**Supplementary Table 1:** Mean geosmin concentration of 78 F2:3 table beet families segregating for geosmin concentration with Tukey corrected pairwise comparison groups calculated using log geosmin concentration values.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Mean Geosmin Concentration ((**$μg∙kg^{-1}$**)** | **Mean Ln Geosmin Concentration (*ln*(**$μg∙kg^{-1}$**))** | **Individuals Phenotyped** | **Individuals Genotyped** |
| **Family** | **2017**  | **2019**  | **2017 and 2019** | **2017 and 2019 \*** | **Pairwise Comparison Group** | **2017** | **2019** | **2017** | **2019** | **Total** |
| 4055 | 21.5 | 20.2 | 20.6 | 3.03 | ab | 2 | 4 | 1 | 4 | 5 |
| 4064 | 18.9 | 24.0 | 21.4 | 3.01 | a | 4 | 4 | 2 | 4 | 6 |
| 4124 | 25.1 | 17.0 | 21.0 | 2.97 | ab | 4 | 4 | 2 | 3 | 5 |
| 4195 | 26.6 | 13.7 | 18.0 | 2.93 | abcd | 2 | 4 |  |  |  |
| 4143 | 18.5 | 17.9 | 18.2 | 2.85 | abc | 4 | 4 | 3 | 2 | 5 |
| 4160 | 19.3 | 18.5 | 18.9 | 2.82 | abcd | 4 | 4 | 1 | 4 | 5 |
| 4133 | 16.9 | 17.1 | 17.0 | 2.79 | abcd | 4 | 4 | 2 | 1 | 3 |
| 4078 | 17.6 | 16.3 | 17.0 | 2.79 | abcd | 4 | 4 | 2 | 1 | 3 |
| 4125 | 15.2 | 19.1 | 17.8 | 2.79 | abcdefgh | 2 | 4 | 1 | 3 | 4 |
| 4054 | 14.5 | 20.5 | 17.0 | 2.78 | abcdef | 4 | 3 | 1 | 0 | 1 |
| 4175 | 12.5 | 21.7 | 17.1 | 2.78 | abcd | 4 | 4 |  |  |  |
| 4162 | 18.3 | 14.8 | 16.5 | 2.78 | abcde | 4 | 4 | 2 | 0 | 2 |
| 4167 | 17.0 | 18.6 | 17.9 | 2.72 | abcdefgh | 3 | 4 | 2 | 3 | 5 |
| 4112 | 17.0 | 13.9 | 15.5 | 2.70 | abcdefg | 4 | 4 |  |  |  |
| 4149 | 11.3 | 20.1 | 15.7 | 2.69 | abcdefgh | 4 | 4 |  |  |  |
| 4075 | 11.7 | 17.9 | 14.8 | 2.66 | abcdefghi | 4 | 4 |  |  |  |
| 4150 | 11.6 | 18.6 | 16.3 | 2.65 | abcdefghijk | 2 | 4 |  |  |  |
| 4118 | 20.2 | 11.9 | 15.5 | 2.65 | abcdefghij | 3 | 4 |  |  |  |
| 4171 | 12.9 | 13.5 | 13.3 | 2.57 | abcdefghijklm | 2 | 4 |  |  |  |
| 4015 | 14.3 | 13.7 | 14.0 | 2.55 | abcdefghijk | 4 | 4 |  |  |  |
| 4083 | 13.5 | 12.5 | 12.8 | 2.55 | abcdefghijklmn | 2 | 4 |  |  |  |
