SUPPLY AND DEMAND

27 May 2021



KEY POINTS

- Wheat consumption increased from the previous estimate, leaving a sizeable deficit.
- Barley consumption increases leaving the balance of supply and demand tighter.
- Maize imports are cut as domestic consumption decreases.
- Oat consumption is cut leading increased forecast ending stocks.

INTRODUCTION

- 1. This release covers the third 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 <u>Cereal and Oilseed Rape Production Survey</u>. Please note that the Defra cereal production estimates are standardised to 14.5% moisture content, with production tonnages being adjusted accordingly.
- Total cereals demand for 2020/21 is estimated at 23.605Mt, 40Kt higher than the **February estimate.** This increase was mainly driven by a 122Kt increase in human and industrial consumption which is now estimated at 9.782Mt, 278Kt lower than the 2019/20 estimate. Animal feed demand was 83Kt lower than the February estimate. and is now estimated at 13.098Mt. This is largely due to the ongoing COVID-19 fallout, as well as the current high price of feed grains. Ruminant feed demand. however, has remained relatively strong due to current good meat prices. Flour milling demand has picked up slightly as lockdown restrictions ease, however, still remains below pre-pandemic levels. The brewing, malting and distilling (BMD) sector, is performing slightly better than was predicted in the previous balance sheet, although barley usage is still down on the year and unlikely to recover fully this season.

WHEAT

- 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 2020 to March 2021 the UK imported 1.861Mt of wheat compared with 836Kt over the same period in 2019/20. 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, imports are expected to slow in the final quarter of the 2020/21 season. UK wheat imports are currently forecast at 2.100Mt, almost double the levels recorded in 2019/20.
- 5. At 6.592Mt, human and industrial (H&I) consumption of wheat in 2020/21 is 154Kt higher than the previous estimate and 331Kt 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 and availability compared with maize. In addition, 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 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 guarter of the 2020/21 season.
- Wheat usage in animal feed is expected to decline by 1.475Mt on the year in 2020/21 to **5.963Mt.** This is up 40Kt from the February estimate. A large proportion of the year-on-year 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 to barley and oats fed on farm. Wheat fed on farm was increased slightly from the February estimate. Wheat usage in compound feed is up 26Kt from the February estimate, likely caused by the recent tight availability of barley meaning more wheat is now being included back into the ration. Wheat usage in IPUs is down 11Kt from the February estimate. In the season to date (Jul-Mar), GB feed compounders and IPUs have used 16% less wheat than the same period in 2019/20.
- The balance of total availability and 7. domestic consumption of wheat is estimated at 1.379Mt, which is 194Kt lower than previously forecast, and it is 3.150Mt less than 2019/20 levels. Despite wheat consumption being forecast at the lowest level on records going back 20 years, tight availability means this is the tightest balance in over 20 years. Wheat exports to date (Jul-Mar) are at 162Kt, therefore, full season exports are currently forecast at 180Kt. Operating stocks have been estimated at 1.500Mt, 50Kt lower on the year. When we deduct estimated operating stock requirement from estimated commercial end-season stocks, this leaves a deficit of 302Kt. It is anticipated that this deficit will be filled by imported new crop wheat in July and potentially from early harvested wheat from 2021 crop. Should Europe's harvest come late this will leave the supply picture very tight during the start of next season.

BARLEY

- 8. Total availability of barley is estimated at 9.529Mt in 2020/21. This is slightly higher (+5Kt) than the February forecast, due to an increase in the import forecast. Total availability is up 319Kt on last season. Imports are now forecast at 55Kt in 2020/21, higher than in February but still 22% lower than in 2019/20. Opening stocks are maintained at previous levels.
- 9. At 1.665Mt, H&I consumption of barley is marginally (32Kt) higher than the previous estimate. The partial resumption of out of home demand gives cause for cautious optimism. But barley demand is expected to remain restrained in the final quarter of the season due the lack of many major events. Total usage by the H&I sector in 2020/21 is expected to be 116Kt down year-on-year.
- 10. At 5.316Mt, barley usage as animal feed is virtually unchanged from the previous forecast, and up 1.174Mt on levels reported in 2019/20. Although the price gap has narrowed recently, barley remains at a historically large discount to feed wheat. This continues to support high usage in rations. Further, it is anticipated that the discount and poor grass growth earlier in the spring has driven marked increases in the proportion of barley being fed on farm this season. Season to date (Jul-Mar) usage of barley in GB animal feed production (including IPU) is 41.1% higher year-on-year.
- 11. The balance of barley supply and demand is estimated to be 26Kt tighter than in the February forecast, at 2.284Mt. Taking into account season to date (Jul-Mar) exports of 1.14Mt, total season barley exports are forecast at 1.20Mt. This is 33% lower than last season. This leaves 992Kt to be carried through to next season, which is the lowest end of season stock level since 2011/12.

