**Table S1.** Location, soil taxonomy and soil physicochemistry analysis for two grasslands located in Santa Maria and São Gabriel municipalities.

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| --- | --- | --- |
| Characteristics | Sites | |
|  | Santa Maria | São Gabriel |
| Latitude (S) | 29⁰45’S | 30°20’S |
| Longitude (W) | 53⁰45’W | 54°15’W |
| Soil Taxonomy | Paleodult | Paleodult |
| Clay (%) (5) | 16.8 | 17.4 |
| OM(3) | 2.7 | 3.0 |
| Al3+ (cmolc dm-3) (2) | 1.3 | 0.3 |
| pH - H2O (1:2,5) | 4.7 | 5.2 |
| P (mg dm-3)(1) | 5.0 | 3.7 |
| K (mg dm-3) (1) | 156.0 | 142.0 |
| Ca²⁺ (cmolc dm-3) (1) | 2.2 | 3.8 |
| Mg (cmolc dm-3) (2) | 1.2 | 2.0 |
| Zn (cmolc dm-3) (1) | 1.3 | 2.7 |
| Cu (cmolc dm-3) (1) | 1.2 | 1.3 |
| B (cmolc dm-3)) (4) | 0.3 | 0.7 |

(1) Extracted with Mehlich-1. (2) Extracted with KCl 1 mol L-1. (3) Walkey & Black method. (4) Extracted with hot water. (5) Pipet method.