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MALAWI

SUCCESS STORY

Tephrosia Helps Region Spring to Life

Low cost conservation farming methods improve food security



Photo: Total Land Care

Low cost conservation farming methods in Malawi's watershed have meant successful harvests in crops such as maize.

Exlina Azeli, who uses tephrosia fallow on her farm, said, "The combined results of the conservation farming practices have given me sufficient income to build a new house made from bricks and covered with tin sheet. I've also saved time in labor, which has enabled me to diversify the crops on other parts of my land."

Telling Our Story
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Malawi's Chia watershed is one of many areas where people struggle to meet the demands for food because of the poor quality of the soil, following years of erosion and cropping patterns that don't replace the necessary soil nutrients. The plant species *tephrosia candida* (also known as the white hoarypea), which is capable of adding nitrogen from the air to the soil to dramatically improve its fertility, may be an answer.

When the shrubs are pruned periodically, the immature plant parts can be applied as an inexpensive compost mulch that significantly increases the growing potential of crops. With USAID assistance, *tephrosia* fallow has been established as a low-cost farming practice aimed at restoring soil fertility to increase crop yields and improve food security.

Exlina Azeli, an elderly widow living in Thawale Village within the Chia watershed, is one of 10 farmers in Nkhotahota District who pioneered low-cost conservation farming and *tephrosia* fallows on their farms. In December 2005, Exlina established *tephrosia candida* on a part of her farm where crop yields had been steadily declining. The plant grew well, and she maintained the *tephrosia* for a second season to maximize biomass production as well as to secure seed for the following year. Little management was needed as the plant was well established and its dense canopy suppressed all weeds, while the ground was covered with a rich carpet of *tephrosia* leaf litter, an organic compost.

Before the start of the 2007 to 2008 rains, Exlina collected over 40 kilograms (88 pounds) of seed, some of which she kept for her own planting, but most of which she sold at 200 Malawi kwacha (about \$1.50) per kilogram. She cut down the *tephrosia* to ground level, leaving the leafy biomass to fall off the woody stems before collecting the wood for fuel. After the rains started, Exlina planted maize, which grew well because of the nutrients in the soil.

Having seen the yield produced by the pioneering farmers, 222 farmers established the *tephrosia* fallow on their farms within the watershed, while a further 240 have taken it up in neighboring areas.