

## Registration of “Fadis 01” Sorghum Variety

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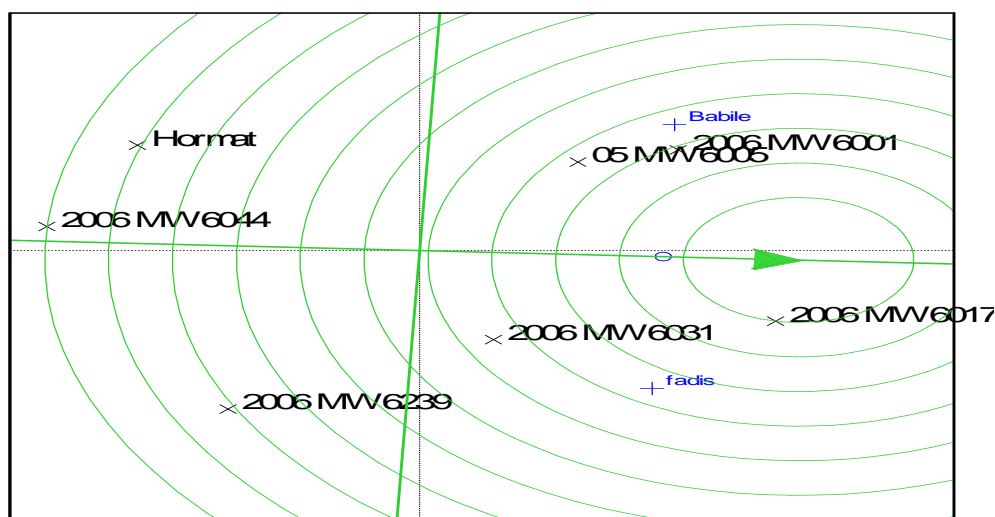
### Appendix 1: Combined analysis of variance over seasons and locations

| Source of variation    | DF | DtF                     | DtM                      | PHT                     | Yield                  |
|------------------------|----|-------------------------|--------------------------|-------------------------|------------------------|
| Rep (Location)         | 4  | 20.8492063***           | 36.8253968*              | 88.38356 <sup>ns</sup>  | 511060.56***           |
| Genotypes              | 6  | 95.8227513***           | 140.7566138***           | 433.88602 <sup>ns</sup> | 1416084.91***          |
| Location               | 1  | 23.1428571*             | 658.2857143***           | 7191.07567***           | 85054.36 <sup>ns</sup> |
| Year                   | 2  | 24.8888889*             | 190.6746032***           | 34891.16329***          | 19224304.28***         |
| genotype*location      | 6  | 24.9391534***           | 12.6560847 <sup>ns</sup> | 461.92621 <sup>ns</sup> | 619062.38*             |
| genotype*year          | 12 | 18.2592593***           | 41.2486772***            | 411.23041 <sup>ns</sup> | 845389.20***           |
| genotype*location*year | 12 | 7.5343915 <sup>ns</sup> | 5.6243386 <sup>ns</sup>  | 478.46056*              | 921545.28***           |

DF; Degree of freedom, DtF; Days to flowering, DtM: days to maturity, PHT; plant height

### Appendix2: GGE biplot for grain yield kg<sup>ha</sup><sup>-1</sup> of sorghum genotypes tested at two locations during 2006, 2007 and 2008 main cropping season

Comparison biplot (Total - 100.00%)



PC1 - 67.50%

|   |                    |
|---|--------------------|
| x | Genotype scores    |
| + | Environment scores |
| o | AEC                |

**Appendix 3. Agronomic and morphological characteristics of Fadis01 (M-36121 X P-9403)**

| <b>Agronomic characters and descriptions of Fadis</b> |  |
|---|--|
| Variety name:   | Fadis01( <b>M-36121 X P-9403</b> )                                       |
| Adaptation area:                                      | Fadis, Babile, Harari, Dire Dawa and other lowland sorghum growing areas |
| Altitude (masl):                                      | <1700  |
| Rainfall (mm):  | 400-700  |
| Seeding rate (kg/ha):                                 | 8-10 row spacing<br>12-20 broadcasting                                   |
| Spacing (cm):   | 20cm Between rows  |
| Planting date:  | Mid-June to early July   |
| Fertilizer rate (kg/ha):                              | 100 NPS all at planting<br>50 UREA at knee height                        |
| Days to flowering:                                    | 74-79, mean 77 days  |
| Days to maturity:                                     | 120  |
| 1000 seed weight (g):                                 | 30   |
| Panicle appearance                                    | Semi compact and erect   |
| Plant height (cm):                                    | 143-180, mean 162  |
| Seed color:   | White(creamy color)  |
| Grain yield (qt/ha):                                  | Research field: 38-48<br>Farmers field: 30-41                            |
| Tillering:  | No tillers   |
| Crop pest reaction                                    | Tolerant/resistant to striga weed  |
| Year of release:                                      | 2019   |
| Breeder/ maintainer:                                  | FARC/OARI  |