

KEY POINTS

- Wheat consumption at lowest levels on record is not enough to ease tightness of the balance sheet.
- Total availability of barley reduced as Defra cut production estimate.
- Increased maize imports means total availability is 7% higher year on year.
- Oat production is well above the 5-year average leading to highest recorded levels of domestic consumption.

INTRODUCTION

1. This release covers the second 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 2020/21 is estimated at 23.565Mt, 105Kt lower than the November estimate.** This decline was mainly driven by a 41Kt reduction in animal feed which is now estimated at 13.181Mt, 100Kt lower than the 2019/20 estimate. Animal feed demand has not recovered as strongly as the November estimate suggested, largely due to the ongoing COVID-19 fallout and continuing lockdowns. Poultry feed demand has remained below pre-pandemic levels although it is expected to pick up as food service resumes in the latter part of the season. Flour milling demand remains lacklustre during this third lockdown but again is expected to increase back to normal levels once the country is opened up again. The brewing, malting and distilling (BMD) sector, on the other hand, is performing slightly better than was predicted in the previous balance sheet, although barley usage is still down on the year. With the roadmap out of lockdown very cautious, it is likely we will continue to see reduced demand for the majority of the remainder of this season.

WHEAT

4. **In 2020/21 total availability of wheat is estimated at 14.196Mt, 4.994Mt 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 final [Defra wheat production figure](#) for 2020, is 6.567Mt lower year on year and 475Kt lower than the previous estimate. At 9.658Mt, this is the lowest level in nearly 40 years. Opening stocks are estimated at 2.438Mt, 527Kt higher year on year. From July to December 2020 the UK imported 1.425Mt of wheat compared with 552Kt over the same period in 2019. Having seen an aggressive import campaign in the first half of the season in the run up to the changing trade relationship with the EU, exports are expected to slow in the second half of the 2020/21 season. UK wheat imports are currently forecast at 2.100Mt, almost double the levels recorded in 2019/20.

5. **At 6.438Mt, human and industrial (H&I) consumption of wheat in 2020/21 is 95Kt lower than the previous estimate and 485Kt lower than 2019/20 levels.** The decrease on the year is mostly 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. As well as the fact that Roquette ceased production in December 2020. Usage of wheat by flour millers is also expected to decline year on year due to reduced demand caused by restrictions currently in place due to the pandemic. The proportion of imported wheat used has been much higher than previous years in the first half of the season due to our tight domestic supply and uncertainty around tariffs after the EU exit transition period. However, imported usage is expected to tail off back to levels that are more standard in the final quarter of the 2020/21 season.

6. **Wheat usage in animal feed is expected to decline by 1.515Mt on the year in 2020/21 to 5.923Mt.** This is down 711Kt from the November estimate. 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 sell more wheat rather than feeding it on farm to livestock. This demand is likely to be filled by an increase of barley and oats fed on farm. Wheat usage in compound and integrated poultry unit (IPU) feed production is forecast to fall this season. This is driven by the relative price of wheat compared to other cereals, especially barley, which is relatively very cheap and was in ample supply at the start of the season. In the season to date (Jul-Dec), GB feed compounders and IPUs have used 12.5% less wheat than the same period in 2019/20.

7. **The balance of total availability and domestic consumption of wheat is estimated at 1.573Mt, which is 239Kt higher than previously forecast, however it is 2.957Mt less than 2019/20 levels.** Despite wheat consumption forecast at the lowest level on records going back 20 years, tight availability has meant that this is the tightest balance in over 20 years. Operating stocks have been estimated at 1.500Mt, 50Kt lower on the year. Once taking this operating stock requirement into account we are left with a surplus available for export or free stock of 73Kt. However, as exports so far this season (Jul-Dec) are at 117Kt, this is actually currently a deficit of 44Kt. As the season progresses, this deficit should be rectified as there is a clearer picture of wheat demand and import figures, as well as data on wheat held on farm or commercially.

