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PLANTING SEEDS OF HOPE

By Karol Boudreaux
and Daniel Sacks

MERCATUS CENTER
GEORGE MASON UNIVERSITY

Despite tremendous worldwide economic progress over the past 50 years, hunger and food insecurity remain the daily reality for people around the world. In Africa alone, millions struggle against the ravages of hunger.¹

Even though the Green Revolution—the concerted effort to increase agricultural production worldwide through the introduction of new technology—succeeded in bolstering agricultural production in Asia, new agricultural technologies and innovations have caught on only slowly in Africa. However, one innovation, the Combi-Pack is showing great potential to reduce hunger and poverty among smallholder farmers in South Africa.

DEFINITION

ALTHOUGH IT IS produced by the giant multinational agricultural company Monsanto, the Combi-Pack is a relatively inexpensive box of materials designed specifically for use by smallholder farmers—farmers who work anywhere from 1/4 hectare (1/2 acre) to five hectares (10 acres) of land. The box contains a package of hybrid maize seed, some fertilizer, some herbicide, and pictogram instructions for illiterate users.

While “Combi-Pack” is the product’s official name, smallholder farmers call the Combi-Pack, *Xoshindlala*, a Zulu word that means “chase away hunger.” As subsistence farmers, smallholders’ lives, and the lives of their families, depend upon their crops. If the harvest is poor, the people suffer. If the crops flourish and commodity prices are good, then the farmers flourish as well. Greater crop yields typically translate into less hunger and more cash income. The Combi-Pack is an effective tool that farmers are using to increase their yields and food security, thereby driving away their hunger.

BOTTOM OF THE PYRAMID MARKETING: EMPOWERING THE POOR

The Combi-Pack is an example of Bottom of the Pyramid Marketing. The idea behind Bottom of the Pyramid Marketing is that the poor represent a huge, if diffuse, market with a total purchasing power in the trillions of dollars.² Companies that develop and package their products to meet the poor consumers' needs for small units at low prices can tap this market. If companies do this, not only can they make profits, but they also increase poor consumers' access to goods and services, empowering these consumers by making them active participants in a market rather than passive recipients of aid.

ALLEVIATING POVERTY

IN 2005, THE majority of South African farmers made less than 2,500 rand (approximately \$381 U.S) per month.³ They lack clean water, electricity, and adequate education. They suffer from poor nutrition and health care. They live in poor housing and have few comforts.

As many smallholders have no cash income beyond what they earn selling surplus crops at market, increasing the outputs of their farms can dramatically improve their lives. Bolster-

ing agricultural production not only alleviates the farmers' poverty, but it also improves the local economy and helps the people in cities too, for increased agricultural production creates jobs, increases wages and incomes, and lowers the cost of food.⁴

Increased productivity gives farmers more time and money, which allows some farmers to pursue other entrepreneurial opportunities. With their newfound extra time, some farmers might make crafts; others might invest in livestock; yet others might open a small grocery store. As Charles Matlou, a member of Monsanto's smallholder research team, told us: "It's not about how much they grow, but about their surplus. It's about how much the farmers save. They save time, money, labor, and they save the soil."⁵

A CASE STUDY

SWELEKILE ALINA NKOSI experiences daily Combi-Pack's benefits of saved time, money, labor, and soil. The mother of 10 children, Mrs. Nkosi spent long hours outdoors for many years, tending the three hectares (approximately six acres) of fields for like most African women, she is largely responsible for raising the crops her family relies on for their food and for animal feed.⁶



The Ladies of the Sakhuthando Farmers Association left to right: Mrs. Q.J. Zungu, Mrs. Patrice Sibici, Mrs. V. Zungu, Mrs. Cele

TABLE 1: NO-TILL VERSUS CONVENTIONAL FARMING IN MLONDOZI: YIELD AND PROFIT

YIELD (T/HA)	NO-TILL	CONVENTIONAL
1999	2.94 (+124%)	1.31
2000	4.01 (+19%)	3.36
2001	6.00 (+71%)	3.50
PROFIT (R/HA)		
2000	2,809.00 (+25%)	2,249.00
2001	10,080.00 (+71%)	5,880.00

The profit is the difference between cost of production and income per hectare and is determined at the ruling price of maize.

Source: "Sharing: Mlondozi LandCare Project," Monsanto.

Mrs. Nkosi used to grow her maize in the traditional way. Her husband plowed a field, and she planted her maize seed by hand. Each day during the rest of the season she would spend many hours weeding the field. At the season's end in May, she would manually harvest the corn.

In the past, Mrs. Nkosi had many concerns. Her field had no irrigation, so she worried about having sufficient rain to grow the crop. When it did rain, she worried about soil erosion washing her fields away. She worried about having enough maize to feed her family. She worried about having enough to pay for school fees and clothes.

Today, Mrs. Nkosi's life is different. Now that she and her husband use Combi-Packs in combination with no-till agriculture to grow maize, she doesn't worry as much about soil erosion. As they no longer need to plow the field, they save money. And they do not worry as much about feeding their family or paying for school because they produce a surplus of maize that they can sell at market.

