Supply & Demand

24 May 2018

AHDB CEREALS & OILSEEDS

Key points

- The UK wheat balance sheet is at its tightest in four years
- Domestic consumption of barley set to reach the highest level on record going back to 1991/92
- Maize imports set to rise on the back of strong H&I and animal feed demand
- Milling demand for oats continues to be strong in 2017/18

Introduction

1. This release covers the third official estimates made of UK cereal supply and demand for 2017/18 (Appendix I). Comparisons in this release are made against the second official estimates of UK cereal supply and demand for 2017/18 and the unallocated 2016/17 balance sheets. Comparisons to the allocated 2016/17 balance sheets are also available – click here.

2. Since the last balance sheet update in March, experimental data from the Basic Payment Scheme has been released, for England. This data indicates differences in crop areas compared to those in Defra's Cereal and Oilseed Rape Production Survey. The UK Cereals Supply and Demand Balance Sheets continue to include the official production figures for all cereals published by Defra on 21 December 2017.

3. **Total cereals demand for animal feed in 2017/18 is forecast at 13.089Mt, up 47Kt on March's estimate and 726Kt higher compared with 2016/17.** Year on year growth in total animal feed production is driven predominately by the cattle and poultry sectors. Pig and sheep feed production is also expected to rise on the year.

Wheat

4. **Total available supplies of wheat for 2017/18 have been revised up by 87Kt from March's forecast to 18.191Mt, however it is 4% lower year on year.** The majority of the increase on the previous forecast is driven by a rise in estimated wheat imports. Season to date (July-March) the UK has imported 1.214Mt of wheat, 4% lower on year earlier levels. Full season imports are forecast up by 100Kt on the previous estimate, on the back of relatively strong demand. At 1.600Mt, full season imports are 14% lower than year earlier levels.

5. **Human and Industrial (H&I) consumption of wheat is forecast at 7.817Mt, 192Kt more than March's estimate, but 3% lower year on year.** Compared with the March forecast, demand from the bioethanol industry and from brewers, maltsters and distillers (BMD) has been revised up. Demand from millers remains similar to that previously forecast and is expected to remain stable year on year.

6. **At 7.446Mt, wheat demand for animal feed production is 53Kt higher than March's forecast and is 210Kt (3%) higher than 2016/17.** The continued rise in total poultry feed production is a key driver behind the forecast rise in wheat used in animal feed production. Season to date (July-March) production of poultry feed by GB compounders and integrated poultry units (IPUs) is up 2% on the same period in 2016/17.

7. **The estimated balance of availability and domestic consumption in 2017/18 is 2.576Mt, 158Kt lower than forecast in March and 784Kt (-23%) less than 2016/17.** The estimated operating stocks requirement is unchanged on March's forecast at 1.600Mt. Exports from July 2017 to March 2018 totalled 383Kt, down 71% on the same period last season. Full season exports are currently forecast at 450Kt, 69% lower than in 2016/17. A reduction in total availability, combined with strong domestic demand, amongst other factors, has led to estimated commercial end of season stocks to decline 1% on year earlier levels to 1.735Mt (including operating stocks). This is the lowest level since 2013/14.

Barley

8. **UK barley availability is estimated at 8.380Mt, 30Kt lower than that forecast in March, but is 3% higher than 2016/17.** While production is forecast to be up on the year, the decline is driven by a reduction in opening stocks and imports. Season to date (July-March), the UK has imported 70Kt of barley, 6% lower on year earlier levels. Full season imports are forecast at 105Kt, 15Kt lower than estimated in March and 11% less than 2016/17.

9. **H&I usage of barley is forecast at 1.901Mt, marginally lower (10Kt) than March's forecast, but 2% higher than in 2016/17.** Season to date (July-March) barley usage by the BMD sector is 2% higher year on year, which is expected to have been driven by a rise in

productivity rather than capacity changes. While, barley usage by the BMD sector during the rest of the season is expected to remain up on year earlier levels.

10. **At 4.022Mt, barley demand for animal feed production is 46Kt less than that forecast in March, but 367Kt (10%) more than 2016/17.** A combination of larger supply and relatively lower prices of feed barley led to inclusions of the grain being greater in certain feed rations, such as ruminant and pigs during the first three quarters of the season. Season to date (July-March) barley inclusions in GB animal feed production (including IPUs) is 21% higher than the same period in 2016/17, at 934.8Kt. With the premium of UK ex-farm feed wheat over feed barley narrowing, usage of the cereal in animal feed rations is expected to slow during the last quarter of the season.

