

Review Form 3

Journal Name:	Asian Journal of Research in Agriculture and Forestry
Manuscript Number:	Ms_AJRAF_128129
Title of the Manuscript:	The effect of controlled release npk (16-16-16) fertilizer on soil n-total content and plant n-uptake and growth of sweet corn (zea mays saccharata l.) In inceptisols from jatinangor
Type of the Article	Original

General guidelines for the 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 guidelines for the Peer Review process, reviewers are requested to visit this link:

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PART 1: Comments

	Reviewer's comment	Author's Feedback <i>(Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)</i>
Please write a few sentences regarding the importance of this manuscript for the scientific community. A minimum of 3-4 sentences may be required for this part.	This manuscript contributes significantly to the scientific community by addressing a critical agricultural challenge: the efficient use of fertilizers to improve soil fertility and crop productivity. It evaluates the impact of controlled-release NPK fertilizers on soil nitrogen content, plant nitrogen uptake, and growth of sweet corn in Inceptisols—a soil type prevalent but with low natural fertility in Indonesia. The study provides valuable insights into optimizing fertilizer use to balance nutrient release with crop demands, thereby enhancing productivity while minimizing environmental risks. These findings could guide sustainable agricultural practices and inform fertilizer technology development for resource-poor and marginal soil conditions.	
Is the title of the article suitable? (If not please suggest an alternative title)	The current title of the manuscript, "The Effect of Controlled Release NPK (16-16-16) Fertilizer on Soil N-Total Content and Plant N-Uptake and Growth of Sweet Corn (Zea mays saccharata L.) in Inceptisols from Jatinangor," is clear and descriptive, but it is somewhat lengthy and technical. While it accurately reflects the study's scope and findings, a more concise and engaging title could enhance its appeal to a broader audience. Alternative titles: 1. Optimizing Sweet Corn Growth Using Controlled Release NPK Fertilizer in Low-Fertility Soils 2. Impact of Controlled Release NPK Fertilizer on Soil Nitrogen and Sweet Corn Growth in Inceptisols 3. Improving Sweet Corn Productivity with Controlled Release Fertilizer in Jatinangor Inceptisols 4. Controlled Release NPK Fertilizer: Effects on Soil Nitrogen and Sweet Corn Uptake	

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<p>Is the abstract of the article comprehensive? Do you suggest the addition (or deletion) of some points in this section? Please write your suggestions here.</p>	<p>The abstract of the article is comprehensive, providing a clear overview of the study's background, objectives, methodology, and key findings. However, there is room for refinement to enhance clarity, conciseness, and focus on the most critical aspects of the research. Below are some suggestions:</p> <p>Suggested Additions: Relevance of the Study- Emphasize the broader implications of the research, such as its contribution to sustainable agriculture or improving fertilizer use efficiency. Practical Applications- Include a brief mention of how the findings can guide agricultural practices or policy, particularly for regions with low-fertility soils. Specific Key Results- Highlight the most significant quantitative outcomes, such as the exact improvements in soil N-total content and plant N uptake under different treatments. Suggested Deletions or Modifications: Repetition-Avoid repeating information about the experimental setup, such as detailed percentages of coating or multiple levels of treatments, which can be streamlined or omitted for brevity. Simplify Technical Jargon-Use more general terminology to ensure the abstract is accessible to a broader audience. Example Revised Abstract: The cultivation of sweet corn (<i>Zea mays</i> L. var. <i>saccharata</i> L.) in Indonesia often faces challenges due to low soil fertility. This study evaluates the effect of controlled-release NPK (16-16-16) fertilizers on soil nitrogen content, plant nitrogen uptake, and growth of sweet corn in Inceptisols, a prevalent but low-fertility soil type. Using a split-plot design with three coating levels (0%, 5-6%, 11-12%) and four application times, the findings reveal that uncoated fertilizers resulted in higher soil nitrogen content and plant uptake compared to coated variants. Prolonged application time increased soil nitrogen levels but had no significant effect on plant nitrogen uptake. These results underline the potential of controlled-release fertilizers for optimizing nutrient management, contributing to sustainable sweet corn production on marginal soils.</p>	
<p>Is the manuscript scientifically, correct? Please write here.</p>	<p>The manuscript appears to be scientifically sound, with a clear research objective, detailed methodology, and logical interpretation of results. However, there are a few aspects that could benefit from careful review to ensure accuracy and robustness:</p> <p>Positive Aspects: Clear Research Design- The use of a split-plot repeated observation design is appropriate for evaluating both coating levels and application times. The methodology is well-documented. Relevant Variables-The focus on soil N-total content, plant N uptake, and growth parameters provides a comprehensive understanding of the fertilizer's effects. Statistical Validation-Data analysis using variance and Duncan's Multiple Range Test (DMRT) strengthens the reliability of the findings.</p>	
<p>Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.</p>	<p>The references are adequate for foundational context, but adding more recent and diverse sources will enhance the manuscript's credibility and relevance.</p>	
<p>Is the language/English quality of the article suitable for scholarly communications?</p>	<p>The language quality of the manuscript is adequate for scholarly communication, but there are areas where it could be improved for clarity, conciseness, and readability. You can improve this using Grammarly.</p>	
<p>Optional/General comments</p>		

PART 2:

	Reviewer's comment	Author's comment (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)
<p>Are there ethical issues in this manuscript?</p>	<p><i>(If yes, Kindly please write down the ethical issues here in details)</i></p>	

Reviewer Details:

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