BARLEY

8. **Total availability of barley is estimated at 9.524Mt in 2020/21. This is 246Kt lower than the November forecast, driven by a decrease in the production figure as published by Defra.** Total availability is up 314Kt on last season. Production for 2020 is now estimated by Defra at 8.117Mt, up 69Kt on last year and the biggest since 1988. The fall in production from the November estimate is driven by a decline in area, down 26Kha, and a reduction in winter barley yields. Both opening stocks and imports are maintained at previous levels.

9. **H&I consumption of barley is increased marginally (10Kt) on the previous estimate,** as a result usage in the H&I sector is forecast to be 149Kt down year-on-year, at 1.632Mt. From July to December the BMD sector in the UK used 13.2% less barley than in the same period in 2019/20. With the roadmap out of lockdown only announced this week, barley demand is expected to remain subdued through the first quarter of 2021.

10. **At 5.316Mt, barley usage as animal feed is increased 423Kt on the previous forecast, and up 1.174Mt on levels reported in 2019/20.** Season to date (Jul-Dec) usage of barley in GB animal feed production (including IPU) is 39.9% higher year-on-year. As with the previous forecast in November, the large discount of barley to feed wheat has prompted increased usage in rations. Further, it is anticipated that the discount has driven further increases in the proportion of barley being fed on farm this season.

11. **The balance of barley supply and demand is estimated to be 674Kt tighter than in the November forecast, at 2.311Mt.** This is 708Kt tighter year-on-year. The rise in animal feed consumption, combined with a reduced production figure leaves volume available for free stock or export at 1.521Mt, taking into account a 790Kt operating stock. Season-to-date (Jul-Dec) exports of barley by the UK stood at 967Kt. This leaves the surplus available to be exported from January to June or carried through to next season as free stock at 554Kt.

MAIZE

12. **In 2020/21 total availability of maize is forecast at 2.877Mt, 7% higher on the year, as a decline in opening stocks is outweighed by an increase in imports.** Full season imports of maize are forecast to be 279Kt higher than year earlier levels at 2.655Mt. So far this season (Jul-Dec) the UK has imported 1.415Mt, 14% more than the same period last season. While global maize prices have risen since the start of season, which has made it less competitive into the UK, it is still featuring in the ration

at relatively high levels. It is assumed that this is because processors had bought quantities forward until into the first quarter of 2021.

13. **H&I demand for maize in 2020/21 is estimated at 1.035Mt, an increase of 65Kt from the November estimate and 232Kt higher year on year.** The increase is driven mainly by a rise in usage by the bioethanol sector, due to its relative price compared to wheat. **At 1.553Mt, animal feed usage of maize is up 208Kt from November's estimate and is forecast to be 15% higher than in 2019/20.** 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.

14. **Despite an increase in total availability, this is outweighed by an increase in total domestic consumption, meaning the balance of supply and demand is forecast to fall by 246Kt on the year to 285Kt, this is 70Kt lower than the previous forecast.** Exports are estimated to be 45Kt lower than the previous estimate at 75Kt, which is 60Kt lower year on year. Closing stocks have also been cut, by 25Kt, currently pegged at 210Kt, 12Kt lower than in 2019/20.

OATS

15. **At 1.154Mt, total availability of oats is relatively unchanged from the previous estimate (up 9Kt), but down 56Kt on last season.** Defra's final production estimate increase production by 15Kt, to 1.031Mt. The reduced availability year-on-year is also driven by lower opening stocks, down 10Kt on the season.

16. **H&I usage of oats in 2020/21, at 555Kt, is unchanged on the previous forecast.** Although, with a reduced level of imports seen, the volume of domestic oats milled is forecast to increase 5Kt on the November forecast. With oat prices at a heavy discount to other feed grains a rise in usage for compound feed and fed on farm is forecast. Usage in animal feed is forecast at 389Kt, up 11% year-on-year.

