**Table S2 Morpho-qualitative traits for population differentiation**

| Trait name  | Variable |  |
| --- | --- | --- |
| Basal Leaf Sheath Color(BLSC) | Green | Green with purple lines | Light purple | Purple |  |  |  |
| Leaf Sheath: Anthocyanin coloration (LSAC) | Absent | Very weak | Weak | Medium | Strong |  |  |
| Leaf Blade: P/A(LBPA) | Absent | Present |  |  |  |  |  |
| Leaf Blade: Anthocyanin. Coloration (LBAC) | On tips only | On margins only | In blotches | Even (Uniform purple) |  |  |  |
| Leaf Blade: Intensity of Green color (LBIGC) | No green color visible due to anthocyanin | Light green | Medium green | Dark green |  |  |  |
| Leaf Blade: Attitude (LBA) | Erect | Horizontal | Drooping |  |  |  |  |
| Auricle color (AC) | Absent | Whitish | Yellowish green | Purple | Light purple | Purple lines |  |
| Collar color (CC) | Absent | Green | Light green | Purple | Purple lines |  |  |
| Ligule shape (LigS) | Absent | Truncate | Acute to acuminate | 2-cleft |  |  |  |
| Flag leaf: attitude (FLA) | Erect | Semi-erect | Horizontal | Descending |  |  |  |
| Leaf: Senescence (LeafS) | Very early | Early | Intermediate | Late | Very late |  |  |
| Stigma color (StC) | White | Light green | Yellow | Light purple | Purple |  |  |
| Seed color (SeedC) | White | Light brown | Speckled brown | Brown | Red | Variable purple | Purple |