MAIZE

In 2020/21 total availability of maize is forecast at 2.721Mt, 1% higher on the year, as a decline in opening stocks is slightly outweighed by an increase in imports. Full season imports of maize are forecast to be 123Kt higher than year earlier levels at 2.499Mt. So far this season (Jul-Mar) the UK has imported 2.168Mt, 15% more than the same period last season. Global maize prices have risen throughout the season, which has made it less competitive into the UK as the season has moved on. It is now viewed as a premium component in the ration, however up until the end of March it was still featuring in the ration at relatively high levels. It is assumed that this is because processors had bought quantities forward until at least the first quarter of 2021.

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- 13. H&I demand for maize in 2020/21 is estimated at 991Kt, a decrease of 44Kt from the February estimate but 188Kt 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 1.436Mt, animal feed usage of maize is down 116Kt from February's estimate and is forecast to be 6% 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. The small increase in total availability is outweighed by an increase in total domestic consumption, meaning the balance of supply and demand is forecast to fall by 241Kt on the year to 290Kt. This is 5Kt higher than the previous forecast. Exports are estimated to be 45Kt higher than the previous estimate at 120Kt, which is 15Kt lower year on year. Closing stocks have also been cut, by 40Kt from the previous estimate, and are currently pegged at 170Kt, 52Kt lower than in 2019/20.

OATS

- 15. Total availability of oats is almost unchanged from the previous estimate (up 3Kt), at 1.157Mt. Imports are now forecast at 20Kt for the season. The UK had imported 16.8Kt from July to March. Availability is still down 53Kt on last season, driven by lower opening stocks and production.
- 16. H&I usage of oats in 2020/21 is forecast at 536Kt, 19Kt less than the February forecast. Total consumption in 2020/21 is now estimated to be 2% higher than last season. Season to date (Jul-Mar) usage by the UK oat milling sector industry is down 3% year-on-year. At 384Kt, the usage of oats in animal feed is expected to be 5Kt lower than forecast in February. However, this is still 10% higher year on year. Oat prices have been at a heavy discount to other feed grains this season, driving rises in usage for compound feed and fed on farm.
- 17. The oat balance of total availability and domestic consumption is estimated at 204Kt. This is 27Kt more than was forecast in February due to the lower demand and slightly higher import forecasts. Season to date UK oat exports (Jul-Mar) total just 35Kt. As a result, total season exports are now estimated at 40Kt, 67% smaller year-on-year and endseason stocks are estimated at 164Kt. This is 38Kt higher than February and 58Kt higher than last season.
- 18. Appendix II shows cumulative usage and trade data to end-March. This release and related information can be found at ahdb.org.uk/cereals-oilseeds-markets.





Appendix I

UK CEREAL SUPPLY AND DEMAND ESTIMATES (a) Estimates made in May 2021

July to June crop years

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		WHEAT															
		2015/16						Absolute	%	2015/16						Absolute	%
		2019/20	2017/18	2018/19	2019/20	2020/21	2020/21	change	change	2019/20	2017/18	2018/19	2019/20	2020/21	2020/21	change	change
		average	estimate	estimate	estimate	Feb-21	May-21	Feb-21	on 19/20	average	estimate	estimate	estimate	Feb-21	May-21	Feb-21	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)	<u>Production</u>	15,101	14,837	13,555	16,225	9,658	9,658	-	-40%	7,150	7,169	6,510	8,048	8,117	8,117	-	1%
(3)	<u>Imports</u>	1,614	1,793	1,858	1,054	2,100	2,100	-	99%	102	105	70	70	50	55	5	-22%
(4)	Total availability	18,836	18,386	17,131	19,190	14,196	14,196	-	-26%	8,480	8,379	7,657	9,210	9,524	9,529	5	3%
(5)	Human and industrial consumption (b)	7,431	7,792	6,969	6,923	6,438	6,592	154	-5%	1,852	1,881	1,901	1,781	1,632	1,665	32	-7%
(5a)	(of which home grown)	6,488	6,765	5,918	6,173	5,110	5,229	119	-15%	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	5,923	5,963	40	-20%	3,808	4,046	3,582	4,142	5,316	5,316	-1	28%
(6a)	(of which home grown)	6,670	6,792	6,652	6,938	5,173	5,213	40	-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	3,480	3,506	26	-17%	1,218	1,278	1,172	1,398	1,826	1,824	-2	30%
(6c)	(of which integrated poultry units)	1,200	1,241	1,155	1,182	1,086	1,075	-11	-9%	51	59	50	44	141	142	1	223%
(7)	Seed (d)	266	271	281	219	215	215	-	-2%	194	183	187	228	223	223	-	-2%
(8)	Other	75	74	68	81	48	48	-	-41%	36	36	33	40	41	41	-	3%
(9)	Total domestic consumption	15,108	15,651	14,720	14,660	12,623	12,817	194	-13%	5,889	6,147	5,703	6,191	7,213	7,244	31	17%
(10)	Balance (4) - (9)	3,728	2,735	2,411	4,529	1,573	1,379	-194	-70%	2,591	2,232	1,954	3,019	2,311	2,284	-26	-24%
(11)	Exports (e)	1,260	448	358	1,205	-	180	*	-85%	1,355	1,101	863	1,790	-	1,200	*	-33%
(12)	Intervention stocks (e)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
(13)	Commercial end-season stocks (e)	2,122	1,718	1,911	2,438	-	1,198	*	-51%	1,199	1,076	1,091	1,357	-	992	*	-27%
(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	-	202	*	-
(16)	Surplus available for either export or free stock (10)-(12)-(14)-(17)	1,829	567	720	2,093	73	-	-	-	1,782	1,408	1,174	2,356	1,521	1,402	-119	-41%
(17)	2020/21 operating stock deficit (14)-(13)**						-302	-	-	-							
(18)	Residual (10)-(11)-(13)		568	142	886						54	-	-127		92		

