Supply & Demand

1 December 2016

CEREALS & OILSEEDS

Key points

- Lower availability and higher consumption has led to a tightening of the wheat balance sheet this season
- The surplus of barley for export or free stocks is a third lower than last season, with lower output but stable demand
- Lower opening stocks but slightly higher forecast demand increases the requirement for maize imports this season
- Another strong production season is expected for oatmillers in 2016/17.

Introduction

1. This release covers the first 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 to be slightly higher compared with 2015/16, at 12.306Mt** (12.271Mt in 2015/16). Year-on-year growth in total animal feed production is expected to be driven predominantly by the poultry sector and to an extent, the sheep sector. While cattle feed demand (dairy and beef) is anticipated lower on the year, the fall is not expected to be as sharp as previously, with milk prices beginning to increase. Pig and 'other' animal feed demand is forecast lower year on year.

Wheat

3. **UK wheat availability is forecast at 18.916Mt, 7% less than the 2015/16 balance sheet, due to a smaller crop in 2016**. Provisional results from Defra's Cereal and Oilseed Rape Production Survey revealed that a slightly smaller planted area, combined with lower yields year on year, equated to an output of 14.467Mt. The provisional estimate for the 2016 crop is 12% lower than the level of production included in the 2015/16 balance sheet. Note that 2015 wheat production was adjusted as per Defra's reliability scores system so differs slightly from official estimates, read more on this here. Opening stocks of wheat are estimated at 2.792Mt, 15% higher than in 2015/16.

4. **Imports of wheat in 2016/17 are forecast at 1.657Mt, which is 10% higher than in 2015/16.** The final results of the AHDB Cereal Quality Survey revealed a 13 year high proportion of nabim group 1 varieties hitting typical high quality bread wheat specifications. As a result of increased proportions of high quality wheat and a smaller crop, the feed wheat situation is more finely balanced this season.

5. **Human and Industrial (H&I) consumption of wheat is estimated at 7.892Mt in 2016/17, an increase of 7% compared with last season**. The key driver for H&I usage of wheat in 2016/17 is an anticipated increase in usage by the bioethanol and starch sector following the reopening of Ensus in July and is dependent on continued operation of all production facilities in this sector. Wheat usage by UK millers (including bioethanol and starch production) until September, was up by 9% compared to the first three months in 2015/16. Additionally, wheat usage in distilling is expected to be up slightly on the year, at the expense of maize. Lower specific weights this season will necessitate higher volumes of wheat to be milled per tonne of flour produced.

6. **Wheat demand for animal feed production is forecast at 7.219Mt, 2% higher than in 2015/16**, driven largely by an increase in poultry feed demand. Between July and September 2016, wheat used by UK compounders and Integrated Poultry Units (IPUs) totalled 1.303Mt, 3.5% higher than the same point last year.

7. **The balance of availability and domestic consumption in 2016/17 is estimated at 3.451Mt, 39% lower than in 2015/16**. The minimum operating stock requirement is estimated at 1.6Mt, which leaves a surplus of 1.851Mt available for either export or free stocks this season. UK wheat exports from July to September totalled 712Kt, which leaves a surplus of 1.139Mt for the rest of the season (October to June).

Barley

8. **Total availability of barley in 2016/17 is forecast 10% lower year on year, at 8.149Mt.** Defra's provisional estimate of UK barley production is 6.652Mt, down by 10% compared with 2015. Due in part to the strength of the barley export campaign in 2015/16, opening stocks are 9% lower than a year previously. Imports are also forecast lower year on year, at 130Kt.

9. **H&I consumption of barley is forecast at 1.874Mt in 2016/17, up by 2% on the year.** Usage data for the first quarter of the season for brewers, maltsters and distillers (BMD) was similar to the level seen a year earlier. It is expected that barley demand by the BMD sector will increase slightly due to some capacity coming back on line in 2016/17.

10. **Barley usage in animal feed is projected 1% lower than 2015/16, at 3.570Mt**. This is higher than that forecast for the Early Balance Sheet in October, at the expense of wheat, due to the increase in the discount of UK average ex-farm feed barley prices to feed wheat, which has made barley more of an economical option for rations.

