S2. Table. Analysis of seed weight during the parental and offspring generation for *Medicago truncatula*. During the first generation, for each genotype seeds were collected from pods that were produced at peak maturation time. During the second generation, for each genotype seeds were collected from pods collected and analyzed in the experiment. Viable seeds were counted and weighed to the nearest 0.01mg. Mixed-model ANOVA was performed on average seed weight including origin, population, salinity treatment (Generation 1 included only offspring environment; Generation 2 included parental and offspring environment) with genotype included as a random effect. Origin of population, population, parental environment and offspring environment were treated as fixed effects and F-values are reported. Genotype was treated as a random effect and χ2 values are reported.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Source | Num. df | Den. df | F-value or χ2 value | P-value |
| Generation 1OriginPopulation (Origin)Salinity TreatmentOrigin X SalinityPop (Origin) X SalinityGenotype (Origin Pop) | 121121 | 3636333333 | 0.860.752.290.602.183.6 | 0.35970.47970.13960.44510.12920.0577 |
| Generation 2OriginPopulation(Origin)Parental EnvironmentOffspring EnvironmentOrigin X Parental EnvironmentOrigin X Offspring EnvironmentPop (Origin) X Parental EnvironmentPop(Origin) X Offspring EnvironmentParental Environment X Offspring EnvironmentOrigin X Parental Env. X Offspring Env.Pop(Origin) X Parental Env. X Offspring Env.Genotype (Origin Pop) | 121111221121 | 3636108108108108108108108108108 | 13.604.460.550.920.080.260.610.260.000.070.4075.4 | 0.00070.01850.46160.34000.78250.61110.54340.77120.95470.79190.6729<0.0001 |