



**SDI Review Form 1.6**

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| Journal Name:            | <a href="#">Journal of Experimental Agriculture International</a>                                       |
| Manuscript Number:       | Ms_JEAI_50160   |
| Title of the Manuscript: | Yield response factor to water (Ky) of FMX 993, FMT 701 and FMX 910 cotton varieties in Campo Verde, MT |
| Type of the Article      | Original Research Article   |

**General guideline for Peer Review process:**

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound. To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

(<http://www.sciencedomain.org/page.php?id=sdi-general-editorial-policy#Peer-Review-Guideline>)



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**PART 1: Review Comments**

|                                     | <b>Reviewer's comment</b>   | <b>Author's comment</b> (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here) |
|-------------------------------------|---|--|
| <b>Compulsory</b> REVISION comments | <ol style="list-style-type: none"> <li>1. Some information about the cotton crop specifics (plant density, approximate onset time and time-spans of the most important vegetative phases and agro-climatic requirements) would be useful.</li> <li>2. The authors state (lines 109-113) that, in the estimation of reference evapotranspiration ETo and maximum yield Ym, they used daily meteorological data: maximum and minimum air temperature (°C), wind velocity at 2 m above the surface (m s<sup>-1</sup>), radiation (cal cm<sup>-2</sup> day<sup>-1</sup>) and mean relative humidity (%), but they do not explain how they integrated these data in their methodological construct or how they correlated them with their research and findings. Therefore, they are requested to provide clear explanations for this.</li> </ol>  |  |
| <b>Minor</b> REVISION comments      | <p>Since the cotton crop is highly sensitive to water deficiency and since water deficiency, expressed as a rough differential function of rainfall and evapotranspiration, greatly depends on air-temperature, it gets only logical that cotton both real and maximum yields should also be influenced by the Growing degree-days, which is a very important agro-climatic factor of growth, besides rainfall. Therefore, authors should think of a way to integrate this variable in their correlations too.</p> <p>For further developments of their study, the authors are kindly recommended to think how to relate the crop growing parameters (real and maximum yields) with different rainfall and air-temperature thresholds, like: days when maximum air temperature are higher than 90 percentiles, maximum number of consecutive days with rainfall amounts higher than a critical value, precipitation fraction due to very wet or extremely wet days etc.).</p>   |  |
| <b>Optional/General</b> comments    | <p>Well, luckily there appear so many little experiments in any field of knowledge making us to discover that the space-time continuum (that is the macro-cosmos) is not at all uniform and creates ever different conditions for the tiniest particles (micro-cosmos) to yield... more matter or energy, nobody knows for sure yet...! This is indeed a scientific and quite systematic way at looking through a magnifying glass how the whole universe conspires at making the grass grow on a specific strip of land... And we keep on observing and measuring the length, the height, the weight etc. plus the time span of the grass leaves growing, on condition any extra raindrop or sunray would be added to its initial, intermediary and final vegetative stages. But, on the other hand, if it weren't for this keen human stubborn quest for objective truth, mankind wouldn't have come so close to presuming there might be a universal inter-connectivity, as a unifying theory of everything would state....</p> <p>But, as mankind made great leaps through baby steps first, it seems reasonable enough to go on experimenting everything...! In the particular case of this paperwork, the authors have investigated how water deficit due to local climate conditions can actually influence three varieties of cotton (FMX993, FMT701 and FMX910) on specific farm site conditions in Campo Verde County (Mato Grosso – Brasil), during the crop cycle of 200 days from sowing in the 2009/10 and 2010/11 growing seasons. More specifically, the present paperwork shows how the water deficit between the scarce rainfall amounts and the increased evapotranspiration rates effectively influence the real and maximum yields of cotton, one of the most important crop in Mato Grosso and Brasil, during the 200-days time-span after sowing, in conditions of a wet tropical climate. Although the study is well structured and conducted, based on very clear agro-technical specifications and associations with other similar studies, it could still become absolutely flawless if authors would also take into account the compulsory revision comments mentioned above. However, the present study exudes minute planning and keen attention for real good-quality results, which cannot be denied. The main positive attributes of the paperwork refer to the following facts:</p> |  |



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|  | <ol style="list-style-type: none"> <li>1. The conceptual premises of the study are based on important prior, although pretty scarce, findings from other similar findings;</li> <li>2. The methodology being used to calculate the water deficit – <math>K_y</math> is clear, yet not accounting for all data taken into consideration;</li> <li>3. The analyses being made are convincingly demonstrated by direct correlations between rainfall – evapotranspiration rates and real or maximum yield rates yet not supported by statistical correlations;</li> <li>4. Concise yet scientifically sound comments are clearly explaining the results in the context of their varying determinism;</li> </ol> <p>Overall, the added value of this experimental study is self-obvious, despite its small inconsistencies, and its practical applications are non-debatable.</p> |  |
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**PART 2:**

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|   | <b>Reviewer's comment</b>  | <b>Author's comment</b> (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here) |
| <b>Are there ethical issues in this manuscript?</b> | <i>(If yes, Kindly please write down the ethical issues here in details)</i> |  |

**Reviewer Details:**

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|----------------------------------|--|
| Name:                            | <b><i>Ionac Nicoleta</i></b>                   |
| Department, University & Country | <b><i>University of Bucharest, Romania</i></b> |