11. **The barley supply and demand balance is estimated at 2.232Mt, 26Kt more than forecast in March, but 7% down on year earlier levels.** Exports of barley from July 2017 to March 2018 totalled 949Kt, 10% up on the same period in 2016/17. Full season exports are forecast at 1.114Mt, 6% up on year earlier levels, with trade expected to slow down during the last part of the season. Commercial end of season stocks are estimated at 1.117Mt, up 1% on 2016/17.

Maize

12. **At 2.382Mt, total availability of maize in 2017/18 is 61Kt more than March's estimate and 8% (175Kt) higher year on year.** The increase on previous forecasts is driven by a 61Kt rise in forecast maize imports to 2.111Mt, 3% up year on year. From July 2017 to March 2018, the UK imported 1.554Mt of maize, 13% higher than the same period in 2016/17.

13. **H&I usage of maize is forecast at 653Kt, relatively unchanged from the estimate made in March, but 15% up on year earlier levels.** The rise in usage on the year is partly driven by increased demand for maize by the UK bioethanol industry, outweighing a reduction in usage by the distilling sector. Demand for maize in animal feed production is up 39Kt on March's estimate and is forecast to be 10% higher in 2017/18 compared to 2016/17. So far this season (July-March), maize usage in GB animal feed production (including IPUs) is 14% up on year earlier levels. While the rise in animal feed production as a whole is expected to slow during the latter part of the season, demand for maize is expected to remain relatively strong, especially in Northern Ireland.

14. **The balance of availability and consumption for maize is forecast at 420Kt, 6% lower than in 2016/17.** Full season maize exports have been revised up from the previous forecast by 26Kt, to 182Kt, taking account of the pace of exports to end-March, which totalled 137Kt. Commercial end of season stocks are forecast at 238Kt, 12% down on year earlier levels.

Oats

15. **Oats availability, at 1.010Mt, is 13Kt lower than that estimated in March due to a downwards revision in imports.** Between July and March, the UK imported 16Kt of oats, 18% lower than the same period in 2016/17. Full season imports are forecast at 25Kt, 53% down on year earlier levels, partly due to a larger domestic crop.

16. **H&I demand for oats in 2017/18 is forecast at 537Kt, relatively unchanged from March's estimate, but 3% up on 2016/17.** Oat miller's demand for the grain during the first three quarters of the season was 4% up on the same period in 2016/17, with the growth in demand expected to steady during the final quarter of 2017/18. Demand for oats for animal feed is forecast to rise by 10% on year earlier levels at 315Kt. This is expected to be driven by the larger availability of feed oats this season and its relative discount to other grains such as barley and wheat.

17. **At 128Kt, the balance of oats availability and demand is 12Kt lower than previous forecasts and 3% down on the year.** Taking into account season to date (July–March) exports of 23Kt, full season exports have been revised down by 8Kt on March's forecasts, however are 26% up on 2016/17 at 27Kt. Commercial end of season stocks are 4Kt down on the previous estimate and 8% lower year on year at 101Kt.

Additional data

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

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Appendix I

DEFRA ANNUAL UK CEREAL SUPPLY AND DEMAND ESTIMATES (a)

Estimates made in May

000 tonnes

(JULY - JUNE YEARS)