11. **Lower supplies, coupled with similar levels of demand in 2016/17 compared to a year earlier, resulted in a reduction of 26% in the barley balance, to 2.491Mt.** Taking account of the minimum operating stock estimate of 760Kt, this equates to a surplus of 1.731Mt, a third lower than last year. Exports of barley during July to September were 358Kt (HMRC). Therefore, the surplus available for the remainder of the season (October – June) for either export or free stock, is 1.373Mt.

Maize

12. **Maize availability in 2016/17 is estimated to be 4% higher year on year, at 2.140Mt.** Available supplies comprise of opening stocks of 135Kt (down 56% yoy) and forecast imports of 2.005Mt (up 15% yoy). While maize imports for the season so far (July-September) are less than that in 2015/16, at 391Kt, the pace is expected to increase throughout the rest of the season. The anticipated increase in maize imports is on account of lower opening stocks and increased H&I demand, however, this will be reviewed as the season progresses.

13. **Total domestic consumption of maize is expected to increase by 1%, to 1.812Mt in 2016/17**. While animal feed demand is expected lower, H&I consumption is forecast up by 22%, due to projected increases by the bioethanol and starch industry, subject to continued production at these facilities.

14. **The balance of availability of maize is 329Kt, 29% higher than 2015/16.**

Oats

15. **Total availability of oats in 2016/17 is estimated at 958Kt, 1% higher than in 2015/16**. While opening stocks and imports are estimated lower than last season, production is provisionally estimated to be 4% higher, at 834Kt. The increase in oats output is on account of an increase in the planted area (by 7.6%), despite lower average yields of 5.9t/ha (6.1t/ha in 2015). Imports are expected to be lower, at 28Kt.

16. Consumption of oats by the milling industry is expected to remain strong in 2016/17, with demand similar to last year, at 525Kt. Due to the increased availabilities, oats demand for animal feed to be fed on farm is expected to be higher, at 263Kt (up 11%).

17. **The balance of oats availability and domestic consumption is estimated at 146Kt, 9% lower than in 2015/16.** Exports are currently forecast at 45Kt; by the end of September, 7.5Kt of oats had been exported, 59% lower than in than in 2015/16.

Additional data

18. 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. 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 December

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	**2013/14 estimate****	**2014/15 estimate****	**2015/16 estimate****	**2016/17 Dec-16**	**% change on 15/16**	**2011/12 2015/16 average**	**2013/14 estimate**	**2014/15 estimate**	**2015/16 estimate**	**2016/17 Dec-16**	**% change on 15/16**
(1)	Opening Stocks	1,842	2,186	1,559	2,434	2,792	15%	1,137	997	1,379	1,497	1,367	-9%
(2)	Production	14,639	11,808	16,363	16,506	14,467	-12%	6,478	7,092	6,911	7,370	6,652	-10%
(3)	Imports	1,847	2,191	1,669	1,509	1,657	10%	156	100	139	152	130	-14%
(4)	**Total Availability**	**18,328**	**16,186**	**19,591**	**20,449**	**18,916**	-7%	**7,771**	**8,189**	**8,429**	**9,019**	**8,149**	-10%
(5)	Human and Industrial Consumption (b)	7,407	7,461	7,831	7,357	7,892	7%	1,881	1,960	1,949	1,833	1,874	2%
(5a)	(of which home grown)	6,165	5,912	6,640	6,413	7,004	9%	n/a	n/a	n/a	n/a	n/a	*
(6)	Usage as Animal Feed (c)	6,755	6,373	6,991	7,091	7,219	2%	3,284	3,495	3,276	3,605	3,570	-1%
(6a)	(of which home grown)	6,158	5,527	6,501	6,441	6,559	2%	n/a	n/a	n/a	n/a	n/a	*
(6b)	(of which Compounders)	3,610	3,384	3,632	3,846	3,939	2%	1,025	1,169	1,079	1,105	1,065	-4%
(6c)	(of which Integrated Poultry Units)	1,429	1,394	1,427	1,211	1,225	1%	62	86	47	49	53	9%
(7)	Seed (d)	294	293	291	282	282	0%	171	162	177	182	181	-1%
(8)	Other	76	66	88	82	72	-12%	32	35	35	37	33	-11%
(9)	**Total Domestic Consumption**	**14,531**	**14,192**	**15,201**	**14,812**	**15,465**	4%	**5,368**	**5,652**	**5,437**	**5,657**	**5,658**	0%
(10)	**Balance (4) - (9)**	**3,797**	**1,993**	**4,390**	**5,637**	**3,451**	-39%	**2,403**	**2,537**	**2,992**	**3,362**	**2,491**	-26%
(11)	Exports (e)	1,704	434	1,957	2,846	-	*	1,167	1,158	1,495	1,995	-	*
(12)	Intervention Stocks (e)	-	-	-	-	-	0%	-	-	-	-	-	0%
(13)	**Commercial End-Season Stocks (e)**	**2,093**	**1,559**	**2,434**	**2,792**	**-**	*	**1,236**	**1,379**	**1,497**	**1,367**	**-**	*
(14)	(of which Estimated Operating stock requirement) (f)	1,459	1,450	1,500	1,500	1,600	7%	730	713	750	760	760	0%
(15)	(of which free stock) (g)	634	109	934	1,292	-	*	506	666	747	607	-	*
(16)	Surplus available for either export or free stock (10)-(12)-(14)	**2,337**	**543**	**2,890**	**4,137**	**1,851**	-55%	**1,673**	**1,824**	**2,242**	**2,602**	**1,731**	-33%
(17)	Residual (10)-(11)-(13) (i)												

