SUPPLY AND DEMAND

30 May 2024



KEY POINTS

- Domestic consumption remains historically strong, though firmer imports from concerns over next season's crop, as well as reduced exports, see end of season stocks forecast at their largest this century.
- The barley supply and demand balance remains tighter than average. Though much like wheat, increased imports and minimal exports leave the heaviest ending stocks since 2014/15.
- With increased domestic consumption from the relative price to wheat, imports of maize are forecast up on 2022/23 levels, though forecasts remain below the previous five-year average.
- Despite reduced domestic consumption, a smaller oat crop and minimal imports, combined with a firmer than average export pace, leads to the smallest ending stocks forecast since 2005/06.

INTRODUCTION

- 1. This release covers the fourth official estimates made of UK cereal supply and demand for 2023/24 (Appendix 1).
- 2. The UK Cereals Supply and Demand Estimates include the official production figures for wheat, barley and oats published by Defra in the results of the <u>Cereal and Oilseed Rape Production Survey</u>.
- 3. In 2023/24, total cereals demand for animal feed is estimated at 12.592 Mt, up 2 Kt from March's estimate, and up 161 Kt on the year. Though this total remains the second lowest level since 2016/17, behind last season. Total demand remains relatively unchanged from the previous estimate, as sluggish demand from compounders is offset by strong demand from Integrated Poultry Units (IPU). The only sector to see increased forecast demand for compounders is cattle. Given the poor weather over winter and start of spring, it is expected some cows were kept inside for longer. This combined with lower comparative barley prices to wheat is expected to lead to an increased barley fed on farm number. However, rises in feed demand are limited by the overall minimal growth in herd or flock numbers. Some recovery in lamb feed demand is forecast towards the end of the season with high lamb prices a key driver. Despite signs of improved margins in the pig sector, uncertainty over high inputs sees feed demand remain subdued. Demand for compound feed for poultry remains sluggish, with the impacts of Avian Influenza and elevated energy costs ongoing.
- 4. Total cereals usage for human and industrial (H&I) consumption is estimated at 10.832 Mt, up 231 Kt on the year, but down slightly (2 Kt) from March's estimate. Stable demand remains from the flour milling and distilling sectors. Though this is outweighed by declines in bioethanol and starch usage and lacklustre brewing demand since the last estimate.

WHEAT

5. At 18.108 Mt, total availability of wheat in 2023/24 is up 175 Kt from March's estimate, due to higher forecast imports. But this remains down 580 Kt on the year on a smaller domestic crop. Full

- season wheat imports are now forecast at 2.175 Mt, up 815 Kt on the year, and up 175 Kt on March's estimate. From Jul-Mar, wheat imports totalled 1.637 Mt, up 63% on the year (HMRC). The firm pace of milling wheat imports is expected to continue for the rest of the season, with limited domestic milling availability, and concerns over new crop supply.
- H&I wheat consumption is estimated at 7.467 Mt this season, up 140 Kt on 2022/23 levels, but down 26 Kt from March's estimate. Much of the change from the previous estimate comes as a result of maize pricing competitively to wheat, therefore maize is expected to feature more heavily in bioethanol and starch demand than earlier expected. Wheat demand by flour millers is forecast up slightly on the year. Despite the cost-of-living crisis impacting demand of premium products, overall flour demand has remained stable. It is expected that flour millers will continue to use a higher proportion of imported wheat for the remainder of the season, due to its comparative price, and limited high-quality domestic supply. BMD wheat usage remains forecast up slightly on the year, with expectations of firm demand from the distilling and starch sectors.
- 7. Usage of wheat in animal feed is forecast at 7.043 Mt. This is down slightly (1 Kt) on March's estimate, but up 128 Kt on the year. Despite stronger IPU demand since the previous estimate, lower-than-expected compounders demand and lower cereal inclusion saw an overall decline in wheat demand from March. Wheat usage is expected to remain at minimum levels for the season remainder due to its relative price to barley and maize. The estimate of wheat fed on farm remains unchanged from March considering increasing wheat prices as we head to the new season.
- 8. The balance of total availability and domestic consumption of wheat in 2023/24 is forecast at 3.270 Mt. This is up 201 Kt from March but down 841 Kt on 2022/23 levels but remaining above the five-year average. Increased imports, combined with reduced domestic consumption leads to the heavier balance than estimated in March. Full season exports are estimated at 225 Kt, down 45 Kt from the previous estimate, and down 1.361 Mt on 2022/23 levels. This season to date (Jul-Mar), the UK

has exported 195 Kt of wheat, down 83% on the same period a year earlier (HMRC). Commercial end-season stocks are forecast at 3.045 Mt, up 1.093 Mt on the year, and a 246 Kt increase on March's forecast. This estimate is the largest this century, perhaps unsurprising given the volume of wheat expected to still be on farm, plus the level of imports expected to be carried over for milling, with doubts over next season's crop size.

