SUPPLY AND DEMAND

27 February 2020

KEY POINTS

- Higher supplies and relatively stable domestic consumption maintains a heavy wheat balance.
- Barley surplus remains the highest in four years, despite a fall in supply.
- Imports of maize to remain higher than the previous five year average, despite declining on the year.
- With relatively stable demand, but substantially higher supplies the oat balance is the highest on records.

INTRODUCTION

1. This release covers the second official estimates made of UK cereal supply and demand for 2019/20 (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. Defra are assessing different options available, regarding production and moisture content to take account of the varied climate conditions.

3. **At 13.128Mt, total cereals demand for animal feed is estimated to be 76Kt lower than that forecast in November, but 232Kt higher than in 2018/19.** Similar to previous estimates, total animal feed is expected to fall year on year, while the cereal inclusion rate is forecast to be higher. From July – December 2019, the cereal inclusion rate in GB animal feed production was 45% compared with 43% over the same period in 2018/19 and the previous five year average of 42%. A rise in pig feed production this season is outweighed by a fall in ruminant feed demand, leading to the overall decline in animal feed production. Poultry feed demand is expected to remain relatively stable.

WHEAT

4. **Total availability of wheat in the UK is estimated at 19.186Mt, 58Kt lower than previous forecasts, but 2.055Mt more than in 2018/19.** Following the release of the final results of the Defra Cereals and Oilseed Rape Production Survey on 19 December, wheat production is estimated at 16.225Mt, 58Kt lower than November's forecasts and 2.670Mt more than harvest 2018. At 1.050Mt, UK wheat imports remain unchanged on previous estimates and are expected to be 808Kt lower year on year. During the first half of the season (Jul-Dec) the UK imported 552Kt of wheat, 54% lower than the same period in 2018/19. It is expected that wheat imports will continue to be behind year earlier levels for the rest of the season, due to larger domestic supply. However, it is worth noting that the fall in imported demand is expected to be driven by the animal feed and bioethanol sectors. Imported wheat usage by flour millers is expected to be marginally higher year on year.

5. **In 2019/20, human and industrial (H&I) consumption of wheat is estimated at 6.999Mt, 123Kt higher than previous forecasts, but remains relatively unchanged (+23Kt) on year earlier levels.** The increase on November's estimate is driven by higher bioethanol demand, outweighing a slight drop in projected demand from the brewing, malting and distilling (BMD) sectors. With the assumption that Vivergo fuels will remain offline for at least the rest of the 2019/20 season, any rise in wheat usage by the bioethanol sector is capped somewhat. Bioethanol demand will be monitored closely throughout the season. Demand for wheat by flour millers is expected to remain relatively unchanged on the year. However, the proportion of imported wheat is projected to increase slightly at the expense of home grown usage. With the adverse conditions affecting planting of the 2020 crop, reports suggest that more domestic grain will be stored and carried over into next season. With this in mind, flour millers are expected to start to use a relatively higher proportion of imported wheat during the last quarter of the season.

6. **At 7.375Mt, wheat usage in animal feed is 102Kt lower than that forecast in November and relatively unchanged (-19Kt) from levels recorded in 2018/19.** From July to December 2019, GB compounders and integrated poultry units (IPU) used 2% less wheat year on year. However, wheat usage in compound feed production is expected to increase, to an extent, during the second half of the season at the expense of maize. Any rise in wheat usage is expected to be capped somewhat by a projected rise in barley usage, due to its relative availability and subsequent price. With more domestic grain expected to be stored and carried over into next season, the amount of wheat fed on farm as straight grain is expected to decrease compared with previous estimates.

7. **The balance of total availability and domestic consumption in 2019/20 is estimated at 4.449Mt, 80Kt less than that forecast in November, but 2.037Mt higher than in 2018/19.** With an estimated operating stock requirement of 1.550Mt, the surplus available for either export or free stock remains at more than four times the levels recorded in

2018/19 at 2.899Mt. With season to date (Jul-Dec) UK wheat exports at 841Kt, this leaves 2.058Mt to either be exported from January to June or carried over as stock into next season.

BARLEY

8. **In 2019/20, the total availability of barley is estimated at 9.191Mt, 132Kt less than that forecast in November, but 1.534Mt higher year on year.** While Defra's final production estimate is 132Kt lower than the provisional, it is 1.538Mt higher than year earlier levels at 8.048Mt. UK barley imports are estimated at 52Kt, unchanged from previous estimates, but 18Kt lower than in 2018/19, driven by larger domestic supply.