		MAIZE						OATS					
		2011/12 2015/16 average	**2013/14 estimate****	**2014/15 estimate**	**2015/16 estimate****	**2016/17 Dec-16**	**% change on 15/16**	**2011/12 2015/16 average**	**2013/14 estimate**	**2014/15 estimate**	**2015/16 estimate**	**2016/17 Dec-16**	**% change on 15/16**
(1)	Opening Stocks	209	216	259	309	135	-56%	94	69	168	107	96	-10%
(2)	Production	-	-	-	-	-	*	765	964	820	799	834	4%
(3)	Imports	1,724	2,334	1,856	1,745	2,005	15%	58	46	37	39	28	-28%
(4)	**Total Availability**	**1,933**	**2,550**	**2,115**	**2,054**	**2,140**	4%	**916**	**1,079**	**1,025**	**945**	**958**	1%
(5)	Human and Industrial Consumption	522	679	566	455	553	22%	498	508	492	525	525	0%
(5a)	(of which home grown)	-	-	-	-	-	*	443	465	450	499	490	-2%
(6)	Usage as Animal Feed	1,090	1,398	1,144	1,339	1,255	-6%	254	345	326	236	263	11%
(6a)	(of which home grown)	-	-	-	-	-	*	254	345	326	236	263	11%
(7)	Seed	-	-	-	-	-	*	19	19	18	19	20	5%
(8)	Other (h)	5	5	4	6	4	-33%	4	5	4	4	4	0%
(9)	**Total Domestic Consumption**	**1,616**	**2,083**	**1,714**	**1,800**	**1,812**	1%	**775**	**877**	**840**	**784**	**812**	4%
(10)	**Balance (4) - (9)**	**316**	**467**	**401**	**254**	**329**	29%	**142**	**202**	**184**	**161**	**146**	-9%
(11)	Exportable surplus	103	208	92	120	115	-4%	41	36	77	65	45	-31%
(12)	**Commercial End-Season Stocks**	**214**	**259**	**309**	**135**	**214**	59%	**100**	**166**	**107**	**96**	**101**	5%

(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	**2013/14 estimate**	**2014/15 estimate**	**2015/16 estimate**	**2016/17 Dec-16**	**% change on 15/16**
(1)	Opening Stocks	5	5	5	5	5	0%
(2)	Production	117	107	131	121	133	10%
(3)	Imports	3	3	1	3	3	0%
(4)	**Total Availability**	**125**	**115**	**137**	**129**	**141**	9%
(5+6)	H&I and Animal Feed	115	107	129	121	133	10%
(5a+6a)	(of which home grown)	112	104	128	118	130	10%
(7)	Seed	3	3	3	3	3	0%
(8)	Other	-	-	-	-	-	*
(9)	**Total Domestic Consumption**	**118**	**110**	**132**	**124**	**136**	10%
(10)	**Balance (4) - (9)**	**6**	**5**	**5**	**5**	**5**	0%
(11)	Exportable surplus	1	0	0	0	0	0%
(12)	Intervention Stocks	0	0	0	0	0	0%
(13)	**Commercial End-Season Stocks**	**5**	**5**	**5**	**5**	**5**	0%

