

**TABLE 13: PHYSICAL QUALITY CHARACTERISTICS OF WHITE MAIZE (2018/19)**

| Number of samples | Region     | Test weight (kg/hl) |      |      | 100 kernel mass (g) |      |      | Kernel size (%)   |      |                  |      |                  |      | Breakage susceptibility (%) |      |                 |      |      |      | Stress cracks (%) |      |      | SAGL Milling Index 2019 |      |      | GYA  |      |       |      |      |      |
|-------------------|------------|---------------------|------|------|---------------------|------|------|-------------------|------|------------------|------|------------------|------|-----------------------------|------|-----------------|------|------|------|-------------------|------|------|-------------------------|------|------|------|------|-------|------|------|------|
|                   |            | ave.                | min. | max. | ave.                | min. | max. | Above 10 mm sieve |      | Above 8 mm sieve |      | Below 8 mm sieve |      | < 6.35 mm sieve             |      | < 4.75 mm sieve |      | ave. | min. | max.              | ave. | min. | max.                    | ave. | min. | max. |      |       |      |      |      |
|                   |            |                     |      |      |                     |      |      | ave.              | min. | max.             | ave. | min.             | max. | ave.                        | min. | max.            | ave. |      |      |                   |      |      |                         |      |      |      | min. | max.  |      |      |      |
| <b>WHITE</b>      |            |                     |      |      |                     |      |      |                   |      |                  |      |                  |      |                             |      |                 |      |      |      |                   |      |      |                         |      |      |      |      |       |      |      |      |
| 4                 | Region 11  | 81.7                | 81.0 | 82.2 | 34.4                | 32.1 | 36.2 | 1.7               | 0.8  | 3.7              | 66.6 | 63.0             | 71.2 | 31.7                        | 25.1 | 36.1            | 0.4  | 0.2  | 0.6  | 0.2               | 0.0  | 0.4  | 11                      | 8    | 16   | 89.3 | 86.8 | 94.4  | 67.0 | 66.4 | 68.3 |
| 10                | Region 12  | 77.1                | 71.3 | 79.2 | 36.4                | 25.5 | 45.1 | 33.1              | 6.4  | 63.8             | 57.0 | 35.2             | 71.2 | 10.0                        | 1.0  | 34.6            | 1.7  | 0.4  | 4.8  | 1.4               | 0.3  | 3.8  | 15                      | 6    | 34   | 90.3 | 76.4 | 111.4 | 67.3 | 63.9 | 72.4 |
| 17                | Region 13  | 75.1                | 70.4 | 78.1 | 33.1                | 24.1 | 45.3 | 22.9              | 13.5 | 43.6             | 65.5 | 51.9             | 73.4 | 11.5                        | 2.8  | 20.2            | 2.4  | 0.6  | 7.9  | 1.8               | 0.6  | 4.5  | 21                      | 10   | 43   | 80.8 | 66.5 | 92.0  | 65.0 | 61.4 | 67.7 |
| 30                | Region 14  | 75.5                | 70.3 | 78.9 | 33.7                | 25.2 | 41.1 | 30.6              | 8.3  | 60.1             | 59.4 | 39.1             | 72.1 | 10.0                        | 0.8  | 29.0            | 2.1  | 0.5  | 5.5  | 1.6               | 0.4  | 3.5  | 20                      | 8    | 33   | 80.7 | 67.1 | 97.3  | 64.9 | 61.6 | 68.9 |
| 5                 | Region 15  | 73.9                | 70.2 | 77.5 | 34.3                | 31.4 | 36.6 | 31.8              | 26.9 | 35.1             | 60.1 | 54.8             | 67.3 | 8.1                         | 5.6  | 10.6            | 3.0  | 0.9  | 5.4  | 2.5               | 0.8  | 4.3  | 23                      | 13   | 33   | 72.6 | 61.1 | 81.8  | 62.9 | 60.1 | 65.2 |
| 11                | Region 16  | 71.8                | 62.9 | 76.7 | 30.9                | 18.7 | 37.2 | 21.9              | 5.6  | 33.6             | 63.8 | 47.6             | 71.9 | 14.3                        | 7.2  | 46.8            | 4.0  | 0.8  | 7.5  | 3.1               | 0.7  | 4.7  | 27                      | 9    | 39   | 75.7 | 44.9 | 105.7 | 63.7 | 56.1 | 71.0 |
