Supply & Demand

1 March 2017

AHDB
CEREALS & OILSEEDS

Key points

- Continued domestic demand has pushed wheat prices to import parity in many areas, leaving market prices open to further volatility
- While domestic consumption of barley remains stable, fewer supplies have led to a cut in the exportable surplus
- Imports of maize into the UK are forecast to hit a three-year high on the back of strong H&I demand
- Milling demand for oats remains strong

Introduction

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

2. **2016/17 total cereals demand for animal feed is forecast 54Kt up on December's estimates and 91Kt (1%) higher compared with 2015/16, at 12.360Mt.** Year-on-year growth in total animal feed production is expected to be driven predominantly by the poultry sector and, to a lesser extent, the sheep sector. Cattle feed demand (dairy and beef) is expected to remain relatively stable on the year, despite reductions during the first four months of the season, due to a recovery in milk prices. 'Other' animal feed demand is also expected to remain similar year on year. Pig feed demand is forecast lower on the year, driven by an assumed contraction in the herd and increased productivity.

Wheat

3. **Available wheat supplies for 2016/17 have been revised down to 18.775Mt, 141Kt lower than that forecast in December.** Estimated production has been decreased, following the publication of the final results of Defra's Cereal and Oilseed Rape Production Survey on 20 December. Final wheat output is now estimated at 14.383Mt, 84Kt lower than the provisional estimate. The wheat import forecast has also been adjusted slightly downward, by 57Kt, to 1.600Mt. In the first six months of the season, the UK imported 840Kt of wheat, 3% lower than the same period in 2015/16.

4. **At 8.094Mt, Human and Industrial (H&I) consumption of wheat is 202Kt higher than the December estimate and up 10% year on year.** Forecast usage by millers, the bioethanol/starch industry and brewers, maltsters and distillers (BMD) has been increased, compared with earlier estimates. Continued strong demand from the bioethanol industry is expected to remain until the end of the season. Additionally, the volume of wheat used by the BMD sector has been stronger in the first half of 2016/17 than the corresponding period in 2015/16 and this trend is expected to continue throughout the second half of the season.

5. **Wheat demand for animal feed production is forecast at 7.248Mt, up 29Kt on December's estimate and 157Kt higher year on year.** The current growth in the poultry industry is one of the key drivers of overall demand for wheat this season. Between July and December, production of poultry feed by GB compounders and Integrated Poultry Units (IPUs) was up by 3% compared to the same period a year earlier. In addition, the proportion of wheat fed on farm has been adjusted downwards slightly compared with the estimate made in December, due to the increased prices that can be achieved for feed wheat this season.

6. The balance of availability and domestic consumption in 2016/17 is estimated at 3.078Mt, 2.559Mt less than in 2015/16 and the lowest since 2013/14. The estimated operating stock remains 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). UK wheat exports between July and December totalled 1.085Mt, which left **393Kt for exports or free stock for the rest of the season (January to June).**

Barley

7. **Total availability of barley is estimated at 8.137Mt, 12Kt less than that forecast in December and 882Kt lower year on year**. While Defra's final production estimate is 3Kt higher than the provisional figure, imports have been adjusted downwards by 15Kt on December's forecast. Imports of barley for the first half of the season equated to 59Kt, 36% lower than the same point a year earlier.

8. At 1.852Mt, H&I usage of barley is down slightly (22Kt) compared with December's forecast, but up by 1% on the year. The trend in barley usage by the BMD sector for the second half of the season is expected to replicate that of the first half (+1% year on year).

9. Barley demand in animal feed is forecast at 3.592Mt, 22Kt higher than December's estimate and similar to usage in 2015/16 (3.570Mt in 2015/16). With UK average ex-farm feed barley at a discount of over £20/t to feed wheat, inclusions of barley in certain diets, such as pigs and ruminant, are expected to be at relatively high levels for the rest of the season.