Links connect to relevant Defra/AHDB data pages

		WHEAT							BARLEY						
		2012/13 2016/17 average	2015/16 estimate**	2016/17 estimate	2017/18 Mar-18	2017/18 May-18	Absolute change Mar-18	% change on 16/17	2012/13 2016/17 average	2015/16 estimate	2016/17 estimate	2017/18 Mar-18	2017/18 May-18	Absolute change Mar-18	% change on 16/17
(1)	Opening Stocks	2,092	2,434	2,787	1,767	1,754	-13	-37%	1,236	1,497	1,367	1,121	1,106	-15	-19%
(2)	Production	14,464	16,506	14,383	14,837	14,837	-	3%	6,710	7,370	6,655	7,169	7,169	-	8%
(3)	Imports	2,039	1,509	1,870	1,500	1,600	100	-14%	150	159	118	120	105	-15	-11%
(4)	**Total Availability**	**18,595**	**20,449**	**19,040**	**18,104**	**18,191**	87	-4%	**8,096**	**9,026**	**8,140**	**8,410**	**8,380**	-30	3%
(5)	Human and Industrial Consumption (b)	7,663	7,360	8,089	7,625	7,817	192	-3%	1,890	1,833	1,863	1,911	1,901	-10	2%
(5a)	(of which home grown)	6,368	6,416	7,148	6,709	6,857	148	-4%	n/a	n/a	n/a	n/a	n/a	*	*
(6)	Usage as Animal Feed (c)	6,908	7,094	7,236	7,394	7,446	53	3%	3,460	3,613	3,655	4,068	4,022	-46	10%
(6a)	(of which home grown)	6,212	6,444	6,523	6,801	6,824	23	5%	n/a	n/a	n/a	n/a	n/a	*	*
(6b)	(of which Compounders)	3,697	3,845	4,034	4,162	4,180	18	4%	1,102	1,108	1,132	1,346	1,267	-78	12%
(6c)	(of which Integrated Poultry Units)	1,349	1,210	1,211	1,241	1,241	-	2%	61	49	53	64	62	-2	18%
(7)	Seed (d)	290	281	283	278	278	-	-2%	177	182	181	189	189	-	4%
(8)	Other	74	79	72	74	74	-	3%	34	37	33	36	36	-	9%
(9)	**Total Domestic Consumption**	**14,935**	**14,814**	**15,680**	**15,371**	**15,615**	245	0%	**5,561**	**5,665**	**5,732**	**6,204**	**6,148**	-56	7%
(10)	**Balance (4) - (9)**	**3,660**	**5,635**	**3,360**	**2,733**	**2,576**	-158	-23%	**2,536**	**3,361**	**2,408**	**2,206**	**2,232**	26	-7%
(11)	Exports (e)	1,484	2,848	1,444	-	450	-	-69%	1,216	1,994	1,050	-	1,114	-	6%
(12)	Intervention Stocks (e)	-	-	-	-	-	-	-	-	-	-	-	-	-	0%
(13)	**Commercial End-Season Stocks (e)**	**2,144**	**2,787**	**1,754**	**-**	**1,735**	-	-1%	**1,269**	**1,367**	**1,106**	**-**	**1,117**	-	1%
(14)	(of which Estimated Operating stock requirement) (f)	1,492	1,500	1,560	1,600	1,600	-	3%	739	760	760	770	770	-	1%
(15)	(of which free stock) (g)	652	1,287	194	-	135	-	-31%	530	607	346	-	347	-	-
(16)	Surplus available for either export or free stock (10)-(12)-(14)-(17)	**2,136**	**4,135**	**1,638**	**1,133**	**585**	-158	-46%	**1,746**	**2,601**	**1,396**	**1,436**	**1,462**	26	-11%
(17)	Residual (10)-(11)-(13)			***162***		***391***					***252***				

		MAIZE							OATS						
		2012/13 2016/17 average	2015/16 estimate**	2016/17 estimate	2017/18 Mar-18	2017/18 May-18	Absolute change Mar-18	% change on 16/17	2012/13 2016/17 average	2015/16 estimate	2016/17 estimate	2017/18 Mar-18	2017/18 May-18	Absolute change Mar-18	% change on 16/17
(1)	Opening Stocks	216	309	148	271	271	-	83%	100	107	93	110	110	-	18%
(2)	Production	-	-	-	-	-	-	-	805	799	816	875	875	-	7%
(3)	Imports	1,937	1,742	2,059	2,050	2,111	61	3%	57	39	53	38	25	-13	-53%
(4)	**Total Availability**	**2,153**	**2,051**	**2,207**	**2,321**	**2,382**	61	8%	**962**	**945**	**962**	**1,023**	**1,010**	-13	5%
(5)	Human and Industrial Consumption	538	465	569	654	653	-1	15%	507	525	521	540	537	-3	3%
(5a)	(of which home grown)	-	-	-	-	-	-	-	449	499	455	505	515	10	13%
(6)	Usage as Animal Feed	1,215	1,310	1,186	1,267	1,306	39	10%	279	239	286	313	315	2	10%
(6a)	(of which home grown)	-	-	-	-	-	-	-	279	239	286	313	315	2	10%
(7)	Seed	-	-	-	-	-	-	-	20	19	20	26	26	-	30%
(8)	Other (h)	27	9	4	4	4	-	0%	4	4	4	4	4	-	0%
(9)	**Total Domestic Consumption**	**1,780**	**1,784**	**1,759**	**1,925**	**1,962**	38	12%	**811**	**787**	**831**	**883**	**882**	-1	6%
(10)	**Balance (4) - (9)**	**373**	**267**	**448**	**397**	**420**	23	-6%	**151**	**158**	**131**	**140**	**128**	-12	-3%
(11)	Exportable surplus	132	120	177	156	182	26	3%	42	65	21	35	27	-8	26%
(12)	**Commercial End-Season Stocks**	**241**	**148**	**271**	**241**	**238**	-3	-12%	**109**	**93**	**110**	**105**	**101**	-4	-8%

