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“Bridging the gap between increasing knowledge and decreasing resources”

## Describing Adoption of Integrated Soil Fertility Management Practices in Northern Ghana

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### Abstract

As population grows the needs to increase agricultural production becomes more challenging given the finite availability of land. Integrated soil fertility management (ISFM) practices have been promoted to ensure sustainable use of soil resource. The package includes use of improved crop varieties, inorganic, and organic fertilisers. This study examined the factors that affect adoption of ISFM technological package with data from a cross section of 225 randomly selected farm households in northern Ghana. Among the components in the ISFM technological package, the use of inorganic fertilisers was most adopted by about 96 % of the sampled households. Organic fertilisers were adopted by about 60 % of the sampled households, while improved crop varieties were adopted by about 89 % of the households. In all, about 69 % of the sampled households had adopted the ISFM technology package. By implication, the promotion of the ISFM technology should emphasise the use of organic matter which appears to be lagging behind the other components. The results from a Cragg's two step model suggest that education and extension remains crucial in the promotion of ISFM. Provision of credit in the form of fertilisers, seeds of improved varieties, and payment for labour will avoid diversion of cash credit. In addition to these, the study showed that the technology was more suited for farmers with high land-labour ratio, more assets, and those engaged in agriculture as their only source of livelihood. These groups of households should be systematically targeted during the dissemination of ISFM in northern Ghana.

**Keywords:** Adoption, Cragg, Ghana, ISFM