| 4035 | 23.0 | 8.3 | 13.2 | 2.52 | abcdefghijklmno | 2 | 4 |  |  |  |
| 4011 | 10.1 | 17.3 | 14.9 | 2.50 | abcdefghijklmno | 2 | 4 |  |  |  |
| 4136 | 13.7 | 11.5 | 12.6 | 2.48 | abcdefghijkl | 4 | 4 |  |  |  |
| 4126 | 17.4 | 9.9 | 13.7 | 2.48 | abcdefghijkl | 4 | 4 |  |  |  |
| 4179 | 15.8 | 9.8 | 12.4 | 2.47 | abcdefghijklmn | 3 | 4 |  |  |  |
| 4088 | 13.6 | 10.1 | 11.6 | 2.41 | abcdefghijklmno | 3 | 4 |  |  |  |
| 4130 | 10.8 | 12.1 | 11.7 | 2.41 | abcdefghijklmnop | 2 | 4 |  |  |  |
| 4138 | 13.1 | 10.5 | 11.8 | 2.39 | abcdefghijklmno | 4 | 4 |  |  |  |
| 4194 | 7.8 | 14.5 | 11.9 | 2.35 | abcdefghijklmnopq | 2 | 3 |  |  |  |
| 4111 | 7.7 | 14.6 | 10.7 | 2.34 | abcdefghijklmnop | 4 | 3 |  |  |  |
| 4151 | 9.3 | 10.8 | 10.3 | 2.29 | abcdefghijklmnopq | 2 | 4 |  |  |  |
| 4082 | 9.2 | 11.0 | 10.1 | 2.23 | abcdefghijklmnopq | 4 | 4 |  |  |  |
| 4115 | 10.3 | 9.6 | 10.0 | 2.22 | abcdefghijklmnopq | 4 | 4 |  |  |  |
| 4013 | 6.3 | 14.6 | 9.8 | 2.19 | abcdefghijklmnopq | 4 | 3 |  |  |  |
| 4113 | 7.8 | 10.3 | 9.5 | 2.18 | abcdefghijklmnopq | 2 | 4 |  |  |  |
| 4014 | 10.4 | 9.8 | 10.0 | 2.17 | abcdefghijklmnopq | 2 | 4 |  |  |  |
| 4161 | 8.3 | 9.0 | 8.7 | 2.14 | abcdefghijklmnopq | 3 | 4 |  |  |  |
| 4005 | 7.5 | 9.8 | 9.0 | 2.13 | abcdefghijklmnopqr | 2 | 4 |  |  |  |
| 4103 | 8.4 | 8.7 | 8.5 | 2.10 | abcdefghijklmnopqr | 4 | 2 |  |  |  |
| 4098 | 7.6 | 9.8 | 8.7 | 2.10 | abcdefghijklmnopq | 4 | 4 |  |  |  |
| 4091 | 8.9 | 7.5 | 8.2 | 2.08 | abcdefghijklmnopq | 4 | 4 |  |  |  |
| 4036 | 5.4 | 14.5 | 11.5 | 2.06 | abcdefghijklmnopqr | 2 | 4 |  |  |  |
| 4010 | 6.4 | 10.1 | 8.0 | 2.02 | abcdefghijklmnopqr | 4 | 3 |  |  |  |
| 4025 | 13.7 | 3.7 | 9.7 | 1.97 | abcdefghijklmnopqr | 3 | 2 |  |  |  |
| 4072 | 6.4 | 11.1 | 8.7 | 1.97 | abcdefghijklmnopqr | 4 | 4 |  |  |  |
| 4024 | 6.8 | 8.5 | 7.8 | 1.93 | abcdefghijklmnopqr | 3 | 4 |  |  |  |
| 4177 | 7.3 | 10.0 | 9.1 | 1.93 | abcdefghijklmnopqr | 2 | 4 |  |  |  |
| 4084 | 7.3 | 9.0 | 8.1 | 1.91 | bcdefghijklmnopqr | 4 | 4 |  |  |  |
