
Supplementary data

Short-term agronomic and economic responses to the adoption of cover crops in corn rotation in the Brazilian semiarid regions

João Henrique Silva da Luz^{1,2,*}, Matheus Batista da Silva², Luana do Nascimento Silva Barbosa¹, Maria Gleide Jane Lima De Gois¹, José Wilker Germano de Souza¹, Maria Raquel da Silva Farias¹, John Kennedy dos Santos², Sivaldo Soares Paulino¹, Ricardo Barros Silva¹, Dayane Mércia Ribeiro Silva¹, Deyvison de Asevedo Soares², Paulo Sergio Pavinato², Valdevan Rosendo dos Santos^{1,*}

- 1 Campus Arapiraca, Federal University of Alagoas, Av, Manoel Severino Barbosa Bom Sucesso, Arapiraca, AL 57309-005, Brazil; luana.barbosa@arapiraca.ufal.br (L.N.S.B.), maria.raquel@arapiraca.ufal.br (M.R.S.F.), wilkergermano99@gmail.com (J.W.G.S.), sivaldo.paulino@arapiraca.ufal.br (S.S.P.), ricardoufal2010@gmail.com (R.B.S.), dayannemercia@hotmail.com (D.M.R.S.), valdevan@arapiraca.ufal.br (V.R.S.);
2 Department of Soil Science, "Luiz de Queiroz" College of Agriculture, University of Sao Paulo, Piracicaba 13418-900, Brazil; jhluz@usp.br (J.H.S.L.), matheus.silvaal@usp.br (M.B.S.), john.kennedy@usp.br (J.K.S.), pavinato@usp.br (P.S.P.);

* Correspondence: jhluz@usp.br or agrojluz@gmail.com (J.H.S.L.); valdevan@arapiraca.ufal.br (V.R.S).

M&M - Change in yield

The changes in yield promoted by the CCs were estimated by the effect sizes [1]. The sizes of natural log-transformed effects (LRRi) were calculated with equation 1.

$$LRRi = \ln \frac{Yield\ CCs}{Yield\ fallow} \quad (1)$$

Where Yield CCs and Yield fallow represent the yields with the cover plant and fallow, respectively. For ease of interpretation, the mean logarithmic response ratio and confidence limits were transformed to percentage with equation 2.