BARLEY

- 9. Total availability of barley in 2023/24 is forecast at 8.377 Mt. This is up 20 Kt from March's estimate due to an increase in imports, though remains 60 Kt lower on 2022/23 levels due to a smaller crop. Full season imports are now estimated at 145 Kt, up 57 Kt on the year. The majority of imports for the remainder of the season are thought to be of feed quality, largely going into Northern Ireland.
- 10. H&I barley consumption is estimated at 1.964 Mt, down 3 Kt on the previous estimate and back 19 Kt on 2022/23 levels. The cost-of-living crisis impacts brewing demand, though distilling demand remains firm. Usage by the BMD sector is forecast down overall on the year, with some capacity closure over the winter, but demand remains well above the five-year average and historically firm.
- 11. Usage of barley for animal feed in 2023/24 is relatively unchanged (up 1 Kt) on March's estimate at 4.034 Mt. This is forecast up 93 Kt on the year. While barley has been used heavily in compound rations so far this season, maize looks to be more competitive as of late, increasing usage for the season remainder at the slight expense of barley. More is expected to be fed on farm from March's estimate given relative price to wheat and later turn out.
- 12. At 2.161 Mt, the supply and demand balance of barley in 2023/24 is up 24 Kt on March's estimate, but remains down 133 Kt year-on-year. Increased imports, but reduced domestic consumption leads to a heavier estimated balance than in March. Though the barley balance remains lower than the previous five-year average. Full season exports are estimated at 730 Kt, up 30 Kt on the previous estimate but down 393 Kt on the year. This season to date (Jul-Mar), the UK has exported 29% less barley than at the same point in 2022/23 (HMRC). At 1.431 Mt, commercial end-season stocks are back 6 Kt on March's estimate but up 162 Kt on year earlier levels, remaining the highest since 2014/15.

MAIZE

13. In 2023/24, total availability of maize is forecast up 153 Kt on the year at 2.524 Mt. This is also up 45 Kt from the previous estimate. At 2.398 Mt, full season imports of maize are forecast up 45 Kt on March's estimate and 276 Kt on 2022/23 levels. From Jul-Mar, maize imports were up 11% on the same period a year earlier (HMRC). Despite steady

imports in March, it's thought that maize imports will pick up pace until the end of the season, as the grain prices more competitively against wheat.

- 14. H&I maize usage is forecast at 905 Kt this season. This is up 35 Kt on March's estimate, and up 104 Kt on year earlier levels. Maize usage in the bioethanol sector is expected to increase due to relative price for the final quarter of the season, as well as remain firm usage in wider brewing/distilling sector. Usage of maize in animal feed is also forecast up from the previous estimate (up 9 Kt) and on the year (17 Kt) at 1.251 Mt. This remains the highest level since 2020/21, though remains below the five-year average. Maize has priced more competitively to wheat into rations as of late, as such it is expected that maize usage will increase at the expense of barley for the remainder of the season.
- 15. At 365 Kt, the balance of maize availability and consumption in 2023/24 is unchanged on March's estimate, up 33 Kt on year earlier levels. Full season exports remain at 150 Kt, up 19 Kt on the year, while closing stocks are forecast at 215 Kt, up 89 Kt from 2022/23 levels.

OATS

- 16. In 2023/24, total availability of oats is estimated down 199 Kt on the year, at 983 Kt. This is back slightly (2 Kt) from the previous estimate. Opening stocks, production and imports all see yearly declines. Full season imports are estimated at 13 Kt, back 2 Kt on March's figure. Oat imports have seen a slow pace, with Jul-Mar totals down 36% compared to the same period last season (HMRC).
- At 497 Kt, H&I oat consumption in 2023/24 is forecast back 9 Kt from March's estimate but this is up 5 Kt on the year. Despite sluggish demand for oat products this season, increased hulling losses and some increased capacity mean demand for oats is forecast up slightly on the year. Usage of oats in animal feed is forecast at 274 Kt. This is down 6 Kt from the previous estimate and 76 Kt on the year. The smaller crop this year, and therefore the relative higher price over other cereals, sees minimal compounders usage and on-farm feeding this season. At 185 Kt, the balance of oat supply and 18. demand in 2023/24 is up 12 Kt from March's estimate, but down 127 Kt on 2022/23. This remains much tighter than the five-year average. Full season exports are estimated at 130 Kt. This is up 25 Kt on the previous estimate due to a stronger pace than earlier expected. But this remains 42 Kt lower on year earlier levels. From Jul-Mar, oat exports
- estimate and back 85 Kt on the year.