| 16                | Region 17  | 76.0                | 69.9 | 77.9 | 33.6                | 30.1 | 37.9 | 23.6              | 10.9 | 40.4             | 65.4 | 52.8             | 71.9 | 11.0                        | 5.3  | 18.6            | 1.1  | 0.2  | 2.3  | 0.9               | 0.2  | 1.7  | 11                      | 2    | 29   | 77.6 | 63.1 | 85.5  | 64.2 | 60.6 | 66.1 |
| 11                | Region 18  | 75.8                | 73.3 | 77.8 | 32.6                | 30.7 | 34.6 | 19.5              | 8.0  | 38.2             | 65.3 | 56.6             | 74.3 | 15.2                        | 5.2  | 25.4            | 1.5  | 0.2  | 3.0  | 1.0               | 0.2  | 1.9  | 16                      | 7    | 25   | 78.7 | 64.0 | 93.3  | 64.5 | 60.8 | 68.0 |
| 14                | Region 19  | 76.8                | 73.6 | 80.2 | 32.7                | 24.1 | 36.5 | 23.4              | 12.1 | 40.8             | 65.4 | 53.9             | 74.9 | 11.2                        | 4.2  | 22.2            | 0.9  | 0.1  | 2.4  | 0.7               | 0.0  | 2.2  | 13                      | 4    | 28   | 84.5 | 72.1 | 98.5  | 65.9 | 62.9 | 69.3 |
| 13                | Region 20  | 76.8                | 73.3 | 79.5 | 34.3                | 27.9 | 41.0 | 26.4              | 16.6 | 46.2             | 62.3 | 49.9             | 68.4 | 11.4                        | 3.9  | 26.2            | 1.0  | 0.0  | 6.0  | 0.8               | 0.0  | 4.5  | 11                      | 4    | 32   | 79.7 | 66.1 | 93.8  | 64.7 | 61.4 | 68.1 |
| 20                | Region 21  | 77.4                | 74.4 | 80.5 | 35.2                | 30.5 | 39.2 | 28.6              | 4.0  | 45.7             | 61.8 | 48.7             | 74.1 | 9.7                         | 3.4  | 25.7            | 1.3  | 0.2  | 4.2  | 1.0               | 0.2  | 2.9  | 12                      | 4    | 32   | 83.5 | 69.7 | 93.7  | 65.6 | 62.3 | 68.1 |
| 31                | Region 22  | 74.9                | 66.7 | 77.6 | 35.2                | 26.2 | 40.1 | 36.4              | 14.3 | 61.5             | 56.3 | 35.0             | 70.2 | 7.3                         | 0.5  | 18.7            | 1.9  | 0.1  | 7.6  | 1.3               | 0.0  | 4.3  | 19                      | 6    | 41   | 72.7 | 53.1 | 87.4  | 63.0 | 58.1 | 66.5 |
| 41                | Region 23  | 73.3                | 61.0 | 78.9 | 33.4                | 23.3 | 38.9 | 36.8              | 14.5 | 52.5             | 56.4 | 43.4             | 75.8 | 6.8                         | 2.8  | 15.5            | 3.0  | 1.0  | 7.7  | 2.2               | 0.7  | 5.6  | 23                      | 11   | 52   | 67.6 | 26.1 | 94.5  | 61.7 | 51.5 | 68.3 |
| 13                | Region 24  | 75.3                | 67.0 | 80.0 | 33.6                | 28.1 | 38.4 | 27.4              | 9.6  | 42.5             | 63.8 | 53.8             | 77.5 | 8.8                         | 3.7  | 18.4            | 2.6  | 0.3  | 7.0  | 1.8               | 0.3  | 4.0  | 25                      | 8    | 58   | 79.8 | 64.1 | 95.9  | 64.7 | 60.9 | 68.6 |
| 7                 | Region 26  | 78.3                | 74.6 | 83.6 | 35.6                | 33.8 | 38.5 | 18.1              | 10.9 | 26.8             | 69.9 | 66.6             | 76.2 | 12.0                        | 6.6  | 18.9            | 1.4  | 0.4  | 1.9  | 1.0               | 0.1  | 1.4  | 18                      | 6    | 33   | 85.0 | 63.9 | 110.8 | 66.0 | 60.8 | 72.3 |
| 2                 | Region 27  | 76.8                | 74.3 | 79.3 | 33.5                | 31.1 | 35.8 | 28.4              | 23.0 | 33.8             | 63.3 | 56.3             | 70.3 | 8.3                         | 6.7  | 9.9             | 1.1  | 0.8  | 1.4  | 0.9               | 0.5  | 1.2  | 15                      | 8    | 22   | 71.8 | 65.2 | 78.3  | 62.8 | 61.2 | 64.4 |
| 14                | Region 28  | 78.4                | 75.1 | 80.2 | 31.8                | 25.4 | 36.7 | 17.1              | 6.7  | 36.5             | 68.8 | 59.0             | 75.7 | 14.1                        | 4.5  | 26.8            | 0.8  | 0.1  | 1.9  | 0.5               | 0.0  | 1.3  | 13                      | 3    | 37   | 80.7 | 62.0 | 93.4  | 65.0 | 60.4 | 68.1 |
