

Supplementary Materials

Changes in the Soil–Plant–Water System Due to Biochar Amendment

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Table S1. Pearson correlation analysis (r) and p -value (p) between the investigated plant parameters for both investigated years (2017 and 2018) separately and together. C represents control, BC the biochar amended treatments, 17 and 18 are the years of 2017 and 2018, respectively. Correlation is significant at the $p < 0.05$ level.

| $r \backslash p$ | Height C | Height BC | Height C17 | Height BC17 | Height C18 | Height BC18 | Crop C | Crop BC | Crop C17 | Crop BC17 | Crop C18 | Crop BC18 | Root C | Root BC | Root C17 | Root BC17 | Root C18 | Root BC18 | Leaf C | Leaf BC | Stem C | Stem BC | Tassel C | Tassel BC |
|------------------|-------------|--------------|---------------|----------------|---------------|----------------|-----------|------------|-------------|--------------|-------------|--------------|-----------|------------|-------------|--------------|-------------|--------------|-----------|------------|-----------|------------|-------------|--------------|
| HeightC | | 0.78 | 1.00 | -0.02 | -0.20 | -0.17 | 0.45 | 0.57 | 0.05 | -0.02 | 0.06 | -0.20 | 0.43 | -0.06 | 0.13 | -0.10 | -0.06 | 0.40 | -0.29 | 0.12 | 0.62 | 0.61 | 0.62 | 0.10 |
| HeightBC | 0.000 | | -0.19 | 1.00 | -0.28 | -0.06 | 0.42 | 0.55 | 0.07 | 0.20 | -0.06 | -0.27 | 0.37 | -0.11 | 0.04 | -0.15 | 0.23 | 0.50 | 0.89 | 0.43 | -0.49 | -0.41 | -0.07 | 0.74 |
| HeightC17 | 0.000 | 0.214 | | -0.19 | 0.08 | 0.05 | -0.07 | 0.01 | 0.05 | -0.02 | 0.01 | -0.15 | 0.18 | 0.24 | 0.18 | 0.24 | -0.06 | -0.29 | -0.29 | 0.12 | 0.62 | 0.61 | 0.62 | 0.10 |
| HeightBC17 | 0.899 | 0.000 | 0.214 | | -0.16 | 0.01 | 0.26 | 0.35 | 0.07 | 0.20 | -0.03 | -0.27 | 0.04 | 0.03 | 0.04 | 0.03 | 0.23 | 0.16 | 0.89 | 0.43 | -0.49 | -0.41 | -0.07 | 0.74 |
| HeightC18 | 0.143 | 0.036 | 0.608 | 0.297 | | -0.15 | -0.10 | -0.24 | 0.09 | 0.03 | -0.12 | 0.04 | 0.00 | 0.05 | 0.08 | 0.06 | -0.10 | -0.16 | 0.59 | -0.47 | 0.15 | 0.29 | 0.64 | -0.04 |
| HeightBC18 | 0.250 | 0.675 | 0.760 | 0.950 | 0.299 | | -0.22 | 0.06 | -0.10 | 0.25 | -0.31 | 0.08 | -0.01 | -0.05 | -0.02 | -0.05 | -0.10 | -0.12 | -0.68 | -0.41 | 0.27 | 0.34 | -0.44 | -0.56 |
| FruitC | 0.000 | 0.000 | 0.657 | 0.074 | 0.463 | 0.131 | | 0.44 | 1.00 | 0.28 | 0.05 | -0.10 | 0.23 | -0.14 | -0.15 | -0.19 | 0.02 | 0.13 | -0.04 | -0.66 | -0.83 | -0.76 | -0.58 | -0.19 |
| FruitBC | 0.000 | 0.000 | 0.943 | 0.014 | 0.075 | 0.685 | 0.000 | | 0.29 | 1.00 | 0.05 | -0.02 | 0.38 | -0.20 | 0.21 | -0.09 | 0.27 | 0.53 | -0.11 | -0.84 | -0.53 | -0.41 | -0.40 | -0.33 |
| FruitC17 | 0.737 | 0.677 | 0.737 | 0.677 | 0.565 | 0.525 | 0.000 | 0.069 | | 0.29 | -0.08 | 0.09 | -0.20 | 0.06 | -0.20 | 0.06 | -0.25 | -0.17 | -0.04 | -0.66 | -0.83 | -0.76 | -0.58 | -0.19 |
| FruitBC17 | 0.896 | 0.206 | 0.896 | 0.206 | 0.848 | 0.112 | 0.073 | 0.000 | 0.069 | | -0.03 | 0.14 | 0.15 | 0.17 | 0.15 | 0.17 | 0.06 | 0.29 | -0.11 | -0.84 | -0.53 | -0.41 | -0.40 | -0.33 |
| FruitC18 | 0.659 | 0.664 | 0.933 | 0.839 | 0.391 | 0.031 | 0.712 | 0.704 | 0.613 | 0.856 | | 0.18 | 0.19 | 0.05 | 0.22 | 0.06 | 0.24 | 0.02 | -0.31 | 0.80 | 0.66 | 0.65 | -0.01 | 0.19 |
| FruitBC18 | 0.191 | 0.072 | 0.324 | 0.072 | 0.781 | 0.595 | 0.492 | 0.889 | 0.595 | 0.383 | 0.222 | | 0.00 | -0.19 | 0.00 | -0.19 | 0.04 | -0.26 | -0.36 | -0.01 | 0.02 | 0.03 | -0.50 | -0.58 |
| RootC | 0.000 | 0.000 | 0.233 | 0.794 | 0.980 | 0.931 | 0.031 | 0.000 | 0.224 | 0.339 | 0.176 | 0.994 | | 0.15 | 1.00 | -0.13 | 0.20 | 0.15 | 0.41 | -0.13 | 0.53 | 0.22 | 0.72 | 0.31 |
| RootBC | 0.524 | 0.282 | 0.119 | 0.849 | 0.719 | 0.753 | 0.179 | 0.067 | 0.711 | 0.270 | 0.716 | 0.196 | 0.165 | | -0.11 | 1.00 | -0.06 | -0.26 | -0.12 | 0.76 | 0.68 | 0.92 | -0.11 | 0.24 |
| RootC17 | 0.385 | 0.799 | 0.233 | 0.799 | 0.583 | 0.900 | 0.329 | 0.171 | 0.224 | 0.339 | 0.145 | 0.994 | 0.000 | 0.469 | | -0.11 | 0.20 | 0.20 | 0.41 | -0.13 | 0.53 | 0.22 | 0.72 | 0.31 |
| RootBC17 | 0.487 | 0.274 | 0.119 | 0.849 | 0.676 | 0.753 | 0.175 | 0.520 | 0.711 | 0.270 | 0.665 | 0.196 | 0.366 | 0.000 | 0.469 | | -0.06 | -0.23 | -0.12 | 0.76 | 0.68 | 0.92 | -0.11 | 0.24 |
| RootC18 | 0.672 | 0.124 | 0.672 | 0.124 | 0.513 | 0.531 | 0.919 | 0.075 | 0.123 | 0.714 | 0.113 | 0.804 | 0.185 | 0.699 | 0.185 | 0.699 | | 0.25 | -0.13 | 0.03 | -0.34 | 0.02 | -0.19 | -0.20 |