(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*

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		OTHER CEREALS *(i)*						
		2012/13 2016/17 average	**2015/16 estimate**	**2016/17 estimate**	**2017/18 Mar-18**	**2017/18 May-18**	**Absolute change Mar-18**	**% change on 16/17**
(1)	Opening Stocks	5	5	5	5	5	-	0%
(2)	Production	115	121	110	119	119	-	8%
(3)	Imports	3	3	3	3	3	-	0%
(4)	**Total Availability**	**123**	**129**	**118**	**127**	**127**	-	8%
(5+6)	H&I and Animal Feed	115	121	110	119	119	-	8%
(5a+6a)	(of which home grown)	112	118	107	116	116	-	8%
(7)	Seed	3	3	3	3	3	-	0%
(8)	Other	-	-	-	-	-	-	-
(9)	**Total Domestic Consumption**	**118**	**124**	**113**	**122**	**122**	-	8%
(10)	**Balance (4) - (9)**	**5**	**5**	**5**	**5**	**5**	-	0%
(11)	Exportable surplus	-	-	-	-	-	-	-
(12)	Intervention Stocks	-	-	-	-	-	-	-
(13)	**Commercial End-Season Stocks**	**5**	**5**	**5**	**5**	**5**	-	0%

		TOTAL CEREALS						
		2012/13 2016/17 average	**2015/16 estimate****	**2016/17 estimate**	**2017/18 Mar-18**	**2017/18 May-18**	**Absolute change Mar-18**	**% change on 16/17**
(1)	Opening Stocks	3,646	4,352	4,400	3,274	3,246	28	-26%
(2)	Production	22,095	24,796	21,964	22,999	22,999	-	5%
(3)	Imports	4,185	3,452	4,103	3,711	3,844	133	-6%
(4)	**Total Availability**	**29,926**	**32,600**	**30,467**	**29,985**	**30,089**	105	-1%
(5)	H&I (wheat, barley, maize, oats) (h)	10,597	10,183	11,042	10,730	10,907	178	-1%
(6)	Animal Feed (wheat, barley, maize oats) (h)	11,877	12,256	12,363	13,042	13,089	47	6%
(5a +6a)	Other cereals (H&I and Animal Feed)	115	121	110	119	119	-	8%
(7)	Seed	491	485	487	496	496	-	2%
(8)	Other	139	129	113	118	118	-	4%
(9)	**Total Domestic Consumption**	**23,219**	**23,174**	**24,115**	**24,504**	**24,730**	225	3%
(10)	**Balance (4) - (9)**	**6,706**	**9,426**	**6,352**	**5,480**	**5,360**	120	-16%
(11)	Exports	2,874	5,027	2,692	-	1,773	-	-34%
(12)	Intervention Stocks	-	-	-	-	-	-	-
(13)	**Commercial End-Season Stocks**	**3,767**	**4,400**	**3,246**	**-**	**3,196**	-	-2%
(14)	Estimated Operating stock requirement (wheat & barley only)	2,231	2,260	2,320	2,370	2,370	-	2%
(15)	Free stock for wheat and barley	1,182	1,894	540	-	482	-	-11%
(16)	Surplus available for either export or free stock (all)	**4,493**	**7,167**	**3,618**	**3,111**	**2,598**	120	-26%
(17)	Residual (10)-(11)-(13)			***414***		***392***		

