

KEY POINTS

- While domestic consumption of wheat is forecast to ease slightly in 2018/19, a larger fall in total availability has led to the forecast wheat balance tightening for the third consecutive year
- The surplus of barley available for export or free stocks is forecast at the lowest level since 2012/13
- Maize imports are forecast to rise driven by strong animal feed demand
- Milling demand for oats continues to be robust in 2018/19

INTRODUCTION

1. This release covers the first official estimates made of UK cereal supply and demand for 2018/19 (Appendix I). These estimates follow from the annual [AHDB Wheat and Barley Early Balance Sheets](#) for the 2018/19 marketing season.

2. The UK Cereals Supply and Demand Balance Sheets continue to include the official production figures for all cereals published in the results of [Defra's Cereal and Oilseed Rape Production Survey](#). Defra are investigating how the crop areas in England from the RPA Basic Payment Scheme can be used to support the official production figures.

3. **In 2018/19 total cereals demand for animal feed is forecast to increase by 2% (267Kt) compared with 2017/18, to 13.332Mt.** The annual growth in animal feed production is largely driven by poultry and cattle feed output and to an extent sheep feed. Pig feed production is expected to be marginally down on year earlier levels. The continuing rise in ruminant feed output, driven by adverse conditions in the summer, is expected to slow somewhat, partly due to easing concerns around winter forage availability. While pig feed output has been decreasing so far this season, it is reported that the rate of decline will slow as the season progresses. This is due to pig production patterns returning back to more usual levels, following the long period of hot weather earlier in the year.

WHEAT

4. **UK wheat availability is forecast to be 5% or 882Kt lower year on year at 17.504Mt, predominately driven by a fall in production.** Provisional results from the [Defra Cereals and Oilseed Rape Production Survey](#) reported a lower average yield in 2018, which outweighed a marginal increase in planted area, leading to a 751Kt annual decline in wheat production to 14.086Mt. Opening stocks are also estimated to be lower (-2%) than in 2017/18, at 1.718Mt.

5. **Imports of wheat in 2018/19 are forecast at 1.700Mt, 5% or 93Kt lower year on year.** From July – September the UK imported 772Kt tonnes of wheat, 80% higher than the same period in 2017. While imports have been high during the first quarter of the

season, the pace is expected to slow somewhat as the season progresses. This is due to a reduction in bioethanol demand, as well as competition from maize for animal feed usage, due to its relative price to wheat. Demand for imported wheat from UK flour millers is also expected to be lower on the season, partly due to the good functionality and availability of the domestic crop.

6. **At 7.067Mt, Human and Industrial (H&I) consumption of wheat is forecast to fall by 10% compared with 2017/18, driven largely by a reduction in usage by the bioethanol sector.** With Vivergo Fuels announcing it ceased production at the end of September 2018 and Ensus announcing a pause in production from the end of November 2018, it is assumed for these forecasts that both plants will remain off line for the rest of 2018/19. Bioethanol usage will be monitored throughout the season. Wheat usage by UK flour millers is expected to remain relatively stable on year earlier levels, while usage of wheat by brewers, maltsters and distillers (BMD) is expected to decline, partly due to temporary plant maintenance closures.

7. **Wheat demand for animal feed is forecast to be 3% higher than in 2017/18 at 7.738Mt.** From July – September, wheat used to produce GB compound and Integrated Poultry Unit (IPU) feed totalled 1.223Mt, 3% higher than the same point in 2017. The rise in wheat used in animal feed is largely driven by the poultry sector and to an extent cattle and sheep. While wheat usage is projected to rise in animal diets, the scale of the increase is, to some extent, capped by an expected rise in maize usage, due to its relative price to other cereals.

8. **The estimated balance of availability and domestic consumption in 2018/19 is 2.350Mt, 353Kt lower than 2017/18.** The estimated operating stocks requirement is forecast at 1.550Mt, 50Kt lower year on year. This leaves a surplus available for free stock or exports of 800Kt, 233Kt higher than in 2017/18, but remains well below the previous five season average of 1.954Mt.