9. **H&I consumption of barley is relatively unchanged from previous estimates, but 30Kt higher than in 2018/19.** From July to December the UK BMD sector used 945Kt of barley, 2% more than the same period last season. Barley usage is expected to remain slightly higher for the rest of the season, partly driven by improved productivity, with no changes in capacity anticipated.

10. **At 4.077Mt the usage of barley in animal feed is 30Kt higher than that forecast in November and 495Kt higher year on year.** During the first half of the season (Jul-Dec) GB compounders and IPUs used 13% more barley than the same period in 2018/19 at 616Kt. The increased use of barley is expected to continue during the second half of the season, especially in pig and ruminant rations, due to its relative price compared with other cereals. Likewise, the amount of barley fed on farm this season is expected to increase on the year, driven by a larger domestic supply.

11. **The balance of barley supply and demand is estimated at 2.958Mt, 161Kt lower than the previous forecast, but 1.004Mt more than levels recorded in 2018/19.** Taking into account an estimated operating stock requirement of 790Kt, the surplus available for either export or free stock is estimated at 2.168Mt, 934Kt higher year on year. With exports to date (Jul-Dec) totalling 1.208Mt, this leaves 960Kt to either be exported from January to June, or to be carried over into next season.

MAIZE

12. **In 2019/20, total availability of maize is estimated at 2.614Mt, 129Kt more than the previous estimate, but 454Kt less than in 2018/19.** The rise in supply compared with November's estimates is driven by a slight uptick in projected imports. From July to December the UK imported 1.244Mt, just 49Kt behind the same period last season. While the pace of maize imports is expected to slow somewhat over the next few months, imports may begin to increase again at the end of this season and into the 2020/21 season, due to its relative price compared with domestic grains.

13. **H&I usage of maize is 121Kt higher than the previous estimate and 68Kt higher year on year at 868Kt.** The rise in usage compared with November's estimates and 2018/19 is driven by an increase in bioethanol and BMD usage. **At 1.327Mt, maize usage in animal feed is relatively unchanged on previous estimates and 290Kt lower than 2018/19.** While maize usage in animal feed is expected to fall on the year, it is anticipated that it will be included at higher than average levels due to its favourable results for some livestock producers and its relative price into Northern Ireland.

14. **In 2019/20, the maize supply and demand balance is estimated at 415Kt, 16Kt higher than November's forecast and 232Kt lower year on year.** Full season exports are estimated at 145Kt, 23% lower year on year, with closing stocks expected to be 43Kt lower than in 2018/19 at 270Kt.

OATS

15. **At 1.212Mt, total availability of oats is relatively unchanged from the previous estimate, but 192Kt higher than in 2018/19.** Defra's final production estimate is marginally lower (-6Kt) than the provisional at 1.076Mt and is 226Kt higher than levels recorded in 2018/19. 2019 oat production is the highest level recorded since the 1970s.

16. **H&I usage of oats in 2019/20 remains unchanged from the previous estimate and relatively stable on the year at 530Kt, with no anticipated capacity changes. At 349Kt, animal feed demand is expected to remain similar to that forecast in November and 16% higher than 2018/19 levels.** With a considerably larger domestic crop this season and reports of quality variances, more oats are expected to be fed on farm compared with 2018/19.

17. **The oats balance of total availability and domestic consumption is estimated at 302Kt, nearly double that of 2018/19.** Taking into account UK oat exports to date (Jul-Dec) of 80Kt, full season exports are now forecast at 122Kt, more than three times the volume shipped in 2018/19. End-season stocks are currently estimated at 180Kt, 60Kt lower than previous estimates, but 64Kt higher than 2018/19.

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

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CEREALS & OILSEEDS

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Appendix I

UK CEREAL SUPPLY AND DEMAND ESTIMATES [(a)]