 19. 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.

were down 19% on the same period last season

(HMRC). Commercial end-season stocks are

estimated at 55 Kt, down 13 Kt on the previous

CEREALS & OILSEEDS



Appendix I

UK CEREAL SUPPLY AND DEMAND ESTIMATES (a) Estimates made in May 2024

											sand tonnes						
					WHE	AT							BAR	LEY			
		2018/19						Absolute	%	2018/19						Absolute	%
		2022/23	2020/21	2021/22	2022/23	2023/24	2023/24	change	change	2022/23	2020/21	2021/22	2022/23	2023/24	2023/24	change	change
		average	estimate	estimate	estimate	Mar-24	May-24	Mar-24	on 22/23	average	estimate	estimate	estimate	Mar-24	May-24	Mar-24	on 22/23
(1)	Opening stocks	1,854	2,438	1,413	1,788	1,953	1,953	-	9%	1,109	1,357	1,058	964	1,268	1,268	-	32%
(2)	Production	13,793	9,658	13,988	15,540	13,980	13,980	-	-10%	7,404	8,117	6,961	7,385	6,963	6,963	-	-6%
(3)	<u>Imports</u>	1,740	2,431	1,994	1,360	2,000	2,175	175	60%	81	89	89	88	125	145	20	64%
(4)	Total availability	17,387	14,527	17,394	18,688	17,933	18,108	175	-3%	8,595	9,562	8,108	8,437	8,357	8,377	20	-1%
(5)	Human and industrial consumption	7,000	6,617	7,156	7,326	7,492	7,467	-26	2%	1,854	1,722	1,885	1,983	1,967	1,964	-3	-1%
(5a)	(of which home grown)	5,936	5,131	6,056	6,407	6,363	6,320	-42	-1%	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
(6)	Usage as animal feed (b)	7,045	6,115	7,242	6,906	7,034	7,034	-1	2%	4,243	5,312	4,237	3,941	4,035	4,034	-1	2%
(6a)	(of which home grown)	6,421	5,365	6,542	6,486	6,484	6,484	-1	0%	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
(6b)	(of which compounders)	3,990	3,654	4,043	3,771	3,808	3,758	-50	0%	1,471	1,890	1,553	1,342	1,445	1,424	-22	6%
(6c)	(of which integrated poultry units)	1,134	1,080	1,143	1,104	1,210	1,259	49	14%	80	147	83	74	89	90	1	22%
(7)	Seed (c)	264	278	280	267	267	267	-	-	191	185	178	183	183	183	-	-
(8)	Other	69	48	70	78	70	70	-	-10%	37	41	35	37	35	35	-	-5%
(9)	Total domestic consumption	14,378	13,058	14,748	14,577	14,864	14,837	-26	2%	6,325	7,260	6,335	6,144	6,220	6,216	-4	1%
(10)	Balance (4) - (9)	3,008	1,469	2,646	4,111	3,069	3,270	201	-20%	2,270	2,302	1,773	2,293	2,137	2,161	24	-6%
(11)	Exports (d)	774	209	511	1,586	270	225	-45	-86%	1,166	1,290	764	1,123	700	730	30	-35%
(12)	Intervention stocks (d)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
(13)	Commercial end-season stocks (d)	1,901	1,413	1,788	1,953	2,799	3,045	246	56%	1,148	1,058	964	1,268	1,437	1,431	-6	13%
(14)	(of which estimated operating stock requirement) (e)	1,520	1,500	1,500	1,500	1,500	1,500	-	-	790	780	800	800	800	800	-	-
(15)	(of which free stock) (f)	381	-87	288	453	1,299	1,545	246	241%	358	278	164	468	637	631	-6	35%
(16)	Surplus available for either export or free stock (10)-(12)-(14)-(18)	1,154	122	799	2,038	1,569	1,770	201	-13%	1,524	1,568	928	1,592	1,337	1,361	24	-15%
(17)	2020/21 operating stock deficit (13)-(14)**		-87														
(18)	Residual (10)-(11)-(13)		-153	347	573						-46	45	-98				

