

Yield of Rotation Upland Crops as Affected by the Management of Fertilizers on Fall Crop Season

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ABSTRACT

The purposes of this research were to: (1) determine the amount of requirement of N fertilizer for fall adzuki bean and the method of fertilizer application for fall corn crop, (2) investigate the effect of fertilizer residue on the yield of next upland crop, and (3) evaluate the sequence of rotation upland crops.

Results showed that the amount of requirement of N fertilizer for adzuki bean was 60 to 90 kg/ha, which resulting a 15 to 19% yield increase compared to treatment applied for no nitrogen. The yield of fall corn increased 10% when basal fertilizer was covered with soil; however, there was not difference on the yield of corn when applying fertilizer in the button of furrow or the top of side-furrow. The yield of spring sorghum was adversely related with the yield increase of fall adzuki bean; while, the yield of spring soybean was positively related with the yield increase of fall corn crop. Both results showed that the combination of fall adzuki bean followed by spring sorghum was adverse for the production of rotation system, but the combination of fall corn crop followed by spring soybean was good for the production of rotation systems.

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