Estimates made in February 2020

July to June crop years | Thousand tonnes

		WHEAT								BARLEY							
		2014/15 2018/19 average	2016/17 estimate	2017/18 estimate	2018/19 estimate	2019/20 Nov-19	2019/20 Feb-20	Absolute change Nov-19	% change on 18/19	2014/15 2018/19 average	2016/17 estimate	2017/18 estimate	2018/19 estimate	2019/20 Nov-19	2019/20 Feb-20	Absolute change Nov-19	% change on 18/19
(1)	Opening stocks	2,051	2,787	1,755	1,718	1,911	1,911	-	11%	1,285	1,367	1,105	1,076	1,091	1,091	-	1%
(2)	Production	15,129	14,383	14,837	13,555	16,283	16,225	-58	20%	6,923	6,655	7,169	6,510	8,180	8,048	-132	24%
(3)	Imports	1,737	1,855	1,793	1,858	1,050	1,050	-	-43%	116	106	105	70	52	52	-	-26%
(4)	**Total availability**	**18,916**	**19,025**	**18,386**	**17,131**	**19,244**	**19,186**	**-58**	**12%**	**8,324**	**8,128**	**8,379**	**7,657**	**9,323**	**9,191**	**-132**	**20%**
(5)	Human and industrial consumption (b)	7,614	8,110	7,792	6,976	6,876	6,999	123	0%	1,885	1,863	1,881	1,900	1,929	1,930	1	2%
(5a)	(of which home grown)	6,582	7,169	6,765	5,923	5,977	6,147	170	4%	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
(6)	Usage as animal feed (c)	7,246	7,236	7,514	7,394	7,477	7,375	-102	0%	3,634	3,655	4,046	3,582	4,047	4,077	30	14%
(6a)	(of which home grown)	6,581	6,523	6,792	6,644	6,927	6,868	-59	3%	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
(6b)	(of which compounders)	3,980	4,034	4,232	4,157	4,245	4,193	-52	1%	1,156	1,132	1,278	1,180	1,314	1,327	13	12%
(6c)	(of which integrated poultry units)	1,249	1,211	1,241	1,155	1,126	1,126	0	-3%	52	53	59	50	34	50	17	0%
(7)	Seed (d)	280	278	271	281	281	281	-	0%	184	189	183	187	188	187	-1	0%
(8)	Other	76	72	74	68	81	81	-	19%	35	33	36	33	41	40	-1	21%
(9)	**Total domestic consumption**	**15,216**	**15,696**	**15,651**	**14,719**	**14,715**	**14,736**	**21**	**0%**	**5,738**	**5,740**	**6,147**	**5,703**	**6,205**	**6,234**	**29**	**9%**
(10)	**Balance (4) - (9)**	**3,700**	**3,329**	**2,735**	**2,412**	**4,529**	**4,449**	**-80**	**84%**	**2,585**	**2,388**	**2,232**	**1,954**	**3,118**	**2,958**	**-161**	**51%**
(11)	Exports (e)	1,410	1,438	448	358	-	-	*	*	1,296	1,026	1,101	863	-	-	*	*
(12)	Intervention stocks (e)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	*	-
(13)	**Commercial end-season stocks (e)**	**2,121**	**1,755**	**1,718**	**1,911**	**-**	**-**	*****	*****	**1,227**	**1,105**	**1,076**	**1,091**	**-**	**-**	*****	*****
(14)	(of which estimated operating stock requirement) (f)	1,542	1,560	1,600	1,550	1,550	1,550	-	0%	764	760	770	780	790	790	-	1%
(15)	(of which free stock) (g)	579	195	118	361	-	-	*	*	463	345	306	311	-	-	*	*
(16)	**Surplus available for either export or free stock (10)-(12)-(14)-(17)**	**1,989**	**1,633**	**567**	**720**	**2,979**	**2,899**	**-80**	**303%**	**1,759**	**1,371**	**1,408**	**1,174**	**2,328**	**2,168**	**-161**	**85%**
(17)	**Residual (10)-(11)-(13)**		**136**	**568**	**142**						**257**	**54**					

