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| **S8 Table. Effect of phenol on *T. pratense* L.** | | | | |
| Phenol in soil (mg·kg-1) | 0 | 100 | 200 | 300 |
| Net photosynthetic rate (μmol m-2 s-1), n=15 | 13.9 ± 0.7a | 12.2 ± 0.3b | 10.8 ± 0.7bb | 6.48 ± 0.6c |
| Transpiration rate (m mol m-2 s-1) , n=15 | 0.45 ± 0.02a | 0.34 ± 0.03a | 0.32 ± 0.02b | 0.27 ± 0.01b |
| Stomatal conductance (m mol m-2 s-1) , n=15 | 13.5 ± 0.8a | 12.3 ± 1.1a | 9.3 ± 0.4b | 9.2 ± 0.6b |
| Chlorophyll a (μg·g-1), n=5 | 229.3 ± 43.6a | 215.4 ± 58.1a | 244.3 ± 48.5a | 234.6 ± 44.6a |
| Chlorophyll b (μg·g-1), n=5 | 104.1 ± 23.9a | 96.9 ± 19.4a | 117.4 ± 22.3a | 113.1 ± 18.1a |
| Ground biomass （g per plant, dry weight）, n=6 | 3.21 ± 0.31a | 2.11 ± 0.12b | 1.32 ± 0.31c | 0.91 ± 0.31cd |
| Under-ground biomass (g per plant, dry weight), n=6 | 3.03 ± 0.27a | 2.24 ± 0.21b | 1.83 ± 0.16bc | 1.51 ± 0.25c |

Note: 1) Data shows mean ± SE,the same letter means no significant different at *P* ≤ 0.05 within the same row, the different letter means difference between groups at *P* ≤ 0.05 within the same row, compared by Duncan’s multiple range test;

2) Net photosynthetic rate, Transpiration rate, and Stomatal conductance were measured using Ciras-2 portable photosynthesis system (PP systems, UK) with a LED radiation source set to 800 μmol m-2 s-1;

3) The chlorophyllswere measured according to Arnon method.Briefly, fresh leaf was cutinto pieces of≈0.2 g, and thenit was dipped into 10 mL of80% acetone solutionand shacked in dark at room temperature for 48 h.Theabsorptionspectrumwasset at 663 and 645 nm with UV-1601 respectively(Shimadzu, Japan). Chlorophyll a and b were respectively calculated as follows:

Chlorophyll a (μg·g-1) = Ca/w;

Chlorophyll b (μg·g-1) = Cb/w;

where w is fresh leaf piece weight (g), Ca = 12.7 × OD663 - 2.69 × OD645, Cb = 22.9 × OD645 - 4.68 × OD663, where OD663 and OD645 are absorbances at 663 and 645 nm, respectively.

4) The biomass was measured by weighting method.