BARLEY

9. **At 7.772Mt, UK barley availability in 2018/19 is estimated to be 7% or 607Kt lower than in 2017/18, largely driven by an estimated reduction in output.** Provisional results from the [Defra Cereal and Oilseed Rape Production Survey](#) reported a lower average yield in 2018. This combined with a smaller planted area, led to a fall in production of 563Kt, to 6.606Mt in 2018. Opening stocks for the season are also estimated to be lower (-3%) on year earlier levels at 1.076Mt. With reports of a below average barley harvest in Europe, UK imports of barley are also expected to be lower on the year. UK barley imports are forecast to fall by 15Kt on the year in 2018/19 to 90Kt.

10. **In 2018/19 H&I barley consumption is forecast to remain relatively unchanged on the season at 1.886Mt.** Season to date (Jul-Sep) usage of barley by the UK BMD sector is 464Kt, 1% lower on the year. The majority of this decrease was driven by a year on year fall in barley usage in July 2018. However, it has been reported that usage in July 2017 was relatively high. Usage for the rest of the season is forecast to remain near year earlier levels, with no unscheduled closures, or large capacity changes expected for the season.

11. **Barley demand for animal feed is forecast to decrease by 3% in 2018/19 to 3.929Mt.** From July – September the amount of barley used in GB animal feed production (including IPU) was 6% lower on the year at 281Kt. With the discount of UK feed barley to feed wheat prices smaller than last season, usage of barley in animal feed diets is expected to be lower. While barley inclusions are lower in rations due to its relative price to other cereals, the dietary requirements for some animals, such as pigs, will mean barley usage will be retained to a certain extent. The level of barley fed on farm is expected to remain at similar levels to 2017/18. Although reports of tight forage availability in some regions is expected to lead to more barley fed on farm, this is not the situation across the whole of the UK.

12. **The barley supply and demand balance is estimated at 1.738Mt, 22% lower than in 2017/18.** With an estimated operating stock requirement of 780Kt, the surplus available for export or free stock is forecast at 958Kt, 450Kt lower than 2017/18.

MAIZE

13. **Total availability of maize in 2018/19 is forecast to increase by 2% on the year to 2.352Mt, with a rise in forecast imports, offsetting a fall in opening stocks.** Opening stocks of maize are estimated at 247Kt, 9% lower than in 2017/18. In the season to date (Jul-Sep) the UK has imported 544Kt

of maize, 37% higher on year earlier levels. Full season imports are forecast at 2.105Mt in 2018/19, 4% (81Kt) higher than in 2017/18, with the current pace of imports expected to slow as the season progresses. The anticipated increase in maize imports is on account of increased demand in animal feed, outweighing a reduction in H&I usage.

14. **H&I usage of maize is forecast at 545Kt, 15% lower than in 2017/18,** driven predominately by a fall in bioethanol usage outweighing a small increase in usage by the distilling sector. **Demand for maize in animal feed is forecast to increase by 13% in 2018/19 to 1.393Mt.** So far this season (Jul-Sep) maize usage in GB animal feed production (including IPU) is 26% up on year earlier levels at 103.4Kt. While demand for maize is currently expected to remain strong up until the spring, due to its relative price compared to other cereals and current commitments, the rise is expected to slow during the last quarter of the season. However, this is dependent on spring weather.

15. **At 410Kt, the balance of availability and consumption for maize is forecast to be 8Kt lower on the year.** Maize exports for 2018/19 are forecast at 155Kt, 16Kt down on the year, while commercial end-season stocks are forecast to increase by 8Kt to 255Kt.

OATS

16. **Oats availability, at 1.012Mt, is 8Kt higher than in 2017/18, with an increase in estimated opening stocks outweighing a fall in imports and production.** Opening stocks of oats are estimated at 138Kt, 25% up on the year. Defra have provisionally estimated 2018 oat production at 857Kt, 2% down on year earlier levels, driven by a fall in estimated yields. Imports are forecast to fall by 2Kt on the year to 17Kt, due to tight global supply of the grain.

