<table>
<thead>
<tr>
<th>Genotypes</th>
<th>Pedigree</th>
<th>Salt tolerance</th>
<th>Anther culture response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Doubled haploid line (15 lines):</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DHLs (21,22,23,25)</td>
<td>Derived from the cross (Line-115 × Gemmeiza-7)</td>
<td>Unknown</td>
<td>Unknown</td>
</tr>
<tr>
<td>DHLs (5,7,8,11)</td>
<td>Derived from the cross (Line-115 × Giza-164)</td>
<td>Unknown</td>
<td>Unknown</td>
</tr>
<tr>
<td>DHLs (12,14,15,26,29)</td>
<td>Derived from the cross (Gemmeiza-7× Giza-164)</td>
<td>Unknown</td>
<td>Unknown</td>
</tr>
<tr>
<td>DHLs (2,3)</td>
<td>Derived from the cross (Giza-164× Giza-168)</td>
<td>Unknown</td>
<td>Unknown</td>
</tr>
<tr>
<td>Crosses parents:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Giza-164</td>
<td>KVZ / Buha “S” // Kal / Bb</td>
<td>Moderate</td>
<td>Low</td>
</tr>
<tr>
<td>Giza-168</td>
<td>MRL/BUC//SERICM 93046-8 M-OY-OM-2Y-OB-OGZ. CMH74A.630/SX//SERI82/AGENTCGM 4611-2GM-3GM-1GM-OGM</td>
<td>Sensitive</td>
<td>Moderate</td>
</tr>
<tr>
<td>Gemmeiza-7</td>
<td>Sensitive High</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gemmeiza-9</td>
<td>Ald“s”/Huac//CMH74 .630/SxCGM 4583 -5GM- 1GM-OGM</td>
<td>Moderate</td>
<td>Low</td>
</tr>
<tr>
<td>Line-115</td>
<td>Line-115 was obtained from Prof. Dr. M.A. El-Hennawy, Agronomy Dept., Fac. of Agric., Al-Azhar Univ.</td>
<td>Tolerant</td>
<td>High</td>
</tr>
<tr>
<td>Check cultivar</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sakha-93</td>
<td>Sakha 92/TR810328 S8871-IS-2S-IS-0S</td>
<td>Tolerant</td>
<td>Unresponsive</td>
</tr>
</tbody>
</table>
Table S2. Partitioning of correlation coefficient between shoot dry weight (SDW) with six related attributes; root dry weight (RDW), shoot length (SL), membrane stability index (MSI), chlorophyll content (CHL), polyphenol oxidase (PPO) and catalase (CAT).

<table>
<thead>
<tr>
<th></th>
<th>Direct effect</th>
<th>Indirect effected</th>
<th></th>
<th>RDW(x1)</th>
<th>SL(x2)</th>
<th>MSI(x3)</th>
<th>CHL(x4)</th>
<th>PPO(x5)</th>
<th>CTA(x6)</th>
<th>Correlation SDW (y)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RDW</td>
<td>0.119</td>
<td></td>
<td></td>
<td>0.131</td>
<td>-0.008</td>
<td>-0.034</td>
<td>0.000</td>
<td>0.241</td>
<td>0.449</td>
<td></td>
</tr>
<tr>
<td>SL</td>
<td>0.497</td>
<td>0.031</td>
<td>-0.035</td>
<td>-0.034</td>
<td>-0.042</td>
<td>0.026</td>
<td>0.128</td>
<td>0.605</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MSI</td>
<td>-0.049</td>
<td>0.020</td>
<td>0.351</td>
<td>-0.031</td>
<td>0.034</td>
<td>0.079</td>
<td>0.404</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CHL</td>
<td>-0.109</td>
<td>0.037</td>
<td>0.192</td>
<td>-0.014</td>
<td>0.029</td>
<td>0.198</td>
<td>0.333</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PPO</td>
<td>0.160</td>
<td>0.000</td>
<td>0.081</td>
<td>-0.011</td>
<td>-0.020</td>
<td>0.198</td>
<td>0.409</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CTA</td>
<td>0.421</td>
<td>0.068</td>
<td>0.151</td>
<td>-0.009</td>
<td>-0.051</td>
<td>0.068</td>
<td></td>
<td></td>
<td></td>
<td>0.648</td>
</tr>
</tbody>
</table>
Table S3. Prior and posterior classification, membership probabilities in salinity groupings by linear discriminant analysis.

