

PHOSPHORUS MANAGEMENT IN WHEAT-RICE ROTATION THROUGH INTEGRATED USE OF FERTILIZERS

II. Beneficial effects on yield and profitability

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ABSTRACT

The effectiveness of integrated uses of organic and inorganic fertilizers on the yield and profitability of wheat and that of following rice were evaluated in a field experiment. The results of the wheat experiment showed that integrated use of poultry litter (PL) and di-ammonium phosphate (DAP) or filter-cake (FC) and di-calcium phosphate (DCP) in 2: 1 P ratio reduced fertilizer cost by 25-29%, respectively, improved the value: cost ratio (VCR) by 38% and resulted in increased net income over DAP alone even on a soil having adequate available P. However, for the following rice, despite 28-32% reduction in fertilizer cost, the improvement in VCR was small (14-22%) over and above the commonly used chemical source (DAP).

Key Words: Integrated use, Organic wastes, Wheat-rice system, Phosphorus fertilizer