Figure 1a. Effect of different concentration of EMS mutagenesis on seed germination

Figure 2a. Effect of different concentration of EMS mutagenesis on shoot length

Figure 3a. Effect of different concentration of EMS mutagenesis on root length

Figure 4a. Effect of different concentration of EMS mutagenesis on plant height

Figure 5a. Effect of different concentration of EMS mutagenesis on productive tillers

Figure 6a. Effect of different concentration of EMS mutagenesis on panicle length

Figure 7a. Effect of different concentration of EMS mutagenesis on total spikelet

Figure 8a. Effect of different concentration of EMS mutagenesis on sterile spikelet

Figure 9a. Effect of different concentration of EMS mutagenesis on fertility

Figure 10: *LD50 o*f chemical mutagen (EMS) for super Basmati

Figure 11: *LD50*of chemical mutagen (EMS) for super Basmati

Figure 12: *LD*50 of chemical mutagen (EMS) for super Basmati

Figure 13: *LD50* of chemical mutagen (EMS) for super Basmati

Figure 14: *LD50*of chemical mutagen (EMS) for super Basmati

Figure 15: *LD50* of chemical mutagen (EMS) for super Basmati

Figure 16: *LD50*of chemical mutagen (EMS) for super Basmati

Figure 17: *LD50*of chemical mutagen (EMS) for super Basmati

Figure 18: *LD50*of chemical mutagen (EMS) for super Basmati

Table 2. Mean value of germination, shoot length, root length, plant height, productive tillers, panicle length, total spikelet, sterile spikelet, fertility following EMS mutagenesis.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Treatment** | **Germination** | **Root length****(cm)** | **Shoot length****(cm)** | **Plant Height****(cm)** | **Productive tillers** | **Panicle Length****(cm)** | **Total Spikelet** | **Sterile Spikelet** | **Fertility****(%)** |
| Actual | %Control | Actual | %Control | Actual | %Control | Actual | %Control | Actual | %Control | Actual | %Control | Actual | %Control | Actual | %Control | Actual | %Control |
| Control | 19.33 | 100 | 6.28 | 100 | 5.44 | 100 | 104.97 | 100 | 3.90 | 100 | 26.9 | 100 | 112.9 | 100 | 91.13 | 100 | 13.12 | 100 |
| 0.25 | 17.67 | 91.4 | 5.75 | 91.56 | 5.22 | 95.96 | 104.57 | 99.62 | 3.67 | 94.10 | 26.9 | 100 | 111.9 | 99.11 | 85.2 | 93.49 | 11.48 | 87.5 |
| 0.50 | 17.33 | 89.6 | 5.16 | 82.17 | 4.85 | 89.15 | 104 | 99.08 | 3.60 | 92.31 | 25.63 | 95.28 | 109.2 | 96.72 | 82.27 | 90.28 | 11.17 | 85.14 |
| 0.75 | 6.66 | 34.4 | 0.43 | 6.85 | 0.29 | 5.33 | 103 | 98.12 | 3.50 | 89.74 | 25.3 | 94.05 | 107.2 | 94.95 | 67.33 | 73.88 | 8.6 | 65.55 |
| 1 | 1.33 | 6.9 | 0.15 | 2.39 | 0.07 | 1.29 | 94.67 | 90.19 | 3.17 | 81.28 | 24.67 | 91.71 | 106 | 93.89 | 56 | 61.45 | 7 | 53.35 |
| 1.25 | 0 | **0** | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **LSD%** | 0.94 |  | 0.16 |  | 0.53 |  | 4.93 |  | 0.52 |  | 0.90 |  | 42.23 |  | 5.26 |  | 0.99 |  |
| **C.V%** | 5.07 |  | 3.01 |  | 11.34 |  | 3.25 |  | 9.87 |  | 2.35 |  | 27.72 |  | 4.65 |  | 6.50 |  |