					MA	ZE							OA	TS			
		2018/19						Absolute	%	2018/19						Absolute	%
		2022/23	2020/21	2021/22	2022/23	2023/24	2023/24	change	change	2022/23	2020/21	2021/22	2022/23	2023/24	2023/24	change	change
		average	estimate	estimate	estimate	Mar-24	May-24	Mar-24	on 22/23	average	estimate	estimate	estimate	Mar-24	May-24	Mar-24	on 22/23
(1)	Opening stocks	248	222	211	248	126	126	-	-49%	133	106	147	157	140	140	-0	-11%
(2)	Production	-	-	-	-	-	-	-	-	1,017	1,031	1,123	1,007	830	830	-	-18%
(3)	<u>Imports</u>	2,477	2,856	2,207	2,123	2,354	2,398	45	13%	21	20	17	18	15	13	-2	-26%
(4)	Total availability	2,726	3,078	2,417	2,371	2,479	2,524	45	6%	1,171	1,157	1,287	1,182	985	983	-2	-17%
(5)	Human and industrial consumption	854	1,011	859	801	869	905	35	13%	523	531	501	492	505	497	-9	1%
(5a)	(of which home grown)	-	-	-	-	-	-	-	-	501	513	483	474	490	484	-7	2%
(6)	Usage as animal feed	1,375	1,536	1,172	1,234	1,241	1,251	9	1%	374	394	476	350	280	274	-6	-22%
(6a)	(of which home grown)	-	-	-	-	-	-	-	-	374	394	476	350	280	274	-6	-22%
(7)	Seed	-	-	-	-	-	-	-	-	26	28	24	23	23	23	-	-
(8)	Other (h)	4	4	4	4	4	4	-	-	5	5	6	5	4	4	-	-20%
(9)	Total domestic consumption	2,233	2,551	2,035	2,039	2,114	2,159	45	6%	927	958	1,007	870	812	798	-14	-8%
(10)	Balance (4) - (9)	492	527	383	332	365	365	-	10%	244	199	280	312	173	185	12	-41%
(11)	Exportable surplus	145	138	134	131	150	150	-	14%	99	41	123	172	105	130	25	-24%
(12)	Commercial end-season stocks	224	211	248	126	215	215	-	71%	133	147	157	140	68	55	-13	-61%
(13)	Residual (10)-(11)-(12)		178	0	75						11	0	0				

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 the 2020/21 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) Animal feed usage has been split by sector. Note, other users are only included in the total.

⁽c) Seed numbers are updated based on a number of assumptions, calculated for the purposes of the balance sheets only. Seed numbers for the 2023/24 season are pulled forward from the last marketing year.

Given the decrease in wheat area forecast for harvest 2024, significant changes to this figure can be expected when official data is released early next season.

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

⁽e) 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.

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

		OTHER CEREALS (i)										
		2018/19 2022/23 average	2020/21 estimate	2021/22 estimate	2022/23 estimate	2023/24 Mar-24	2023/24 May-24	Absolute change Mar-24	% change on 22/23			
(1)	Opening stocks	6	5	5	10	6	6	-	-41%			
(2)	Production****	227	168	297	330	271	271	-	-18%			
(3)	Imports	4	1	11	4	4	4	-	-9%			
(4)	Total availability	237	174	313	345	281	281	-	-19%			
(5+6)	H&I and animal feed	218	166	289	300	255	260	5	-13%			
(5a+6a)	(of which home grown)	213	165	279	290	250	255	5	-12%			
(7)	Seed	6	3	10	10	10	10	-	-			
(8)	Other	-	-	-	-	-	-	-	-			
(9)	Total domestic consumption	224	169	299	310	265	270	5	-13%			
(10)	Balance (4) - (9)	13	5	14	35	16	11	-5	-69%			
(11)	Exportable surplus	7	-	4	29	8	1	-7	-97%			
(12)	Intervention stocks	-	-	-	-	-	-	-	-			
(13)	Commercial end-season stocks	6	5	10	6	8	10	2	68%			

