

ANNEX A. TEXT BOXES

Box 1. A Recent Convert to CF Basins

Wilson Mapiza of Mumbwa District in Central Province saw the high yields achieved by his friends who practiced CF with a CLUSA supported group nearby. Impressed by their results, he, too, asked to join.

In his first season as a group member, Mapiza has planted two limas maize and soybeans with inputs from CLUSA. In addition, he planted two limas of potholed maize purchasing fertilizer and seed with his own funds from the Food Reserve Agency. He grows one lima of paprika on ridges and has ox-plowed one hectare of maize. Because he prepared basins in the dry season, he planted his CF maize with the first planting rains on November 15th. Due to a late start and sporadic early season rains, he was unable to plow until December. He planted his one hectare plot of conventionally tilled maize on New Years' Day 2002, fully six week later than his potholed maize.

The picture below demonstrates the striking difference in plant establishment. Mapiza reckons he will harvest 3 to 4 tons per hectare from his CF basins on the right. But from the plowed field on the left he will be lucky to harvest even one ton. Mapiza says that about three farmers a day pass by to ask how achieves such high yields.



Box 2. A Six Year Veteran with CF Basins

John Manchinchi and his wife retired from school teaching in 1994. They returned to their home village of Nangoma to begin cultivating their three hectares of land. In 1995, they planted cotton and maize in furrows, tilling with ox-drawn plow.

Then in 1996, they became CFU demonstration farmers and devoted one lima of land to a CF rotation of maize, soya and green gram. Their five remaining limas remained under conventional ox-plow tillage and planted, as before, with cotton and maize..

Because of the striking difference in output from his CFU basins, Manchinchi planted an additional two limas in basins the following season, using his own resources to procure inputs. The remaining two limas remained under conventional tillage.

Each year, he brought additional land under CF basins. In the 2001/2 season, he cultivated all 12 limas of land in basins under a variety of CF systems. On some plots he applies chemical fertilizer; in others he applies manure from his kraal. Plot samples taken from one of his self-financed maize plots, the one he fertilized with kraal manure, register a 2.9 ton per hectare yield under CF with basins.

Now in his sixth years of conservation farming, Manchinchi emphasizes that his land preparation and weeding time have diminished substantially over time. As we prepare to leave, he asks about a new variety of cassava called Bangweula which he understands can yield over 20 tons per hectare. As it turns out, he is right.



Box 3. A Cotton Farmer Adopts CF Basins

Emmanual Mukwashi of Chisani Village is a Dunavant distributor. This is a responsible position for this 27 year-old father of five. He assumes responsibility for input distribution and loan repayment by his 62 group members. Following each of the half dozen seasonal training sessions run by Dunavant and the CFU, he visits his farmers to show them what he has learned.

Two seasons ago, Mukwashi began to experiment with CF basins. He saw results from his neighbors who were achieving unusually high yields on their cotton and maize. This season, he has planted 5.4 hectares in all, with all labor supplied by himself, his wife and his two oldest children. He farms 1.4 hectares of cotton in three separate plots, 1 hectare under conventional ox-plov tillage and .4 hectares in basins. This season, he estimates that his cotton planted in basins will yield double what he harvests from his adjacent conventionally plowed field. This year, the rains have been scattered and irregular. Eight of his 62 group members currently plant cotton in basins. But because of the drought, they have seen that farmers with basins will harvest much more than those who plow.

Even though he owns five cattle, Mukwashi intends to plant more land in CF basins next season. And 32 of his group members have asked for training so they too can switch to CF planting basins next season.



ANNEX C. SUPPLEMENTARY FIGURES AND TABLES

Figure C-2. Plow Pan Damaged Land in Zambia



Figure C-3. Dry Season Digging of CF Basins



Figure C-4. The Magoye Ripper



Source: Piet Stevens, IMAG/GART.

Figure C-5. Dry Season Ripping



Source: Piet Stevens, IMAG/GART.