# **Supply & Demand**

21 June 2017



# **Key points**

- UK forecast to be a net importer of wheat in 2016/17 and enters the new marketing season with a relatively lower level of stocks
- Barley exports set to fall by 50% year on year, to the lowest level since 2012/13
- Biofuel demand driving the rise in domestic maize consumption this season
- The annual steady increase in milling demand for oats continues

#### Introduction

1. This release covers the delayed third official estimates made by Defra of UK cereal supply and demand for 2016/17 (Appendix I).

2. Full season (2016/17) total cereals demand for animal feed is forecast at 12.378Mt, 18Kt up on March's estimate and 109Kt (1%) higher compared to 2015/16. Year on year growth in animal feed demand is largely driven by the poultry sector and to a lesser extent an increase in sheep and cattle feed production. Likewise, 'other' animal feed demand is also expected to rise this season. However, pig feed demand is forecast to decrease year on year, driven by an assumed smaller domestic herd and increased feed conversion efficiency.

#### Wheat

3. Total availability of wheat for 2016/17 is forecast at 18.875Mt, 8% lower year on year but 100Kt higher than that estimated in March. Wheat imports have been revised up compared with previous forecasts due to a stronger pace of imports into the UK than had been expected. Between July 2016 and April 2017, wheat imports totalled 1.479Mt, 17% more than the corresponding period in 2015/16. However, it should be noted that a number of wheat import volumes are currently being investigated by the HMRC, including an unusually large volume from Romania in April.

4. Human and Industrial (H&I) usage of wheat has been forecast at 8.106Mt, 10% higher year on year and 12Kt higher than that estimated in March. Compared with the March forecast, demand from the bioethanol industry has been revised up. This has more than offset a slight decline in usage by flour millers, Brewers, Maltsters & Distillers (BMD).

5. Wheat demand for animal feed production is forecast at 7.224Mt, 24Kt lower than March's estimate but 133Kt (2%) higher year on year. Similar to earlier updates, growth in the poultry industry has remained a predominant driver of overall wheat demand in 2016/17. Between July and April, production of poultry feed by GB compounders and Integrated Poultry Units was 2% up on the same period last season, despite there being one less week in the statistical month of April 2017 compared with April 2016.

6. At 3.190Mt, the estimated balance of availability and domestic consumption in 2016/17 is 2.447Mt (43%) lower than in 2015/16 and remains the lowest since 2013/14. The estimated operating stock requirement is unchanged on March's forecast at 1.600Mt. This figure provides an estimate of the minimum tonnage that processors of grain require from 1 July to the point at which new crop can be utilised (read more on the methodology for calculating operating stocks here). Season to date (Jul-Apr) wheat exports totalled 1.366Mt, down 39% on the same period last season. Full season exports are currently forecast at 1.500Mt, 47% lower than in 2015/16. A smaller domestic crop in 2016, combined with a rise in domestic demand, amongst other factors, has led to forecast commercial end of season stocks declining by 27% on the year to 2.040Mt (including operating stocks).

### Barley

7. At 8.127Mt, total availability of barley is slightly lower (-10Kt) than that estimated in March and 892Kt lower than total available supplies in 2015/16. While opening stocks and imports are estimated to be lower year on year, the main change is due to reduced production, which was 715Kt down on the previous year, according to Defra's final production estimate. Imports have been adjusted down slightly, by 10Kt on account of imports to date (July-April), being 22% lower than the same point a year earlier.

8. H&I demand for barley is estimated at 1.860Mt, 1.5% higher year on year and 8Kt higher than

forecasts made in March. According to Defra figures, usage of barley by the BMD sector totalled 1.371Mt during July-March, compared with 1.346Mt a year earlier, up 1.9%.

9. Demand for barley in animal feed production is forecast to increase by 41Kt on March's estimate and is 28Kt up compared to 2015/16 at 3.633Mt. The expected rise in ruminant feed production this season, particularly in Northern Ireland, as well as strong demand for the grain from the pig sector and the feed barley price discount to feed wheat is driving the overall rise in barley inclusions.