10. The barley balance is estimated at 2.479Mt, 883Kt lower year on year and the lowest since 2012/13. The minimum level of stocks assumed to be required by processers from 1 July until the new crop is usable, is estimated to be 760Kt. Taking account of barley exports to the end of December (667Kt), **the surplus available for exports until end-June or to be used as free stock equated to 1.052Mt.**

Maize

11. **Total availability of maize in 2016/17 is forecast at 2.069Mt, lower (72Kt) than that forecast in December but 1% higher year on year**. Despite an upward revision to opening stocks of 10Kt, imports have been revised down by 82Kt from December's estimate, to 1.924Mt. Maize imports during July to December totalled 891Kt, 8% lower than the same period in 2015/16. Demand for maize for both bioethanol and animal feed usage is expected to keep imports relatively high, with the full season forecast currently 10% higher than last season.

12. **Total consumption of maize is forecast at 1.767Mt, 45Kt lower than that forecast in December and 30Kt lower year on year.** A downward revision has been applied to H&I usage. The reduction in H&I demand is driven mainly by the BMD sector, with usage down 32% in the first six months of the season compared with the corresponding period a year earlier. Maize used in the production of GB compound animal feed was down 6% in July to December and, as such, this has been factored into forecasts going forward; whereas maize usage for animal feed in Northern Ireland is expected to remain similar year on year.

13. **The balance of availability and consumption of maize is 302Kt, 16% higher than in 2015/16.** Full season maize exports have been revised up from the previous forecast by 40Kt, to 155Kt, taking account of the pace of exports across the Irish border to end-December, which totalled 94Kt.

Oats

14. **Total availability of oats in 2016/17 is forecast at 937Kt, 21Kt lower than that predicted in December and 1% lower, year on year**. The key change with oats availability compared with earlier estimates is an 18Kt cut in production, according to Defra's final estimates. Imports have also been adjusted by -3Kt, taking account of imports to end-December (18Kt).

15. **H&I demand for oats is expected to remain similar to that in 2015/16.** While statistics on oat millers' demand reveals a 2% reduction in oats milled in the first six months of the season, this is expected to be made up for in the second half of the year. Demand for oats for animal feed remains largely unchanged from the estimates made in December, at 265Kt.

16. **The balance of oats availability and demand is estimated at 122Kt, 39Kt lower year on year and the lowest since 2012/13.** Exports have been adjusted downwards, from 45Kt in December, to 35Kt, taking account of exports pace to date (July to December), of 15Kt.

Additional data

17. Appendix II shows cumulative usage and trade data to end-December. 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/department-for-environment-food-rural-affairs/about/statistics

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Appendix I

DEFRA ANNUAL UK CEREAL SUPPLY AND DEMAND ESTIMATES (a)

Estimates made in March

000 tonnes

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 http://cereals.ahdb.org.uk/markets/supply-and-demand.aspx.

(JULY - JUNE YEARS)