For the Nkosis, using Combi-Packs and no-till farming means less time and effort, reduced costs, and higher yields, which translates into more time for opportunities to increase their income, savings, and food security. Mrs. Nkosi grows more maize than she did in the past, but she spends less time in the field because she does not need to do intensive weeding. This frees her to do other things, such as sew for the family, make crafts for sale at market, or spend time with other ladies.⁷

Using the Combi-Pack has improved Mrs. Nkosi's quality of life. "I'm so happy with this way of farming," she says. "What will happen when I'm old I don't know, but one thing is good, and that is now there's no water cutting through, so my soil is conserved."⁸

BARRIERS AND CONSTRAINTS:

DESPITE THE SUCCESSES individual farmers have had with the Combi-Pack, many other farmers continue to battle hunger and failure. There are several obstacles that prevent smallholder farmers in South Africa from being more successful.

Most smallholder farmers are black, and they continue to suffer from the discriminatory policies of the past. They often live on poor-quality communal land. Without ownership of the land, they have difficulty accessing commercial credit, which means they can only invest in their land if

they earn a cash income from their crops.⁹

The smallholder farmers often live far from markets and mills, and transportation is limited. The quality of the roads in the areas where these farmers live is poor, which raises the costs of transporting goods to market or mills. Without access to mills, farmers are unable to add value to their products and capture the higher prices offered for processed maize.

Moreover, the agricultural subsidies of other nations affect these South African smallholder farmers. Such subsidies limit their abilities to profit from their crops because these farmers cannot compete with the artificially low prices of the subsidized crops of the developed world. The subsidies Europe, Canada, and the United States give to their farmers keep smallholder farmers in South Africa in poverty and take away their ability to increase their standard of living by selling their goods in the world market.

CONCLUSION

SAVING TIME, MONEY, labor, and soil allow smallholder farmers to capture the real benefit of Combi-Packs: moving from a marginal, subsistence existence to greater food and economic security. When farmers are able grow more food and spend less time farming, they can both chase away their hunger and embrace other entrepreneurial opportunities.

Combi-Packs will not solve all the problems of rural poverty. Land tenure insecurity, a lack of access to credit, transportation issues, and the agricultural subsidies offered in developed countries are huge barriers to economic success for smallholder farmers in South Africa. However the Combi-Pack, the product of a multinational company, is doing something that opponents of globalization might find surprising: it is bettering the lives of the rural poor.



Jeconia Ngema, Chairman of the Sakhuthando Farmers Association

ENDNOTES

1. BBC Press Office, "Africa's starving millions: BBC World Service investigates the real causes," Press Release, February 2, 2006, http://www.bbc.co.uk/pressoffice/pressreleases/stories/2006/02_february/02_hunger.shtml
2. See C.K. Prahalad, *The Fortune at the Bottom of the Pyramid* (Upper Saddle River, NJ: Wharton School Publishing Pearson Education, Inc., 2005): 10.
3. See *Labor Force Survey*, September 2005, Statistical Release P0210 (Pretoria: Statistics South Africa, 2005).
4. "The crisis in African agriculture: A more effective role for EC aid?" (Practical Action/Pelum, Rugby, Warwickshire, UK /Lusaka, Zambia, 2005): 6, <http://www.sarpn.org.za/documents/d0001765/index.php>.
5. Interview with Charles Matlou (Monsanto smallholder team member, Belgrade, South Africa), September 28, 2005.
6. On its "Gender and Food Security/Agriculture" website, the Food and Agriculture Organization (FAO) says: "Rural women in particular are responsible for half of the world's food production and produce between 60 and 80 percent of the food in most developing countries. Yet, despite their contribution to global food security, women farmers are frequently underestimated and overlooked in development strategies. Rural women are the main producers of the world's staple crops—rice, wheat, maize—which provide up to 90 percent of the rural poor's food intake." <http://www.fao.org/gender/en/agri-e.htm>.
7. The local extension agent, Ms. Lucia Sanelisiwe Makhanya, told us that this new approach to planting has been especially beneficial to the women of the Mlondozi community who feel less stress than before—particularly those in single-parent households, who had a very difficult time with the costs and time involved in traditional farming. Interview with Lucia Sanelisiwe Makhanya (extension agent, Mlondozi, South Africa), September 29, 2005.
8. Interview with Swelekile Alina Nkosi (farmer, Mlondozi, South Africa), September 29, 2005.
9. Statistics South Africa, *Report on the Survey of Large and Small-Scale Agriculture* (Pretoria: Statistics South Africa, 2002): 103, Table 11.1. This table suggests very low levels of credit use overall in former homelands.

FOR FURTHER INFORMATION READ, SEEDS OF HOPE: AGRICULTURAL TECHNOLOGIES AND POVERTY ALLEVIATION IN RURAL SOUTH AFRICA, POLICY COMMENT NUMBER 6 IN THE MERCATUS POLICY SERIES, [HTTP://WWW.MERCATUS.ORG/SEEDSOFFOPE](http://www.mercatus.org/SEEDSOFFOPE)

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Karol Boudreaux is a senior research fellow at Mercatus Center and the lead researcher for *Enterprise Africa!*

Daniel Sacks is a program associate at the Mercatus Center who works with the Global Prosperity Initiative and *Enterprise Africa!*