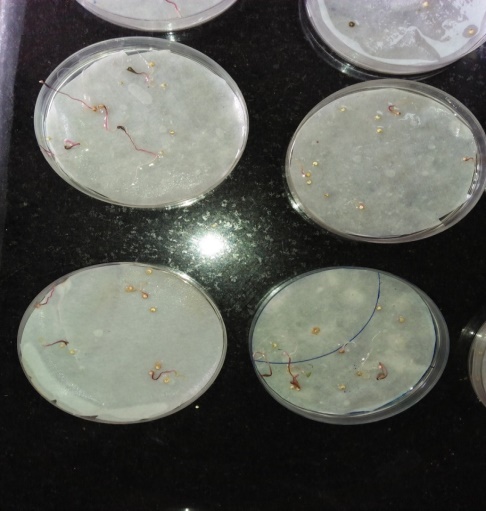
**Project:** Morpho-physiological characterization and standardization of agronomic practices of quinoa (*Chenopodium quinoa*) for salt affected ecosystems.



**Figure 1: Germination test in petri plats**

**Figure 2: Effect of salinity on quinoa**

**Table1: Effect of irrigation water salinity on RWC in leaves of quinoa germplasms**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Germplasm | **Salinity (EC of irrigation water, dS/m)** | | | | **Mean** |
| BAW | 08 | 16 | 24 |  |
| EC507744 | 82.8 | 75.6 | 75.7 | 69.7 | 75.9 |
| EC507742 | 79.7 | 80.5 | 73.0 | 72.3 | 76.4 |
| IC411824 | 81.3 | 79.8 | 79.8 | 75.0 | 79.0 |
| EC507741 | 76.8 | 69.5 | 74.8 | 70.9 | 73.0 |
| EC507746 | 78.4 | 74.2 | 75.3 | 68.7 | 74.2 |
| EC507738 | 77.4 | 76.4 | 75.7 | 75.0 | 76.1 |
| EC507748 | 80.0 | 75.0 | 74.9 | 68.7 | 74.7 |
| EC507739 | 77.8 | 84.0 | 85.3 | 76.8 | 81.0 |
| EC411824 | 82.4 | 74.5 | 73.6 | 70.7 | 75.3 |
| EC507740 | 81.5 | 81.3 | 80.3 | 72.7 | 78.9 |
| IC411825 | 80.3 | 79.0 | 82.6 | 77.2 | 79.8 |
| LC1 | 83.7 | 74.5 | 75.9 | 74.5 | 77.2 |
| LC2 | 81.0 | 80.1 | 76.7 | 77.7 | 78.9 |
| **Mean** | 80.2 | 77.3 | 77.2 | 73.1 |  |
|  | **Germplasm** | **Salinity** | **G×S** |  |  |
| Sem± | 0.94 | 0.52 | 1.88 |  |  |
| LSD (P=0.05) | 2.63 | 1.46 | 5.27 |  |  |

**Table 2: Effect of irrigation water salinity on proline content in leaves of quinoa germplasms**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Germplasm | **Salinity (EC of irrigation water, dS/m)** | | | | **Mean** |
| BAW | 08 | 16 | 24 |  |
| EC507744 | 82.8 | 75.6 | 75.7 | 69.7 | 75.9 |
| EC507742 | 79.7 | 80.5 | 73.0 | 72.3 | 76.4 |
| IC411824 | 81.3 | 79.8 | 79.8 | 75.0 | 79.0 |
| EC507741 | 76.8 | 69.5 | 74.8 | 70.9 | 73.0 |
| EC507746 | 78.4 | 74.2 | 75.3 | 68.7 | 74.2 |
| EC507738 | 77.4 | 76.4 | 75.7 | 75.0 | 76.1 |
| EC507748 | 80.0 | 75.0 | 74.9 | 68.7 | 74.7 |
| EC507739 | 77.8 | 84.0 | 85.3 | 76.8 | 81.0 |
| EC411824 | 82.4 | 74.5 | 73.6 | 70.7 | 75.3 |
| EC507740 | 81.5 | 81.3 | 80.3 | 72.7 | 78.9 |
| IC411825 | 80.3 | 79.0 | 82.6 | 77.2 | 79.8 |
| LC1 | 83.7 | 74.5 | 75.9 | 74.5 | 77.2 |
| LC2 | 81.0 | 80.1 | 76.7 | 77.7 | 78.9 |
| **Mean** | 80.2 | 77.3 | 77.2 | 73.1 |  |
|  | **Germplasm** | **Salinity** | **G×S** |  |  |
| Sem± | 0.94 | 0.52 | 1.88 |  |  |
| LSD (P=0.05) | 2.63 | 1.46 | 5.27 |  |  |

**Table3: Effect of saline water on yield parameters and yield per plant (g) of quinoa germplasms**

|  |  |  |  |
| --- | --- | --- | --- |
| **Germplasm** | **No. of spikelets/plant** | **Average length of spikelet (cm)** | **Grain yield/plant**  **(g)** |
| EC507744 | 29.3 | 4.3 | 6.86 |
| EC507742 | 25.9 | 4.6 | 6.43 |
| IC411824 | 30.4 | 4.0 | 6.79 |
| EC507741 | 26.0 | 4.7 | 5.81 |
| EC507746 | 28.4 | 3.9 | 5.19 |
| EC507738 | 29.9 | 5.3 | 6.25 |
| EC507748 | 27.6 | 5.1 | 6.87 |
| EC507739 | 30.0 | 5.3 | 7.67 |
| EC411824 | 27.8 | 5.1 | 6.25 |
| EC507740 | 30.4 | 5.6 | 9.35 |
| IC411825 | 27.4 | 4.1 | 7.41 |
| LC1 | 28.9 | 4.7 | 7.80 |
| LC2 | 30.6 | 5.8 | 9.21 |
| Sem± | 0.5 | 0.13 | 0.40 |
| LSD (P=0.05) | 1.4 | 0.35 | 1.13 |
| **Salinity (EC of irrigation water, dS/m)** | | | |
| BAW | 31.9 | 6.4 | 12.22 |
| 08 | 29.2 | 5.2 | 7.86 |
| 16 | 27.4 | 4.5 | 5.74 |
| 24 | 26.1 | 3.2 | 2.46 |
| Sem± | 0.28 | 0.07 | 0.22 |
| LSD (P=0.05) | 0.78 | 0.19 | 12.22 |