		MAIZE								OATS							
		2015/16						Absolute	%	2015/16						Absolute	%
		2019/20	2017/18	2018/19	2019/20	2020/21	2020/21	change	change	2019/20	2017/18	2018/19	2019/20	2020/21	2020/21	change	change
		average	estimate	estimate	estimate	Feb-21	May-21	Feb-21	on 19/20	average	estimate	estimate	estimate	Feb-21	May-21	Feb-21	on 19/20
(1)	Opening stocks	258	271	247	313	222	222	-	-29%	113	110	138	116	106	106	-	-8%
(2)	<u>Production</u>	-	-	-	-	-	-	-	-	883	875	850	1,076	1,031	1,031	-	-4%
(3)	<u>Imports</u>	2,195	2,024	2,825	2,376	2,655	2,499	-156	5%	28	19	32	18	17	20	3	11%
(4)	Total availability	2,452	2,295	3,072	2,689	2,877	2,721	-156	1%	1,024	1,004	1,020	1,210	1,154	1,157	3	-4%
(5)	Human and industrial consumption	656	643	800	803	1,035	991	-44	23%	534	537	536	553	555	536	-19	-3%
(5a)	(of which home grown)	-	-	-	-	-	-	-	-	506	519	500	537	539	518	-21	-4%
(6)	<u>Usage as animal feed</u>	1,320	1,230	1,573	1,351	1,553	1,436	-116	6%	285	273	302	350	389	384	-5	10%
(6a)	(of which home grown)	-	-	-	-	-	-	-	-	285	273	302	350	389	384	-5	10%
(7)	Seed	-	-	-	-	-	-	-	-	24	24	25	30	29	29	-	-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	2,592	2,431	-161	13%	848	837	867	939	978	954	-24	2%
(10)	Balance (4) - (9)	471	418	696	531	285	290	5	-45%	176	166	153	271	176	204	27	-25%
(11)	Exportable surplus	158	171	188	135	75	120	45	-11%	54	28	37	120	50	40	-10	-67%
(12)	Commercial end-season stocks	240	247	313	222	210	170	-40	-23%	113	138	116	106	126	164	38	54%
(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

^{**} Due to the highly unusual nature of this seasons hugely reduced wheat production figure, an extra line is included in the balance sheet to show the operating stock deficit.

⁽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.

