May 10, 2022

Dear Professor,

I would like to submit the manuscript entitled “**Analysis of optimal source and application timing of nitrogen fertilizers in various soil types to minimize environmental impacts caused by nitrate leaching**” by Saeed Sharafi to be considered for publication as an original research article in the journal of Water.

Traditionally, farmers in regions with intensive management, such as Iran, tend to use high rates of N applications to boost crop yield. However, this practice often leads to increased nitrate leaching across various land-use systems. Therefore, the objectives of this research were to investigate the effects of N fertilizer source and application timing on wheat yield and nitrate leaching in different soil textures within a semi-dry climate zone.

The primary objective behind submitting this manuscript to your valuable Journal is to establish a scientific foundation that promotes healthy agriculture in economically deprived regions. As mentioned, smallholder farmers globally adopt **intensive management** techniques to enhance yield per unit area, often resorting to increased usage of chemical fertilizers. Unfortunately, this practice has resulted in an alarming rise of uncommon cancers, posing a significant risk to the farmers and their families who are directly exposed to these hazardous diseases.

Thank you for your invitation. I am interested in contributing a manuscript in your Journal but it is not possible for me to pay the article processing charge. If possible to waive the charge.

I declare that this manuscript is original, has not been published before and is not currently being considered for publication elsewhere. I know of no conflicts of interest associated with this publication, and there has been no financial support for this work that could have influenced the outcome. As corresponding author, I confirm that the manuscript has been read and approved.

Please address all correspondence concerning this manuscript to me at s-sharafi@araku.ac.ir.

Thanks for your consideration of this manuscript.

Sincerely

Saeed Sharafi