17. **At 550Kt, H&I demand for oats in 2018/19 is 2% higher on the year.** Demand for oats by millers is expected to remain strong for the whole season. Usage of oats for animal feed is forecast to remain relatively unchanged on the year at 272Kt.

18. **The balance of oats availability and demand is estimated to be 2% lower on the year in 2018/19 to 162Kt.** Full season exports are forecast to be 3Kt lower than year earlier levels at 25Kt, with 14Kt exported to date (Jul-Sep). It is currently forecast that 137Kt of oats will be carried forward into 2019/20, relatively unchanged on the year.

ADDITIONAL DATA

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

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



UK CEREAL SUPPLY AND DEMAND ESTIMATES (a)

Estimates made in November

(JULY - JUNE YEARS)

Links connect to relevant Defra/AHDB data pages

Thousand tonnes

	WHEAT						BARLEY					
	2013/14 2017/18 average	2015/16 estimate**	2016/17 estimate	2017/18 estimate	2018/19 Nov-18	% change on 17/18	2013/14 2017/18 average	2015/16 estimate	2016/17 estimate	2017/18 estimate	2018/19 Nov-18	% change on 17/18
(1) Opening Stocks	2,144	2,434	2,787	1,755	1,718	-2%	1,269	1,497	1,367	1,105	1,076	-3%
(2) Production	14,779	16,506	14,383	14,837	14,086	-5%	7,039	7,370	6,655	7,169	6,606	-8%
(3) Imports	1,804	1,509	1,855	1,793	1,700	-5%	122	159	106	105	90	-14%
(4) Total Availability	18,727	20,449	19,025	18,386	17,504	-5%	8,430	9,026	8,128	8,379	7,772	-7%
(5) Human and Industrial Consumption (b)	7,715	7,360	8,110	7,816	7,067	-10%	1,897	1,833	1,863	1,881	1,886	0%
(5a) (of which home grown)	6,585	6,416	7,169	6,787	6,019	-11%	n/a	n/a	n/a	n/a	n/a	*
(6) Usage as Animal Feed (c)	7,042	7,094	7,236	7,515	7,738	3%	3,617	3,613	3,655	4,047	3,929	-3%
(6a) (of which home grown)	6,358	6,444	6,523	6,794	6,988	3%	n/a	n/a	n/a	n/a	n/a	*
(6b) (of which Compounders)	3,825	3,845	4,034	4,232	4,464	5%	1,153	1,108	1,132	1,279	1,201	-6%
(6c) (of which Integrated Poultry Units)	1,297	1,210	1,211	1,241	1,233	-1%	59	49	53	59	53	-10%
(7) Seed (d)	284	281	278	279	279	0%	178	182	189	186	186	0%
(8) Other	76	79	72	74	70	-5%	35	37	33	36	33	-8%
(9) Total Domestic Consumption	15,117	14,814	15,696	15,683	15,154	-3%	5,727	5,665	5,740	6,150	6,034	-2%
(10) Balance (4) - (9)	3,610	5,635	3,329	2,703	2,350	-13%	2,703	3,361	2,388	2,228	1,738	-22%
(11) Exports (e)	1,425	2,848	1,438	448	-	*	1,355	1,994	1,026	1,101	-	*
(12) Intervention Stocks (e)	-	-	-	-	-	-	-	-	-	-	-	-
(13) Commercial End-Season Stocks (e)	2,051	2,787	1,755	1,718	-	*	1,285	1,367	1,105	1,076	-	*
(14) (of which Estimated Operating stock requirement) (f)	1,522	1,500	1,560	1,600	1,550	-3%	751	760	760	770	780	1%
(15) (of which free stock) (g)	529	1,287	195	118	-	*	534	607	345	306	-	*
(16) Surplus available for either export or free stock (10)-(12)-(14)-(17)	1,954	4,135	1,633	567	800	41%	1,889	2,601	1,371	1,408	958	-32%
(17) Residual (10)-(11)-(13)			136	536					257	50		

