SUPPLY AND DEMAND

26 November 2020

KEY POINTS

- A significant fall in wheat availability has led to the tightest wheat balance in over 20 years.
- The barley balance remains higher than the five year average due to significant production levels.
- Maize demand remains strong with imports estimated higher than the previous five year average.
- Another bumper oat crop has led to higher than average forecast exports.

INTRODUCTION

1. This release covers the first official estimates made of UK cereal supply and demand for 2020/21 (Appendix 1).

2. The UK Cereals Supply and Demand Estimates include the official production figures for all cereals published by Defra in the results of the Cereal and Oilseed Rape Production Survey. Please note that the Defra cereal production estimates are standardised to 14.5% moisture content, with production tonnages being adjusted accordingly.

3. **Total cereals demand for animal feed is estimated at 13.222Mt, 59Kt lower than 2019/20 levels.** Animal feed production as a whole is expected to decline on the year driven by a fall in poultry feed production, outweighing slight increases in pig, cattle and sheep feed. The fall in poultry feed demand is expected to be as a result of COVID-19 and its effect on out of home consumption. However, it is expected that poultry feed demand will recover slightly in the new year as a result of an uptick in poultry meat demand. The pandemic has also continued to have an effect on barley usage by the brewing, malting and distilling (BMD) sector with the lack of food service demand. Following the first lockdown, flour milling demand has recovered somewhat and has remained relatively stable since, with many food outlets continuing to offer takeaway services. With uncertainties around COVID-19 and Brexit, cereal usage in the UK will be closely monitored throughout the season.

WHEAT

4. **In 2020/21 total availability of wheat is estimated at 14.771Mt, 4.419Mt lower than in 2019/20 and the lowest on records going back to 1999/00.** This is driven by a substantial decrease in production, outweighing an increase in both opening stocks and imports. The provisional Defra wheat production figure for 2020, is 6.092Mt lower year on year and the lowest level in nearly 40 years at 10.133Mt. Opening stocks are estimated at 2.438Mt, 527Kt higher year on year. From July to September 2020 the UK imported 709Kt of wheat compared with 303Kt over the same period in 2019. With a smaller domestic crop and uncertainty around tariffs after the EU exit transition period, UK wheat imports are forecast at 2.200Mt, more than double the levels recorded in 2019/20.

5. **At 6.533Mt, human and industrial (H&I) consumption of wheat in 2020/21 is 390Kt lower than 2019/20 levels.** The decrease on the year is largely driven by a drop in usage by the bioethanol and starch sectors. It is assumed that the bioethanol industry will use less wheat than last season, due to its relative price compared with maize. It is also assumed for these estimates that Roquette will be ceasing production at the end of 2020, following an announcement in September. Usage of wheat by distillers is also expected to drop back slightly due to subdued demand. While total usage of wheat by flour millers is expected to remain relatively stable on the year, the proportion of imported wheat is estimated to be much higher than previous years. This projected rise in imported usage is due to the smaller domestic crop as well as uncertainty around tariffs after the EU exit transition period.

6. **Wheat usage in animal feed is expected to decline by 803Kt on the year in 2020/21 to 6.634Mt.** A large proportion of this decline is driven by an estimated fall in fed on farm usage. Due to the size of the domestic crop and the relative price of wheat this season, it is assumed that producers will yield more from selling the grain than feeding it to livestock on farm. Wheat usage in compound and integrated poultry unit (IPU) feed production is also forecast to fall this season, driven by an overall decline in animal feed production, and to a greater extent competition from other feed grains such as barley. In the season to date (Jul-Sep), GB feed compounders and IPUs have used 6.0% less wheat than the same period in 2019/20.