17. **The oat balance of total availability and domestic consumption is estimated at 176Kt, 95Kt lower than in 2019/20.** Taking into account UK oat exports to date (Jul-Dec) of 23Kt, the exportable surplus for oats is now estimated at 50Kt, 58.3% smaller year-on-year. End-season stocks are currently estimated at 126Kt, 20Kt higher than last season, and the highest since 2017/18.

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.

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CEREALS & OILSEEDS

UK CEREAL SUPPLY AND DEMAND ESTIMATES (a)

Estimates made in February 2021

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	2020/21 Feb-21	Absolute change Nov-20	% change on 19/20	2015/16 2019/20 average	2017/18 estimate	2018/19 estimate	2019/20 estimate	2020/21 Nov-20	2020/21 Feb-21	Absolute change Nov-20	% change on 19/20
(1) Opening stocks	2,121	1,755	1,718	1,911	2,438	2,438	-	28%	1,227	1,105	1,076	1,091	1,357	1,357	-	24%
(2) Production	15,101	14,837	13,555	16,225	10,133	9,658	-475	-40%	7,150	7,169	6,510	8,048	8,363	8,117	-246	1%
(3) Imports	1,614	1,793	1,858	1,054	2,200	2,100	-100	99%	102	105	70	70	50	50	-	-29%
(4) Total availability	18,836	18,386	17,131	19,190	14,771	14,196	-575	-26%	8,480	8,379	7,657	9,210	9,770	9,524	-246	3%
(5) Human and industrial consumption (b)	7,431	7,792	6,969	6,923	6,533	6,438	-95	-7%	1,852	1,881	1,901	1,781	1,622	1,632	10	-8%
(5a) (of which home grown)	6,488	6,765	5,918	6,173	5,255	5,110	-145	-17%	n/a	n/a	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	5,923	-711	-20%	3,808	4,046	3,582	4,142	4,893	5,316	423	28%
(6a) (of which home grown)	6,670	6,792	6,652	6,938	5,859	5,173	-686	-25%	n/a	n/a	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	3,480	-485	-17%	1,218	1,278	1,172	1,398	1,598	1,826	228	31%
(6c) (of which integrated poultry units)	1,200	1,241	1,155	1,182	1,163	1,086	-77	-8%	51	59	50	44	95	141	46	221%
(7) Seed (d)	266	271	281	219	219	215	-4	-2%	194	183	187	228	228	223	-5	-2%
(8) Other	75	74	68	81	51	48	-3	-41%	36	36	33	40	42	41	-1	3%
(9) Total domestic consumption	15,108	15,651	14,720	14,660	13,437	12,623	-814	-14%	5,889	6,147	5,703	6,191	6,785	7,213	428	17%
(10) Balance (4) - (9)	3,728	2,735	2,411	4,529	1,334	1,573	239	-65%	2,591	2,232	1,954	3,019	2,985	2,311	-674	-23%
(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	1,500	-	-3%	772	770	780	790	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	73	239	-97%	1,782	1,408	1,174	2,356	2,195	1,521	-674	-35%
(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	2020/21 Feb-21	Absolute change Nov-20	% change on 19/20	2015/16 2019/20 average	2017/18 estimate	2018/19 estimate	2019/20 estimate	2020/21 Nov-20	2020/21 Feb-21	Absolute change Nov-20	% change on 19/20
(1) Opening stocks	258	271	247	313	222	222	-	-29%	113	110	138	116	106	106	-	-8%
(2) Production	-	-	-	-	-	-	-	-	883	875	850	1,076	1,016	1,031	15	-4%
(3) Imports	2,195	2,024	2,825	2,376	2,451	2,655	203	12%	28	19	32	18	23	17	-6	-6%
(4) Total availability	2,452	2,295	3,072	2,689	2,673	2,877	203	7%	1,024	1,004	1,020	1,210	1,145	1,154	9	-5%
(5) Human and industrial consumption	656	643	800	803	970	1,035	65	29%	534	537	536	553	555	555	-	0%
(5a) (of which home grown)	-	-	-	-	-	-	-	-	506	519	500	537	534	539	5	0%
(6) Usage as animal feed	1,320	1,230	1,573	1,351	1,344	1,553	208	15%	285	273	302	350	349	389	40	11%
(6a) (of which home grown)	-	-	-	-	-	-	-	-	285	273	302	350	349	389	40	11%
(7) Seed	-	-	-	-	-	-	-	-	24	24	25	30	30	29	-1	-3%
(8) Other (h)	5	4	4	4	4	4	-	0%	4	4	4	5	5	5	-	0%
(9) Total domestic consumption	1,981	1,877	2,377	2,158	2,318	2,592	273	20%	848	837	867	939	939	978	39	4%
(10) Balance (4) - (9)	471	418	696	531	355	285	-70	-46%	176	166	153	271	206	176	-30	-35%
(11) Exportable surplus	158	171	188	135	120	75	-45	-44%	54	28	37	120	93	50	-43	-58%
(12) Commercial end-season stocks	240	247	313	222	235	210	-25	-5%	113	138	116	106	113	126	13	18%
(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.

