

| Country of origin                                                                                                | USA      |          |          |           |
|------------------------------------------------------------------------------------------------------------------|----------|----------|----------|-----------|
| Class and Grade White maize                                                                                      | WM1      | WM2      | COM      | Average   |
| <b>RSA Grading</b>                                                                                               |          |          |          |           |
| Defective kernels above 6.35mm screen, %                                                                         | 1.6      | 1.6      | 1.9      | 1.7       |
| Defective kernels below 6.35mm screen, %                                                                         | 3.3      | 5.7      | 4.2      | 4.1       |
| Total defective kernels, %                                                                                       | 4.9      | 7.3      | 6.1      | 5.7       |
| Other colour maize kernels %                                                                                     | 0.5      | 0.4      | 0.2      | 0.4       |
| Foreign matter, % (all matter other than maize, glass, stone, coal, dung or metal)                               | 0.1      | 0.3      | 1.1      | 0.3       |
| Combined deviation, %                                                                                            | 5.4      | 7.9      | 7.4      | 6.4       |
| Live Insects                                                                                                     | 0        | 0        | 0        | 0         |
| Poisonous seeds (Crotalaria sp., Datura sp., Ricinis communis)                                                   | 0        | 0        | 0        | 0         |
| Poisonous seeds (Argemone Mexicana L., Convolvulus sp., Ipomoea purpurea Roth., Lolium temulentum, Xanthium sp.) | 0        | 0        | 0        | 0         |
| Undesirable odour                                                                                                | No       | No       | No       | 0         |
| <b>No. of samples</b>                                                                                            | <b>8</b> | <b>4</b> | <b>2</b> | <b>14</b> |
| <b>USA Grading factors according to RSA grades</b>                                                               |          |          |          |           |
| Heat damaged kernels, %                                                                                          | 0.1      | 0.3      | 0.0      | 0.1       |
| Total damaged kernels, %                                                                                         | 1.8      | 1.3      | 2.1      | 1.7       |
| Broken corn and foreign material, %                                                                              | 1.4      | 3.0      | 2.8      | 2.1       |
| Bushel weight, lbs                                                                                               | 60.9     | 60.9     | 60.8     | 60.9      |
| <b>No. of samples</b>                                                                                            | <b>8</b> | <b>4</b> | <b>2</b> | <b>14</b> |
| <b>Physical Quality Characteristics</b>                                                                          |          |          |          |           |
| 100 Kernel mass, g (as is)                                                                                       | 34.1     | 33.7     | 33.8     | 33.9      |
| Stress cracks, %                                                                                                 | 16       | 17       | 28       | 18        |
| Milling Index                                                                                                    | 84       | 87       | 85       | 85        |
| Grit Yield                                                                                                       | 66       | 66       | 66       | 66        |
| <b>No. of samples</b>                                                                                            | <b>6</b> | <b>4</b> | <b>2</b> | <b>14</b> |
| <b>Kernel size</b>                                                                                               |          |          |          |           |
| % above 10 mm                                                                                                    | 3.1      | 4.2      | 2.5      | 3.3       |
| % above 8 mm                                                                                                     | 62.2     | 64.6     | 60.0     | 62.5      |
| % below 8 mm                                                                                                     | 34.8     | 31.3     | 37.6     | 34.2      |
| <b>No. of samples</b>                                                                                            | <b>8</b> | <b>4</b> | <b>2</b> | <b>14</b> |
| <b>Breakage susceptibility</b>                                                                                   |          |          |          |           |
| % below 6.35 mm                                                                                                  | 0.3      | 0.3      | 1.2      | 0.4       |
| % below 4.75 mm                                                                                                  | 1.3      | 0.9      | 2.5      | 1.4       |
| <b>No. of samples</b>                                                                                            | <b>8</b> | <b>4</b> | <b>2</b> | <b>14</b> |
| <b>Nutritional Factors</b>                                                                                       |          |          |          |           |
| Protein, %(db)                                                                                                   | 8.9      | 8.9      | 8.8      | 8.9       |
| Fat, %(db)                                                                                                       | 3.8      | 3.7      | 3.9      | 3.7       |
| Starch, %(db)                                                                                                    | 73.5     | 74.6     | 73.3     | 73.8      |
| Crude fibre, % (db)                                                                                              | 2.3      | 2.8      | 2.2      | 2.4       |
| <b>No. of samples</b>                                                                                            | <b>8</b> | <b>4</b> | <b>2</b> | <b>14</b> |
| <b>Roff Milling</b>                                                                                              |          |          |          |           |