7. **The balance of total availability and domestic consumption of wheat is estimated at 1.334Mt, 3.195Mt less than 2019/20 levels.** Despite wheat consumption forecast at a 13 year low, a substantial drop in availability has led to the tightest balance in over 20 years. Operating stocks have been estimated at 1.500Mt, 50Kt lower on the year. With the operating stock requirement larger than the extremely tight balance, a deficit of 166Kt is identified. Typically a surplus available for either free stock or export would be identified. However, the current deficit is a result of a number of supply and demand factors which may change as the season progresses, not limited to fluctuations in wheat demand, accuracy of data and uncertainty around the future of trade after

the end of the UK's transition period from leaving the EU. From July to September 2020 the UK exported 58Kt of wheat, which leaves a total deficit of 224Kt to date.

BARLEY

8. **Total availability of barley is estimated at 9.770Mt in 2020/21, 560Kt higher than year earlier levels, driven by a forecast increase in production and opening stocks.** Production for 2020 has been provisionally estimated by Defra at 8.363Mt, 315Kt up on the year and the largest since 1988. A larger area planted to spring barley, outweighed a fall in winter barley area and overall yields to drive the rise in output.

9. **In 2020/21 H&I usage of barley is estimated to fall by 159Kt on the year to 1.622Mt, the lowest level since 2009/10.** From July to September the BMD sector in the UK used 14.7% less barley than the same period in 2019/20. Barley demand by the BMD sector is expected to remain subdued until at least the new year, driven by the impact of COVID-19 and the subsequent reduction in out of home demand.

10. **At 4.893Mt, barley usage in animal feed is estimated to be 751Kt higher than levels reported in 2019/20.** Season to date (Jul-Sep) usage of barley in GB animal feed production (including IPU) is 28.5% higher year on year. With the greater availability of barley compared with other feed grains and its subsequent price, a higher proportion of barley is expected to be used in all rations throughout the rest of the season. The majority of the rise in animal feed usage is driven by an expected increase in the amount of barley fed on farm this season.

11. **The balance of barley supply and demand is estimated to be marginally smaller (-35Kt) than 2019/20 at 2.985Mt.** The increase in supply is outweighed by the rise in consumption, driven by an uptick in animal feed usage. Taking into account an estimated operating stock requirement of 790Kt, the surplus is expected to be 162Kt lower on the year at 2.195Mt. The UK has exported 272Kt of barley from July to September, which leaves a total surplus to either be exported from October to June or carried over into next season as free stock of 1.923Mt.

MAIZE

12. **In 2020/21 total availability of maize is forecast at 2.675Mt, relatively unchanged on the year, as a rise in imports is outweighed by a fall in opening stocks.** Full season imports of maize are forecast to be 77Kt higher than year earlier levels at 2.453Mt. So far this season (Jul-Sep) the UK has imported 613Kt, 9% more than the same period last season. While global maize prices have risen over the past few months, which has made it less competitive into the UK, it is expected that processors have bought quantities forward until at least the new year. Therefore, maize imports are expected to remain relatively strong during the second quarter of the season.

13. **H&I demand for maize in 2020/21 is estimated at 970Kt, 167Kt higher year on year.** The increase is driven mainly by a rise in usage by the bioethanol sector, due to its relative price and availability compared with wheat in the north of England. **At 1.346Mt, animal feed usage of maize is expected to remain relatively unchanged on the year.** Maize is forecast to continue to be included at relatively strong levels in feed rations in Northern Ireland as well as in some rations in GB. Despite the recent rise in maize prices, it has been reported that some feed processors bought ahead earlier in the season when prices were more competitive.

14. **With higher domestic consumption outweighing a drop in total availability, the balance of supply and demand is forecast to fall by 176Kt to 355Kt.** Exports are estimated at 120Kt, 15Kt lower year on year, with closing stocks pegged at 235Kt, 13Kt higher than in 2019/20.

OATS

15. **Total availability of oats is estimated to be 64Kt lower on the year at 1.145Mt.** Defra's provisional estimate for oat production is 60Kt lower than in 2019/20 at 1.016Kt. Opening stocks of oats are forecast to be 10Kt lower on the year at 106Kt, while imports are estimated to increase by 5Kt to 23Kt.

