

Review of: "Technological quality of wheat grains and flour as affected by nitrogen fertilization and weather conditions"

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Potential competing interests: No potential competing interests to declare.

The paper is formally well elaborated including appropriate statistical evaluation. It contains a very well written review of papers on the topic, both in the Introduction and especially in the Discussion.

There are, however, several serious methodological flaws, already in the design of the field experiments. When studying the effect of N fertilisation on wheat grain quality, it is not appropriate to apply N once per growing season and that at the beginning of plant tillering. N application at this growth stage cannot be expected to have much effect on the protein content in the grain and certainly not on protein quality. The delivery of N at the beginning of plant tillering is expected to influence mainly yield. However, protein content in wheat grain is tightly connected with the yield, therefore it would be beneficial to incorporate the information about yield to the interpretation results.

From the description of the methodology it is not clear in how many field replications were field trials established?

The major problem of the paper is that it is based on results from only one growing season. At least 3 growing seasons are necessary for research of this nature.