**Deciphering molecular mechanism of salinity tolerance at reproductive stage in rice landrace - Bhatada Rashi 1**

*The aim of this project is to* identification of robust QTLs conferring tolerance to the reproductive stage salt stress.A total of 700 RILs developed from cross combination of BPT 5204 x Bhatada Rashi 1. A total of 250 RILs along with parents were evaluated in normal (ECe~ 1) and Saline (ECe~ 10) microplot during *Kharif* 2021. The grain yield was ranged from 5.2(RIL 176) to 16.6 (RIL 117) with mean 10.93 g/plant under saline condition. Whereas under normal condition grain yield was ranged from 10.4 (RIL 90)- 24.7 (RIL 131) with a mean of 15.07 g/plant. The average yield reduction between normal and saline was ranged from 27.47%. Descriptive parameters of RILs under saline and Normal condition are presented in Table 1.

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| **Traits** | **Mean** | **Range** | **% Reduction** |
| **Normal** | **saline** | **Normal** | **Saline** | **saline** |
| DFF  | 87.48 | 115.57 | 69 (RIL23)-124 (RIL 1) | 106 (RIL 151)-147 (RIL82) | -32.11 |
| Plant Height  | 95.51 | 48.93 | 54.5 (RIL165)-123 (RIL 116) | 32 (RIL 27)-72(RIL117) | 48.77 |
| Panicle length (cm) | 24.43 | 18.36 | 18(RIL58)-34.5(RIL 98) | 13 (RIL 27)-43 (RIL 121) | 24.86 |
| Total tillers/plant | 14.52 | 3.88 | 4.5 (RIL 176)-27.5 (RIL18) | 1.5 (RIL68)-8 (RIL160) | 73.25 |
| Productive tillers/plant  | 14.52 | 3.15 | 4.5 (RIL176)-27.5(RIL18) | 1 (RIL176)-7.5 (RIL117) | 78.28 |
| **Grain yield per plant (g)**  | **15.07** | **10.93** | **10.40 (RIL 90)-24.7 (RIL 131)** | **5.2 (RIL 176)-16.6 (RIL117)** | **27.47** |