16. **At 555Kt, H&I usage of oats in 2020/21 is relatively unchanged on year earlier levels. The usage of oats in animal feed is also expected to be similar to levels recorded in 2019/20 at 349Kt.** Compared with year earlier levels, the amount of oats fed on farm are expected to remain similar, which is higher than the long term average, due to another large domestic crop.

17. **In 2020/21, the balance of oats total availability and domestic consumption is estimated at 206Kt, 65Kt less than in 2019/20.** Oat exports are forecast at 93Kt, 27Kt lower on the year, with closing stocks estimated at 113Kt, 7Kt higher year on year.

18. Appendix II shows cumulative usage and trade data to end-September. This release and related information can be found at ahdb.org.uk/cereals-oilseeds-markets.

For further information, please contact:
Millie Askew, Senior Analyst, AHDB Balance Sheet Team
e: millie.askew@ahdb.org.uk t: 024 7647 8968

CEREALS & OILSEEDS

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Appendix I

UK CEREAL SUPPLY AND DEMAND ESTIMATES [(a)]

Estimates made in November 2020

July to June crop years — **Thousand tonnes**

		WHEAT						BARLEY					
		2015/16 2019/20 average	2017/18 estimate	2018/19 estimate	2019/20 estimate	2020/21 Nov-20	% change on 19/20	2015/16 2019/20 average	2017/18 estimate	2018/19 estimate	2019/20 estimate	2020/21 Nov-20	% change on 19/20
(1)	Opening stocks	2,121	1,755	1,718	1,911	2,438	28%	1,227	1,105	1,076	1,091	1,357	24%
(2)	Production	15,101	14,837	13,555	16,225	10,133	-38%	7,150	7,169	6,510	8,048	8,363	4%
(3)	Imports	1,614	1,793	1,858	1,054	2,200	109%	102	105	70	70	50	-29%
(4)	**Total availability**	**18,836**	**18,386**	**17,131**	**19,190**	**14,771**	**-23%**	**8,480**	**8,379**	**7,657**	**9,210**	**9,770**	**6%**
(5)	Human and industrial consumption (b)	7,431	7,792	6,969	6,923	6,533	-6%	1,852	1,881	1,901	1,781	1,622	-9%
(5a)	(of which home grown)	6,488	6,765	5,918	6,173	5,255	-15%	n/a	n/a	n/a	n/a	n/a	n/a
(6)	Usage as animal feed (c)	7,337	7,514	7,402	7,438	6,634	-11%	3,808	4,046	3,582	4,142	4,893	18%
(6a)	(of which home grown)	6,670	6,792	6,652	6,938	5,859	-16%	n/a	n/a	n/a	n/a	n/a	n/a
(6b)	(of which compounders)	4,095	4,232	4,164	4,200	3,965	-6%	1,218	1,278	1,172	1,398	1,598	14%
(6c)	(of which integrated poultry units)	1,200	1,241	1,155	1,182	1,163	-2%	51	59	50	44	95	117%
(7)	Seed (d)	266	271	281	219	219	0%	194	183	187	228	228	0%
(8)	Other	75	74	68	81	51	-37%	36	36	33	40	42	5%
(9)	**Total domestic consumption**	**15,108**	**15,651**	**14,720**	**14,660**	**13,437**	**-8%**	**5,889**	**6,147**	**5,703**	**6,191**	**6,785**	**10%**
(10)	**Balance (4) - (9)**	**3,728**	**2,735**	**2,411**	**4,529**	**1,334**	**-71%**	**2,591**	**2,232**	**1,954**	**3,019**	**2,985**	**-1%**
(11)	Exports (e)	1,260	448	358	1,205	-	-	1,355	1,101	863	1,790	-	-
(12)	Intervention stocks (e)	-	-	-	-	-	-	-	-	-	-	-	-
(13)	**Commercial end-season stocks (e)**	**2,122**	**1,718**	**1,911**	**2,438**	**-**	**-**	**1,199**	**1,076**	**1,091**	**1,357**	**-**	**-**
(14)	(of which estimated operating stock requirement) (f)	1,552	1,600	1,550	1,550	1,500	-3%	772	770	780	790	790	0%
(15)	(of which free stock) (g)	570	118	361	888	-	-	427	306	311	567	-	-
(16)	**Surplus/ deficit (10)-(12)-(14)-(17)****	**1,829**	**567**	**720**	**2,093**	**-166**	**-108%**	**1,782**	**1,408**	**1,174**	**2,356**	**2,195**	**-7%**
(17)	**Residual (10)-(11)-(13)**		**568**	**142**	**886**				**54**	**-**	**-127**		