	MAIZE						OATS					
	2013/14 2017/18 average	2015/16 estimate**	2016/17 estimate	2017/18 estimate	2018/19 Nov-18	% change on 17/18	2013/14 2017/18 average	2015/16 estimate	2016/17 estimate	2017/18 estimate	2018/19 Nov-18	% change on 17/18
(1) Opening Stocks	241	309	148	271	247	-9%	109	107	93	110	138	25%
(2) Production	-	-	-	-	-	-	855	799	816	875	857	-2%
(3) Imports	1,993	1,742	2,007	2,024	2,105	4%	35	39	32	19	17	-10%
(4) Total Availability	2,233	2,051	2,155	2,295	2,352	2%	999	945	941	1,004	1,012	1%
(5) Human and Industrial Consumption	585	465	570	643	545	-15%	517	525	521	537	550	2%
(5a) (of which home grown)	-	-	-	-	-	-	482	499	476	519	533	3%
(6) Usage as Animal Feed	1,244	1,310	1,135	1,230	1,393	13%	290	239	263	273	272	0%
(6a) (of which home grown)	-	-	-	-	-	-	290	239	263	273	272	0%
(7) Seed	-	-	-	-	-	-	20	19	23	24	24	0%
(8) Other (h)	5	9	4	4	4	0%	4	4	4	4	4	0%
(9) Total Domestic Consumption	1,833	1,784	1,709	1,877	1,942	3%	831	787	811	837	850	1%
(10) Balance (4) - (9)	400	267	446	418	410	-2%	168	158	130	166	162	-2%
(11) Exportable surplus	153	120	175	171	155	-9%	45	65	21	28	25	-12%
(12) Commercial End-Season Stocks	247	148	271	247	255	3%	123	93	110	138	137	-1%

(a) These are revised during the year. Figures rounded to the nearest 1000 tonnes. Due to rounding, totals may not agree with the sum of the individual items.

(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 sheet 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

* Percentage change not meaningful

** These balance sheets have been adjusted as per Defra's reliability allocation method

Continued over the page

		OTHER CEREALS (i)					
		2013/14 2017/18 average	2015/16 estimate	2016/17 estimate	2017/18 estimate	2018/19 Nov-18	% change on 17/18
(1)	Opening Stocks	5	5	5	5	5	0%
(2)	Production	118	121	110	119	194	63%
(3)	Imports	3	3	3	4	4	0%
(4)	Total Availability	125	129	118	129	203	58%
(5+6)	H&I and Animal Feed	117	121	110	121	195	62%
(5a+6a)	(of which home grown)	115	118	107	116	191	65%
(7)	Seed	3	3	3	3	3	0%
(8)	Other	-	-	-	-	-	-
(9)	Total Domestic Consumption	120	124	113	124	198	60%
(10)	Balance (4) - (9)	5	5	5	5	5	9%
(11)	Exportable surplus	-	-	-	-	-	-
(12)	Intervention Stocks	-	-	-	-	-	-
(13)	Commercial End-Season Stocks	5	5	5	5	5	0%

		TOTAL CEREALS					
		2013/14 2017/18 average	2015/16 estimate**	2016/17 estimate	2017/18 estimate	2018/19 Nov-18	% change on 17/18
(1)	Opening Stocks	3,768	4,352	4,400	3,247	3,184	-2%
(2)	Production	22,791	24,796	21,964	22,999	21,743	-5%
(3)	Imports	3,955	3,452	4,003	3,945	3,917	-1%
(4)	Total Availability	30,515	32,600	30,366	30,191	28,844	-4%
(5)	H&I (wheat, barley, maize, oats) (h)	10,714	10,183	11,064	10,876	10,048	-8%
(6)	Animal Feed (wheat, barley, maize oats) (h)	12,192	12,256	12,288	13,065	13,332	2%
(5a +6a)	Other cereals (H&I and Animal Feed)	117	121	110	121	195	62%
(7)	Seed	485	485	493	492	492	0%
(8)	Other	120	129	113	118	111	-6%
(9)	Total Domestic Consumption	23,629	23,174	24,068	24,672	24,178	-2%
(10)	Balance (4) - (9)	6,886	9,426	6,298	5,520	4,666	-15%
(11)	Exports	2,979	5,027	2,660	1,749	-	*
(12)	Intervention Stocks	-	-	-	-	-	*
(13)	Commercial End-Season Stocks	3,710	4,400	3,247	3,184	-	*
(14)	Estimated Operating stock requirement (wheat & barley only)	2,273	2,260	2,320	2,370	2,330	-2%
(15)	Free stock for wheat and barley	1,063	1,894	541	424	-	*
(16)	Surplus available for either export or free stock (all)	4,041	7,167	3,587	2,563	2,335	-9%
(17)	Residual (10)-(11)-(13)			392	587	-	