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		OTHER CEREALS (i)							
		2015/16 2019/20 average	2017/18 estimate	2018/19 estimate	2019/20 estimate	2020/21 Nov-20	2020/21 Feb-21	Absolute change Nov-20	% change on 19/20
(1)	Opening stocks	5	5	5	5	5	5	-	0%
(2)	Production	138	119	169	168	186	157	-29	-7%
(3)	Imports	3	4	3	1	3	2	-1	100%
(4)	Total availability	145	129	177	174	194	164	-30	-6%
(5+6)	H&I and animal feed	137	121	169	166	186	156	-30	-6%
(5a+6a)	(of which home grown)	134	116	166	165	186	155	-31	-6%
(7)	Seed	3	3	3	3	3	3	-	0%
(8)	Other	-	-	-	-	-	-	-	-
(9)	Total domestic consumption	140	124	172	169	189	159	-30	-6%
(10)	Balance (4) - (9)	5	5	5	5	5	5	-	-5%
(11)	Exportable surplus	-	-	-	-	-	-	-	-
(12)	Intervention stocks	-	-	-	-	-	-	-	-
(13)	Commercial end-season stocks	5	5	5	5	5	5	-	-5%

		TOTAL CEREALS							
		2015/16 2019/20 average	2017/18 estimate	2018/19 estimate	2019/20 estimate	2020/21 Nov-20	2020/21 Feb-21	Absolute change Nov-20	% change on 19/20
(1)	Opening stocks	3,724	3,247	3,184	3,437	4,128	4,128	-	20%
(2)	Production	23,272	22,999	21,085	25,517	19,698	18,963	-735	-26%
(3)	Imports	3,942	3,945	4,789	3,520	4,727	4,824	96	37%
(4)	Total availability	30,938	30,191	29,058	32,473	28,554	27,915	-639	-14%
(5)	H&I (wheat, barley, maize, oats) (h)	10,473	10,853	10,206	10,060	9,680	9,660	-20	-4%
(6)	Animal feed (wheat, barley, maize oats) (h)	12,750	13,064	12,858	13,281	13,221	13,181	-40	-1%
(5a +6a)	Other cereals (H&I and animal feed)	137	121	169	166	186	156	-30	-6%
(7)	Seed	487	481	496	480	480	470	-10	-2%
(8)	Other	120	118	109	130	102	98	-4	-25%
(9)	Total domestic consumption	23,967	24,636	23,838	24,117	23,669	23,565	-104	-2%
(10)	Balance (4) - (9)	6,971	5,556	5,220	8,356	4,885	4,350	-535	-48%
(11)	Exports	2,826	1,749	1,446	3,249	-	-	-	-1
(12)	Intervention stocks	-	-	-	-	-	-	-	-
(13)	Commercial end-season stocks	3,679	3,184	3,437	4,128	-	-	-	-1
(14)	Estimated operating stock requirement (wheat & barley only)	2,324	2,370	2,330	2,340	2,290	2,290	-	-2%
(15)	Free stock for wheat and barley	997	424	673	1,455	-	-	-	-1
(16)	Surplus/ deficit (10)-(12)-(14)-(17)**	4,182	2,563	2,553	5,038	2,595	2,059	-535	-59%
(17)	Residual (10)-(11)-(13)	466	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.

