



# Hermetic bags have saved my grain and saved me money



**Godfrey Masaki**  
MAIZE FARMER

For Godfrey Masaki, 2019 was a uniquely difficult year. Elephants invaded his farm in Sherehehe village in Moshi, north-eastern Tanzania, and destroyed the entire maize crop. Normally after a harvest, his grain store would be neatly piled with sacks full of maize, but at the beginning of 2020, only four 100kg bags of maize remain in his store – from the 2018 harvest.

“The elephants did a lot of damage. I did not harvest any maize,” laments the 60-year-old farmer. “If this had happened ten years ago, I would have had difficulty feeding my family. Fortunately my six children are all grown and independent, so it is only my wife and I at home. I have kept these four bags from two harvests ago because they may come in handy in an emergency, like hospitalization or another urgent need. They are my insurance.”

Godfrey is not worried that the grain will be attacked by insects or rodents because he has stored them in hermetic bags. “My maize will be safe even if I want to keep it for four more years,” he says. “These bags do not allow any moisture in, so the maize retains its quality and will not go

bad. Nor do I need to use chemicals on the grain to preserve it. If I was using ordinary bags, I would have had to empty them every couple of months to apply pesticides.”

He adds: “In the end, the hermetic bags are economical to use, and the maize is safer to eat than that which has been continuously treated with pesticides. Moreover, I can use the bags for three harvests. These bags have saved my grain and they have saved me money. I have discovered that I can also preserve beans in them until I am ready to sell the produce.”

Godfrey is the secretary of the Siha Kiyeyo Rural Co-operative Society, whose members were trained on good agricultural practices for maize production and storage techniques by Rural-Urban Development Initiatives (RUDI), a grassroots organization that mobilizes and trains farmers in Tanzania. RUDI has partnered with the Alliance for a Green Revolution in Africa (AGRA), which is the implementing partner for Rockefeller Foundation’s YieldWise program in the country.



**Bagged insurance: Hermetic technology has kept Mzee Godfrey's maize from two seasons ago safe from pests and disease. The bags can store maize for up to eight years and reduce grain loss by over 90%.**

Besides training, farmers have received access to credit facilities to help them buy seed, fertilizer and herbicides, which the society buys directly from the manufacturer to ensure genuine stock purchases. In 2018, when the harvest was good, farmers brought their maize to the center, where it was amalgamated and sold to Union Service Stores for milling – a total of 75,300 kg. The arrangement with the miller gave the farmers a secure market for their maize, and better prices than they would have received from middle-men. All those who had taken loans for inputs have paid it all back.

“Brokers have been cheating us. They do not weigh the maize; instead they want to measure it in debes (buckets), which they insist should be filled to overflowing and they end up with much more maize than they pay for. That is why we avoid them,” Godfrey explains. “Unfortunately last

year we were unable to send maize to Union Stores because the harvest was poor for everybody, mainly because of unfavorable weather. We did not have the volumes we had agreed to sell to them. But we are expecting a better harvest this year so we should be able to sell them our maize.”

In addition to the hermetic bags, RUDI introduced the farmers to metal and plastic silos, which store much more grain than the bags. Godfrey is preparing to buy more hermetic bags for this year's harvest, but wishes he could get a silo. “I have a small one, but it is not enough. Silos are expensive and many farmers cannot afford them. But they are more convenient to use than the bags for large quantities of maize. Last year, for example, a kilogram of maize was selling at Tsh360 (US\$ 0.16), but today it is Tsh1,020 (US\$ 0.45). If we had harvested a lot of maize, we could have kept it in silos and sold it at very big profits. We all hope that we will have a good harvest this year.”



**Mzee Godfrey Masaki looks forward to a bountiful maize crop this year. He owns a 500l plastic silo, but would like to get a bigger one to store the anticipated high yield.**

Rockefeller Foundation's YieldWise initiative was launched in 2016 with the goal of reducing post-harvest loss in select countries and value chains by up to 50 percent. More than 40 percent of fruits and vegetables in developing regions spoil before they can be consumed.

Using a multi-pronged strategy, YieldWise sought to improve millions of rural lives by increasing incomes, increasing the availability of food and protecting finite environmental resources.

The initiative targeted tomato and cassava production in Nigeria, mangoes in Kenya and maize in Tanzania.

YieldWise Initiative in the maize value chain in Tanzania is coordinated by the Alliance for a Green Revolution in Africa (AGRA).