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Cereal and Oilseed Rape Harvest 2021 Final Estimates

14 December 2021



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Introduction

Total cereal production from the 2021 harvest fell is estimated to be 2.9 million tonnes, this is down eight per cent compared to 2020, but in line with the average over the past decade.

Total area sown was similar to 2020. As winter crop planting areas increased compared with those from the wet 2020 autumn, spring planting areas decreased.

The decrease in production was largely driven by decreases in yield. Yields of spring crops decreased compared to the highs of 2019 and 2020 towards more average figures.

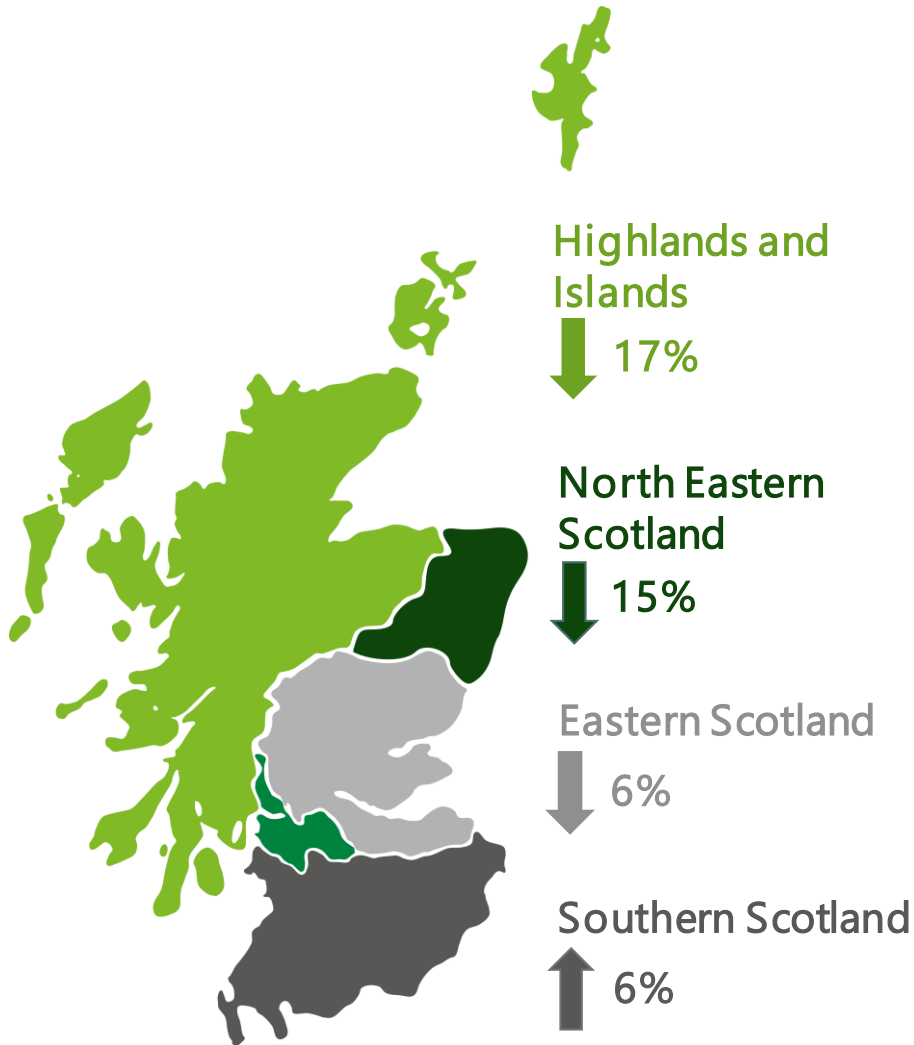
Commonly used terms

Hectares: the official measurement of agricultural land. One hectare is 10,000 square meters or roughly the same as a full-size rugby pitch.

Production: the total amount of crops that are produced measured in metric tonnes.

Yield: the amount of produce, weighed in tonnes, that is harvested per hectare of land.

Cereal production down across Scotland



Overall, cereal production decreased across the country.

Highlands and Islands saw a 17 per cent reduction in production and 16 per cent in yield.

North Eastern Scotland production and yield reduced by 15 and 16 per cent respectively.

Eastern Scotland saw the production and yield decrease by six per cent.