(i) Includes mainly rye, triticale and mixed grain

Source: AHDB; Defra

** These balance sheets have been adjusted as per Defra's reliability allocation method

CUMULATIVE MONTHLY STATISTICS

Usage of cereals by processors, external trade and stocks

Situation as at end of September 2018

Thousand tonnes

			2013/14 to 2017/18 Average	2011/12 13 weeks	2012/13 13 weeks	2013/14 13 weeks	2014/15 13 weeks	2015/16 13 weeks	2016/17 13 weeks	2017/18 13 weeks	2018/19 13 weeks	% Change 2018/19 on 2017/18	Actual Change 2018/19 on 2017/18
WHEAT													
Usage	Human and Industrial	-Flour Millers [†]	337	175	248	587	395	242	220	242	436	80%	194
		-home-grown	1351	1316	1351	984	1289	1370	1539	1575	1299	-17%	-275
		-Total	1688	1490	1599	1571	1683	1612	1759	1817	1736	-4%	-81
		-Distillers	192	138	180	206	195	172	179	208	172	-17%	-36
		Animal Feed Processors ^(a)	819	696	744	775	744	814	880	884	924	5%	40
		Poultry Integrated Units	330	398	395	369	355	319	302	304	299	-2%	-5
Imports	From July ^(b)		547	218	581	827	608	447	424	430	772	80%	343
Exports	From July ^(b)		295	537	289	44	288	325	671	147	79	-46%	-68
	Intervention	-Actual	0	0	0	0	0	0	0	0	0	*	*
		-Projected	0	0	0	0	0	0	0	0	0	*	*
BARLEY													
Usage	Maltsters/Distillers	-imported	-	-	-	-	-	-	-	-	-	-	-
		-home-grown	-	-	-	-	-	-	-	-	-	-	-
		-Total	461	433	438	460	480	448	447	469	464	-1%	-5
		Animal Feed Processors ^(a)	235	193	212	213	254	226	200	281	266	-5%	-15
		Poultry Integrated Units	15	21	18	17	19	11	13	17	16	-8%	-1
Imports	From July ^(b)		33	42	36	25	28	47	32	35	22	-36%	-12
Exports	From July ^(b)		319	191	202	258	295	360	338	343	129	-62%	-214
	Intervention	-Actual	0	151	5	0	0	0	0	0	0	*	*
		-Projected	0	151	5	0	0	0	0	0	0	*	*
MAIZE													
Usage	Human and Industrial		81	73	77	90	101	85	72	57	**	*	*
		Animal Feed Processors ^(a)	68	24	47	64	74	69	62	71	95	33%	24
Imports	From July ^(b)		370	203	233	382	293	388	387	398	544	37%	145
Exports	From July ^(b)		21	9	6	13	12	18	26	35	38	10%	3
OATS													
Usage	Human and Industrial Processors		124	115	114	120	118	125	126	130	142	9%	12
		Animal Feed Processors ^(a)	15	15	14	17	22	14	10	10	16	55%	6
Imports	From July ^(b)		13	10	10	20	11	15	9	11	6	-46%	-5
Exports	From July ^(b)		14	5	2	7	22	17	7	17	14	-16%	-3

Source: AHDB, Defra, HMRC

^(a) Great Britain only.

^(b) HMRC

* Changes not meaningful

**Insufficient sample to produce robust figure

† Includes bioethanol and starch usage

Footnotes:

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 29 November 2018. The data above may differ from the most recent published data.