

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

	Season										Total (Tons)
	2005/2006	2006/2007	2007/2008	2008/2009	2009/2010	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015*	
<b>Argentina</b>	392,930	310,524	684,160	368,739	-	629,600	652,279	98,029	-	58,987	<b>3,195,248</b>
<b>Australia</b>	59,927	-	-	74,714	55,312	181,637	247,675	189,925	49,780	98,457	<b>957,427</b>
<b>Brazil</b>	-	-	-	42,449	123,944	58,551	276,420	234,733	-	-	<b>736,097</b>
<b>Canada</b>	62,643	153,694	194,764	54,831	72,911	79,697	45,252	48,583	111,289	98,877	<b>922,541</b>
<b>Finland</b>	-	-	-	-	-	-	-	-	25,430	-	<b>25,430</b>
<b>France</b>	9,920	-	-	-	-	-	-	-	-	-	<b>9,920</b>
<b>Germany</b>	354,718	80,649	111,013	518,002	809,934	88,581	105,964	95,476	179,436	335,203	<b>2,678,976</b>
<b>Latvia</b>	-	-	-	-	-	-	-	-	22,013	61,005	<b>83,018</b>
<b>Lesotho</b>	-	-	-	-	-	-	-	384	-	-	<b>384</b>
<b>Lithuania</b>	-	-	-	-	1,611	-	8,880	-	40,532	43,791	<b>94,814</b>
<b>Poland</b>	-	-	-	13,013	-	-	-	-	-	91,483	<b>104,496</b>
<b>Romania</b>	-	-	-	-	-	-	36,071	-	-	-	<b>36,071</b>
<b>Russia Federation</b>	-	-	-	-	-	-	154,129	245,228	800,964	431,694	<b>1,632,015</b>
<b>Swaziland</b>	-	-	-	-	-	-	-	288	-	-	<b>288</b>
<b>UK</b>	-	-	-	-	-	-	-	-	-	-	<b>0</b>
<b>Ukraine</b>	85,979	-	-	13,521	41,230	-	39,016	341,976	372,500	257,195	<b>1,151,417</b>
<b>Uruguay</b>	-	-	-	-	-	25,249	45,250	99,033	-	-	<b>169,532</b>
<b>USA</b>	88,651	232,266	406,562	113,434	173,030	586,200	112,915	42,572	66,468	21,810	<b>1,843,908</b>
<b>Total</b>	<b>1,054,768</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>1,498,502</b>	<b>13,641,582</b>

\*2014/2015 season figures include imports up to 17 July 2015.

### Quality summary of imported wheat (1 October 2013 to 30 September 2014) (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 only at the end of each production and marketing season.

Please take note that according to the South African grading regulations (please see pages 94 to 106), 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 is 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 74 to 87. This imported wheat quality is compared to a summary of the local crop quality of the same (2013/2014) 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 73. 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.

Samples of wheat imported from the following countries were received (number of samples received in brackets): Australia (7), Canada (10), Germany (23), Latvia (5), Russian Federation (85), Ukraine (43) and USA (11). Wheat imported for purposes other than bread baking (e.g. soft types for biscuit making) is included in this data set.

Australian and Canadian imported wheat had the highest hectolitre mass results, indicating a potential for good (high) flour extraction. Screenings represent all material that passes through a standard sieve, 1.8 mm in this instance, 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, Canada and USA had the highest average levels of screenings.

The wheat imported from the USA had the lowest average whole wheat protein content, resulting in the lowest average flour protein content. No falling number results below 220 seconds were reported on any of the imported wheat samples. The wheat samples imported from Australia had the highest falling number values.

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 and the imported American wheat the lowest. When evaluating gluten content, the protein content should also be taken into account. The wet gluten content of good quality white bread flour normally ranges between 27 – 33%.

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 – 65.0%, averaging 61.0 – 63.0%. 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. The farinogram absorption values and development times of the imported wheat (Australian and Canadian excluded) tended to be lower and shorter. Based on the low protein and weak gluten and rheological results, the wheat imported from the USA were most probably not intended for bread baking purposes.

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 0.80 – 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, although not observed on any of these imported samples, 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. The average results of the imported wheat samples (with exceptions and excluding the samples imported from the USA) fell mostly within these ranges.

The imported wheat samples, except for the Australian and Canadian samples, again showed a tendency towards longer mixogram mixing times. Mixing times between 2.8 and 3.5 minutes are considered to be acceptable in South Africa. The mixing time is an indication of the amount of time needed to mix the dough to optimum development. The longer the mixing time, the larger the risk that the dough will not be mixed to optimum development, which will negatively influence the bread quality and cause lower loaf volumes. Longer mixing times can also have cost implications due to higher energy inputs required.

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 in some of the samples. Only one sample (from the USA) exceeded the EU maximum limits with regards to Zearalenone on unprocessed cereals (100 µg/kg).