The barley supply and demand balance is 10. forecast at 2.420Mt, 59Kt less than March's forecast and 942Kt (28%) lower than in 2015/16. Exports of barley from July - April totalled 915Kt, 48% down on the same period last season. Full season exports are forecast at 1Mt, 50% lower than in 2015/16. Commercial end of season stocks are forecast at 1.183Mt (including 760Kt of operating stock requirement), 13% lower than last season.

#### Maize

11. Total availability of maize in 2016/17 is estimated at 2.123Mt, slightly higher (3%) than a year earlier. During July to April, the UK imported 1.675Mt of maize, up 12% on the same period last year according to data from HMRC. Similar to wheat, a number of import figures are being investigated by HMRC, including substantial volumes throughout the year from Romania.

H&I demand for maize is expected to increase 12. by 40Kt on March's estimate and rise by 21% on the year, to 548Kt. The main driving force behind the rise is an increase in usage by the bioethanol sector. Inclusions of maize in animal feed production are expected to remain relatively stable compared to the previous estimate, but are down 6% compared to 2015/16, at 1.254Mt.

The balance of supply and demand for maize is 13. forecast at 317Kt, 15Kt higher than March's forecast and 22% higher than in 2015/16. Full season maize exports have been revised up by 15Kt from the previous forecast and are expected to be 48% higher year on year, at 170Kt. Estimated commercial end of season stocks have been pegged at 147Kt, unchanged from March's forecast and 1% higher than in 2015/16.

#### Oats

14. Oats availability, at 952Kt, is 15Kt higher than that estimated in March due to an uplift in the import forecast. Between July and April, 37Kt of oats were imported, 15% more than the corresponding period a year earlier. The uplift in UK oat imports is mainly due to a relatively large volume of oats from Ireland.

15. H&I demand for oats is forecast at 530Kt, 5Kt higher than last year. Oatmillers usage statistics for the season to date (July – March), indicate a slightly higher utilisation of oats compared to the corresponding period in 2015/16 (+1.2Kt). Demand for oats for animal feed has slightly increased (+2Kt) compared to March's estimate and is forecast to be 13% higher than 2015/16, at 267Kt.

16. At 130Kt, the estimated balance of availability and usage is up 8Kt on March's forecast, however, 19% lower than last season. Taking into account season to date (July-April) exports of 19Kt, full season exports have been reduced by 14Kt on the previous estimate and are forecast 68% lower than 2015/16, at 21Kt. At 109Kt, commercial end of season stocks are 22Kt higher than the previous estimate and are expected to be up by 13% year on year.

#### Additional data

Appendix II shows cumulative usage and trade 17. data to end-March. This release and related information can be found at cereals.ahdb.org.uk/markets. Cereals usage data can be found on the Defra website at https://www.gov.uk/government/organisations/depar tment-for-environment-food-ruralaffairs/about/statistics

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# DEFRA ANNUAL UK CEREAL SUPPLY AND DEMAND ESTIMATES (a)

## Estimates made in June

In 2015, Defra reviewed how it uses survey estimates to achieve consistent cereals balance sheet estimates. The outcome of the review was the introduction of the reliability scores method used to allocate identified residuals across the balance sheet as and when required. Cereals balance sheets are published by AHDB Cereals & Oilseeds on behalf of Defra at <a href="http://cereals.ahdb.org.uk/markets/supply-and-demand.aspx">http://cereals.ahdb.org.uk/markets/supply-and-demand.aspx</a>.