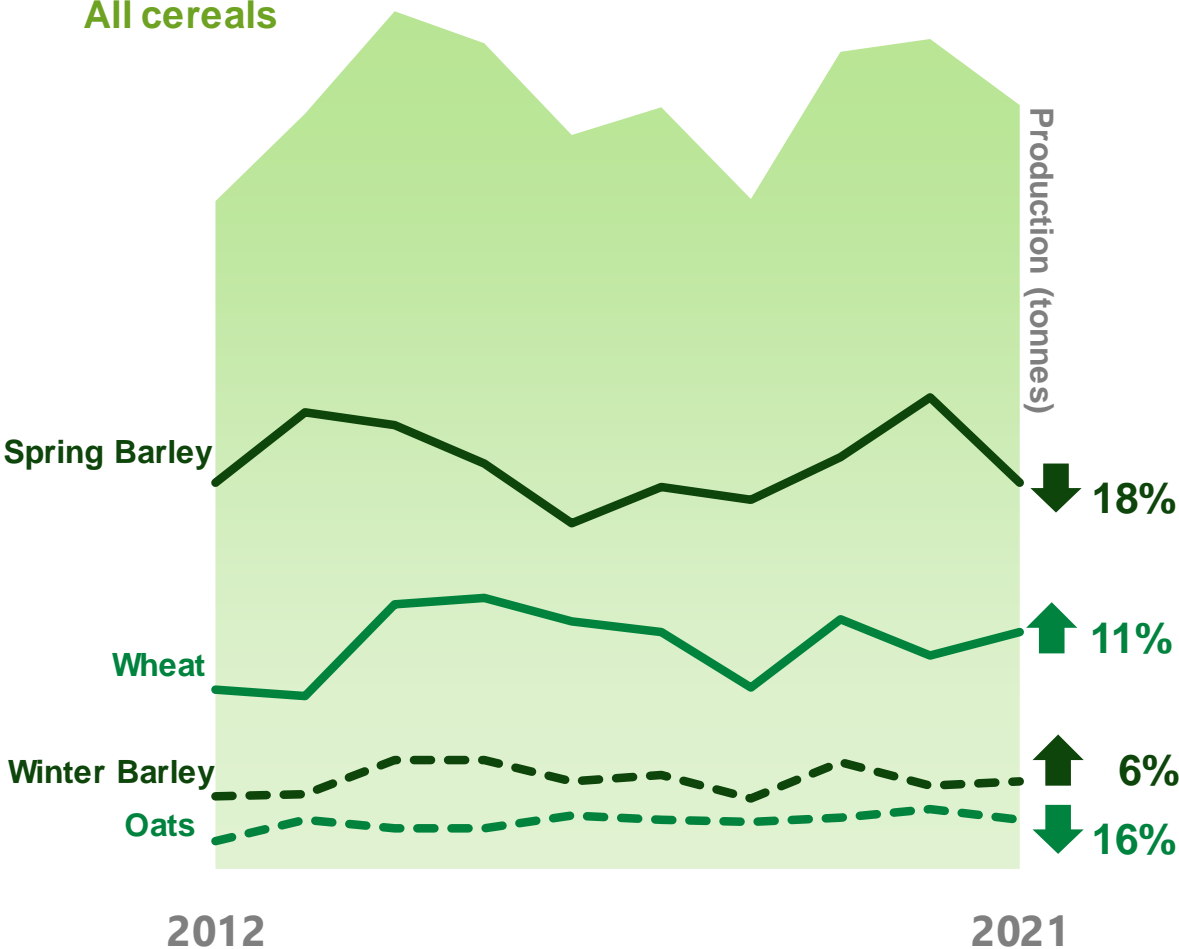
Southern Scotland experienced the smallest change from year to year compared to other regions, with a six per cent increase in production, four per cent increase in yield, and two per cent increase in area.

West Central Scotland production increased by 15 per cent, with increases of six and nine per cent for area and yield respectively. However, only around one per cent of cereals were grown in West Central Scotland and these changes may not be significant.