					OTHER CE	REALS (i)			
		2015/16 2019/20 average	2017/18 estimate	2018/19 estimate	2019/20 estimate	2020/21 Feb-21	2020/21 May-21	Absolute change Feb-21	% change on 19/20
(1)	Opening stocks	5	5	5	5	5	5	-	0%
(2)	Production	138	119	169	168	157	157	-	-7%
(3)	Imports	3	4	3	1	2	2	-	100%
(4)	Total availability	145	129	177	174	164	164	-	-6%
(5+6)	H&I and animal feed	137	121	169	166	156	156	-	-6%
(5a+6a)	(of which home grown)	134	116	166	165	155	155	-	-6%
(7)	Seed	3	3	3	3	3	3	-	0%
(8)	Other	-	-	-	-	-	-	-	-
(9)	Total domestic consumption	140	124	172	169	159	159	-	-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 C	EREALS			
		2015/16						Absolute	%
		2019/20	2017/18	2018/19	2019/20	2020/21	2020/21	change	change
		average	estimate	estimate	estimate	Feb-21	May-21	Feb-21	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	18,963	18,963	-	-26%
(3)	Imports	3,942	3,945	4,789	3,520	4,824	4,676	-148	33%
(4)	Total availability	30,938	30,191	29,058	32,473	27,915	27,767	-148	-14%
(5)	H&I (wheat, barley, maize, oats) (h)	10,473	10,853	10,206	10,060	9,660	9,782	122	-3%
(6)	Animal feed (wheat, barley, maize oats) (h)	12,750	13,064	12,858	13,281	13,181	13,098	-83	-1%
(5a + 6a)	Other cereals (H&I and animal feed)	137	121	169	166	156	156	-	-6%
(7)	Seed	487	481	496	480	470	470	-	-2%
(8)	Other	120	118	109	130	98	98	-	-25%
(9)	Total domestic consumption	23,967	24,636	23,838	24,117	23,565	23,605	40	-2%
(10)	Balance (4) - (9)	6,971	5,556	5,220	8,356	4,350	4,162	-188	-50%
(11)	Exports	2,826	1,749	1,446	3,249	-	1,540	*	-53%
(12)	Intervention stocks	-	-	-	-	-	-	-	-
(13)	Commercial end-season stocks	3,679	3,184	3,437	4,128	-	2,529	*	-39%
(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	-	202	*	-86%
(16)	Surplus available for either export or free stock (10)-(12)-(14)-(17)	4,182	2,563	2,553	5,038	2,060	1,901	-159	-62%
(17)	Residual (10)-(11)-(13)	466	623	337	978		93		

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

*** Free stock figure in total cereals balance sheet relates to barley only due to the wheat deficit

Appendix II

CUMULATIVE MONTHLY STATISTICS Usage of cereals by processors, external trade and stocks

	end of March 2021										Thousand tonnes
		2015/16 to 2019/20	2014/15 39 weeks	2015/16 39 weeks	2016/17 39 weeks	2017/18 39 weeks	2018/19 39 weeks	2019/20 39 weeks	2020/21 39 weeks	% Change 2020/21 on 2019/20	Actual Change 2020/21 on 2019/20
WHEAT		average	39 Weeks	2019/20	2019/20						
	Flour millers (1)	4,914	5,183	4,831	5,356	5,103	4,677	4,606	4,187	-9%	-419
	of which home-grown	4,215	4,270	4,125	4,679	4,422	3,831	4,021	3,061	-24%	-960
	of which imported	699	914	707	677	681	846	585	1,126	92%	541
Usage	Brewers, maltsters and distillers	533	584	465	546	635	531	486	609	25%***	123
	Animal Feed Processors (2)	3,585	3,381	3,365	3,536	3,656	3,653	3,713	3,106	-16%	-607
	of which feed compounders	2,688	2,326	2,472	2,631	2,730	2,782	2,828	2,292	-19%	-536
	of which intergrated poultry units	896	1,055	893	905	927	871	885	814	-8%	-71
Imports	From July (3)	1,198	1,253	1,169	1,260	1,214	1,510	836	1,861	123%	1,025
Exports	From July (3)	988	1,580	1,966	1,315	383	275	1,001	162	-84%	-839
BARLEY											
	Brewers, maltsters and distillers	1,391	1,398	1,346	1,372	1,404	1,411	1,423	1,243	-13%	-180
Usage	Animal Feed Processors (2)	854	784	813	775	939	788	956	1,349	41%	393
Usaye	of which feed compounders	815	746	775	736	891	750	925	1,244	35%	319
	of which intergrated poultry units	39	38	38	39	48	38	31	105	237%	74
Imports	From July ⁽³⁾	65	77	86	74	70	56	40	47	16%	6
Exports	From July ⁽³⁾	1,114	1,174	1,536	860	964	737	1,475	1,140	-23%	-335
MAIZE											
	Human and Industrial	286	365	312	289	257	**	**	**	*	*
Usage	Animal Feed Processors (2)	314	271	254	235	264	476	340	474	39%	133
Osage	of which feed compounders	274	214	211	200	232	438	288	428	49%	140
	of which intergrated poultry units	40	56	44	34	32	38	52	45	-13%	-7
Imports	From July ⁽³⁾	1,647	1,473	1,285	1,380	1,551	2,136	1,885	2,168	15%	283
Exports	From July (3)	122	70	83	141	137	144	108	103	-4%	-4
OATS											
Usage	Human and Industrial	404	362	392	394	410	410	415	404	-3%	-11
oougo	Animal Feed Processors (2)	43	74	41	30	43	53	47	56	20%	9
Imports	From July (3)	19	21	22	19	16	28	12	17	38%	5
Exports	From July ⁽³⁾	48	70	61	18	23	32	106	35	-67%	-71

Source: AHDB, Defra, HMRC

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 14 May 2021. The data above may differ from the most recent published data.

Disclaimer

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⁽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