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|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| RootBC18 | 0.001 | 0.000 | 0.056 | 0.271 | 0.250 | 0.412 | 0.289 | 0.000 | 0.284 | 0.063 | 0.867 | 0.084 | 0.222 | 0.037 | 0.173 | 0.094 | 0.091 | | 0.67 | -0.03 | -0.55 | -0.40 | 0.17 | 0.37 |
| LeafC | 0.576 | 0.018 | 0.576 | 0.018 | 0.216 | 0.139 | 0.937 | 0.835 | 0.937 | 0.835 | 0.549 | 0.478 | 0.422 | 0.821 | 0.422 | 0.821 | 0.803 | 0.143 | | 0.44 | -0.19 | -0.32 | 0.48 | 0.90 |
| LeafBC | 0.804 | 0.334 | 0.804 | 0.334 | 0.292 | 0.361 | 0.103 | 0.017 | 0.103 | 0.017 | 0.032 | 0.975 | 0.783 | 0.048 | 0.783 | 0.048 | 0.954 | 0.952 | 0.385 | | 0.66 | 0.52 | 0.26 | 0.64 |
| StemC | 0.194 | 0.329 | 0.194 | 0.329 | 0.783 | 0.609 | 0.043 | 0.275 | 0.043 | 0.275 | 0.152 | 0.972 | 0.281 | 0.137 | 0.281 | 0.137 | 0.510 | 0.261 | 0.714 | 0.156 | | 0.88 | 0.58 | 0.12 |
| StemBC | 0.201 | 0.417 | 0.201 | 0.417 | 0.571 | 0.507 | 0.077 | 0.417 | 0.077 | 0.417 | 0.162 | 0.951 | 0.668 | 0.009 | 0.668 | 0.009 | 0.966 | 0.431 | 0.534 | 0.290 | 0.022 | | 0.53 | -0.09 |
| TasselC | 0.101 | 0.864 | 0.101 | 0.864 | 0.086 | 0.279 | 0.134 | 0.327 | 0.134 | 0.327 | 0.977 | 0.204 | 0.044 | 0.791 | 0.044 | 0.791 | 0.658 | 0.682 | 0.339 | 0.577 | 0.228 | 0.284 | | 0.53 |
| TasselBC | 0.826 | 0.058 | 0.826 | 0.058 | 0.934 | 0.187 | 0.688 | 0.467 | 0.688 | 0.467 | 0.681 | 0.177 | 0.499 | 0.602 | 0.499 | 0.602 | 0.660 | 0.417 | 0.015 | 0.125 | 0.825 | 0.858 | 0.224 | |