$$Change\ in\ yield\ (\%) = (e^{LRRi} - 1) \times 100 \quad (2)$$

Figures

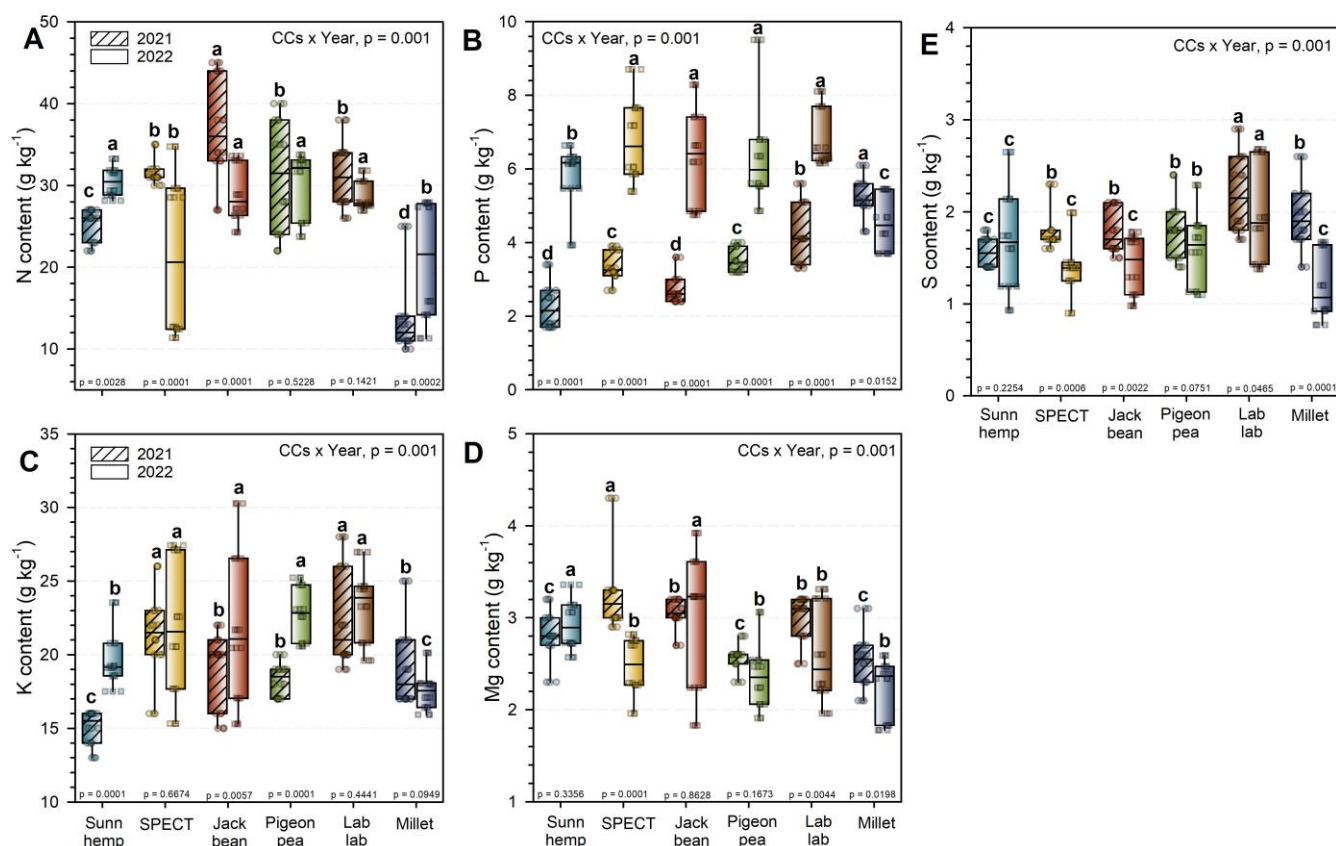


Figure S1. Leaf of N (A), P (B), K (C), Mg (D) and S content (E) of cover crops in two crops on sandy soil in a semiarid region, Brazil. SPECT: Spectabilis; CCs: cover crops. Means followed by the same letters between CCs were not differ by Scott-Knott test ($p \leq 0.05$). P-value close to the X axis indicates response between years. ns: not significant by F-test ($p > 0.05$).