| 15                | Region 29  | 77.1                | 71.8 | 79.9 | 30.7                | 23.0 | 41.4 | 17.4              | 8.9  | 42.0             | 68.1 | 51.1             | 77.9 | 14.5                        | 6.9  | 21.3            | 0.9  | 0.2  | 2.0  | 0.6               | 0.0  | 1.6  | 13                      | 1    | 23   | 81.5 | 63.4 | 93.1  | 65.2 | 60.8 | 68.0 |
| 25                | Region 30  | 77.3                | 73.6 | 79.8 | 33.8                | 27.9 | 40.5 | 19.4              | 2.1  | 32.3             | 68.3 | 58.4             | 78.2 | 12.3                        | 5.7  | 29.9            | 0.8  | 0.1  | 3.0  | 0.6               | 0.0  | 2.5  | 14                      | 2    | 32   | 79.9 | 69.2 | 94.7  | 64.8 | 62.2 | 68.3 |
| 8                 | Region 31  | 76.0                | 68.9 | 79.7 | 32.4                | 25.7 | 38.0 | 19.8              | 3.5  | 58.4             | 64.1 | 38.0             | 73.3 | 16.2                        | 3.6  | 33.7            | 1.2  | 0.5  | 2.5  | 0.9               | 0.4  | 2.0  | 12                      | 4    | 24   | 78.9 | 71.4 | 86.2  | 64.5 | 62.7 | 66.2 |
| 10                | Region 32  | 76.5                | 74.0 | 79.1 | 31.6                | 27.1 | 35.7 | 21.3              | 11.2 | 44.1             | 64.8 | 52.2             | 72.8 | 14.0                        | 3.7  | 19.5            | 0.7  | 0.0  | 2.5  | 0.5               | 0.0  | 1.4  | 13                      | 2    | 31   | 77.1 | 57.5 | 84.1  | 64.1 | 59.3 | 65.8 |
| 22                | Region 33  | 76.7                | 72.4 | 79.9 | 32.1                | 24.5 | 36.3 | 16.3              | 4.0  | 32.2             | 66.7 | 57.2             | 79.9 | 17.0                        | 9.1  | 35.5            | 0.8  | 0.1  | 1.9  | 0.5               | 0.0  | 1.1  | 13                      | 4    | 27   | 77.3 | 66.4 | 89.9  | 64.1 | 61.4 | 67.2 |
| 32                | Region 34  | 76.0                | 70.3 | 79.3 | 31.3                | 27.6 | 37.8 | 19.1              | 4.4  | 38.0             | 66.4 | 57.0             | 78.8 | 14.6                        | 5.0  | 32.3            | 0.7  | 0.1  | 1.5  | 0.5               | 0.0  | 1.2  | 12                      | 3    | 30   | 76.2 | 62.6 | 85.8  | 63.8 | 60.6 | 66.2 |
| 11                | Region 35  | 76.9                | 71.6 | 78.9 | 36.8                | 32.6 | 51.1 | 19.2              | 1.9  | 93.8             | 65.3 | 5.8              | 76.8 | 15.5                        | 0.4  | 27.7            | 1.4  | 0.2  | 2.9  | 1.1               | 0.1  | 2.6  | 20                      | 3    | 34   | 88.0 | 79.0 | 96.8  | 66.7 | 64.5 | 68.8 |
| 22                | Region 36  | 76.6                | 72.6 | 80.2 | 33.3                | 24.7 | 37.8 | 15.2              | 0.0  | 29.3             | 68.4 | 54.1             | 78.3 | 16.3                        | 6.2  | 45.9            | 1.4  | 0.2  | 3.5  | 1.0               | 0.0  | 2.5  | 17                      | 1    | 38   | 85.4 | 74.8 | 91.1  | 66.1 | 63.5 | 67.5 |
| 404               | Ave. white | 75.9                | 61.0 | 83.6 | 33.4                | 18.7 | 51.1 | 24.6              | 0.0  | 93.8             | 63.4 | 5.8              | 79.9 | 12.0                        | 0.4  | 46.8            | 1.6  | 0.0  | 7.9  | 1.2               | 0.0  | 5.6  | 17                      | 1    | 58   | 78.7 | 26.1 | 111.4 | 64.4 | 51.5 | 72.4 |
|                   | Min. white |                     |      |      |                     |      |      |                   |      |                  |      |                  |      |                             |      |                 |      |      |      |                   |      |      |                         |      |      |      |      |       |      |      |      |
|                   | Max. white |                     |      |      |                     |      |      |                   |      |                  |      |                  |      |                             |      |                 |      |      |      |                   |      |      |                         |      |      |      |      |       |      |      |      |