 people in part-time employment. Converting those in part-time employment to the number of full-time jobs they would represent, results in a total of 112 full-time equivalent jobs on Irish orchards in 2007.

Chart 16

Percentage of Growers with Different Facilities in 2007



Total number of growers is 40.

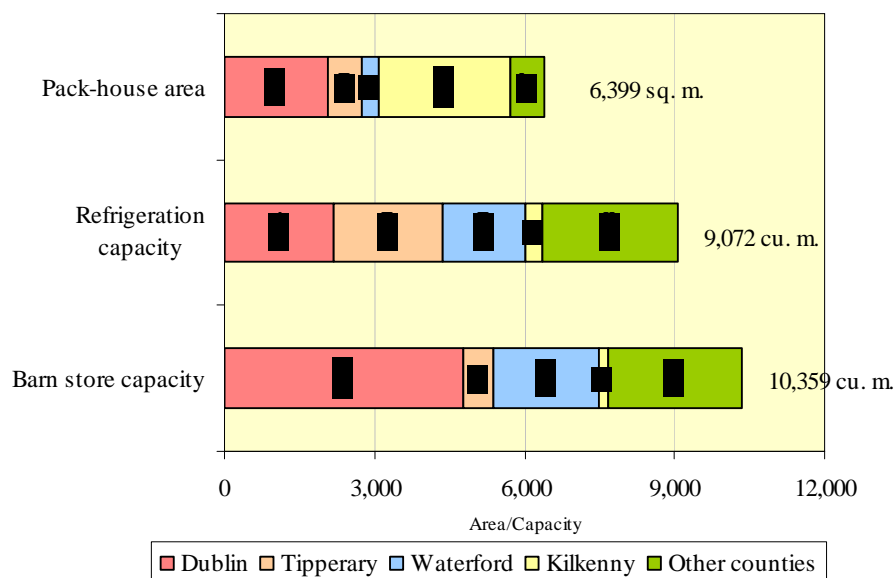
38% of growers have some type of pack-house area.

For apple storage, 48% have refrigeration storage, 33% have barn storage and 63% have bin storage.

35% of growers have mechanical harvesting (primarily cider orchards) and 3% of growers (i.e. one grower) have chilled transport.

Chart 17

Area and Capacity of Apple Storage Facilities by County in 2007



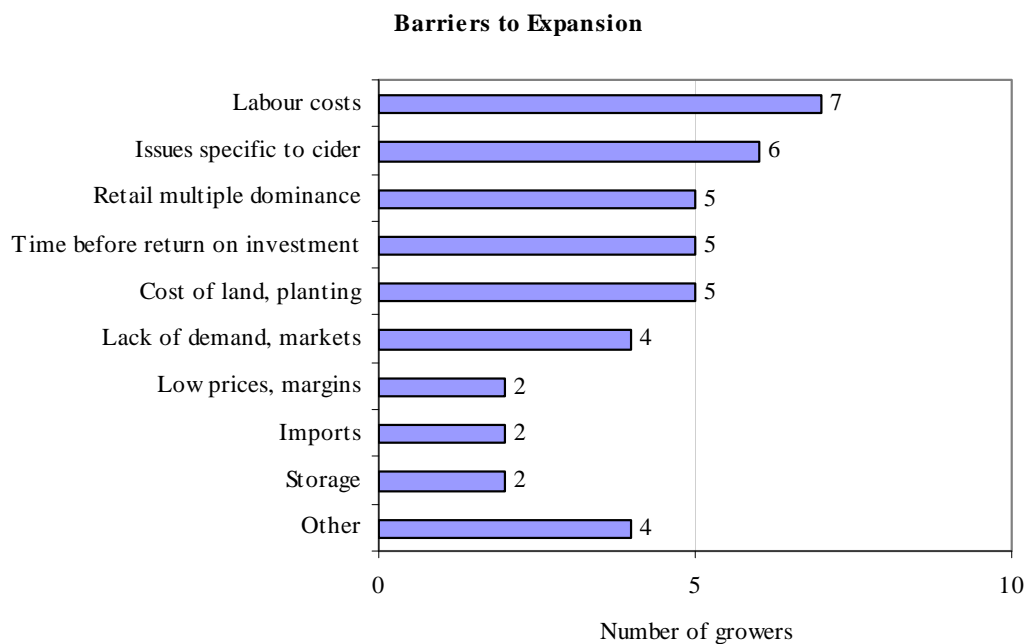
Pack house area in 2007 is 6,399 square metres. Kilkenny accounts for 41% of this area (2,647 square metres), followed by Dublin with 33% (2,081 square metres).

Total refrigeration capacity in 2007 is 9,072 cubic metres. Dublin and Kilkenny each account for 24% of this capacity (2,194 cubic metres for Dublin and 2,180 for Kilkenny), while 'other counties' account for 30% (2,718 cubic metres).

Barn store capacity in 2007 is 10,359 cubic metres. Dublin accounts for 46% of this capacity (4,780 cubic metres), followed by Waterford with 20% (2,108 cubic metres).

Appendix Table 3.2 provides information on bin storage by county.

Chart 18



Grower comments on barriers to expansion are dominated by cost and profitability issues. In the above chart, *labour costs*, *retail multiple dominance*, *time before return on investment*, *cost of land/planting*, *lack of demand/markets*, *low prices/margins*, *imports* all relate to making a profitable return on investment.

