**Performance of SORGHUM in long term fertilizer studies in sorghum - sunflower cropping system**

 **Treatment details**

|  |  |  |
| --- | --- | --- |
|  | Sorghum (*kharif*) | Sunflower (*rabi*) |
| 1 | N | N |
| 2 | NP | NP |
| 3 | NPK | NPK |
| 4 | 50% NPK  | 50% NPK |
| 5 | 150% NPK  | 150 NPK |
| 6 | NPK + Crop residue incorporation  | NPK  |
| 7 | NPK + FYM @ 5t/ha | NPK |
| 8 | NPK  | NPK + S@ 20kg/ha through elemental sulphur |
| 9 | NPK | NPK + B@ 1kg/ha as borax in alternate years |
| 10 | NPK | NPK + Zn@ 5kg/ha as zinc oxide |
| 11 | NPK | NPK + S + B + Zn |
| 12 | No manure/fertilizer | No manure/fertilizer |

**G3: Long Term Fertilizer trial on sunflower-sorghum cropping system: Sorghum *kharif* 2015**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Seed yield (kg/ha)** | **Chaff yield (kg/ha)** | **Empty earhead weight (kg/ha)** | **Dry weight of stover (kg/ha)** | **Total biological yield (kg/ha)** | **Fresh weight of Fodder (kg/ha)** | **1000 seed weight (g)** | **Days to 50% flowering** | **Harvest Index (%)** |
| 1 | 2515 | 202 | 527 | 4715 | 7960 | 16994 | 21.7 | 76.7 | 31.5 |
| 2 | 3679 | 281 | 553 | 4617 | 9131 | 19226 | 24.7 | 63.0 | 40.2 |
| 3 | 4189 | 231 | 593 | 4799 | 9812 | 20068 | 26.1 | 61.7 | 42.6 |
| 4 | 2827 | 236 | 472 | 4322 | 7858 | 18061 | 22.4 | 64.0 | 36.0 |
| 5 | 4454 | 293 | 815 | 5908 | 11471 | 22187 | 26.9 | 60.3 | 38.9 |
| 6 | 4131 | 248 | 636 | 4841 | 9856 | 20741 | 25.8 | 63.3 | 41.9 |
| 7 | 3893 | 219 | 721 | 5038 | 9871 | 20292 | 24.3 | 64.0 | 39.4 |
| 8 | 3951 | 305 | 650 | 4926 | 9831 | 20601 | 25.6 | 63.0 | 39.9 |
| 9 | 3983 | 361 | 638 | 5024 | 10007 | 21176 | 25.4 | 60.7 | 39.8 |
| 10 | 3563 | 301 | 566 | 4743 | 9173 | 17724 | 24.4 | 63.7 | 38.8 |
| 11 | 3587 | 266 | 641 | 4701 | 9196 | 17752 | 24.3 | 62.7 | 39.1 |
| 12 | 1856 | 211 | 423 | 3929 | 6420 | 16152 | 20.3 | 76.3 | 28.0 |
| Gen Mean | 3552 | 263 | 603 | 4797 | 9215 | 19248 | 24.3 | 64.9 | 38.0 |
| F Prob value | 0.0000 | 0.0010 | 0.0056 | 0.0381 | 0.0002 | 0.0039 | 0.0010 | 0.0000 | 0.0003 |
| SEm± | 279.4  | 21.6  | 56.4  | 300.5  | 529.6  | 967.5  | 0.9  | 1.3  | 1.8  |
| CD (P=0.05) | 819 | 63 | 165 | 881 | 1553 | 2838 | 2.6 | 3.8 | 5.3 |
| CV (%) | 13.6 | 14.2 | 16.2 | 10.8 | 9.9 | 8.7 | 6.39 | 3.35 | 8.30 |