

Knowledge, Adoption and Economics of Integrated Nutrient Management (INM) in Rice of Vizianagaram District, Andhra Pradesh

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ABSTRACT

On-farm demonstrations of INM in paddy were carried out by DAATT Centre (District agriculture advisory and transfer of technology centre) in Vizianagaram district, Andhra Pradesh for balanced crop nutrition the crop pests, reducing the cost of production to farmers and ensuring quality produce to the consumers. INM verification trials were conducted under farmer's conditions as well as large scale implementation of INM through farmers' participatory approach at five villages in Vizianagaram district of Andhra Pradesh. Adoption of INM practices resulted in increase in rice yield from 5.22 to 6.18 tones/ha in Vizianagaram district during kharif, 2012-13 and 2013-14. The cost of chemical fertilizers under INM practices in paddy is reduced by 44.5% as compared to non- INM farmers' practice. The cost-benefit ratio of rice was 1 : 2.41 in INM farmers as compared to 1 : 1.62 in Non-INM farmers. Knowledge and adoption of INM in paddy was studied in ten villages consisting of 6 INM farmers and 6 non- INM farmers in each village. Majority of INM practicing farmers (46.7%) had high extension contact and majority of non-INM farmers (40%) had low extension contact. High proportion of INM farmers (35.5%) having medium farm holding and majority of non-INM (40%) were marginal farmers. Forty eight per cent of the INM farmers possessed high knowledge level and remaining farmers possessed medium (37%) and low (15%) level knowledge regarding paddy INM practices. Whereas forty seven percent of non-INM farmers possessed medium level of knowledge followed by high (33%) and low (20%) level of knowledge on rice INM. Forty eight percent of INM farmers had high adoption level and thirty seven percent of INM farmers had medium adoption level. Thirty eight per cent of non-INM farmers had low adoption level of INM practices followed by medium level adoption (33%). The success of INM technology through demonstrations was found to be more suitable in increasing the knowledge and adoption level of the paddy farmers. Majority of INM farmers have a high knowledge on split application of N and K fertilizers, followed by 85% INM farmers have knowledge on zinc application and 82% on FYM application. However, low knowledge of INM farmers was associated with adopting a gap of 2 days between phosphatic fertilizers and zinc fertilizers. Highest adoption levels (91.67) was found in INM farmers with split application of N & K fertilizers followed by recommended dose of N fertilizers (75%). Non INM farmers registered highest knowledge levels (66.7%) on split application of N and K fertilizers followed by use of recommended dose of N fertilizers (75%). Highest adoption levels of non-INM farmers was associated with split application of N and K fertilizers and lowest adoption rates of 6.67% was associated with adopting soil test based fertilizer recommendations.

Key words: *Adoption, Economics, INM in Rice, Knowledge, soil testing.*