Links connect to relevant Defra/AHDB data pages

		WHEAT							BARLEY						
		2011/12 2015/16 average	**2014/15 estimate****	**2015/16 estimate****	**2016/17 Dec-16**	**2016/17 Mar-17**	**Absolute change Dec-16**	**% change on 15/16**	**2011/12 2015/16 average**	**2014/15 estimate**	**2015/16 estimate**	**2016/17 Dec-16**	**2016/17 Mar-17**	**Absolute change Dec-16**	**% change 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	14,467	14,383	- 84	-13%	6,478	6,911	7,370	6,652	6,655	3	-10%
(3)	Imports	1,847	1,669	1,509	1,657	1,600	- 57	6%	156	139	152	130	115	- 15	-24%
(4)	**Total Availability**	**18,328**	**19,591**	**20,449**	**18,916**	**18,775**	- 141	-8%	**7,771**	**8,429**	**9,019**	**8,149**	**8,137**	- 12	-10%
(5)	Human and Industrial Consumption (b)	7,407	7,831	7,357	7,892	8,094	202	10%	1,881	1,949	1,833	1,874	1,852	- 22	1%
(5a)	(of which home grown)	6,165	6,640	6,413	7,004	7,207	203	12%	n/a	n/a	n/a	n/a	n/a	*	*
(6)	Usage as Animal Feed (c)	6,755	6,991	7,091	7,219	7,248	29	2%	3,284	3,276	3,605	3,570	3,592	22	0%
(6a)	(of which home grown)	6,158	6,501	6,441	6,559	6,627	68	3%	n/a	n/a	n/a	n/a	n/a	*	*
(6b)	(of which Compounders)	3,610	3,632	3,846	3,939	4,035	96	5%	1,025	1,079	1,105	1,065	1,070	5	-3%
(6c)	(of which Integrated Poultry Units)	1,429	1,427	1,211	1,225	1,222	- 3	1%	62	47	49	53	52	- 1	6%
(7)	Seed (d)	294	291	282	282	283	1	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**	**15,465**	**15,697**	232	6%	**5,368**	**5,437**	**5,657**	**5,658**	**5,658**	0	0%
(10)	**Balance (4) - (9)**	**3,797**	**4,390**	**5,637**	**3,451**	**3,078**	- 373	-45%	**2,403**	**2,992**	**3,362**	**2,491**	**2,479**	- 12	-26%
(11)	Exports (e)	1,704	1,957	2,846	-	-	-	*	1,167	1,495	1,995	-	-	-	*
(12)	Intervention Stocks (e)	-	-	-	-	-	-	*	-	-	-	-	-	-	*
(13)	**Commercial End-Season Stocks (e)**	**2,093**	**2,434**	**2,792**	**-**	**-**	-	*	**1,236**	**1,497**	**1,367**	**-**	**-**	-	*
(14)	(of which Estimated Operating stock requirement) (f)	1,459	1,500	1,500	1,600	1,600	-	7%	730	750	760	760	760	0	0%
(15)	(of which free stock) (g)	634	934	1,292	-	-	-	*	506	747	607	-	-	-	*
(16)	Surplus available for either export or free stock (10)-(12)-(14)	**2,337**	**2,890**	**4,137**	**1,851**	**1,478**	- 373	-64%	**1,673**	**2,242**	**2,602**	**1,731**	**1,719**	- 12	-34%
(17)	Residual (10)-(11)-(13) (i)														

		MAIZE							OATS						
		2011/12 2015/16 average	**2014/15 estimate**	**2015/16 estimate****	**2016/17 Dec-16**	**2016/17 Mar-17**	**Absolute change Dec-16**	**% change on 15/16**	**2011/12 2015/16 average**	**2014/15 estimate**	**2015/16 estimate**	**2016/17 Dec-16**	**2016/17 Mar-17**	**Absolute change Dec-16**	**% change on 15/16**
(1)	Opening Stocks	209	259	309	135	145	10	-53%	94	168	107	96	96	-	-10%
(2)	Production	-	-	-	-	-	-	*	765	820	799	834	816	- 18	2%
(3)	Imports	1,724	1,856	1,748	2,005	1,924	- 82	10%	58	37	39	28	25	- 3	-36%
(4)	**Total Availability**	**1,933**	**2,115**	**2,057**	**2,140**	**2,069**	- 72	1%	**916**	**1,025**	**945**	**958**	**937**	- 21	-1%
(5)	Human and Industrial Consumption	522	566	454	553	508	- 45	12%	498	492	525	525	525	0	0%
(5a)	(of which home grown)	-	-	-	-	-	-	*	443	450	499	490	493	3	-1%
(6)	Usage as Animal Feed	1,089	1,144	1,337	1,255	1,255	0	-6%	254	326	236	263	265	2	12%
(6a)	(of which home grown)	-	-	-	-	-	-	*	254	326	236	263	265	2	12%
(7)	Seed	-	-	-	-	-	-	*	19	18	19	20	21	1	11%
(8)	Other (h)	5	4	6	4	4	-	-33%	4	4	4	4	4	0	0%
(9)	**Total Domestic Consumption**	**1,616**	**1,714**	**1,797**	**1,812**	**1,767**	- 45	-2%	**775**	**840**	**784**	**812**	**815**	3	4%
(10)	**Balance (4) - (9)**	**317**	**401**	**260**	**329**	**302**	- 27	16%	**142**	**184**	**161**	**146**	**122**	- 24	-24%
(11)	Exportable surplus	102	92	115	115	155	40	35%	41	77	65	45	35	- 10	-46%
(12)	**Commercial End-Season Stocks**	**216**	**309**	**145**	**214**	**147**	- 67	1%	**100**	**107**	**96**	**101**	**87**	- 14	-9%