Overall decrease in production but signs of winter crop recovery



All cereals



↓ **8%** Cereal production

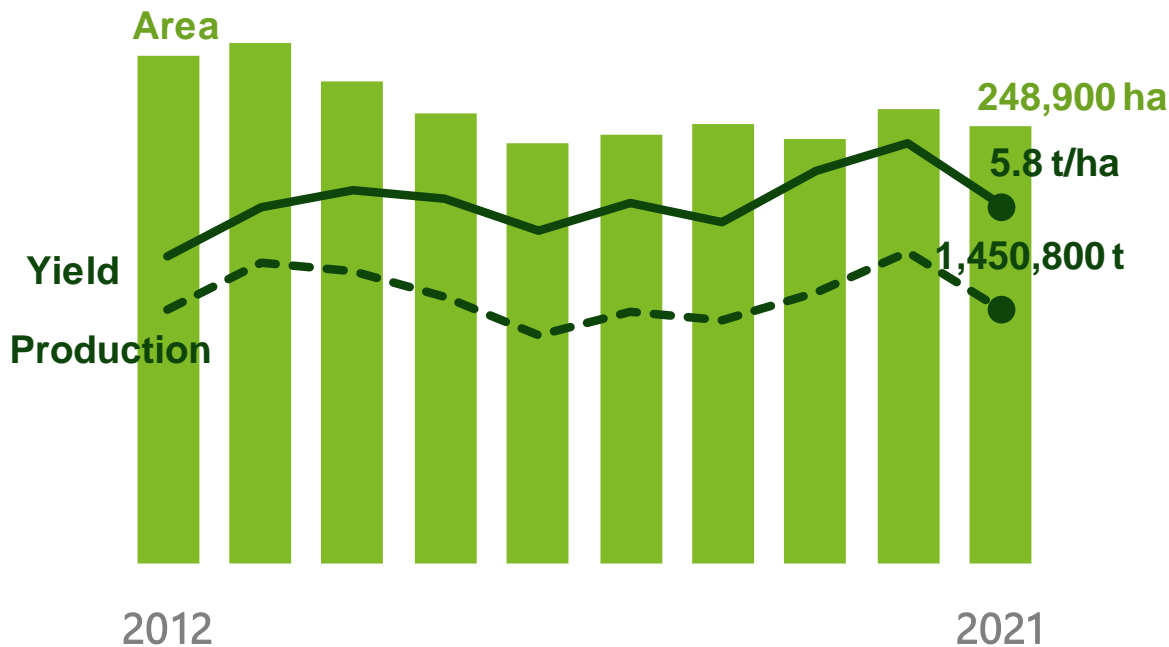
There is little change in total cereal area compared to 2020. Overall yield decreased by eight per cent, resulting in an eight per cent decrease in total cereal production.

Wet conditions in 2019-20 led to decreases in the area used to grow winter planted crops and affected yields.

More favourable conditions for the 2020-21 sowing season and harvest have resulted in recovery of winter planting, reflected in an increased area and production for wheat and increased yield and production for winter barley.

Spring crops followed with decreases in area but also experienced yield decreases, resulting in decreased production.

Decreases for spring barley



Spring barley accounts for

49%

Total crop production

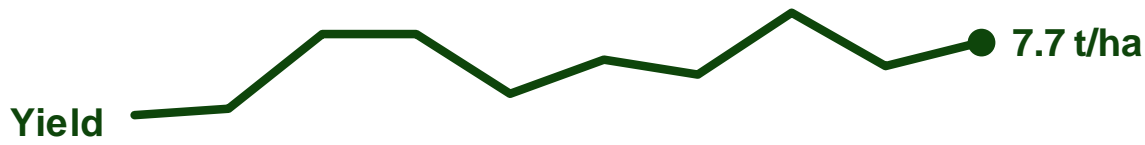
The combination of spring and winter barley makes up 60 per cent of total crop production.

In 2021, 81 per cent of barley production was made up of spring barley.

After the record year in 2020, a four per cent decrease in area and 15 per cent decrease in yield to just below the ten year average has resulted in an 18 per cent decrease in spring barley production.

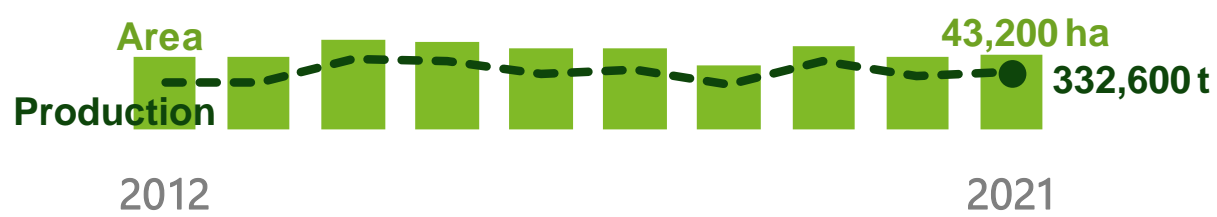
Barley is the main cereal crop grown in Scotland. Most of the barley grown in Scotland is spring barley. Spring barley is sown around March. Winter barley is sown in the autumn.