APPENDICES

Section 1: Orchard Area, Number of Trees, Number of Growers and Sales

Table 1.1: Apple Production Area (hectares) by Year of Planting and Apple Type in 2007

Apple Type	Area (hectares)						Total
	Planted 2002-2007	Planted 1997-2002	Planted 1992-1997	Planted 1987-1992	Planted 1982-1987	Planted 1982 and earlier	
Culinary	69	38	15	28	45	74	269
Dessert	26	29	32	25	18	23	153
Cider	7	81	20	6	12	32	157
Total	102	148	67	59	75	129	579

Table 1.2: Number of Apple Trees by Year of Planting and Apple Type in 2007

Number of trees							
Apple Type	Planted 2002- 2007	Planted 1997- 2002	Planted 1992- 1997	Planted 1987- 1992	Planted 1982- 1987	Planted 1982 and earlier	Total
Culinary	66,740	53,143	12,525	27,791	25,936	29,508	215,642
Dessert	38,551	49,830	47,875	30,620	14,304	16,220	197,400
Cider	3,850	46,797	9,605	2,625	5,425	12,985	81,287
Total	109,141	149,769	70,005	61,036	45,665	58,713	494,328

Table 1.3: Apple Sales (tonnes) for the 2006-2007 Season by Market and Apple Type

Apple Type	Market type - Sales (tonnes)				
	Fresh	Cider	Juice	Slicing/puree	Total
Culinary	1,669	1,686	566	2,987	6,907
Dessert	1,931	871	623	4	3,429
Cider	0	4,456	0	0	4,456
Total	3,600	7,012	1,189	2,991	14,792

Table 1.4: Area (hectares) of each Apple Type by County* in 2007

County	Area (hectares)			
	Culinary Apples	Dessert Apples	Cider Apples	Total
Dublin	149	32	4	185
Kilkenny	19	44	20	83
Tipperary	8	22	85	115
Waterford	26	26	40	92
Wexford	3	20	0	23
Other counties	62	10	8	80
Total	269	153	157	579

* Counties with 3 or more growers.

Table 1.5: Number of growers of each Apple Type by County* in 2007

County	Number of growers			
	Culinary Apples	Dessert Apples	Cider Apples	Total**
Dublin	6	6	1	7
Kilkenny	6	6	3	6
Tipperary	4	6	5	9
Waterford	4	5	6	7
Wexford	3	3	0	3
Other counties	7	5	2	8
Total	30	31	17	40

* Counties with 3 or more growers.

** The total is not the sum of the row as growers can grow more than one apple type.

Table 1.6: Apple Sales (tonnes) for the 2006-2007 Season by Market and County*

County	Market type - Sales (tonnes)				
	Fresh	Cider	Juice	Slicing/puree	Total
Dublin	1,090	571	626	1,678	3,965
Kilkenny	1,084	1,568	42	89	2,782
Tipperary	322	2,553	163	0	3,038
Waterford	848	1,700	25	0	2,573
Wexford	234	32	209	0	474
Other counties	23	590	124	1,224	1,961
Total	3,600	7,012	1,188	2,991	14,791

Section 2: Production Area, Number of Growers and Sales for Most Popular Apple Varieties

Table 2.1: Production Area, Number of Growers and Sales for Most Popular Apple Varieties in 2007*

Apple variety	Number of growers	Area (hectares)	Market type - Sales (tonnes)				Total
			Fresh	Cider	Juice	Slicing/puree	
Culinary							
Bramley's Seedling	30	266	1,669	1,636	540	2,987	6,831
Dessert							
Johnagold	20	57	987	332	216	4	1,539
Elstar	17	26	386	64	32	0	483
Katja	15	14	111	165	6	0	282
Discovery	10	9	153	20	6	0	179
Golden Delicious	5	10	3	20	199	0	222
Idared	4	5	67	40	0	0	107
Worcester Pearmain	4	8	38	85	24	0	147
Cox's Orange Pippin	3	3	56	25	1	0	82
Ceeval	3	1	10	0	1	0	11
Cider							
Dabinett	16	77	0	2,170	0	0	2,170
Michelin	13	51	0	1,304	0	0	1,304
Ashton Bitter	5	4	0	102	0	0	102

* Varieties grown at 3 or more orchards.

Section 3: Employment and Facilities

Table 3.1: On-farm Employment in Orchards by County* in 2007

County	Full time	Part time	Total full time equivalents
Dublin	18	69	35
Kilkenny	8	52	18
Tipperary	13	25	21
Waterford	6	41	14
Wexford	1	17	6
Other counties	12	65	18
Total	58	269	112

* Counties with 3 or more growers.

Table 3.2: Apple Storage Facilities by County* in 2007

County	Pack-house		Refrigeration storage		Barn store		Bins	
	Number of orchards	Area (sq. m)	Number of orchards	Area (cu. m)	Number of orchards	Area (cu. m)	Number of orchards	Number
Dublin	3	2,081	5	2,194	4	4,780	5	4,950
Kilkenny	2	2,647	3	341	3	190	6	4,610
Tipperary	3	680	3	2,180	1	600	3	1,530
Waterford	2	314	2	1,640	2	2,108	3	2,450
Wexford	3	365	2	634	1	856	3	795
Other counties	2	312	4	2,084	2	1,825	5	3,800
Total	15	6,399	19	9,072	13	10,359	25	18,135

* Counties with 3 or more growers.

Table 3.3: Number of Orchards with Mechanical Harvesting and Chilled Transport by County* in 2007

County	Orchards with mechanical harvesting	Orchards with chilled transport
Dublin	0	1
Kilkenny	3	0
Tipperary	4	0
Waterford	6	0
Wexford	0	0
Other counties	1	0
Total	14	1

* Counties with 3 or more growers.