

Crop quality of the 2010/2011 season

The protein graph of the wheat produced in the 2010/2011 season showed a normal distribution around the 12.0 - 12.9 % protein level (see page 2). The highest percentage of samples (31.5 %) had protein contents ranging from 12.0 - 12.9 %. The second highest percentage of 27.7 % was for protein contents 11.0 - 11.9 % and thirdly 21.0 % for 13.0 - 13.9 % protein content. The Summer rainfall area (Free State) had the highest average protein content of 12.6 % and the Winter rainfall and other Summer rainfall and Irrigation areas the lowest with 11.8 %.

The Winter (Western Cape) and Summer (Free State) rainfall areas had similar average hectolitre masses of 79.8 and 79.7 kg/hl respectively. The Irrigation (81.3 kg/hl) and Other Summer rainfall and Irrigation areas (81.6 kg/hl) also had similar average hectolitre masses but tested approximately 1.7 kg/hl higher than the Winter and Summer rainfall areas.

The weighted average thousand kernel mass of 39.5 g was 0.4 g higher than the previous season. The weighted average screenings (1.8 mm sieve) of 1.68 % was similar to the 1.63 % in the 2009/2010 season.

The weighted average falling number was 372 seconds. Twenty five samples gave falling number values of less than 250 seconds and of these, twenty two had falling number values lower than 220 seconds. These samples were mainly from the Free State (96 %).

The weighted mixogram peak time on flour from the Quadromat mill averaged 3.0 minutes, similar to the ten year average (2.9 minutes). The weighted mixogram peak time of the flour from the Bühler mill averaged 2.8 minutes.

The weighted average Bühler extraction was 74.9 %, with a weighted average Kent Jones colour of -1.8 KJ.

The farinogram had a weighted average water absorption of 63.2 % (61.0 % the previous season) and a weighted average development time of 5.5 minutes (3.5 minutes previous season). The weighted average alveogram strength was 36.2 cm² and the weighted average P/L value 1.29 (35.5 cm² and 1.17 the previous season). The weighted average extensogram strength was 97 cm² (83 cm² previous season).

The loaves baked using the 100 g straight-dough optimized bread making method, which refers to the relationship between the protein content and the bread volume, was evaluated and scored from “Excellent” to “Extremely Poor” (one sample). The average scores were “Very Good” to “Good”.

Wheat grades

The 372 representative crop samples were graded as follows: 44 % was graded B1, 25 % was graded B2, 13 % was graded B3, 6 % was graded B4, 8 % UT (Utility Grade) and 4 % COW (Class Other Wheat). The determination of the hectolitre mass according to ISO 7971-3 by means of the Kern 222 instrument (please see Methods page 59), contributed to the increase in the percentage samples graded B1, compared to the 2008/2009 and earlier seasons.

Grade B1 wheat in the Free State province amounted to 51 % (45 % the previous season) and grade B1 in other summer rainfall and irrigation areas amounted to 45 % (36 % in the previous season). In the irrigation areas 48 % (43 % in the previous season) of the wheat graded as B1 and in the Western Cape Province 33 % graded as B1 (15 % in the previous season).