(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*

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		OTHER CEREALS *(j)*						
		2011/12 2015/16 average	**2014/15 estimate**	**2015/16 estimate**	**2016/17 Dec-16**	**2016/17 Mar-17**	**Absolute change Dec-16**	**% change on 15/16**
(1)	Opening Stocks	5	5	5	5	5	0	0%
(2)	Production	117	131	121	133	110	-23	-9%
(3)	Imports	3	1	3	3	3	0	0%
(4)	**Total Availability**	**125**	**137**	**129**	**141**	**118**	-23	-8%
(5+6)	H&I and Animal Feed	115	129	121	133	110	-23	-9%
(5a+6a)	(of which home grown)	112	128	118	130	107	-23	-9%
(7)	Seed	3	3	3	3	3	0	0%
(8)	Other	-	-	-	-	-	-	*
(9)	**Total Domestic Consumption**	**118**	**132**	**124**	**136**	**113**	-23	-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 2015/16 average	**2014/15 estimate****	**2015/16 estimate****	**2016/17 Dec-16**	**2016/17 Mar-17**	**Absolute change Dec-16**	**% change on 15/16**
(1)	Opening Stocks	3,287	3,370	4,352	4,395	4,405	10	1%
(2)	Production	21,998	24,225	24,796	22,086	21,964	- 122	-11%
(3)	Imports	3,788	3,702	3,451	3,823	3,667	- 157	6%
(4)	**Total Availability**	**29,073**	**31,297**	**32,599**	**30,305**	**30,036**	- 269	-8%
(5)	H&I (wheat, barley, maize, oats) (h)	10,308	10,838	10,169	10,844	10,979	135	8%
(6)	Animal Feed (wheat, barley, maize oats) (h)	11,381	11,737	12,269	12,306	12,360	54	1%
(5a +6a)	Other cereals (H&I and Animal Feed)	115	129	121	133	110	- 23	-9%
(7)	Seed	487	490	486	486	488	2	0%
(8)	Other	116	131	129	113	113	-	-12%
(9)	**Total Domestic Consumption**	**22,408**	**23,325**	**23,174**	**23,882**	**24,050**	168	4%
(10)	**Balance (4) - (9)**	**6,665**	**7,972**	**9,425**	**6,422**	**5,986**	- 437	-36%
(11)	Exports	3,016	3,621	5,021	-	-	-	*
(12)	Intervention Stocks	-	-	-	-	-	-	*
(13)	**Commercial End-Season Stocks**	**3,650**	**4,352**	**4,405**	**-**	**-**	-	*
(14)	Estimated Operating stock requirement (wheat & barley only)	2,189	2,250	2,260	2,360	2,360	-	4%
(15)	Free stock for wheat and barley	1,140	1,681	1,899	-	-	-	*
(16)	Surplus available for either export or free stock (all)	**4,476**	**5,722**	**7,165**	**4,062**	**3,626**	- 437	-49%
(17)	Residual (10)-(11)-(13) (i)							