| 4063 | 5.9 | 9.0 | 7.5 | 1.91 | bcdefghijklmnopqr | 4 | 4 |  |  |  |
| 4163 | 7.7 | 6.0 | 6.6 | 1.87 | abcdefghijklmnopqr | 2 | 4 |  |  |  |
| 4021 | 6.5 | 7.5 | 7.2 | 1.87 | abcdefghijklmnopqr | 2 | 4 |  |  |  |
| 4090 | 2.9 | 14.7 | 8.8 | 1.85 | abcdefghijklmnopqr | 2 | 2 |  |  |  |
| 4147 | 9.4 | 7.6 | 8.2 | 1.83 | bcdefghijklmnopqr | 2 | 4 |  |  |  |
| 4153 | 7.2 | 6.3 | 6.6 | 1.82 | abcdefghijklmnopqr | 2 | 4 |  |  |  |
| 4108 | 6.5 | 5.8 | 6.2 | 1.78 | defghijklmnopqr | 4 | 4 |  |  |  |
| 4182 | 6.4 | 5.7 | 6.1 | 1.78 | defghijklmnopqr | 4 | 4 |  |  |  |
| 4045 | 5.4 | 7.9 | 6.6 | 1.77 | defghijklmnopqr | 4 | 4 |  |  |  |
| 4168 | 4.1 | 8.2 | 6.5 | 1.74 | defghijklmnopqr | 3 | 4 |  |  |  |
| 4170 | 4.6 | 8.5 | 6.6 | 1.70 | efghijklmnopqr | 4 | 4 |  |  |  |
| 4016 | 6.2 | 5.1 | 5.4 | 1.70 | cdefghijklmnopqr | 2 | 4 |  |  |  |
| 4107 | 5.8 | 5.2 | 5.5 | 1.66 | ghijklmnopqr | 4 | 4 |  |  |  |
| 4188 | 5.3 | 6.0 | 5.5 | 1.65 | defghijklmnopqr | 4 | 2 |  |  |  |
| 4192 | 5.0 | 6.6 | 5.8 | 1.62 | fghijklmnopqr | 3 | 3 |  |  |  |
| 4131 | 4.5 | 5.6 | 5.1 | 1.55 | jklmnopqr | 4 | 4 | 1 | 0 | 1 |
| 4052 | 5.1 | 6.1 | 5.6 | 1.55 | jklmnopqr | 4 | 4 | 1 | 0 | 1 |
| 4191 | 3.6 | 8.9 | 6.8 | 1.46 | hijklmnopqr | 2 | 3 |  |  |  |
| 4120 | 5.1 | 3.7 | 4.2 | 1.46 | ijklmnopqr | 2 | 4 | 0 | 2 | 2 |
| 4000 | 4.3 | 6.2 | 5.6 | 1.42 | klmnopqr | 2 | 4 | 1 | 0 | 1 |
| 4053 | 4.9 | 4.1 | 4.6 | 1.40 | klmnopqr | 4 | 2 | 0 | 1 | 1 |
| 4001 | 4.5 | 3.6 | 4.1 | 1.36 | nopqr | 4 | 4 | 1 | 2 | 3 |
| 4144 | 4.2 | 4.1 | 4.1 | 1.34 | mnopqr | 3 | 4 | 1 | 2 | 3 |
| 4086 | 3.8 | 4.2 | 4.0 | 1.33 | opqr | 4 | 4 | 3 | 2 | 5 |
| 4037 | 3.6 | 4.1 | 3.9 | 1.29 | lmnopqr | 2 | 4 | 2 | 2 | 4 |
| 4047 | 3.5 | 4.0 | 3.8 | 1.29 | pqr | 4 | 4 | 4 | 2 | 6 |
| 4105 | 3.9 | 3.0 | 3.5 | 1.15 | qr | 4 | 4 | 2 | 4 | 6 |
| 4027 | 3.3 | 2.4 | 2.8 | 0.92 | r | 3 | 4 | 2 | 4 | 6 |
| 4002 | 1.4 | 4.1 | 3.2 | 0.84 | r | 2 | 4 | 2 | 2 | 4 |

\*Estimated marginal means shown for two-year mean log geosmin concentration values