

**Table 7: Total wheat imports per country per season  
for use in RSA**

	Season										Total (Tons)
	2006/2007	2007/2008	2008/2009	2009/2010	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015	2015/2016*	
Argentina	310 524	684 160	368 739	-	629 600	652 279	98 029	-	59 607	49 516	2 851 834
Australia	-	-	74 714	55 312	181 637	247 675	189 925	49 780	95 254	38 445	935 945
Brazil	-	-	42 449	123 944	58 551	276 420	234 733	-	-	-	736 097
Canada	153 694	194 764	54 831	72 911	79 697	45 252	48 583	111 289	105 457	102 816	962 714
Finland	-	-	-	-	-	-	-	25 430	-	-	25 430
France	-	-	-	-	-	-	-	-	-	-	0
Germany	80 649	111 013	518 002	809 934	88 581	105 964	95 476	179 436	348 385	276 193	2 600 451
Latvia	-	-	-	-	-	-	-	22 013	61 005	-	83 018
Lesotho	-	-	-	-	-	-	384	-	-	-	384
Lithuania	-	-	-	1 611	-	8 880	-	40 532	43 791	151 014	245 828
Poland	-	-	13 013	-	-	-	-	-	91 483	185 036	289 532
Romania	-	-	-	-	-	36 071	-	-	-	-	36 071
Russian Federation	-	-	-	-	-	154 129	245 228	800 964	719 784	808 226	2 440 241
Swaziland	-	-	-	-	-	-	288	-	-	-	288
UK	-	-	-	-	-	-	-	-	-	-	0
Ukraine	-	-	13 521	41 230	-	39 016	341 976	372 500	279 364	109 267	1 174 705
Uruguay	-	-	-	-	25 249	45 250	99 033	-	-	-	169 532
USA	232 266	406 562	113 434	173 030	586 200	112 915	42 572	66 468	28 311	188 900	1 944 157
<b>Total</b>	<b>777 133</b>	<b>1 396 499</b>	<b>1 198 703</b>	<b>1 277 972</b>	<b>1 649 515</b>	<b>1 723 851</b>	<b>1 396 227</b>	<b>1 668 412</b>	<b>1 832 441</b>	<b>1 909 413</b>	<b>14 496 227</b>

\*2015/2016 season figures include imports up to 5 September 2016.

### Quality summary of imported wheat (1 October 2014 to 30 September 2015) (Previous season)

The quality of all wheat imported into South Africa is monitored by the SAGL. A subsample of all samples drawn by inspectors of the South African Agricultural Food, Quarantine and Inspection Services (SAAFQIS) of the Department of Agriculture, Forestry and Fisheries (DAFF) is forwarded to the SAGL for analysis. To assist with quality comparisons between local and imported wheat, the same scope of analysis is used for both sets of samples. The import quality results are published at the end of each production and marketing season.

Please take note that during the grading of the samples of the 2014/2015 import season, the previous version of the South African grading regulations, as published in the Government Gazette Notice No. R. 1186 of 17 December 2010, was still in effect. According to this, Regulation 4 Standards for classes, Sub paragraph (2) A consignment shall be classified as Bread Wheat if -- (a) “the wheat in the consignment consists of at least 95 per cent (m/m) of one or more of the bread wheat cultivars specified in the cultivar list;” all imported wheat should be graded as Class Other Wheat. However, for comparison purposes, the wheat was graded by SAGL as if of local origin.

For grading as well as dough and baking quality results of the imported wheat per country, please refer to pages 78 to 95. This imported wheat quality is compared to a summary of the local crop quality of the same (2014/2015) season. To simplify the comparison between the quality of the different countries of import and South African wheat, the average quality per country was summarised in Table 8 on page 76 to 77. The minimum, maximum and standard deviation per country was also calculated. Please also take note of the number of samples analysed when comparing results, the higher the number of samples, the more reliable the average result will be.

