**Supplementary Table 1:**

**Analysis of Variance for viable seeds of *Avena fatua and A. ludoviciana* at three locations (Gatton, Narrabri, and St. George) in response to seed burial duration and depth**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Source | Degree of freedom | Mean square | | | | | |
|  | *Avena fatua* | | | *Avena ludoviciana* | | |
|  | Gatton | Narrabri | St. George | Gatton | Narrabri | St. George |
| Replication | 2 | 140 | 11 | 5 | 23 | 5 | 125 |
| Duration | 6 | 12465\* | 13471\* | 12630\* | 12119\* | 12284\* | 11640\* |
| Burial depth | 2 | 522\* | 212\* | 1002\* | 305\* | 13 | 247\* |
| Duration x Burial depth | 12 | 232\* | 73\* | 239\* | 119\* | 22 | 66\* |
| Error | 40 | 54 | 34 | 25 | 34 | 12 | 27 |

\*significant at 5% level of significance

**Supplementary Table 2: Analysis of Variance for emergence pattern of *Avena fatua* and *Avena ludoviciana***

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Source | Degree of freedom  (*A. fatua*) | Degree of freedom  (*A. ludoviciana*) | Mean square (  *A. fatua*) | Mean square  (A*. ludoviciana*) |
| Replication | 2 | 2 | 66.0 | 12.7 |
| Population (P) | 1 | 1 | 68.7\* | 35.1\* |
| Cohorts (C) | 3 | 5 | 1891.4\* | 1701.9\* |
| P x C | 3 | 5 | 78.8\* | 25.7\* |
| Burial depth (BD) | 3 | 3 | 698.8\* | 198.6\* |
| P x BD | 3 | 3 | 64.2\* | 4.3 |
| C x BD | 9 | 15 | 135.7\* | 760.4\* |
| P x C x BD | 9 | 15 | 5.2\* | 18.0\* |
| Error | 62 | 94 | 2.5 | 2.6\* |

\*significant at 5% level of significance