# Review of: "Yield Forecasting Model for Maize Using Satellite Multispectral Imagery Driven Vegetation Indices"

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Potential competing interests: No potential competing interests to declare.

The paper addresses a pivotal topic, but unfortunately, I believe it has great flaws, hindering its possible publication. Many of these flaws were already addressed in previous comments; I will therefore be concise. Attached, there is a PDF version of the article with more comments.

1. I find the lack of novelty to be a main problem of this article. No real new information is provided, besides an already established relationship between NDVI and yield.
2. I find the introduction overly long and without a clear train of thought leading from the problem statement to the state of the art and the objective of the research. Moreover, many sentences are unclear and many grammar errors are present, making the overall reading hard to carry.
3. No information is provided about yield data collection, or any other information about the fields and the crops. How was yield collected? With a combine? Estimated starting from sampling points, and how? I assume the yield is reported as dry matter, but since 20 fields and 3 years are considered, information about the dry matter calculation for data normalization would have been needed. If yield was calculated starting from sampling points, how was it spatially interpolated? How many points were sampled, if so? How was NDVI correlated with ground data? How many pixels per point? No variability is provided, neither for NDVI nor for yield. All this methodological information is critical, and its absence severely compromises the work.
4. I think that the number of fields, and specifically their geographical distribution, represents a major problem for deriving a robust and general linear relationship. Also, no information about field size, soil characteristics, fertilization practices, real sowing dates, irrigation management, or the actual meteorological conditions during the experimentation was provided, making it hard to draw conclusions on the prediction effectiveness and upscaling possibilities to other contexts or even years.
5. Why were two different methods for atmospheric correction used? Could not DOS1 be used for both Landsat 8 and Sentinel 2, therefore making the images comparable? The different correction method makes the comparison even less robust. No information or correlation between NDVI from the two satellites is provided.
6. It is not clear how the pixels were selected. Was a buffer zone considered when averaging the pixels? If not, field borders were included and mixed pixels covering both crops and other surfaces might have hinder the analysis. Also, NDVI values greater than 0.95 were excluded, but maize NDVI values can go beyond that threshold. Therefore, there is the actual risk that useful pixels were discarded from the analysis based on this decision.
7. Two different cropping seasons are averaged together (2018-19 and 2019-20) without any justification concerning the

feasibility of such a decision, besides its apparent effectiveness in giving better results. Were the two seasons comparable? What was the data variability? Were the two years comparable, in terms of meteorological conditions? It is said that “Mean NDVI and mean yield are calculated for two satellite images for the combined two seasons because maize yield in each season i.e., 2018-19 and 2019-20 is mostly the same for the Kaharole upazila", but no metric is provided to prove that they are “mostly the same”. Yield data alone does not provide such information, nor justifies it.

8. The results are presented in an unclear manner, especially concerning graphs. In particular, figure 4 has no axis values. Also, no comprehensive graph showing the regression between the measured yield and the predicted yield is shown.
9. No actual discussion is provided. A possible explanation of data behaviour is not present, nor a comparison with other similar studies.

Based on the above comments, I unfortunately think the article needs major revision and is not suited for publication at this stage.