Winter barley production increases



Winter barley accounts for

11% Total crop production



Overall, winter barley yield was above average.

The area of winter barley sown experienced a small 0.4 per cent increase.

Combined with a five per cent increase in yield this resulted in a six per cent increase in production.

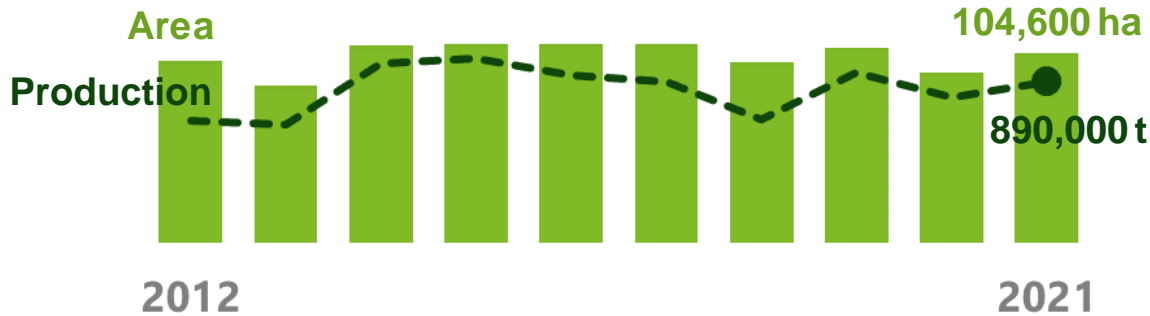
Barley is a key ingredient for the Scottish whisky industry.

In 2020, 57 per cent of Scottish barley was sold to merchants for malting. A further 35 per cent of barley was used as animal feed.

Increase in wheat production



Wheat accounts for
30% Total crop production



Wheat yield remains higher than average, despite a one per cent decrease compared to the previous year.

In 2021, the grown area of wheat increased by 12 per cent.

Production increased by 11 per cent, rising above the ten year average.

Scottish wheat is mainly soft wheats used in distilling. In 2020, around 29 per cent of wheat was sold to merchants for malting.

The Scottish climate does not suit hard wheat varieties, which is imported for milling.

Oats see decrease in area, yield and production

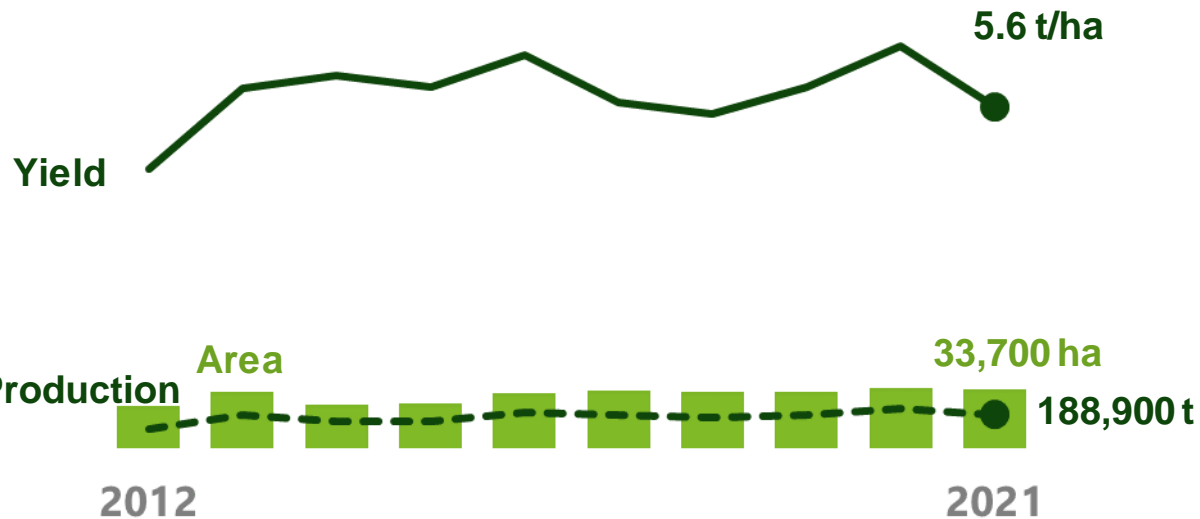


Oats account for

6% Total crop production

Decreases of one per cent in grown area and 15 per cent in yield have resulted in a 16 per cent decrease in production for oats in 2021.

