**Supplemental Material**

**Citation:** Li, J., Y. Liu, J. Wu, J. He, Y. Cui, Q. Luo, D. Wang, L. Pedersen, and Y. Lin. 2021. Plant morphological and functional characteristics combined with elevation and aspect influence phytogenic mound parameters in a dry-hot valley. Journal of Soil and Water Conservation 76(2):142-152, doi:10.2489/jswc.2021.00031.

**Table S1.** Correlation coefficients and sums for all 6 weight indicators of plant samples. AFW: aboveground fresh weight; ADW: aboveground dry weight; UFW: underground fresh weight; UDW: underground dry weight; TFW: total fresh weight; TDW: total dry weight; WC: the water content of fresh plant

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Variables | AFW | ADW | UFW | UDW | TFW | TDW | WC |
| Correlation coefficients | | | | | | | |
| AFW | 1.000 | 0.961\*\*\* | 0.902\*\*\* | 0.894\*\*\* | 0.963\*\*\* | 0.945\*\*\* | 0.464\* |
| ADW | 0.961\*\*\* | 1.000 | 0.897\*\*\* | 0.903\*\*\* | 0.944\*\*\* | 0.967\*\*\* | 0.259 |
| UFW | 0.902\*\*\* | 0.897\*\*\* | 1.000 | 0.997\*\*\* | 0.985\*\*\* | 0.978\*\*\* | 0.294 |
| UDW | 0.894\*\*\* | 0.903\*\*\* | 0.997\*\*\* | 1.000 | 0.980\*\*\* | 0.983\*\*\* | 0.247 |
| TFW | 0.963\*\*\* | 0.944\*\*\* | 0.985\*\*\* | 0.980\*\*\* | 1.000 | 0.989\*\*\* | 0.369 |
| TDW | 0.945\*\*\* | 0.967\*\*\* | 0.978\*\*\* | 0.983\*\*\* | 0.989\*\*\* | 1.000 | 0.258 |
| WC | - | - | - | - | - | - | 1.000 |
| Correlation sums | 5.665 | 5.672 | 5.759 | 5.757 | 5.861 | 5.862 | - |

Levels of significance are: \*p < 0.05, \*\*p < 0.01, \*\*\*p < 0.001.

**Figure S1.** Morphological and functional characteristics of plants that trap sediments to form phytogenic mounds. MH: maximum height of mound; ML: maximum length of mound; MW: maximum width of mound; CL: crown length in the direction of the slope; CW: crown width perpendicular to the slope; PH: plant height; RD: root depth; RW: root width; AN: the angle between the plant and the slope

