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acknowledges the need for fertilizer and improved varieties. An essential condition for its early adoption is access to farm inputs, produce markets, and financial resources. To a large extent, adoption is market-driven as commodity sales provide incentives and cash to invest in soil fertility management technologies, providing opportunities for community-based savings and credit schemes. Policies towards sustainable land use intensification and the necessary institutions and mechanisms to implement and evaluate these are also that facilitates the uptake of ISFM. Policies favoring the importation of fertilizer, its blending and packaging, or smart subsidies are needed to stimulate the supply of fertilizer as well. Specific policies addressing the rehabilitation of degraded, non-responsive soils may also be required since investments to achieve this may be too large to be supported by farm families alone.

While dissemination and adoption of complete ISFM is the ultimate goal, substantial improvements in production can be made by promoting the greater use of farm inputs and germplasm within market-oriented farm enterprises. Such dissemination strategies should include ways to facilitate access to the required inputs, simple information fliers, spread through extension networks, and knowledge on how to avoid less-responsive soils.

A good example where the 'seeds and fertilizer' strategy has made substantial impact is the Malawi fertilizer subsidy program. Malawi became a net food exporter through the widespread deployment of seeds and fertilizer, although the aggregated AE was only 14 kg grain per kg nutrient applied (Chinsinga, 2008). Such AE is low and ISFM could increase this to at least double its value with all consequent economic benefits to farmers. As efforts to promote the 'seed and fertilizer' strategy are under way, activities such as farmer field schools or development of site-specific decision guides that enable tackling more complex issues can be initiated to guide farming communities towards complete ISFM, including aspects of appropriate organic matter management of local adaptation of technologies. The latter will obviously require more intense interactions between farmers and extension services and will take a longer time to achieve its goals.

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**Figure 5.** Microdosing fertilizer in the planting pit of cereals (inset) with relatively large plant spacing, and after concentrated use of farmyard manure, is another good example of an ISFM intervention. The planting pit also serves as a means to harvest water.

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## **IPNI Award Available to Scientists in 2011**

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The Science Award goes to one individual each year, based on outstanding achievements in research, extension, or education which focus on efficient and effective management of plant nutrients and their positive interaction in fully integrated crop production, enhancing yield potential and/or crop quality. It requires that a nomination form (no self-nomination) and supporting letters be submitted by mail before September 30. The Award announcement is December 1. It includes a monetary prize of USD 5,000 (five thousand dollars).

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