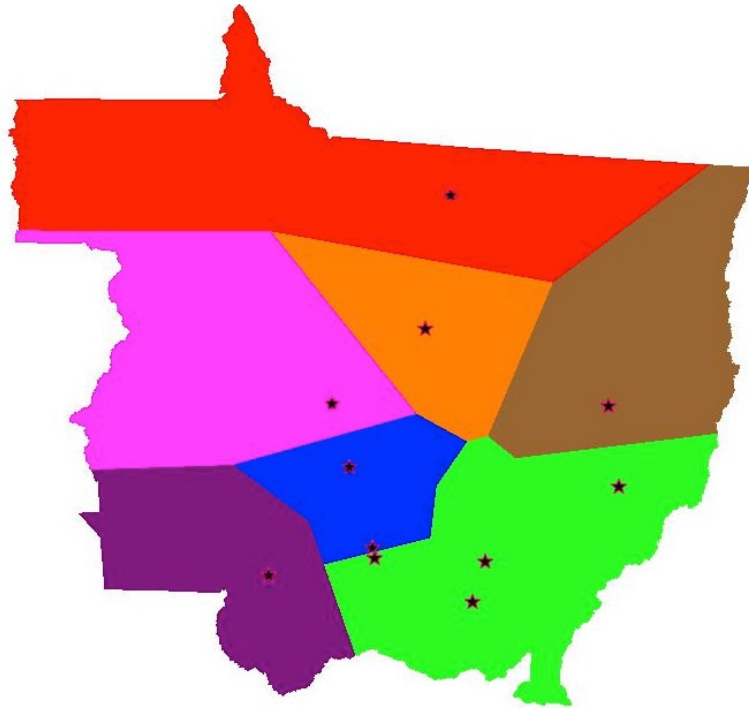


Supplementary Material

Table S1. Overview of the original and modified DNDC model parameters for simulation of N₂O emissions from soil from maize planting and harvesting (double cropped with soybean) under application of different N urea fertilization rates in Mato Grosso State (Brazil).

Parameter	Original	Modified
Hydro-conductivity (m h ⁻¹)	0.008	0.6
Porosity (0-1)	0.492	1.0
Biomass production (kg C ha ⁻¹ y ⁻¹)		
Corn	10309	4250
Soybean	3512	1525
Grain biomass fraction (%) Grain C:N		
Corn	40 50	50 51
Soybean	35 10	35 10
Leaf biomass fraction (%) Leaf C:N		
Corn	22 80	30 67
Soybean	22 45	22 45
Stem biomass fraction (%) Stem C:N		
Corn	22 80	10 42
Soybean	22 45	22 45
Root biomass fraction (%) Root C:N		
Corn	40 80	10 36
Soybean	20 24	20 24

Figure S1. Interpolated regional coverage of 11 meteorological stations (stars) in Mato Grosso State (Brazil).



1.1

1.2

1.3

1.4

1.5

1.6

1.7

Figure S2. Daily average maximum and minimum temperature (horizontal traces) and precipitation (vertical bars) of 11 meteorological stations over Mato Grosso State (Brazil) for the years of 2001, 2005 and 2010.