<table>
<thead>
<tr>
<th>Genotype</th>
<th>Prior</th>
<th>posterior</th>
<th>HS</th>
<th>HT</th>
<th>I</th>
<th>S</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>DHL2</td>
<td>T</td>
<td>T</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>1.000</td>
</tr>
<tr>
<td>DHL3</td>
<td>HS</td>
<td>HS</td>
<td>1.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td>DHL5</td>
<td>T</td>
<td>T</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>1.000</td>
</tr>
<tr>
<td>DHL7</td>
<td>S</td>
<td>S</td>
<td>0.000</td>
<td>0.000</td>
<td>0.009</td>
<td>0.991</td>
<td>0.000</td>
</tr>
<tr>
<td>DHL8</td>
<td>S</td>
<td>S</td>
<td>0.000</td>
<td>0.000</td>
<td>0.090</td>
<td>0.910</td>
<td>0.000</td>
</tr>
<tr>
<td>DHL11</td>
<td>T</td>
<td>T</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>1.000</td>
</tr>
<tr>
<td>DHL12</td>
<td>I</td>
<td>I</td>
<td>0.000</td>
<td>0.000</td>
<td>0.994</td>
<td>0.000</td>
<td>0.006</td>
</tr>
<tr>
<td>DHL14</td>
<td>S</td>
<td>S</td>
<td>0.014</td>
<td>0.000</td>
<td>0.000</td>
<td>0.986</td>
<td>0.000</td>
</tr>
<tr>
<td>DHL15</td>
<td>S</td>
<td>S</td>
<td>0.002</td>
<td>0.000</td>
<td>0.000</td>
<td>0.998</td>
<td>0.000</td>
</tr>
<tr>
<td>DHL21</td>
<td>HT</td>
<td>HT</td>
<td>0.000</td>
<td>1.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td>DHL22</td>
<td>HS</td>
<td>HS</td>
<td>0.989</td>
<td>0.000</td>
<td>0.000</td>
<td>0.011</td>
<td>0.000</td>
</tr>
<tr>
<td>DHL23</td>
<td>I</td>
<td>I</td>
<td>0.000</td>
<td>0.000</td>
<td>0.564</td>
<td>0.436</td>
<td>0.000</td>
</tr>
<tr>
<td>DHL25</td>
<td>T</td>
<td>T</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>1.000</td>
</tr>
<tr>
<td>DHL26</td>
<td>T</td>
<td>T</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>1.000</td>
</tr>
<tr>
<td>DHL29</td>
<td>S</td>
<td>S</td>
<td>0.003</td>
<td>0.000</td>
<td>0.000</td>
<td>0.997</td>
<td>0.000</td>
</tr>
<tr>
<td>Sakha93</td>
<td>HT</td>
<td>HT</td>
<td>0.000</td>
<td>1.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Highly tolerant (HT), tolerant (T), intermediate (I), sensitive (S) and highly sensitive (HS).
Table S4. Total canonical structure of eigenvalue, canonical discriminant function and class means of salinity group to canonical discriminant function.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Can1</th>
<th>Can2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eigenvalue</td>
<td>39.14</td>
<td>0.60</td>
</tr>
<tr>
<td>Discrimination (%)</td>
<td>98.46</td>
<td>1.50</td>
</tr>
<tr>
<td>Cumulative %</td>
<td>98.46</td>
<td>99.96</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Variable</th>
<th>SL</th>
<th>SDM</th>
<th>CAT</th>
<th>Salinity Group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.89</td>
<td>0.95</td>
<td>0.87</td>
<td>HS  -7.76</td>
</tr>
<tr>
<td></td>
<td>0.41</td>
<td>-0.24</td>
<td>-0.16</td>
<td>HT  8.49</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>I   -0.65</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>S   -4.08</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>T   4.05</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Shoot length (SL), shoot dry weight (SDW) and catalase (CAT), highly tolerant (HT), tolerant (T), intermediate (I), sensitive (S) and highly sensitive (HS).
Table S5. Summary (LS means) of all pairwise comparisons for Class (Fisher (LSD))

<table>
<thead>
<tr>
<th>Contrast</th>
<th>SL</th>
<th>Significant</th>
<th>SDW</th>
<th>Significant</th>
<th>CAT</th>
<th>Significant</th>
</tr>
</thead>
<tbody>
<tr>
<td>HT vs T</td>
<td>0.564</td>
<td>No</td>
<td>0.004</td>
<td>Yes</td>
<td>0.079</td>
<td>No</td>
</tr>
<tr>
<td>HT vs I</td>
<td>0.010</td>
<td>Yes</td>
<td>0.001</td>
<td>Yes</td>
<td>0.036</td>
<td>Yes</td>
</tr>
<tr>
<td>HT vs S</td>
<td>0.002</td>
<td>Yes</td>
<td>&lt; 0.0001</td>
<td>Yes</td>
<td>0.001</td>
<td>Yes</td>
</tr>
<tr>
<td>HT vs HS</td>
<td>0.000</td>
<td>Yes</td>
<td>&lt; 0.0001</td>
<td>Yes</td>
<td>0.001</td>
<td>Yes</td>
</tr>
<tr>
<td>T vs I</td>
<td>0.010</td>
<td>Yes</td>
<td>0.053</td>
<td>No</td>
<td>0.378</td>
<td>No</td>
</tr>
<tr>
<td>T vs S</td>
<td>0.001</td>
<td>Yes</td>
<td>&lt; 0.0001</td>
<td>Yes</td>
<td>0.005</td>
<td>Yes</td>
</tr>
<tr>
<td>T vs HS</td>
<td>&lt; 0.0001</td>
<td>Yes</td>
<td>0.000</td>
<td>Yes</td>
<td>0.005</td>
<td>Yes</td>
</tr>
<tr>
<td>I vs S</td>
<td>0.820</td>
<td>No</td>
<td>0.037</td>
<td>Yes</td>
<td>0.118</td>
<td>No</td>
</tr>
<tr>
<td>I vs HS</td>
<td>0.036</td>
<td>Yes</td>
<td>0.016</td>
<td>Yes</td>
<td>0.054</td>
<td>No</td>
</tr>
<tr>
<td>S vs HS</td>
<td>0.024</td>
<td>Yes</td>
<td>0.326</td>
<td>No</td>
<td>0.397</td>
<td>No</td>
</tr>
</tbody>
</table>