



## Feed the Future Country Fact Sheet

Online Version: <https://www.feedthefuture.gov/article/feed-future-helps-scale-ridge-tillage-mali>

## Feed the Future Helps Scale-Up Ridge Tillage in Mali



Ryan Vroegindewey/USAID/Mali

IER agronomist and Ridge Tillage Project Head Mamadou Doumbia points to one of several “ados,” or large earthen ridges, which have helped maintain soil quality and boost crop yields in this Konobougou field for over 10 years.

In Mali, one of the obstacles to agricultural productivity is water runoff and a resulting loss of soil nutrients that are vital for crop growth.

A well-documented technological solution to this problem is ridge tillage, or the practice of creating earthen ridges along the contour lines of a sloping field to prevent water runoff (pictured left).

Feed the Future beneficiaries in Mali who have employed this practice with assistance from USAID and the Mali National Agricultural Research Institute (*Institut d’Economie Rurale*, or IER) have seen immediate and dramatic improvements: decreased water runoff by 20 to 40 percent, the retention of soil nutrients, and increased yields of cereal crops by 30 to 50 percent. In addition to increasing yields, ridge tillage allows farmers to extend their planting season by two weeks, an important margin in the fragile Sahel region where climate change is bringing irregular seasonal rains.

In Siguidolo, a village located in Central Mali, the impact of ridge tillage on food security, natural resource management, and resilience is very apparent. Over 90 percent of farmers in Siguidolo have adopted ridge tillage technology since it was first introduced by IER and expanded by USAID. Before the practice was broadly adopted by villagers, rainwater was escaping fields at a 40 percent runoff rate, and was sweeping away precious fertilizer inputs.

But the broad implementation of ridge tillage has made a major difference in the community: Previously uncultivable sand pits have been reclaimed for farming, local water tables have been replenished, and trees have sprouted and flourished thanks to increased water infiltration over time. Ridge tillage has also vastly increased the number of local vegetable gardens. A local woman who tends a small garden plot, Mrs. Traoré, states, “I feed my family with vegetables from the garden every evening, in addition to selling products at the local market.”

Based on these successes, Feed the Future is working with local partners in Mali to scale up ridge tillage to benefit many more farming households. IER estimates that there are about two million hectares of rain-fed agricultural land across Mali that could benefit from ridge tillage, and in recent years farmer demand has increased rapidly as word about the technology has spread. Feed the Future’s objective is to significantly expand the farmland currently under ridge tillage in Mali from approximately 17,000 hectares to about 100,000 hectares in the Sikasso and Mopti regions, which is expected to diversify and raise the incomes of about 10,000 farmers by 20 percent.



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One impact of ridge tillage in Konobougou has been increased local water table levels, which has enabled women's groups like this one to maintain gardens that diversify household foods and income.