#### (JULY - JUNE YEARS)

#### Links connect to relevant Defra/AHDB data pages

	connect to relevant Defra/AHDB data pages				WHEAT				BARLEY						
		2011/12					Absolute	%	2011/12					Absolute	%
		2015/16	2014/15	2015/16	2016/17	2016/17	change	change	2015/16	2014/15	2015/16	2016/17	2016/17	change	change
		average	estimate**	estimate**	Mar-17	Jun-17	Mar-17	on 15/16	average	estimate	estimate	Mar-17	Jun-17	Mar-17	on 15/16
(1)	Opening Stocks	1,842	1,559	2,434	2,792	2,792	0	15%	1,137	1,379	1,497	1,367	1,367	0	-9%
(2)	Production	14,639	16,363	16,506	14,383	14,383	0	-13%	6,478	6,911	7,370	6,655	6,655	0	-10%
(3)	Imports	1,847	1,669	1,509	1,600	1,700	100	13%	156	139	152	115	105	- 10	-31%
(4)	Total Availability	18,328	19,591	20,449	18,775	18,875	100	-8%	7,771	8,429	9,019	8,137	8,127	- 10	-10%
(5)	Human and Industrial Consumption (b)	7,407	7,831	7,357	8,094	8,106	12	10%	1,881	1,949	1,833	1,852	1,860	8	1%
(5a)	(of which home grown)	6,165	6,640	6,413	7,207	7,171	- 36	12%	n/a	n/a	n/a	n/a	n/a	-	*
(6)	<u>Usage as Animal Feed (c)</u>	6,755	6,991	7,091	7,248	7,224	- 24	2%	3,284	3,276	3,605	3,592	3,633	41	1%
(6a)	(of which home grown)	6,158	6,501	6,441	6,627	6,547	- 80	2%	n/a	n/a	n/a	n/a	n/a	-	*
(6b)	(of which Compounders)	3,610	3,632	3,846	4,035	4,011	- 24	4%	1,025	1,079	1,105	1,070	1,112	42	1%
(6c)	(of which Integrated Poultry Units)	1,429	1,427	1,211	1,222	1,222	0	1%	62	47	49	52	51	- 1	4%
(7)	Seed (d)	294	291	282	283	283	0	0%	171	177	182	181	181	0	-1%
(8)	Other	76	88	82	72	72	0	-12%	32	35	37	33	33	0	-11%
(9)	Total Domestic Consumption	14,531	15,201	14,812	15,697	15,685	- 12	6%	5,368	5,437	5,657	5,658	5,707	49	1%
(10)	Balance (4) - (9)	3,797	4,390	5,637	3,078	3,190	112	-43%	2,403	2,992	3,362	2,479	2,420	- 59	-28%
(11)	Exports (e)	1,704	1,957	2,846	-	1,500	-	-47%	1,167	1,495	1,995	-	1,000	-	-50%
(12)	Intervention Stocks (e)	-	-	-	-	-	-	*	-	-	-	-	-	-	*
(13)	<u>Commercial End-Season Stocks (e)</u>	2,093	2,434	2,792	-	2,040	-	-27%	1,236	1,497	1,367	-	1,183	-	-13%
(14)	(of which Estimated Operating stock requirement) (f)	1,459	1,500	1,500	1,600	1,600	0	7%	730	750	760	760	760	0	0%
(15)	(of which free stock) (g)	634	934	1,292	-	440	-	-66%	506	747	607	-	423	-	-30%
(16)	Surplus available for either export or free stock (10)-(12)-(14)	2,337	2,890	4,137	1,478	1,590	112	-62%	1,673	2,242	2,602	1,719	1,660	- 59	-36%
(17)	Residual (10)-(11)-(13) (i)					- 350							237		

		MAIZE								OATS						
		2011/12					Absolute	%	2011/12					Absolute	%	
		2015/16	2014/15	2015/16	2016/17	2016/17	change	change	2015/16	2014/15	2015/16	2016/17	2016/17	change	change	
		average	estimate	estimate**	Mar-17	Jun-17	Mar-17	on 15/16	average	estimate	estimate	Mar-17	Jun-17	Mar-17	on 15/16	
(1)	Opening Stocks	209	259	309	145	145	0	-53%	94	168	107	96	96	0	-10%	
(2)	Production	-	-	-	-	-	-	*	765	820	799	816	816	0	2%	
(3)	Imports	1,724	1,856	1,748	1,924	1,978	54	13%	58	37	39	25	40	15	3%	
(4)	Total Availability	1,933	2,115	2,057	2,069	2,123	54	3%	916	1,025	945	937	952	15	1%	
(5)	Human and Industrial Consumption	522	566	454	508	548	40	21%	498	492	525	525	530	5	1%	
(5a)	(of which home grown)	-	-	-	-	-	-	*	443	450	499	493	485	- 8	-3%	
(6)	Usage as Animal Feed	1,089	1,144	1,337	1,255	1,254	- 1	-6%	254	326	236	265	267	2	13%	
(6a)	(of which home grown)	-	-	-	-	-	-	*	254	326	236	265	267	2	13%	
(7)	Seed	-	-	-	-	-	-	*	19	18	19	21	21	0	11%	
(8)	Other (h)	5	4	6	4	4	0	-33%	4	4	4	4	4	0	0%	
(9)	Total Domestic Consumption	1,616	1,714	1,797	1,767	1,806	39	1%	775	840	784	815	822	7	5%	
(10)	Balance (4) - (9)	317	401	260	302	317	15	22%	142	184	161	122	130	8	-19%	
(11)	Exportable surplus	102	92	115	155	170	15	48%	41	77	65	35	21	- 14	-68%	
(12)	Commercial End-Season Stocks	216	309	145	147	147	0	1%	100	107	96	87	109	22	13%	