However, oat production remains seven per cent higher than the ten year average.



The majority of oats grown in Scotland are sown in the spring and used for milling. In 2020, almost 80 per cent of oats were used for milling.

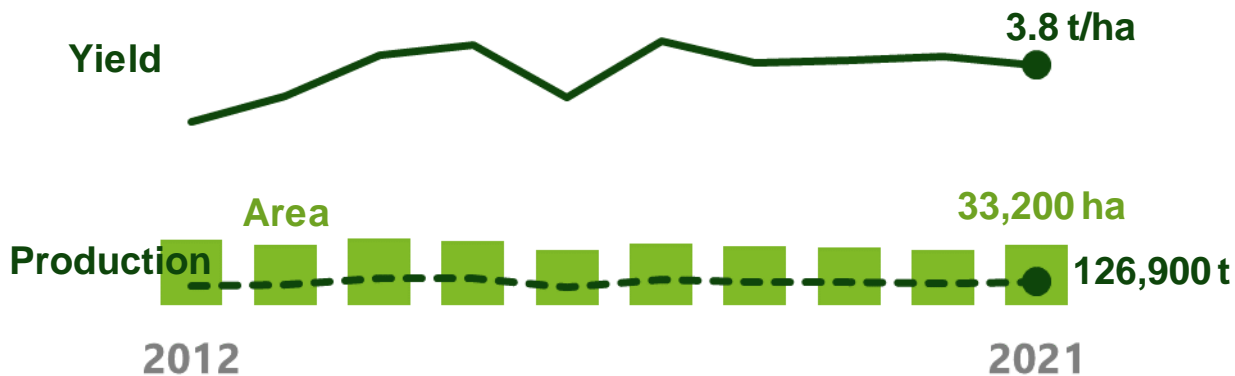
Oats are also used in specialist animal feed and in further processing for oatcakes and porridge oats.

Despite a reduced yield, oilseed rape production increases



Oilseed rape accounts for

4% Total crop production



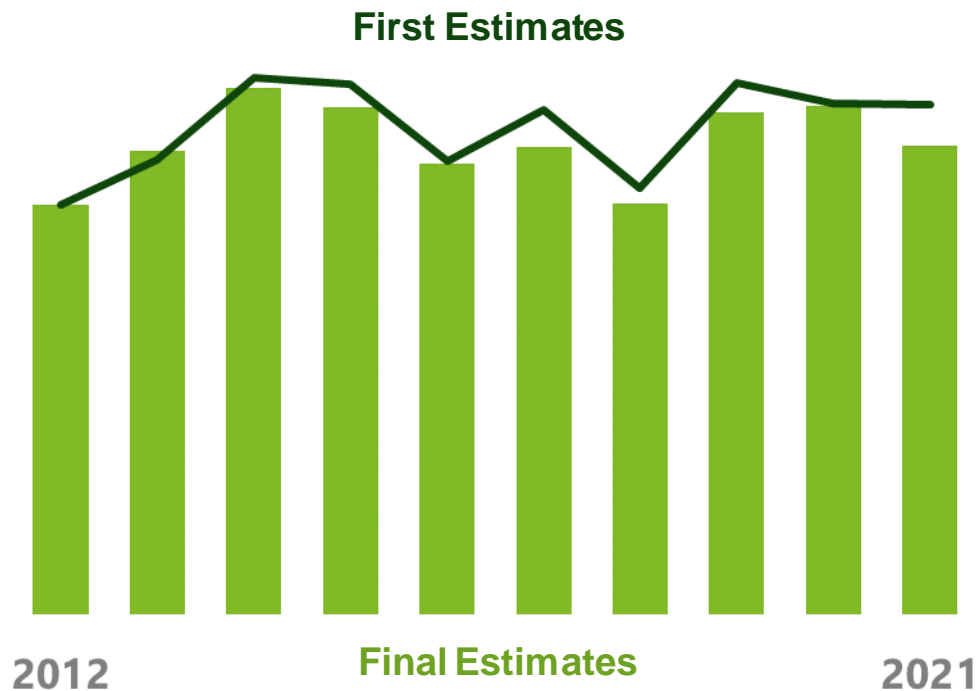
The grown area of oilseed rape increased eight per cent in 2021. Despite a three per cent decrease in yield, production increased four per cent.

Oilseed rape estimates are not as reliable as those of other crops due to the small amount grown in comparison to other crops.