		MAIZE						OATS					
		2015/16 2019/20 average	2017/18 estimate	2018/19 estimate	2019/20 estimate	2020/21 Nov-20	% change on 19/20	2015/16 2019/20 average	2017/18 estimate	2018/19 estimate	2019/20 estimate	2020/21 Nov-20	% change on 19/20
(1)	Opening stocks	258	271	247	313	222	-29%	113	110	138	116	106	-8%
(2)	Production	-	-	-	-	-	-	883	875	850	1,076	1,016	-6%
(3)	Imports	2,195	2,024	2,825	2,376	2,453	3%	28	19	32	18	23	27%
(4)	**Total availability**	**2,452**	**2,295**	**3,072**	**2,689**	**2,675**	**-1%**	**1,024**	**1,004**	**1,020**	**1,210**	**1,145**	**-5%**
(5)	Human and industrial consumption	656	643	800	803	970	21%	534	537	536	553	555	0%
(5a)	(of which home grown)	-	-	-	-	-	-	506	519	500	537	534	-1%
(6)	Usage as animal feed	1,320	1,230	1,573	1,351	1,346	0%	285	273	302	350	349	0%
(6a)	(of which home grown)	-	-	-	-	-	-	285	273	302	350	349	0%
(7)	Seed	-	-	-	-	-	-	24	24	25	30	30	0%
(8)	Other (h)	5	4	4	4	4	0%	4	4	4	5	5	0%
(9)	**Total domestic consumption**	**1,981**	**1,877**	**2,377**	**2,158**	**2,320**	**7%**	**848**	**837**	**867**	**939**	**939**	**0%**
(10)	**Balance (4) - (9)**	**471**	**418**	**696**	**531**	**355**	**-33%**	**176**	**166**	**153**	**271**	**206**	**-24%**
(11)	Exportable surplus	158	171	188	135	120	-11%	54	28	37	120	93	-22%
(12)	**Commercial end-season stocks**	**240**	**247**	**313**	**222**	**235**	**6%**	**113**	**138**	**116**	**106**	**113**	**6%**
(13)	**Residual (10)-(11)-(12)**		**-**	**194**	**174**				**-**	**-**	**45**		

Links connect to relevant Defra/AHDB data pages

Due to rounding, totals may not agree with the sum of individual items

* Change not meaningful

**** In the first official 2020/21 UK cereal supply and demand estimates, a deficit for wheat is identified, as the balance of supply and demand is less than the anticipated operating stock requirement. The current deficit has been caused by a number of supply and demand factors which may change as the season progresses, not limited to changes in wheat demand, accuracy of official data and the uncertainty around the future of trade after the end of the UK's transition period from leaving the EU.

(a) These are revised during the year. Figures rounded to the nearest 1000 tonnes.

(b) Defra updated the registry for the UK flour millers survey in spring 2016, the wheat H&I usage has been adjusted to take account of this change.

(c) Animal feed usage has been split by sector. Note, other users are only included in the total.

(d) Seed numbers have been updated based on a number of assumptions, calculated for the purposes of the balance sheets only.

(e) Split of exports, intervention and total commercial end-season stocks only published for historical seasons.

(f) Estimated operating stocks requirement is a calculated estimate of the minimum tonnage that users of grain require to get through to a point at which new crop can be utilised.

(g) Free stock is the stock available after both exports and estimated operating stock requirements have been fulfilled.

(h) 2014/15 new format: Maize demand in "Other food use" has been added to the H&I total for maize. This was previously included in the "Other" category.