A total number of 200 samples of wheat imported from the following countries were received (number of samples received in brackets): Argentina (9), Australia (10), Canada (14), Germany (43), Latvia (5), Poland (14), Russian Federation (67), Ukraine (32) and USA (6). Wheat imported for purposes other than bread baking (e.g. soft types for biscuit making) is included in this data set.

Most of the wheat imported to South Africa is blended with local wheat to obtain a certain milling and baking quality as per individual company specifications. Milling companies will blend higher and lower quality wheat to obtain the most cost effective grist formulation that conforms to a specific quality. The main objective is to supply the most constant quality of flour to their customers (bakers) as possible, as in the end, consistency is one of the most important quality parameters.

Toward the end of the production season, it may however become necessary for milling companies to mill wheat blends consisting only of imported wheat. Transportation cost is also an important fact for consideration. The grist formulation of mills situated at the coast will as a result consist mainly of imported wheat whereas inland mills will mill a combination of local and imported wheat.

Hectolitre mass, providing an indication of flour extraction potential, did not pose problems with these imported samples, since only six of the samples (3%) had hectoliter mass values below 77 kg/hl (minimum requirement for South African grade B1 wheat). Screenings represent all material that passes through a standard sieve (1.8 mm), with 3% the maximum allowed for grades 1 to 3 according to RSA grading regulations. Higher percentages screenings result in higher losses due to the removal of unmillable material. Samples from the Russian Federation, Argentina and USA had the highest average levels of screenings. Only three samples reported falling number results below 220 seconds. The wheat samples imported from Australia had the highest falling number values as in the previous season.

Based on the low average protein level as well as the weak rheological characteristics, the wheat imported from the USA were most probably not intended for bread baking purposes.

The ability of wheat flour to produce dough with good gas-holding capability is attributable to gluten as gluten imparts the elasticity and extensibility characteristics to the dough. Good quality gluten is capable of producing a loaf of bread with a high volume and good crumb texture. As in the previous season, the imported Canadian wheat had the highest protein content resulting in the highest gluten content. When evaluating gluten results, it is important to take the protein content into account. The wet gluten content of good quality white bread flour normally ranges between 27 – 33% (14% mb).

Flour with higher water absorption is preferred by bakers as this results in increased dough yields. The acceptable range for white bread flour is normally in the range of 60.0 – 64.0%, averaging 61.0 – 62.0%. In general, longer development times of 3.5 to 6.0 minutes and stabilities of 8.0 to 12.0 minutes will be an indication of good baking quality, which is associated with good protein quality.

Acceptable ranges for the Alveograph parameters generally are as follows: Strength 30 – 45 cm<sup>2</sup>, stability (P) 65 – 120 mm, distensibility (L) 80 – 120 mm and P/L 0.70 – 1.50. A good correlation exists between alveogram strength and protein quality. Low/short distensibility values, indicated by high P/L values can result in lower loaf volumes. High/long distensibility values, are indicative of soft doughs with excess stretching properties, which can also result in low loaf volumes as a result of poor gas retention properties. In general, Extensograph strength values ranging between 80 – 150 cm<sup>2</sup>, maximum heights of 300 – 550 BU and extensibility values of 170 – 220 mm, indicate good baking quality.

Most of the imported wheat samples, again showed a tendency towards longer mixogram mixing times. Some of these long mixing times can be explained by the low protein content of the sample. Flours having undesirably low protein starch ratios, requires more time to produce continuous protein phases during mixing. Mixing times between 2.8 and 3.5 minutes are considered to be acceptable in South Africa.

Composite samples of holds per shipment per country were tested for the presence of mycotoxin residues by means of a multi-mycotoxin analysis. The mycotoxin results in general did not raise any concerns. DON, HT-2 toxin and Zearalenone residues were however observed on some of the samples. Only one sample (from the USA) exceeded the EU maximum limits with regards to DON on unprocessed cereals (1 250 µg/kg). This value was however below the new national maximum DON level of 2 000 µg/kg for cereal grains intended for further processing.