(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 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

(i) Any identified residual will be either taken account of by official statistics in the end of season balance sheet or allocated using the reliability scores method

\* Percentage change not meaningful

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

#### 000 tonnes

			OTHER CEREALS (j)											
		2011/12					Absolute	%						
		2015/16	2014/15	2015/16	2016/17	2016/17	change	change						
		average	estimate	estimate	Mar-17	Jun-17	Mar-17	on 15/16						
(1)	Opening Stocks	5	5	5	5	5	0	0%						
(2)	Production	117	131	121	110	110	0	-9%						
(3)	Imports	3	1	3	3	3	0	0%						
(4)	Total Availability	125	137	129	118	118	0	-9%						
(5+6)	H&I and Animal Feed	115	129	121	110	110	0	-9%						
(5a+6a)	(of which home grown)	112	128	118	107	107	0	-9%						
(7)	Seed	3	3	3	3	3	0	0%						
(8)	Other	-	-	-	-	-	-	*						
(9)	Total Domestic Consumption	118	132	124	113	113	0	-9%						
(10)	Balance (4) - (9)	6	5	5	5	5	0	0%						
(11)	Exportable surplus	1	0	0	0	0	0	0%						
(12)	Intervention Stocks	0	0	0	0	0	0	0%						
(13)	Commercial End-Season Stocks	5	5	5	5	5	0	0%						

			TOTAL CEREALS									
		2011/12					Absolute	%				
		2015/16	2014/15	2015/16	2016/17	2016/17	change	change				
		average	estimate**	estimate**	Mar-17	Jun-17	Mar-17	on 15/16				
(1)	Opening Stocks	3,287	3,370	4,352	4,405	4,405	0	1%				
(2)	Production	21,998	24,225	24,796	21,964	21,964	0	-11%				
(3)	Imports	3,788	3,702	3,451	3,667	3,826	159	11%				
(4)	Total Availability	29,073	31,297	32,599	30,036	30,195	159	-7%				
(5)	H&I (wheat, barley, maize, oats) (h)	10,308	10,838	10,169	10,979	11,044	65	9%				
(6)	Animal Feed (wheat, barley, maize oats) (h)	11,381	11,737	12,269	12,360	12,378	18	1%				
(5a +6a)	Other cereals (H&I and Animal Feed)	115	129	121	110	110	0	-9%				
(7)	Seed	487	490	486	488	488	0	0%				
(8)	Other	116	131	129	113	113	0	-12%				
(9)	Total Domestic Consumption	22,408	23,325	23,174	24,050	24,133	83	4%				
(10)	Balance (4) - (9)	6,665	7,972	9,425	5,986	6,062	76	-36%				
(11)	Exports	3,016	3,621	5,021	-	2,691	-	-46%				
(12)	Intervention Stocks	-	-	-	-	-	-	*				
(13)	Commercial End-Season Stocks	3,650	4,352	4,405	-	3,483	-	-21%				
(14)	Estimated Operating stock requirement (wheat & barley only)	2,189	2,250	2,260	2,360	2,360	0	4%				
(15)	Free stock for wheat and barley	1,140	1,681	1,899	-	863	-	-55%				
(16)	Surplus available for either export or free stock (all)	4,476	5,722	7,165	3,626	3,441	- 185	-52%				
(17)	Residual (10)-(11)-(13) (i)					- 113						

(j) Includes mainly rye, triticale, mixed grain and sorghum
\*\* These balance sheets have been adjusted as per Defra's reliability allocation method