Continued over the page

		OTHER CEREALS (i)					
		2015/16 2019/20 average	2017/18 estimate	2018/19 estimate	2019/20 estimate	2020/21 Nov-20	% change on 19/20
(1)	Opening stocks	5	5	5	5	5	5%
(2)	Production	138	119	169	168	186	11%
(3)	Imports	3	4	3	1	3	200%
(4)	**Total availability**	**145**	**129**	**177**	**174**	**194**	11%
(5+6)	H&I and animal feed	137	121	169	166	186	12%
(5a+6a)	(of which home grown)	134	116	166	165	186	13%
(7)	Seed	3	3	3	3	3	0%
(8)	Other	-	-	-	-	-	-
(9)	**Total domestic consumption**	**140**	**124**	**172**	**169**	**189**	12%
(10)	**Balance (4) - (9)**	**5**	**5**	**5**	**5**	**5**	0%
(11)	Exportable surplus	-	-	-	-	-	-
(12)	Intervention stocks	-	-	-	-	-	-
(13)	**Commercial end-season stocks**	**5**	**5**	**5**	**5**	**5**	0%

		TOTAL CEREALS					
		2015/16 2019/20 average	2017/18 estimate	2018/19 estimate	2019/20 estimate	2020/21 Nov-20	% change on 19/20
(1)	Opening stocks	3,724	3,247	3,184	3,437	4,128	20%
(2)	Production	23,272	22,999	21,085	25,517	19,698	-23%
(3)	Imports	3,942	3,945	4,789	3,520	4,729	34%
(4)	**Total availability**	**30,938**	**30,191**	**29,058**	**32,473**	**28,555**	-12%
(5)	H&I (wheat, barley, maize, oats) (h)	10,473	10,853	10,206	10,060	9,680	-4%
(6)	Animal feed (wheat, barley, maize oats) (h)	12,750	13,064	12,858	13,281	13,222	0%
(5a +6a)	Other cereals (H&I and animal feed)	137	121	169	166	186	12%
(7)	Seed	487	481	496	480	480	0%
(8)	Other	120	118	109	130	102	-22%
(9)	Total domestic consumption	23,967	24,636	23,838	24,117	23,670	-2%
(10)	**Balance (4) - (9)**	**6,971**	**5,556**	**5,220**	**8,356**	**4,885**	-42%
(11)	Exports	2,826	1,749	1,446	3,249	-	-
(12)	Intervention stocks	-	-	-	-	-	-
(13)	**Commercial end-season stocks**	**3,679**	**3,184**	**3,437**	**4,128**	**-**	**-**
(14)	Estimated operating stock requirement (wheat & barley only)	2,324	2,370	2,330	2,340	2,290	-2%
(15)	Free stock for wheat and barley	997	424	673	1,455	-	-
(16)	**Surplus/ deficit (10)-(12)-(14)-(17)****	**4,182**	**2,563**	**2,553**	**5,038**	**2,595**	**-48%**
(17)	**Residual (10)-(11)-(13)**		**623**	**337**	**978**		

Source: AHDB, Defra

Links connect to relevant Defra/AHDB data pages
Due to rounding, totals may not agree with the sum of individual items
(i) Includes mainly rye, triticale and mixed grain.
* Change not meaningful

****** In the first official 2020/21 UK cereal supply and demand estimates, a deficit for wheat is identified, as the balance of supply and demand is less than the anticipated operating stock requirement. The current deficit has been caused by a number of supply and demand factors which may change as the season progresses, not limited to changes in wheat demand, accuracy of official data and the uncertainty around the future of trade after the end of the UK's transition period from leaving the EU.

