

Effects of carbonized rice hull and wood vinegar on the improvement of cultivation condition and grain quality of rice

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The effects of environment-friendly materials carbonized rice hull and wood vinegar on the improvement of rice quality and soil fertility were investigated. Combined application of carbonized rice hull and chemical fertilizer resulted in lower protein in rice, similar amylose content and generally higher palatability values. Combined application of wood vinegar and chemical fertilizer obtained high protein and amylose contents, and palatability values. However, both carbonized rice hull and wood vinegar did not exhibit weed control. In the carbonized rice hull treatments, soil K was high during heading stage while soil pH during harvest stage was low. In the case of wood vinegar treatments, clear distinction between total K and Ca was observed. K was high during tillering stage while Ca was high until harvest stage.

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