		MAIZE								OATS							
		2014/15 2018/19 average	2016/17 estimate	2017/18 estimate	2018/19 estimate	2019/20 Nov-19	2019/20 Feb-20	Absolute change Nov-19	% change on 18/19	2014/15 2018/19 average	2016/17 estimate	2017/18 estimate	2018/19 estimate	2019/20 Nov-19	2019/20 Feb-20	Absolute change Nov-19	% change on 18/19
(1)	Opening stocks	247	148	271	247	313	313	-	27%	123	93	110	138	116	116	-	-16%
(2)	Production	-	-	-	-	-	-	-	-	832	816	875	850	1,082	1,076	-6	26%
(3)	Imports	2,090	2,007	2,024	2,822	2,171	2,300	129	-18%	32	32	19	32	17	20	3	-38%
(4)	**Total availability**	**2,337**	**2,155**	**2,295**	**3,068**	**2,484**	**2,614**	**129**	**-15%**	**987**	**941**	**1,004**	**1,020**	**1,215**	**1,212**	**-3**	**19%**
(5)	Human and industrial consumption	609	570	643	800	746	868	121	8%	522	521	537	536	530	530	-	-1%
(5a)	(of which home grown)	-	-	-	-	-	-	-	-	489	476	519	500	512	512	-	2%
(6)	Usage as animal feed	1,287	1,135	1,230	1,617	1,335	1,327	-8	-18%	281	263	273	302	345	349	4	16%
(6a)	(of which home grown)	-	-	-	-	-	-	-	-	281	263	273	302	345	349	4	16%
(7)	Seed	-	-	-	-	-	-	-	-	22	23	24	25	25	25	-	0%
(8)	Other (h)	5	4	4	4	4	4	-	0%	4	4	4	4	5	5	-	25%
(9)	**Total domestic consumption**	**1,901**	**1,709**	**1,877**	**2,421**	**2,085**	**2,199**	**113**	**-9%**	**829**	**811**	**837**	**867**	**905**	**909**	**4**	**5%**
(10)	**Balance (4) - (9)**	**436**	**446**	**418**	**647**	**399**	**415**	**16**	**-36%**	**158**	**130**	**166**	**153**	**310**	**302**	**-7**	**97%**
(11)	Exportable surplus	149	175	171	188	129	145	16	-23%	46	21	28	37	70	122	52	229%
(12)	**Commercial end-season stocks**	**258**	**271**	**247**	**313**	**270**	**270**	**-**	**-14%**	**113**	**110**	**138**	**116**	**240**	**180**	**-60**	**55%**
(13)	**Residual (10)-(11)-(12)**				**146**												

Links connect to relevant Defra/AHDB data pages

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

(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.

* Change not meaningful

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		OTHER CEREALS (i)							
		2014/15 2018/19 average	2016/17 estimate	2017/18 estimate	2018/19 estimate	2019/20 Nov-19	2019/20 Feb-20	Absolute change Nov-19	% change on 18/19
(1)	Opening stocks	5	5	5	5	5	5	-	0%
(2)	Production	130	110	119	169	168	168	-	-1%
(3)	Imports	3	3	4	3	3	3	-	1%
(4)	**Total availability**	**138**	**118**	**129**	**177**	**176**	**176**	**-**	-1%
(5+6)	H&I and animal feed	130	110	121	169	168	168	-	-1%
(5a+6a)	(of which home grown)	127	107	116	166	165	165	-	-1%
(7)	Seed	3	3	3	3	3	3	-	0%
(8)	Other	-	-	-	-	-	-		-
(9)	**Total domestic consumption**	**133**	**113**	**124**	**172**	**171**	**171**	**-**	-1%
(10)	**Balance (4) - (9)**	**5**	**5**	**5**	**5**	**5**	**5**	**-**	-1%
(11)	Exportable surplus	-	-	-	-	-	-		-
(12)	Intervention stocks	-	-	-	-	-	-		-
(13)	**Commercial end-season stocks**	**5**	**5**	**5**	**5**	**5**	**5**	**-**	5%

		TOTAL CEREALS							
		2014/15 2018/19 average	2016/17 estimate	2017/18 estimate	2018/19 estimate	2019/20 Nov-19	2019/20 Feb-20	Absolute change Nov-19	% change on 18/19
(1)	Opening stocks	3,710	4,400	3,247	3,184	3,437	3,437	-	8%
(2)	Production	23,014	21,964	22,999	21,085	25,713	25,517	-197	21%
(3)	Imports	3,978	4,003	3,945	4,785	3,293	3,425	132	-28%
(4)	**Total availability**	**30,702**	**30,366**	**30,191**	**29,054**	**32,443**	**32,379**	**-64**	11%
(5)	H&I (wheat, barley, maize, oats) (h)	10,630	11,064	10,853	10,212	10,081	10,327	245	1%
(6)	Animal feed (wheat, barley, maize oats) (h)	12,448	12,288	13,064	12,896	13,204	13,128	-76	2%
(5a +6a)	Other cereals (H&I and animal feed)	130	110	121	169	168	168	-	-1%
(7)	Seed	489	493	481	496	497	496	-1	0%
(8)	Other	120	113	118	109	131	130	-1	19%
(9)	Total domestic consumption	23,817	24,068	24,636	23,882	24,082	24,249	167	2%
(10)	**Balance (4) - (9)**	**6,885**	**6,298**	**5,556**	**5,172**	**8,361**	**8,130**	**-232**	57%
(11)	Exports	2,901	2,660	1,749	1,446	-	-	*	*
(12)	Intervention stocks	-	-	-	-	-	-	-	-
(13)	**Commercial end-season stocks**	**3,724**	**3,247**	**3,184**	**3,437**	**-**	**-**	*****	*****
(14)	Estimated operating stock requirement (wheat & barley only)	2,306	2,320	2,370	2,330	2,340	2,340	-	0%
(15)	Free stock for wheat and barley	1,042	541	424	673	-	-	*	*
(16)	**Surplus available for either export or free stock (all)**	**4,318**	**3,587**	**2,563**	**2,553**	**6,022**	**5,789**	**-232**	**127%**
(17)	**Residual (10)-(11)-(13)**		**392**	**623**	**289**				