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Appendix II

CUMULATIVE MONTHLY STATISTICS

Usage of cereals by processors, external trade and stocks

Situation as at end of September 2020 — Thousand tonnes

		2015/16 to 2019/20 average	2014/15 13 weeks	2015/16 13 weeks	2016/17 13 weeks	2017/18 13 weeks	2018/19 13 weeks	2019/20 13 weeks	2020/21 13 weeks	% Change 2020/21 on 2019/20	Actual Change 2020/21 on 2019/20
WHEAT											
Usage	**Flour millers [1]**	**1,671**	**1,683**	**1,612**	**1,759**	**1,817**	**1,726**	**1,444**	**1,474**	**2%**	**30**
	of which home-grown	1,402	1,289	1,370	1,539	1,575	1,290	1,238	1,168	**-6%**	**-70**
	of which imported	269	395	242	220	242	435	206	306	**48%**	**100**
	Brewers, maltsters and distillers	**184**	**195**	**172**	**179**	**208**	**168**	**192**	**179**	**-6%**	**-12**
	Animal Feed Processors [2]	**1,180**	**1,099**	**1,133**	**1,182**	**1,188**	**1,226**	**1,169**	**1,098**	**-6%**	**-71**
	of which feed compounders	880	744	814	880	884	927	892	807	**-10%**	**-85**
	of which intergrated poultry units	300	355	319	302	304	299	276	291	**5%**	**15**
Imports	**From July [3]**	**475**	**608**	**447**	**424**	**430**	**772**	**303**	**709**	**134%**	**406**
Exports	**From July [3]**	**328**	**288**	**325**	**671**	**147**	**79**	**417**	**58**	**-86%**	**-358**
BARLEY											
Usage	**Brewers, maltsters and distillers**	**459**	**480**	**448**	**447**	**469**	**461**	**470**	**401**	**-15%**	**-69**
	Animal Feed Processors [2]	**265**	**273**	**237**	**213**	**299**	**285**	**290**	**373**	**29%**	**83**
	of which feed compounders	251	254	226	200	282	270	279	346	**24%**	**67**
	of which intergrated poultry units	13	19	11	13	17	16	11	27	**147%**	**16**
Imports	**From July [3]**	**30**	**28**	**47**	**32**	**35**	**22**	**16**	**15**	**-12%**	**-2**
Exports	**From July [3]**	**368**	**295**	**360**	**338**	**343**	**129**	**671**	**272**	**-59%**	**-399**
MAIZE											
Usage	**Human and Industrial**	**71**	**101**	**85**	**72**	**57**	**	**	**	*	*
	Animal Feed Processors [2]	**93**	**100**	**83**	**72**	**83**	**101**	**124**	**117**	**-6%**	**-7**
	of which feed compounders	80	74	69	62	71	92	105	102	**-2%**	**-2**
	of which intergrated poultry units	13	26	14	11	11	9	19	14	**-26%**	**-5**
Imports	**From July [3]**	**455**	**293**	**388**	**387**	**398**	**544**	**561**	**613**	**9%**	**52**
Exports	**From July [3]**	**29**	**12**	**18**	**26**	**35**	**38**	**31**	**17**	**-45%**	**-14**
OATS											
Usage	**Human and Industrial**	**130**	**118**	**125**	**126**	**130**	**142**	**128**	**139**	**8%**	**11**
	Animal Feed Processors [2]	**12**	**22**	**14**	**10**	**10**	**15**	**12**	**14**	**21%**	**3**
Imports	**From July [3]**	**9**	**11**	**15**	**9**	**11**	**6**	**2**	**5**	**176%**	**3**
Exports	**From July [3]**	**16**	**22**	**17**	**7**	**17**	**14**	**26**	**15**	**-44%**	**-11**

Source: AHDB, Defra, HMRC

[1] Includes bioethanol and starch usage
[2] Great Britain only
[3] HMRC
* Changes not meaningful
**Insufficient sample to produce robust figure

Notes

Due to rounding, totals may not agree with the sum of the individual items.
There are 53 weeks in the statistical year 2020. In order to incorporate the change January 2020 was increased to a 5 week period compared to 4 weeks in 2019.
There are 53 weeks in the statistical year 2016. In order to incorporate the change April 16 was increased to a 5 week period compared to 4 weeks in 2015.
Figures in Appendix II were updated on 26 November 2020. The data above may differ from the most recent published data.

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