

Table (3): Mean performance of spike length and number of spikelets/spike for Gemmeiza-11, Shandawel-1, Sids-12 and Sahel-1 as influenced by gamma rays irradiation treatments and their interaction in M₂ generation under water steers.

| Treatments | Spike length/cm | | | | Mean | Number of spikelets /spike | | | | Mean |
|-------------|-----------------|--------------|--------------|--------------|-------|----------------------------|--------------|--------------|--------------|-------|
| | Control | 150Gy | 250Gy | 350Gy | | Control | 150Gy | 250Gy | 350Gy | |
| Gemmieza-11 | 15.2 | 15.63 | 15.86 | 15.23 | 15.48 | 23.6 | 23.6 | 22.4 | 21.6 | 22.80 |
| Sids-12 | 13.7 | 14.4 | 13.5 | 13.01 | | 21.2 | 21.5 | 20.8 | 20.6 | |
| Shandawel-1 | 13.42 | 12.92 | 13.63 | 13.58 | | 23.8 | 23.8 | 23.6 | 23.6 | |
| Sahel-1 | 12.38 | 12.64 | 11.58 | 11.45 | | 22.2 | 22.6 | 21.0 | 21.26 | |
| Mean | 13.67 | 13.89 | 13.64 | 13.31 | | 22.70 | 22.87 | 21.95 | 21.76 | |
| L.S.D | | | | | | | | | | |
| G | 0.371 | | | | | 0.764 | | | | |
| Ga | 0.625 | | | | | 0.730 | | | | |
| G × Ga | 1.143 | | | | | 1.474 | | | | |

Table (4): Mean performance of number of infertile spikelets/spike and spike number spikes/plant for Gemmeiza-11, Shandawel-1, Sids-12 and Sahel-1 as influenced by gamma rays irradiation treatments and their interaction in M₂ generation under water steers.

| Treatments | Number of infertile spikelets/spike | | | | Mean | Number spikes/plant | | | | Mean |
|-------------|-------------------------------------|--------------|--------------|--------------|-------|---------------------|-------------|-------------|-------------|------|
| | Control | 150Gy | 250Gy | 350Gy | | Control | 150Gy | 250Gy | 350Gy | |
| Gemmieza-11 | 1.76 | 1.96 | 1.83 | 1.76 | 1.832 | 5.50 | 5.70 | 4.83 | 6.30 | 5.58 |
| Sids-12 | 0.93 | 0.93 | 1.26 | 1.90 | | 5.33 | 5.23 | 5.53 | 4.74 | |
| Shandawel-1 | 3.00 | 3.36 | 3.23 | 3.26 | 1.258 | 6.36 | 4.93 | 5.83 | 5.96 | 5.20 |
| Sahel-1 | 1.26 | 1.33 | 1.80 | 2.20 | 1.649 | 5.50 | 5.86 | 6.96 | 6.06 | 6.09 |
| Mean | 1.741 | 1.899 | 2.033 | 2.283 | | 5.67 | 5.43 | 5.78 | 5.76 | |
| L.S.D | 0.392 | | | | | 0.661 | | | | |
| G | 0.467 | | | | | 0.630 | | | | |
| Ga | 0.898 | | | | | 1.272 | | | | |
| G × Ga | 0.392 | | | | | 0.661 | | | | |

Table (5): Mean performance of number of grain/spike and spike grain weight for Gemmeiza-11, Shandawel-1, Sids-12 and Sahel-1 as influenced by gamma rays treatments and their interaction in M₂ generation under water stress.

| Treatments | Number of grain/spike | | | | Mean | Spike grain weight(g) | | | | Mean |
|-------------|-----------------------|--------------|--------------|--------------|-------|-----------------------|-------------|-------------|-------------|------|
| | Control | 150Gy | 250Gy | 350Gy | | Control | 150Gy | 250Gy | 350Gy | |
| Gemmieza-11 | 67.93 | 67.93 | 68 | 71.5 | 68.84 | 3.93 | 4.00 | 4.51 | 3.57 | 4.00 |
| Sids-12 | 66.06 | 84.9 | 94.76 | 82.73 | 65.27 | 3.42 | 4.19 | 3.12 | 3.03 | 3.04 |
| Shandawel-1 | 64.06 | 66.33 | 64.06 | 66.66 | 82.11 | 2.99 | 3.02 | 3.14 | 3.02 | 3.43 |
| Sahel-1 | 70.5 | 63.13 | 66.56 | 54.06 | 63.56 | 2.85 | 3.31 | 2.32 | 2.44 | 2.73 |
| Mean | 67.13 | 70.57 | 73.34 | 68.73 | | 3.29 | 3.62 | 3.27 | 3.02 | |
| L.S.D | | | | | | | | | | |
| G | | | 4 . 624 | | | | | 0 . 341 | | |
| Ga | | | 5 . 678 | | | | | 0 . 235 | | |
| G × Ga | | | 10 . 847 | | | | | 0 . 530 | | |

Table (6): Mean performance of 1000-grain weight and grain yield /plant for Gemmeiza-11, Shandawel-1, Sids-12 and Sahel-1 as influenced by gamma rays treatments and their interaction in M₂ generation under water stress.

| Treatments | 1000-Grain weight | | | | Mean | Grain yield plant (g) | | | | Mean |
|-------------|-------------------|--------------|--------------|--------------|-------|-----------------------|--------------|--------------|--------------|--------------|
| | Control | 150Gy | 250Gy | 350Gy | | Control | 150Gy | 250Gy | 350Gy | |
| Gemmieza-11 | 59.52 | 58.62 | 51.57 | 53.8 | 55.87 | 17.8 | 21.58 | 18.83 | 19.22 | 19.35 |
| Sids-12 | 40.69 | 44.32 | 37.84 | 42.89 | 46.39 | 17.54 | 17.94 | 14.57 | 12.38 | 15.81 |
| Shandawel-1 | 45.31 | 47.25 | 47.16 | 45.84 | 41.43 | 17.11 | 13.91 | 16.38 | 15.85 | 15.60 |
| Sahel-1 | 44.31 | 50.15 | 42.48 | 43.61 | 45.13 | 14.12 | 16.84 | 13.58 | 13.44 | 14.49 |
| Mean | 47.45 | 50.08 | 44.76 | 46.53 | | 16.64 | 17.56 | 15.84 | 15.22 | 19.35 |
| L.S.D | | | | | | | | | | |
| G | | | 3 . 572 | | | | | 2 . 686 | | |
| Ga | | | 2 . 338 | | | | | 2 . 238 | | |
| G × Ga | | | 5 . 381 | | | | | 4 . 477 | | |