(i) Includes mainly rye, triticale, mixed grain and sorghum

Source: AHDB; 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 March 2018 **Thousand tonnes**

			2012/13 to 2016/17 Average	2010/11 39 weeks	2011/12 39 weeks	2012/13 39 weeks	2013/14 39 weeks	2014/15 39 weeks	2015/16 39 weeks	2016/17 39 weeks	2017/18 39 weeks	% Change 2017/18 on 2016/17	Actual Change 2017/18 on 2016/17
WHEAT													
Usage	Human and -Flour Millers	*-imported*	*926*	*590*	*520*	*1183*	*1149*	*914*	*707*	*677*	*682*	*1%*	*5*
	Industrial	*-home-grown*	*4104*	*4316*	*3929*	*3808*	*3642*	*4270*	*4125*	*4679*	*4427*	*-5%*	*-252*
	Processors	-Total	*5030*	*4906*	*4449*	*4990*	*4790*	*5183*	*4831*	*5356*	*5109*	*-5%*	*-248*
	-Distillers		*563*	*381*	*471*	*602*	*619*	*584*	*465*	*546*	*639*	*17%*	*92*
	Animal Feed Processors (a)		*2387*	*2097*	*2302*	*2314*	*2192*	*2326*	*2472*	*2631*	*2725*	*4%*	*94*
	Poultry Integrated Units		*1009*	*1207*	*1196*	*1150*	*1045*	*1055*	*893*	*905*	*927*	*2%*	*22*
Imports	From July (b)		*1499*	*808*	*665*	*2122*	*1682*	*1227*	*1204*	*1261*	*1214*	*-4%*	*-46*
Exports	From July (b)		*1159*	*2354*	*2230*	*582*	*353*	*1580*	*1966*	*1315*	*383*	*-71%*	*-932*
	Intervention -Actual		*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*	*0*
	-Projected		*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*	*0*
BARLEY													
Usage	Maltsters/Distillers	*-imported*	-	-	-	-	-	-	-	-	-	-	-
		-home-grown	-	-	-	-	-	-	-	-	-	-	-
		-Total	*1379*	*1265*	*1353*	*1361*	*1414*	*1398*	*1346*	*1372*	*1403*	*2%*	*31*
	Animal Feed Processors (a)		*742*	*651*	*500*	*669*	*786*	*746*	*775*	*735*	*887*	*21%*	*151*
	Poultry Integrated Units		*46*	*50*	*46*	*54*	*63*	*38*	*38*	*39*	*48*	*23%*	*9*
Imports	From July (b)		*97*	*100*	*119*	*172*	*71*	*81*	*86*	*74*	*70*	*-6%*	*-4*
Exports	From July (b)		*991*	*664*	*719*	*351*	*1033*	*1174*	*1536*	*860*	*949*	*10%*	*89*
	Intervention -Actual		*0*	*151*	*5*	*0*	*0*	*0*	*0*	*0*	*0*	*	*0*
	-Projected		*0*	*151*	*5*	*0*	*0*	*0*	*0*	*0*	*0*	*	*0*
MAIZE													
Usage	Human and Industrial		*293*	*227*	*213*	*221*	*275*	*365*	*312*	*289*	*257*	*-11%*	*-32*
	Animal Feed Processors (a)		*210*	*81*	*81*	*164*	*260*	*214*	*211*	*200*	*235*	*17%*	*35*
Imports	From July (b)		*1473*	*845*	*737*	*1280*	*1924*	*1491*	*1287*	*1382*	*1554*	*13%*	*173*
OATS													
Usage	Human and Industrial Processors		*379*	*343*	*359*	*364*	*384*	*362*	*392*	*394*	*410*	*4%*	*17*
	Animal Feed Processors (a)		*58*	*73*	*46*	*58*	*89*	*74*	*41*	*30*	*44*	*45%*	*14*
Exports	From July (b)		*38*	*47*	*14*	*9*	*32*	*70*	*61*	*18*	*23*	*32%*	*6*

n/a - Not Available/Applicable (a) Great Britain only. (b) HMRC

* 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 31 March 2018. The figures above may differ slightly from the most recent published data.