Oilseed rape is not a cereal. It is part of the cabbage family. Because it is grown and harvested in a similar way to other cereals it is included in our harvest estimates.

Almost all of oilseed rape is the winter variety.

Initial estimates are generally good predictors of final results



We are continuing to investigate ways to improve the accuracy of our first estimates, incorporating forecasting techniques to complement information from industry experts.

[Initial estimates of the cereal harvest](#) are published in October. They are based on advice from industry experts on expected yields. We combine this with census results for the areas grown to estimate the total amount of production.

Data collected on areas grown is very good. However, first and final yield estimates can vary as more information is collected once the harvest has been completed

Final estimates are based on the Cereal Production Survey (CPS) which provides a far richer data source.

In 2020 the CPS was temporarily stopped. Final estimates were based on a similar method to the first estimate.

The Cereal Production Survey was restarted in 2021 and the results in this publication are derived from it. Care should be taken in comparing to the final 2020 result which was estimated using a different methodology.

Cereal and Oilseed Rape Harvest 2021 Final Estimates

Data Sources and More Information

Data Sources

Final estimates of the Scottish Cereal and Oilseed Rape Harvest are based on final yield results from the 2021 Cereal Production Survey and final crop areas from the 2021 June Census.

Final estimates of the Scottish Cereal and Oilseed Rape Harvest are used to monitor cereal production and to meet obligations to the World Trade Organisation, Organisation for Economic Co-operation and Development and Food and Agriculture Organisation.

Data Tables and Methodology

The data used to create the charts in this publication and the methodology document are available online at www.gov.scot/isbn/9781802018448

If you have any questions or comments about this publication, please email Jay Gillam at jay.gillam@gov.scot

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Annex A

Area, Yield and Production – 2012 to 2021

Year	TOTAL CEREALS ⁽¹⁾			SPRING BARLEY			WINTER BARLEY		
	Area (Hectare)	Yield (t/ha)	Production (Tonnes)	Area (Hectare)	Yield (t/ha)	Production (Tonnes)	Area (Hectare)	Yield (t/ha)	Production (Tonnes)
2012	456,902	5.48	2,507,016	289,222	5.00	1,446,950	42,816	6.46	276,511
2013	458,219	6.19	2,836,836	296,444	5.78	1,713,548	42,694	6.57	280,511
2014	462,123	6.97	3,221,284	274,377	6.07	1,664,905	52,507	7.82	410,765
2015	443,564	6.99	3,100,624	255,878	5.94	1,520,756	51,808	7.84	406,169
2016	428,348	6.43	2,752,412	238,899	5.43	1,296,481	48,031	6.84	328,766
2017	433,460	6.60	2,859,045	243,838	5.88	1,432,815	47,509	7.41	352,108
2018	419,897	5.98	2,512,412	250,476	5.54	1,387,503	37,542	7.14	268,124
2019	430,292	7.13	3,068,559	242,090	6.38	1,543,825	48,802	8.17	398,748
2020	429,314	7.25	3,112,216	258,702	6.85	1,771,970	43,091	7.29	314,306
2021	430,477	6.65	2,862,362	248,921	5.83	1,450,805	43,246	7.69	332,644

Year	WHEAT			OATS			OILSEED RAPE		
	Area (Hectare)	Yield (t/ha)	Production (Tonnes)	Area (Hectare)	Yield (t/ha)	Production (Tonnes)	Area (Hectare)	Yield (t/ha)	Production (Tonnes)
2012	100,637	6.69	673,288	23,672	4.57	108,249	36,611	2.91	106,420
2013	86,840	7.52	652,933	31,728	5.89	187,021	33,653	3.32	111,652
2014	109,023	9.07	989,347	25,050	6.10	152,924	37,073	3.98	147,570
2015	109,562	9.30	1,019,182	25,615	5.92	151,569	35,797	4.15	148,491
2016	109,594	8.45	925,992	31,210	6.44	200,936	30,731	3.31	101,862
2017	109,489	8.12	889,308	32,625	5.66	184,813	34,187	4.21	144,038
2018	99,778	6.82	680,955	32,101	5.48	175,829	32,736	3.86	126,330
2019	107,480	8.72	936,865	31,920	5.92	189,121	31,808	3.90	124,148
2020	93,538	8.57	801,621	33,984	6.60	224,319	30,793	3.96	121,921
2021	104,571	8.51	890,040	33,739	5.60	188,873	33,188	3.82	126,914

(1) Includes Triticale up to and including 2016.



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