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

APPENDIX II

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

Situation as at end of December 2016 | **Thousand tonnes**

	2011/12 to 2015/16 Average	2009/10 26 weeks	2010/11 26 weeks	2011/12 26 weeks	2012/13 26 weeks	2013/14 26 weeks	2014/15 26 weeks	2015/16 26 weeks	2016/17 26 weeks	% Change 2016/17 on 2015/16	Actual Change 2016/17 on 2015/16
WHEAT											
(1) Usage Human and -Flour Millers *-imported*	*609*	*576*	*421*	*349*	*651*	*904*	*656*	*485*	*447*	*-8%*	*-38*
(2) Industrial *-home-grown*	*2676*	*2465*	*2889*	*2633*	*2682*	*2331*	*2908*	*2827*	*3203*	*13%*	*375*
(3) Processors -Total	*3285*	*3041*	*3310*	*2982*	*3332*	*3235*	*3564*	*3313*	*3649*	*10%*	*337*
(4) -Distillers	*367*	*259*	*240*	*300*	*387*	*430*	*392*	*323*	*374*	*16%*	*51*
(5) -Others	*86*	*41*	*81*	*78*	*80*	*93*	*88*	*90*	*81*	*-10%*	*-9*
(6) Animal Feed Processors (a)	*1542*	*1397*	*1419*	*1495*	*1536*	*1512*	*1534*	*1634*	*1759*	*8%*	*126*
(7) Poultry Integrated Units	*723*	*751*	*806*	*796*	*785*	*714*	*706*	*612*	*605*	*-1%*	*-6*
(8) Imports From July (b)	*993*	*690*	*560*	*461*	*1337*	*1345*	*959*	*863*	*840*	*-3%*	*-23*
(9) Exports From July (b)	*844*	*1013*	*1920*	*1554*	*512*	*226*	*938*	*992*	*1085*	*9%*	*93*
(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	*918*	*761*	*825*	*883*	*902*	*939*	*962*	*901*	*911*	*1%*	*10*
(4) Animal Feed Processors (a)	*453*	*381*	*439*	*343*	*442*	*493*	*492*	*496*	*456*	*-8%*	*-40*
(5) Poultry Integrated Units	*32*	*47*	*34*	*35*	*36*	*39*	*27*	*25*	*26*	*5%*	*1*
(6) Imports From July (b)	*71*	*50*	*79*	*83*	*89*	*46*	*47*	*92*	*59*	*-36%*	*-33*
(7) Exports From July (b)	*645*	*497*	*495*	*523*	*309*	*777*	*750*	*869*	*667*	*-23%*	*-203*
(11) Intervention -Actual	*1*	*11*	*150*	*5*	*0*	*0*	*0*	*0*	*0*	*	*0*
(12) -Projected	*1*	*11*	*130*	*5*	*0*	*0*	*0*	*0*	*0*	*	*0*
MAIZE											
(1) Usage Human and Industrial	*168*	*111*	*145*	*142*	*149*	*177*	*202*	*169*	*142*	*-16%*	*-27*
(2) Animal Feed Processors (a)	*113*	*57*	*53*	*52*	*93*	*141*	*142*	*139*	*131*	*-6%*	*-8*
(3) Imports From July (b)	*852*	*485*	*546*	*466*	*760*	*1127*	*938*	*968*	*891*	*-8%*	*-77*
(4) Exports From July (b)	*47*	*6*	*15*	*17*	*27*	*104*	*34*	*55*	*94*	*69%*	*38*
OATS											
(1) Usage Human and Industrial Processors	*244*	*207*	*223*	*235*	*235*	*250*	*241*	*262*	*256*	*-2%*	*-6*
(2) Animal Feed Processors (a)	*38*	*35*	*52*	*31*	*36*	*49*	*48*	*28*	*19*	*-32%*	*-9*
(3) Exports From July (b)	*22*	*17*	*40*	*11*	*6*	*10*	*40*	*44*	*15*	*-67%*	*-30*

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

* Percentage changes not meaningful.

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 20 February 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:
https://www.gov.uk/government/organisations/department-for-environment-food-rural-affairs/about/statistics