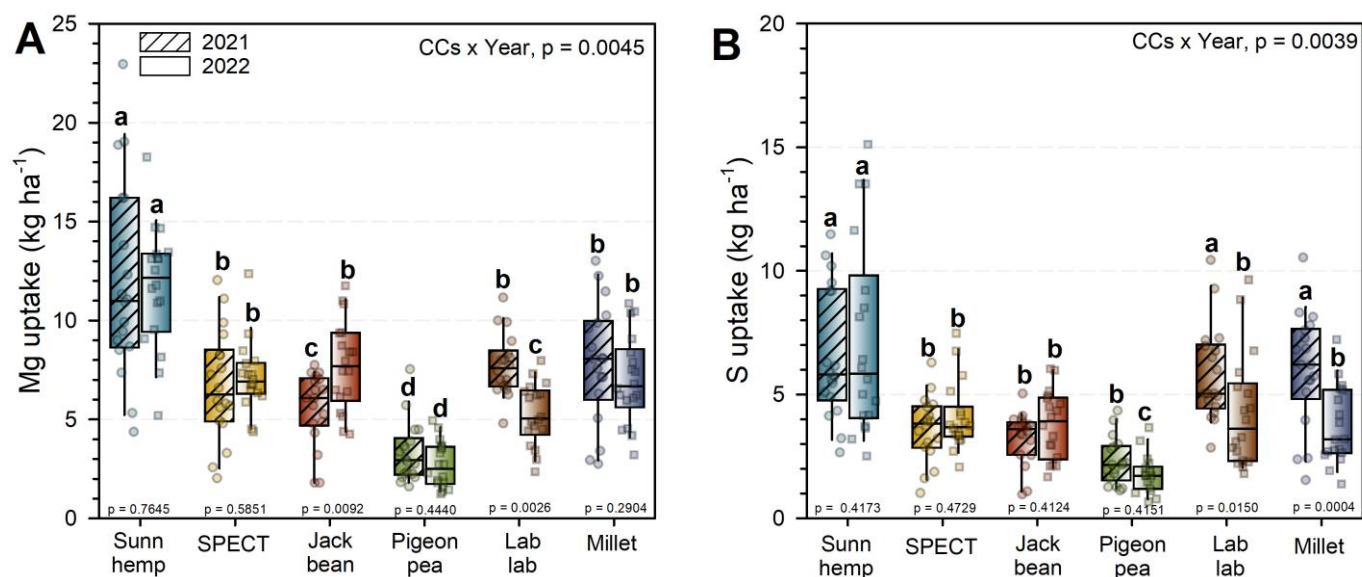


Figure S2. The Mg (A) and S uptake (B) by cover crops in two harvests on sandy soil in a semiarid region, Brazil. SPECT: Spectabilis; CCs: cover crops. Means followed by the same letters between CCs were not differ by Scott-Knott test ($p \leq 0.05$). P-value close to the X axis indicates response between years. ns: not significant by F-test ($p > 0.05$).

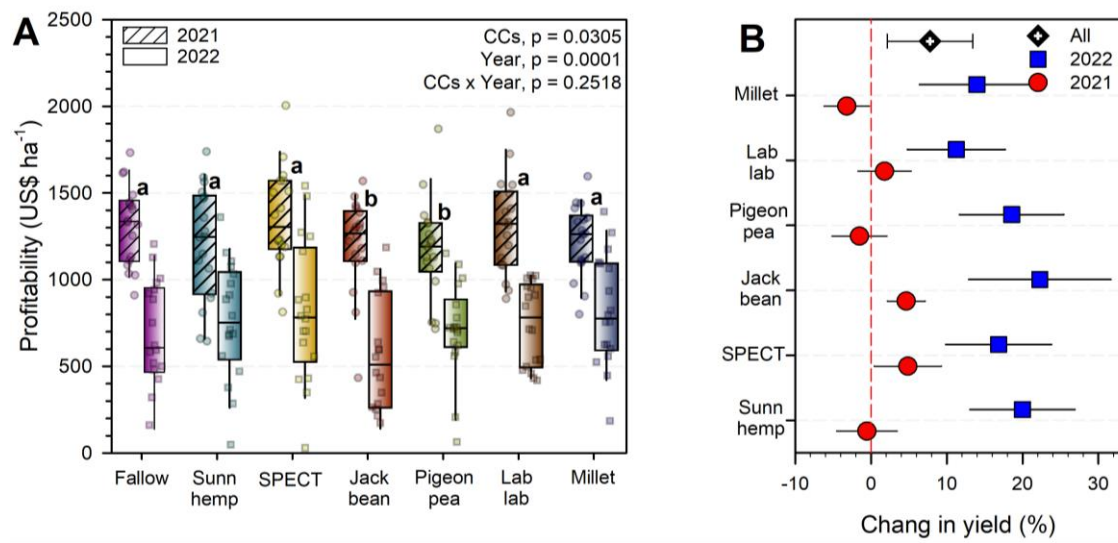


Figure S3. Profitability (A) and change in yield of corn (B) grown under cover crops in two crops on sandy soil in a semiarid region, Brazil. SPECT: Spectabilis; CCs: cover crops. Means followed by the same letters between CCs were not differ by Scott-Knott test ($p \leq 0.05$). P-value close to the X axis indicates response between years. ns: not significant by F-test ($p > 0.05$).