

Editor's comment:

Please find below my decision about manuscript "Irrigation Levels and Potassium Doses in the Growth of Sunflower Cultivated in soil of the Brazilian Cerrado":

The two independent reviewers did a very important contribution to manuscript improvement but, in my view, some statistical concerns persist.

Without further supporting data, I'm not comfortable with the conclusions with biological significance resulting from some fitting curves. Standard error / deviation bars and post hoc multiple comparisons (means separation) tests should be included in all graphs presented. The figure's legends should be more informative and the significance information given could be clearly explained. The manuscript should be revised after the addition of these suggested analyses.

Another question to the authors is how they explain improvements in plant development with irrigation above 100% FC (and relation with irrigation frequency ??).

Author's feedback:

- 1) The reviewer's recommendations based on the graphics and subtitles were considered.
- 2) The improvement in plant development results with irrigation above field capacity may have occurred because above field capacity we have more water applied thus in greater availability of the plant. According to EMBRAPA (2010), the water requirements of sunflower are not yet perfectly defined, with information ranging from less than 200 mm to more than 900 mm per cycle. The water deficit is the main limiting factor for crop production when soil fertility is not compromised and can drastically reduce grain yield.

EMBRAPA. EMPRESA BRASILEIRA DE PESQUISA AGROPECUÁRIA. Embrapa Soja. Tecnologias de Produção Girassol: Exigências Climáticas 2010.
- 3) Irrigations were performed daily in the morning.