Source: DEFRA

#### CUMULATIVE MONTHLY STATISTICS Usage of Cereals by Processors, External Trade and Stocks

			Situation as at end	of March 2017									Thousand tonnes
			2011/12	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	% Change	Actual Change
			to 2015/16									2016/17 on	2016/17 on
			Average	39 weeks	39 weeks	39 weeks	39 weeks	39 weeks	39 weeks	39 weeks	39 weeks	2015/16	2015/16
WHEAT		· · ·											
(1) Usage	Human and -Flour Millers	-imported	894	820	590	520	1183	1149	914	707	677	-4%	-30
(2)	Industrial	-home-grown	3954	3735	4316	3929	3807	3642	4270	4124	4670	13%	545
(3)	Processors	-Total	4849	4555	4906	4449	4990	4790	5183	4831	5346	11%	515
(4)	-Distillers		548	397	381	471	602	619	584	465	551	18%	86
(5)	-Others		128	120	121	118	123	136	131	134	125	-7%	-9
(6)	Animal Feed Processors (a)		2321	2093	2097	2302	2314	2192	2326	2472	2634	7%	162
(7)	Poultry Integrated Units		1068	1155	1207	1196	1150	1045	1055	893	904	1%	11
<li>(8) Imports</li>	From July (b)		1383	920	808	665	2121	1681	1273	1176	1270	8%	93
(9) Exports	From July (b)		1346	1734	2354	2230	582	353	1580	1982	1316	-34%	-666
(14)	Intervention -Actual		0	0	0	0	0	0	0	0	0	*	0
(15)	-Projected		0	0	0	0	0	0	0	0	0	*	0
BARLEY													
(1) Usage	Maltsters/Distillers	-imported	-	-	-	-	-	-	-	-		-	-
(2)		-home-grown	-	-	-	-	-	-	-	-		-	-
(3)		-Total	1381	1172	1264	1353	1361	1414	1429	1346	1371	2%	24
(4)	Animal Feed Processors (a)		695	641	651	499	669	786	746	775	737	-5%	-38
(5)	Poultry Integrated Units		47	72	50	46	54	63	38	38	39	4%	1
(6) Imports	From July (b)		112	70	100	119	172	71	86	112	85	-24%	-27
(7) Exports	From July (b)		966	818	664	719	351	1033	1175	1553	876	-44%	-677
(11)	Intervention -Actual		1	0	151	5	0	0	0	0	0	*	0
(12)	-Projected		1	0	151	5	0	0	0	0	0	*	0
MAIZE													
(1) Usage	Human and Industrial		262	226	227	213	221	275	365	236	314	33%	79
(2)	Animal Feed Processors (a)		186	86	81	81	164	260	214	211	201	-5%	-10
(3) Imports	From July (b)		1362	678	843	734	1277	1920	1512	1369	1421	4%	52
(4) Exports	From July (b)		84	9	28	26	37	192	76	87	143	65%	56
OATS	• • •												
(1) Usage	Human and Industrial Processors		372	317	343	358	364	384	362	392	394	0%	2
(2)	Animal Feed Processors (a)		61	63	73	46	58	89	74	41	30	-26%	-11
(3) Exports	From July (b)		38	27	47	14	9	32	70	62	18	-71%	-44
n/a - Not Availat	,,,,		stoms/Intrastat						•	•	•		•

n/a - Not Available/Applicable (a) Great Britain only. (b) HM Customs/Intrastat

There were 53 weeks in the Statistical year 2010. In order to incorporate the change January 2010 was increased to a 5 week period compared to 4 weeks in 2009. There were 53 weeks in the Statistical year 2016. In order to incorporate the change April 2016 was increased to a 5 week period compared to 4 weeks in 2015. Note: This Appendix reflects the position as at 21 June 2017. The figures above may differ slightly from the most recent published data.

Survey data for GB Compounders and Cereals Usage by Millers, Brewers and Maltsters can be found using the following link: <a href="https://www.gov.uk/government/organisations/department-for-environment-food-rural-affairs/about/statistics">https://www.gov.uk/government/organisations/department-for-environment-food-rural-affairs/about/statistics</a>

SOURCE: Defra Agricultural Statistics and Analysis, HM Customs and Excise/Intrastat, AHDB

\* Percentage changes not meaningful.