

# MAIZE AND SORGHUM

## ALMUM SORGHUM, COLUMBUS GRASS (*Sorghum almum Parodi*)

| Stage of examination | UPOV character number # | Character description |
|----------------------|-------------------------|-----------------------|
|----------------------|-------------------------|-----------------------|

### **PRIMARY**

|                          |   |   |
|--------------------------|---|---|
| At time of ear emergence | - | time of ear emergence (first spikelet visible on 50% of plants) |
|                          | - | plant: height   |
|                          | - | leaf: colour  |
|                          | - | leaf: length  |
|                          | - | leaf: width   |
|                          | - | plant: regrowth (four weeks after cutting)                      |
| At soft dough stage      | - | plant: number of stems  |
| At maturity              | - | ear: shape  |
|                          | - | ear: length of neck above sheath                                |

### **SECONDARY**

|                          |   |  |
|--------------------------|---|--|
| At time of ear emergence | - | plant: growth habit                                  |
|                          | - | plant: vigour  |
| At maturity              | - | stem: length of longest stem including inflorescence |
|                          | - | ear: length  |
|                          | - | ear: density   |
|                          | - | ear: peduncles on primary branch                     |
| At end of growth season  | - | culms: number fully developed                        |

# There are no UPOV Guidelines for the Conduct of Tests for Distinctness, Homogeneity and Stability for this species.

Source: ZAF

**SORGHUM**  
(*Sorghum bicolor* (L.) Moench)

| Stage of examination    | UPOV<br>character<br>number * | Character description   |
|-------------------------|-------------------------------|---|
| <b><u>PRIMARY</u></b>   |                               |   |
| At flowering            | 5                             | plant: time of panicle emergence<br>(50% of plants with a panicle)  |
|                         | 6                             | plant: natural height of foliage (at panicle emergence)   |
|                         | 7                             | leaf: green colouration of blade  |
|                         | 11                            | glume: colour   |
|                         | 12                            | glume: anthocyanin colouration  |
| At maturity             | 21                            | plant: total height   |
|                         | 25                            | panicle: length without neck  |
|                         | 28                            | panicle: shape  |
| <b><u>SECONDARY</u></b> |                               |   |
| Vegetative              | 1                             | seedling: anthocyanin colouration of<br>coleoptile  |
|                         | 2                             | seedling: anthocyanin colouration of dorsal<br>side of first leaf   |
|                         | 3                             | seedling: anthocyanin colouration of sheath<br>of first leaf  |
|                         | 4                             | leaf: anthocyanin colouration of blade  |
|                         | 9                             | flag leaf: intensity of green colouration<br>of midrib compared to blade<br>(if not discovered at panicle<br>emergence) |
|                         | 10                            | flag leaf: yellow colouration of midrib<br>(at panicle emergence)   |
|                         | 11                            | glume: colour   |

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**SORGHUM**  
(continued)  
(*Sorghum bicolor* (L.) Moench)

| Stage of examination | UPOV<br>character<br>number * | Character description                                 |
|----------------------|-------------------------------|---|
|                      | 14                            | lemma: arista formation                               |
|                      | 15                            | stigma: anthocyanin colouration                       |
|                      | 16                            | stigma: yellow colouration                            |
|                      | 17                            | stigma: length  |
|                      | 18                            | flower with pedicel: length                           |
| At end of flowering  | 19                            | panicle: density                                      |
|                      | 20                            | dry stamen: colour                                    |
| At maturity          | 22                            | stem diameter (one third of height of plant)          |
|                      | 23                            | leaf: length of blade (third leaf from top)           |
|                      | 24                            | leaf: width of blade (third leaf from top)            |
|                      | 26                            | panicle: length of branches (middle third of panicle) |
|                      | 27                            | panicle: density                                      |
|                      | 29                            | neck of panicle: visible length above Sheath          |
|                      | 30                            | glume: colour   |
|                      | 31                            | glume: length   |
|                      | 32                            | caryopsis: colour after threshing                     |
|                      | 33                            | grain: 1000 seed weight                               |
|                      | 34                            | grain: shape in dorsal view                           |
|                      | 35                            | grain: shape in profile view                          |
|                      | 36                            | grain: size of mark of germ                           |
|                      | 37                            | grain: surface covered by testa                       |
|                      | 38                            | grain: content of tannin                              |
|                      | 39                            | grain: texture of endosperm                           |
|                      | 40                            | grain: colour of vitreous albumen                     |

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\* Reference :UPOV Guidelines for the Conduct of Tests for Distinctness, Homogeneity and Stability.  
Doc No. TG/122/3 (6.10.1989)

**MAIZE**  
(*Zea mays* L.)

| Stage of examination     | UPOV<br>Character<br>number * | Character description  |
|--------------------------|-------------------------------|--|
| <b><u>PRIMARY</u></b>    |                               |  |
| Tassel and ear emergence | 7                             | tassel: time of emergence of 50% of plants                     |
|                          | 8                             | tassel: time of onset of anthesis                              |
|                          | 9                             | tassel: anthocyanin colour of anthers                          |
|                          | 10                            | ear: time of silk emergence for 50% of plants                  |
|                          | 11                            | ear: anthocyanin colour of silk                                |
|                          | 14                            | stem: anthocyanin colour of nodes                              |
|                          | 15                            | stem: anthocyanin colour internodes (middle of plant)          |
|                          | 16                            | leaf: anthocyanin colour of sheath (middle of plant)           |
|                          | 23                            | plant: length including tassel                                 |
|                          | 24                            | ear: height of insertion of ear relative to total plant height |
| <b><u>SECONDARY</u></b>  |                               |  |
| Vegetative               | 1                             | first leaf: anthocyanin colour of sheath                       |
|                          | 2                             | first leaf: length of blade                                    |
|                          | 3                             | first leaf: width of blade                                     |
|                          | 4                             | first leaf: ratio of length/width of blade                     |
|                          | 5                             | first leaf: form of tip  |
|                          | 6                             | leaf: attitude in central third of plant                       |

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continued/

**MAIZE**  
(continued)  
(*Zea mays* L.)

| Stage of examination | UPOV<br>Character<br>number *                             | Character description   |
|----------------------|---|---|
| Tassel and ear       | 12  | tassel: anthocyanin colour of glumes  |
|                      | 13  | tassel: closed anthocyanin ring at base of glume                                |
|                      | 17  | leaf: hairs on margin of sheath   |
|                      | 18  | tassel: angle between main axis and lateral branches (in lower third of tassel) |
|                      | 19  | tassel: attitude of lateral branches (in lower third of tassel)                 |
|                      | 20  | tassel: number of primary lateral branches                                      |
|                      | 21  | tassel: length of main axis above lowest side branch                            |
|                      | 22  | tassel: length of main axis above upper side branch                             |
|                      | 25  | ear: length of peduncle   |
|                      | 26  | ear: length   |
|                      | 27  | ear: diameter (in middle of ear)  |
|                      | 28  | ear: shape  |
|                      | 29  | ear: number of rows of grain  |
|                      | 30  | ear: type of grain (in central third of ear)                                    |
|                      | 31  | ear: colour of tip of grain   |
|                      | 32  | ear: colour of dorsal side of grain   |
|                      | 33  | ear: anthocyanin colour of glumes of the cob                                    |
| 34                   | ear: intensity of anthocyanin colour of glumes of the cob |   |

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\* Reference :UPOV Guidelines for the Conduct of Tests for Distinctness, Homogeneity and Stability.  
Doc No. TG/2/4 (12.11.1980)