| Break 1, %                                                                                                       | 12.8     | 13.0     | 13.0     | 12.9      |
| Break 2, %                                                                                                       | 6.5      | 6.8      | 6.7      | 6.6       |
| Break 3, %                                                                                                       | 10.7     | 11       | 10.8     | 10.8      |
| Grits, %                                                                                                         | 44.9     | 44.3     | 44.1     | 44.6      |
| Bran and Germ, %                                                                                                 | 25.1     | 25       | 25.6     | 25.1      |
| Extraction (Total meal), %                                                                                       | 74.9     | 75.1     | 74.5     | 74.9      |
| <b>No. of samples</b>                                                                                            | <b>8</b> | <b>4</b> | <b>2</b> | <b>14</b> |
| <b>Whiteness Index</b>                                                                                           |          |          |          |           |
| Whiteness Index, 87:13, sifted                                                                                   | 35.5     | 34.2     | 34.3     | 34.9      |
| Whiteness Index, unsifted                                                                                        | 36.8     | 35.5     | 36.3     | 36.3      |
| <b>No. of samples</b>                                                                                            | <b>8</b> | <b>4</b> | <b>2</b> | <b>14</b> |

|                                                                                                                              |          |          |          |            |
|------------------------------------------------------------------------------------------------------------------------------|----------|----------|----------|------------|
| <b>*Bühler MCKA Milling</b>                                                                                                  |          |          |          |            |
| *Fraction B1 - B3, %                                                                                                         | 21.9     | 23.2     | 24.2     | 22.6       |
| *Fraction C1 - C3, %                                                                                                         | 42.6     | 42.5     | 40.6     | 42.3       |
| *Grits (Fraction G3), %                                                                                                      | 14.0     | 13.6     | 14.9     | 14.0       |
| *Germ/Bran ( Degermer overs + Fractions G1 & G2)                                                                             | 21.6     | 20.7     | 20.3     | 21.2       |
| *Extraction (Total meal), %                                                                                                  | 78.4     | 79.3     | 79.7     | 78.8       |
| <b>No. of samples</b>                                                                                                        | <b>8</b> | <b>4</b> | <b>2</b> | <b>14</b>  |
| <i>*Investigative study to establish the correlation between the Roff and Bühler MCKA milling techniques are in progress</i> |          |          |          |            |
| <b>Whiteness Index</b>                                                                                                       |          |          |          |            |
| Whiteness Index, 87:13, sifted                                                                                               | 11.4     | 11.3     | 11.5     | 11.4       |
| Whiteness Index, unsifted                                                                                                    | 13.1     | 12.7     | 15.8     | 13.4       |
| <b>No. of samples</b>                                                                                                        | <b>8</b> | <b>4</b> | <b>2</b> | <b>14</b>  |
| <b>Mycotoxins</b>                                                                                                            |          |          |          |            |
| Aflatoxin B <sub>1</sub> , µg/kg [max. value]                                                                                | 0        | 0        | 0        | 0 [0]      |
| Aflatoxin B <sub>2</sub> , µg/kg [max. value]                                                                                | 0        | 0        | 0        | 0 [0]      |
| Aflatoxin G <sub>1</sub> , µg/kg [max. value]                                                                                | 0        | 0        | 0        | 0 [0]      |
| Aflatoxin G <sub>2</sub> , µg/kg [max. value]                                                                                | 0        | 0        | 0        | 0 [0]      |
| Fumonisin B <sub>1</sub> , µg/kg [max. value]                                                                                | 457      | 604      | 1001     | 577 [1852] |
| Fumonisin B <sub>2</sub> , µg/kg [max. value]                                                                                | 138      | 219      | 283      | 182 [538]  |
| Fumonisin B <sub>3</sub> , µg/kg [max. value]                                                                                | 37       | 50       | 79       | 47 [157]   |
| Deoxynivalenol, µg/kg [max. value]                                                                                           | 50       | 88       | 0        | 54 [275]   |
| 15-ADON, µg/kg [max. value]                                                                                                  | 0        | 0        | 0        | 0 [0]      |
| Ochratoxin A, µg/kg [max. value]                                                                                             | 0        | 0        | 0        | 0 [0]      |
| Zearalenone, µg/kg [max. value]                                                                                              | 0        | 0        | 0        | 8 [118]    |
| HT-2, µg/kg [max. value]                                                                                                     | 0        | 0        | 0        | 0 [0]      |
| T-2, µg/kg [max. value]                                                                                                      | 0        | 0        | 0        | 0 [0]      |
| <b>No. of samples</b>                                                                                                        | <b>8</b> | <b>4</b> | <b>2</b> | <b>14</b>  |