		TOTAL CEREALS									
		2018/19						Absolute	%		
		2022/23	2020/21	2021/22	2022/23	2023/24	2023/24	change	change		
		average	estimate	estimate	estimate	Mar-24	May-24	Mar-24	on 22/23		
(1)	Opening stocks	3,350	4,128	2,834	3,167	3,493	3,493	-0	10%		
(2)	Production	22,442	18,974	22,369	24,262	22,044	22,044	-	-9%		
(3)	Imports	4,324	5,397	4,318	3,594	4,498	4,735	238	32%		
(4)	Total availability	30,116	28,499	29,521	31,023	30,035	30,272	237	-2%		
(5)	H&I (wheat, barley, maize, oats) (h)	10,231	9,881	10,402	10,602	10,834	10,832	-2	2%		
(6)	Animal feed (wheat, barley, maize oats) (h)	13,037	13,357	13,126	12,431	12,590	12,592	2	1%		
(5a + 6a)	Other cereals (H&I and animal feed)	218	166	289	300	255	260	5	-13%		
(7)	Seed	487	494	492	483	483	483	-	-		
(8)	Other	115	98	115	124	113	113	-	-9%		
(9)	Total domestic consumption	24,088	23,996	24,424	23,940	24,275	24,281	6	1%		
(10)	Balance (4) - (9)	6,028	4,503	5,096	7,083	5,760	5,992	232	-15%		
(11)	Exports	2,191	1,679	1,537	3,041	1,233	1,236	3	-		
(12)	Intervention stocks	-	-	-	-	-	-	-	-		
(13)	Commercial end-season stocks	3,412	2,834	3,167	3,493	4,527	4,756	229	36%		
(14)	Estimated operating stock requirement (wheat & barley only)	2,310	2,280	2,300	2,300	2,300	2,300	-	-		
(15)	Free stock for wheat and barley***	738	191	452	921	1,936	2,176	240	136%		
(16)	Surplus available for either export or free stock (10)-(12)-(14)-(17)	3,718	2,233	2,404	4,233	3,460	3,692	232	-13%		
(17)	Residual (10)-(11)-(13)		-10	392	550						

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 for 2020/21 balance sheet relates to barley only, due to the wheat deficit
**** Other cereals production in 2023/24 has been calculated using official harvest 2023 area data and 2020/21 - 2022/23 average yields.

Appendix II

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

Situation as a	at end of March 2024									Thousand tonnes
		2018/19 to 2022/23	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	% Change 2023/24 on	Actual Change 2023/24 or
		average	39 weeks	2022/23	2022/23					
WHEAT	(1)		4.000						=01	
	Flour millers (1)	4,497	4,677	4,605	4,202	4,497	4,503	4,740	5%	236
	of which home-grown	3,685	3,831	4,020	3,078	3,651	3,846	3,886	1%	41
	of which imported	812	846	585	1,124	845	658	853	30%	196
Usage	Brewers, maltsters and distillers	632	531	486	608	729	807	805	0%	-2
	Animal Feed Processors (2)	3,488	3,679	3,799	3,189	3,501	3,274	3,385	3%	111
	of which feed compounders	2,639	2,808	2,915	2,376	2,642	2,456	2,431	-1%	-25
	of which intergrated poultry units	849	871	885	813	860	818	954	17%	136
Imports	From July (3)	1,353	1,510	837	1,886	1,525	1,004	1,637	63%	633
Exports	From July (3)	581	275	1,001	177	302	1,152	195	-83%	-957
BARLEY										
Usage	Brewers, maltsters and distillers	1,384	1,411	1,422	1,243	1,383	1,460	1,449	-1%	-12
	Animal Feed Processors (2)	1,043	789	963	1,353	1,171	938	994	6%	56
	of which feed compounders	985	751	932	1,248	1,101	895	925	3%	30
	of which intergrated poultry units	58	38	31	105	70	43	70	61%	26
Imports	From July (3)	52	56	40	47	60	55	131	137%	76
Exports	From July (3)	973	737	1,475	1,145	622	884	625	-29%	-259
MAIZE										
	Human and Industrial (4)	**	**	**	**	**	**	**	*	,
Usage	Animal Feed Processors (2)	395	478	344	476	280	**	**	*	
	of which feed compounders	345	440	292	431	265	295	267	-9%	-28
	of which intergrated poultry units	37	38	52	45	15	**	**	*	
Imports	From July (3)	1,906	2,135	1,885	2,199	1,588	1,725	1,923	11%	198
Exports	From July (3)	112	144	108	114	98	97	127	32%	31
DATS										
	Human and Industrial (5)	399	410	415	404	387	380	385	1%	5
Usage	Animal Feed Processors (2)	64	54	49	58	99	59	38	-35%	-21
Imports	From July (3)	18	28	12	19	16	15	9	-36%	-5
Exports	From July (3)	73	32	106	35	54	136	110	-19%	-26

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 2024. In order to incorporate the change January 2024 was increased to a 5 week period compared to 4 weeks in 2023.

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.

Figures in Appendix II were updated on 30 May 2024. 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

⁽⁴⁾ Data no longer available. For quarterly data to end of 2017/18, please access using historic balance sheets.

⁽⁵⁾ Oat milled data published quarterly. Data displayed as at end-March (39 weeks).

^{*} Changes not meaningful

^{**}Insufficient sample to produce robust figure