Source: AHDB, Defra

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

(i) Includes mainly rye, triticale and mixed grain.

AHDB

Appendix II

CUMULATIVE MONTHLY STATISTICS

Usage of cereals by processors, external trade and stocks

Situation as at end of December 2019 — Thousand tonnes

		2014/15 to 2018/19 average	2013/14 26 weeks	2014/15 26 weeks	2015/16 26 weeks	2016/17 26 weeks	2017/18 26 weeks	2018/19 26 weeks	2019/20 26 weeks	% Change 2019/20 on 2018/19	Actual Change 2019/20 on 2018/19
WHEAT											
Usage	**Flour millers** [1]	**3,462**	**3,235**	**3,564**	**3,313**	**3,638**	**3,527**	**3,269**	**3,000**	**-8%**	**-269**
	of which home-grown	2,919	2,331	2,908	2,828	3,190	3,064	2,606	2,607	**0%**	**1**
	of which imported	543	904	656	485	447	463	663	393	**-41%**	**-270**
	Brewers, maltsters and distillers	**371**	**430**	**393**	**323**	**379**	**414**	**348**	**	*	*
	Animal Feed Processors [2]	**2,345**	**2,226**	**2,240**	**2,245**	**2,365**	**2,413**	**2,464**	**2,409**	**-2%**	**-55**
	of which feed compounders	1,718	1,512	1,534	1,634	1,759	1,795	1,870	1,847	**-1%**	**-23**
	of which intergrated poultry units	627	714	706	612	606	618	594	562	**-5%**	**-32**
Imports	**From July** [3]	**937**	1,343	952	857	832	845	1,200	552	**-54%**	**-648**
Exports	**From July** [3]	**688**	226	938	991	1,065	272	176	841	**378%**	**665**
BARLEY											
Usage	**Brewers, maltsters and distillers**	**928**	**939**	**963**	**901**	**911**	**940**	**927**	**945**	**2%**	**19**
	Animal Feed Processors [2]	**538**	**531**	**519**	**521**	**484**	**620**	**545**	**616**	**13%**	**71**
	of which feed compounders	510	493	492	496	457	587	516	596	**16%**	**80**
	of which intergrated poultry units	28	39	27	25	26	33	29	20	**-31%**	**-9**
Imports	**From July** [3]	**50**	43	43	69	52	50	36	22	**-37%**	**-13**
Exports	**From July** [3]	**666**	777	749	858	651	668	405	1,208	**198%**	**803**
MAIZE											
Usage	**Human and Industrial**	**223**	**177**	**279**	**169**	**199**	**245**	**	**	*	*
	Animal Feed Processors [2]	**190**	**190**	**181**	**168**	**152**	**171**	**276**	**227**	**-18%**	**-49**
	of which feed compounders	163	141	142	139	130	150	254	191	**-25%**	**-63**
	of which intergrated poultry units	27	49	40	28	23	21	22	35	**61%**	**13**
Imports	**From July** [3]	**1,000**	1,115	924	891	872	1,018	1,293	1,244	**-4%**	**-49**
Exports	**From July** [3]	**70**	103	32	52	92	81	93	76	**-18%**	**-17**
OATS											
Usage	**Human and Industrial**	**263**	250	241	262	256	274	281	267	**-5%**	**-14**
	Animal Feed Processors [2]	**32**	**49**	**48**	**28**	**20**	**27**	**37**	**28**	**-24%**	**-9**
Imports	**From July** [3]	**17**	26	14	21	12	14	25	9	**-63%**	**-16**
Exports	**From July** [3]	**28**	10	40	43	15	19	22	80	**257%**	**57**

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 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 27 February 2020. The data above may differ from the most recent published data.

Disclaimer