|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| E | P | S | TTSmg gFW-1  | Starchmg gFW-1  | Chlorophyll *a*mg g FW-1  | Chlorophyll *b*mg g FW-1  | Prolinemg g FW-1  | MDAnM gFW-1   |
| Socaire | UP | C | 20.68 ± 0.17 | 38.07 ± 2.90 | 1.87 ± 0.08 | 0.65 ± 0.02 | 0.69 ± 0.08 | 2.81 ± 0.04 |
| Socaire | HP | C | 18.58 ± 0.46 | 30.08 ± 1.39 | 2.28 ± 0.05 | 0.80 ± 0.02 | 0.53 ± 0.05 | 2.57 ± 0.18 |
| Socaire | UP | S | 23.74 ± 0.71 | 37.88 ± 3.17 | 2.14 ± 0.09 | 0.76 ± 0.05 | 1.13 ± 0.09 | 5.52 ± 0.28 |
| Socaire | HP | S | 19.49 ± 0.53 | 27.83 ± 1.65 | 2.22 ± 0.06 | 0.87 ± 0.05 | 0.52 ± 0.05 | 2.55 ± 0.19 |
| BO78 | UP | C | 22.76 ± 0.77 | 45.16 ± 2.00 | 3.57 ± 0.14 | 1.17 ± 0.05 | 0.79 ± 0.05 | 3.67 ± 0.17 |
| BO78 | HP | C | 18.79 ± 0.64 | 41.40 ± 3.04 | 3.16 ± 0.27 | 1.07 ± 0.10 | 0.67 ± 0.12 | 3.51 ± 0.15 |
| BO78 | UP | S | 21.06 ± 0.68 | 42.67 ± 1.60 | 3.51 ± 0.09 | 1.25 ± 0.04 | 1.18 ± 0.20 | 8.02 ±0.33 |
| BO78 | HP | S | 20.10 ± 0.51 | 37.21 ± 1.64 | 3.31 ± 0.19 | 1.20 ± 0.07 | 0.68 ± 0.07 | 3.50 ± 0.14 |
| E | 0.897 | **<0.001** | **<0.001** | **<0.001** | 0.12 | **<0.001** |
| P | **<0.001** | **<0.001** | 0.752 | 0.505 | **<0.001** | **<0.001** |
| S | **0.041** | 0.171 | 0.468 | **0.018** | 0.008 | **<0.001** |
| E x P | 0.401 | 0.184 | **0.012** | **0.013** | 0.603 | 0.018 |
| E x S | **0.015** | 0.516 | 0.774 | 0.814 | 0.924 | 0.009 |
| S x P | 0.608 | 0.566 | 0.774 | 0.903 | **0.008** | **<0.001** |
| E x S x P | **0.005** | 0.956 | 0.189 | 0.603 | 0.808 | **0.009** |

**Supplementary Table S1.** Effect of seed HP on metabolites and biomass under Control or Salinity conditions in two genotypes of C. quinoa. Different parameters were determined in four different individuals (n = 4). Fully expanded third leaves (from the top part of the plant) were used for measurements. Statistical differences were established (P < 0.05) using three-way ANOVA. The last rows of the table show the significance levels (P) of the factors (E, S and P) and interactions. Significant P-values are in bold and red. The underline shows the significant independent effect that are not included in a significant interaction, and the more complex interaction that includes the effect of independent factors or more simple interactions (The posterior interpretation is only based on the complex interactions that nests the simple effect, and independent effect that are not included in an interaction).