

## RESEARCH ARTICLE

# Rice husk ash : A prospective tool for soil acidity management in homestead vegetable cultivation

■ V. Mini

### SUMMARY

Due to the high cost of traditional liming materials, it is necessary to use organic sources that are readily available, inexpensive, environmentally acceptable, and adaptable as liming agents and fertilizer for vegetable production. Therefore, focus is placed on using rice husk ash, which is significantly more readily available and less expensive in Kerala, as a soil ameliorant. Furthermore, it contains a lot of potassium and silica. Si has reportedly been shown to have various benefits in addition to increasing yield, such as improving nutrient availability, lowering nutrient toxicity, and reducing biotic and abiotic stress in plants. The lime application will be simplified due to the utilization of rice husk ash in place of lime. In order to determine the impact of rice husk ash (RHA) on soil acidity management in homestead vegetable cultivation, the tomato variety Vellayani Vijai was used as the test crop in the current study. There were six treatments, each of which was replicated three times. The highest number of fruits (29.3) and yield per plant (0.855 kg plant<sup>-1</sup>) were recorded in T<sub>6</sub> (Soil test based recommended dose of fertilizers + Rice husk ash @ 125 % lime as per soil test). According to the findings, rice husk ash can be used as a substitute source of lime for vegetables. RHA acted as an excellent source of Si and K and decreased the uptake of iron in all of the treatments where it was applied as a soil ameliorant, resulting in an increase in the available Si and K content in the soil.

Key Words : Rice husk ash, Soil acidity, Homestead, Vegetable cultivation, Soil ameliorant

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