		TOTAL CEREALS					
		2011/12 2015/16 average	**2013/14 estimate****	**2014/15 estimate****	**2015/16 estimate****	**2016/17 Dec-16**	**% change on 15/16**
(1)	Opening Stocks	3,287	3,473	3,370	4,352	4,395	1%
(2)	Production	21,998	19,971	24,225	24,796	22,086	-11%
(3)	Imports	3,787	4,675	3,702	3,448	3,823	11%
(4)	**Total Availability**	**29,073**	**28,118**	**31,297**	**32,596**	**30,305**	-7%
(5)	H&I (wheat, barley, maize, oats) (h)	10,308	10,608	10,838	10,169	10,844	7%
(6)	Animal Feed (wheat, barley, maize oats) (h)	11,382	11,611	11,737	12,271	12,306	0%
(5a +6a)	Other cereals (H&I and Animal Feed)	115	107	129	121	133	10%
(7)	Seed	487	477	490	486	486	0%
(8)	Other	116	111	131	129	113	-12%
(9)	**Total Domestic Consumption**	**22,409**	**22,914**	**23,325**	**23,176**	**23,882**	3%
(10)	**Balance (4) - (9)**	**6,664**	**5,204**	**7,972**	**9,420**	**6,422**	-32%
(11)	Exports	3,016	1,836	3,621	5,025	-	*
(12)	Intervention Stocks	-	-	-	-	-	*
(13)	**Commercial End-Season Stocks**	**3,648**	**3,368**	**4,352**	**4,395**	**-**	*
(14)	Estimated Operating stock requirement (wheat & barley only)	2,189	2,163	2,250	2,260	2,360	4%
(15)	Free stock for wheat and barley	1,140	775	1,681	1,899	-	*
(16)	Surplus available for either export or free stock (all)	**4,475**	**3,042**	**5,722**	**7,160**	**4,062**	-43%
(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 September 2016 — **Thousand tonnes**

	2011/12 to 2015/16 Average	2009/10 13 weeks	2010/11 13 weeks	2011/12 13 weeks	2012/13 13 weeks	2013/14 13 weeks	2014/15 13 weeks	2015/16 13 weeks	2016/17 13 weeks	% Change 2016/17 on 2015/16	Actual Change 2016/17 on 2015/16
WHEAT											
(1) Usage Human and -Flour Millers *-imported*	329	314	220	175	248	587	395	242	220	-9%	-23
(2) Industrial *-home-grown*	1262	1225	1407	1316	1351	984	1289	1370	1545	13%	176
(3) Processors -Total	1591	1539	1627	1490	1599	1571	1683	1612	1765	9%	153
(4) -Distillers	178	124	118	138	180	206	195	172	176	2%	4
(5) -Others	44	41	42	41	41	48	43	46	42	-9%	-4
(6) Animal Feed Processors (a)	755	689	693	696	744	775	744	814	880	8%	66
(7) Poultry Integrated Units	367	374	398	398	395	369	355	319	302	-5%	-18
(8) Imports From July (b)	540	387	213	218	590	829	612	449	426	-5%	-23
(9) Exports From July (b)	297	441	862	537	289	44	288	325	712	119%	386
(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	452	361	411	433	438	460	480	448	447	0%	-1
(4) Animal Feed Processors (a)	220	170	229	192	212	213	253	226	199	-12%	-27
(5) Poultry Integrated Units	17	24	19	21	18	17	19	11	13	16%	2
(6) Imports From July (b)	39	31	24	42	39	26	29	61	38	-38%	-23
(7) Exports From July (b)	263	263	222	191	203	258	295	370	358	-3%	-12
(11) Intervention -Actual	0	106	5	0	0	0	0	0	0	*	0
(12) -Projected	0	40	5	0	0	0	0	0	0	*	0
MAIZE											
(1) Usage Human and Industrial	87	83	76	73	77	90	101	92	79	-14%	-13
(2) Animal Feed Processors (a)	56	27	27	24	47	64	74	69	62	-9%	-6
(3) Imports From July (b)	314	213	221	203	242	386	301	438	391	-11%	-47
(4) Exports From July (b)	13	3	3	9	7	13	13	21	26	24%	5
OATS											
(1) Usage Human and Industrial Processors	118	429	112	115	114	120	118	125	123	-1%	-1
(2) Animal Feed Processors (a)	16	14	27	15	14	17	21	14	9	-37%	-5
(3) Exports From July (b)	11	11	30	5	2	7	22	18	8	-59%	-11

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 28 November 2016. 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