Appendix II

CUMULATIVE MONTHLY STATISTICS

Usage of cereals by processors, external trade and stocks

Situation as at end of December 2020

Thousand tonnes

		2015/16 to 2019/20 average	2014/15 26 weeks	2015/16 26 weeks	2016/17 26 weeks	2017/18 26 weeks	2018/19 26 weeks	2019/20 26 weeks	2020/21 26 weeks	% Change 2020/21 on 2019/20	Actual Change 2020/21 on 2019/20
WHEAT											
Usage	Flour millers ⁽¹⁾	3,348	3,564	3,313	3,638	3,527	3,266	2,996	2,864	-4%	-132
	of which home-grown	2,858	2,908	2,828	3,190	3,064	2,603	2,605	2,120	-19%	-485
	of which imported	490	656	485	447	463	663	391	744	90%	353
	Brewers, maltsters and distillers	353	393	323	379	414	348	300	397	32%***	97
	Animal Feed Processors ⁽²⁾	2,381	2,240	2,245	2,365	2,413	2,464	2,417	2,115	-12%	-301
	of which feed compounders	1,782	1,534	1,634	1,759	1,795	1,870	1,855	1,559	-16%	-295
Imports	of which intergrated poultry units	598	706	612	606	618	594	562	556	-1%	-6
	From July ⁽³⁾	857	952	857	832	845	1,200	552	1,425	158%	873
Exports	From July ⁽³⁾	669	938	991	1,065	272	176	841	117	-86%	-725
BARLEY											
Usage	Brewers, maltsters and distillers	925	963	901	911	940	927	946	821	-13%	-125
	Animal Feed Processors ⁽²⁾	554	519	521	484	620	545	601	840	40%	240
	of which feed compounders	527	492	496	457	587	516	581	776	34%	195
	of which intergrated poultry units	27	27	25	26	33	29	20	65	221%	44
Imports	From July ⁽³⁾	46	43	69	52	50	36	22	24	5%	1
Exports	From July ⁽³⁾	758	749	858	651	668	405	1,208	967	-20%	-241
MAIZE											
Usage	Human and Industrial	204	279	169	199	245	**	**	**	*	*
	Animal Feed Processors ⁽²⁾	199	181	168	152	171	276	228	290	27%	62
	of which feed compounders	173	142	139	130	150	254	193	261	35%	68
	of which intergrated poultry units	26	40	28	23	21	22	35	29	-17%	-6
Imports	From July ⁽³⁾	1,064	924	891	872	1,018	1,293	1,245	1,415	14%	170
Exports	From July ⁽³⁾	79	32	52	92	81	93	76	39	-49%	-37
OATS											
Usage	Human and Industrial	268	241	262	256	274	281	267	275	3%	8
	Animal Feed Processors ⁽²⁾	28	48	28	20	27	37	29	36	23%	7
Imports	From July ⁽³⁾	16	14	21	12	14	25	9	9	-5%	0
Exports	From July ⁽³⁾	36	40	43	15	19	22	80	23	-71%	-56

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

*** Please note year on year comparison does not truly reflect actual change due to Dec 2019 BMD wheat figure not being published

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 24 February 2021. The data above may differ from the most recent published data.

Disclaimer

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