**SUPPLEMENTAR MATERIAL**

**Table 1S.** ANOVA for the interactive effects of biotypes (susceptible and resistant), glyphosate concentrations (0 or 1080 g glyphosate (a.e. ha-1), and times of exposure (12, 24, 48, and 72 hours).

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Source of Variation** | **D.F** | **SOD** | **APX** | **CAT** | **P450** | **Shikimate** | **EPSPS** |
| Biotype | 1 | 0.75 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | 0.9677 |
| Glyphosate | 1 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 |
| Biotype x Glyphosate | 1 | 0.50 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | 0.7903 |
| Time | 3 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | 0.6907 |
| Biotype x Time | 3 | 0.15 | <0.05 | 0.0002 | 0.0631 | <0.0001 | 0.8785 |
| Glyphosate x Time | 3 | <0.001 | <0.01 | <0.0001 | 0.1607 | <0.0001 | <0.001 |
| Biotype x Glyphosate x Time | 3 | <0.0001 | <0.0001 | <0.0001 | 0.5578 | <0.0001 | 0.4531 |
| *T* or Tukey Test1 |  |  |  |  |  |  |  |
| Biotype |  |  |  |  |  |  |  |
| Susceptible |  | 0.26a | 8.39b | 4.35b | 152.76b | 3980.25a | 0.57 |
| Resistant |  | 0.25a | 10.22a | 6.34a | 169.95a | 1483.20b | 0.57 |
| Glyphosate (kg ha-1) |  |  |  |  |  |  |  |
| 0 |  | 0.23b | 7.55b | 4.16b | 176.99a | 211.62b | 0.84a |
| 1080 |  | 0.28a | 11.06a | 6.53a | 145.71b | 5251.82a | 0.31b |
| Time (h) |  |  |  |  |  |  |  |
| 12 |  | 0.31a | 9.27b | 6.68a | 170.06a | 689.45 | 0.60 |
| 24 |  | 0.30a | 10.73a | 5.47b | 164.62ab | 2364.45c | 0.56 |
| 48 |  | 0.22b | 11.57a | 4.22c | 158.89b | 3241.75b | 0.57 |
| 72 |  | 0.20b | 6.08c | 5.01b | 151.85c | 4631.25a | 0.57 |

1Different letters in each column for each biotype, glyphosate concentration, and time represent significant differences at P < 0.05.

**Table 2S.** ANOVA for the interactive effects of biotypes (susceptible and resistant) and times of exposure (12, 24, 48, and 72 hours).

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Source of Variation** | **D.F** | **Glyphosate** | | | **AMPA** | | |
| **Leaves** | **Stem** | **Roots** | **Leaves** | **Stem** | **Roots** |
| Biotype | 1 | 0.44 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 |
| Time | 3 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 |
| Biotype x Time | 3 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 |
| *T* or Tukey Test1 |  |  |  |  |  |  |  |
| Biotype |  |  |  |  |  |  |  |
| Susceptible |  | 52.09 | 12.65a | 15.13a | 28.69a |  |  |
| Resistant |  | 53.09 | 2.43b | 1.90b | 451.04b | 62.52 | 97.17 |
| Time (h) |  |  |  |  |  |  |  |
| 12 |  | 96.32a | 4.51b | 5.15c |  |  |  |
| 24 |  | 46.41b | 8.00a | 6.67c | 198.07b |  | 68.35 |
| 48 |  | 37.24c | 8.37a | 9.72b | 397.02a | 58.59a | 64.95 |
| 72 |  | 30.38d | 9.29a | 12.53a | 364.38a | 66.46a | 61.03 |

1Different letters in each column for each biotype and time represent significant differences at P < 0.05.