

Videos

inspire farmers to

experiment

Healthy soils are the foundation for healthy crops. And in sub-Saharan Africa, fertile soils are doubly important, as they help to reduce infestation by striga, or witchweed, which can seriously reduce cereal yields. A series of films featuring farmers showing what they have achieved with compost is having a big impact. And these are achieving more than striga control – they are enabling farmers in Mali, Ghana, Niger and Tanzania to learn, share their ideas with each other and to improve their soil.

Jeffery Bentley and Paul Van Mele

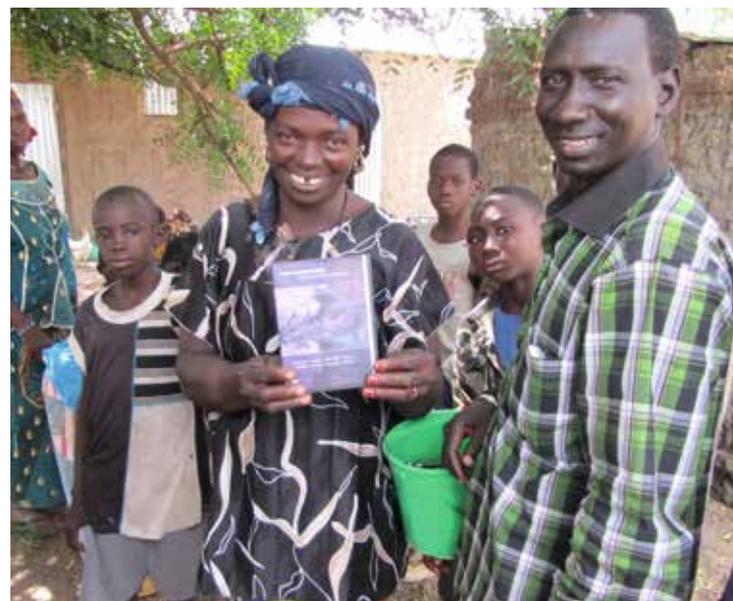
Striga is a damaging parasitic weed that lives on the roots of sorghum, millet, maize and rice. It sucks its food from the crop and does not rely on the soil. While the red-flowered striga is found in eastern and southern Africa, the purple-flowered one grows across the whole continent. It prefers poor soils where the cereal crops are generally weak, and when attacked, striga can decimate an entire crop. Striga management requires a combination of weed control and soil fertility management. This has proved to be a challenge, in part because of striga's unusual ecology, and suggests that new creative thinking and techniques that help to build soil organic matter and support soil life would help.

In response to this, researchers from the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) set up farmer field schools in Mali, Ghana, Niger and Tanzania in 2007, to learn and experiment with different striga control options. Farmers saw clearly that striga is more common in

poor soils than in healthy, fertile ones. This helped to understand that soil fertility is a key to controlling striga, especially by using compost. It is more effective than manure or chemical fertilizer because it is full of healthy micro-organisms that attack striga seeds in the soil.

Christine Keita with a Striga DVD.

Photo: Paul van Mele





Léwa Kamaté closes the loop by feeding his rabbits with sweet potato leaves and returning the rabbit manure to his compost pile. Photo: Jeffery Bentley

Seeing is believing Using video is an effective way for farmers to share ideas with each other, and to stimulate creative ways of working to improve soil. Four years after starting the farmer field schools, a series of ten videos were produced on 'Fighting striga and improving soil fertility'. The videos featured graduate farmers explaining the effective techniques they had learnt, and how they had adapted them to their own conditions. The videos also included impressive animations that clearly explained the biology and ecology of striga, i.e. how it develops underground and why it reduces crop yields.

One of the videos shows farmers in dry, northeastern Mali, who learnt how to make compost in pits by mixing cereal straw and stalks with ash, manure and water so the tough plant matter would quickly decompose. They learnt from their own experience that incorporating compost into the soil helps to reduce striga infestations, and increases crop yields. Previously, they had only composted manure, and they were delighted to realise that by adding plant material they could produce much more organic fertilizer. And by making the compost in pits, it would hold more moisture and compost quicker.

The ten videos were translated into more than 20 languages and are freely available from the NGO Access Agriculture (<http://www.accessagriculture.org/>). Besides English, French, Portuguese and the videos are also in Kiswahili, Hausa, Bambara, Bariba, Bomu, Buli, Chichewa, Dagaari, Dagbani, Dendi, Frafra, Conja, Kikuyu, Kusaal, Luo, Mooré, Nago, Peulh/Fulfulde, Sisaala, Wolof and Zarma. More than 50 000 DVDs have been distributed by ICRISAT, and with the help of farmer and community organisations, farmers across Africa have been inspired to learn from these farmer field schools.

Spreading messages In 2013, we visited the village of Souara in Mali, and met the farmers who had been in an FFS and later appeared on the compost video. Two years after filming, every household had a full compost pit covered with a layer of earth to keep it moist. We also saw new compost pits in other villages where people had only watched the videos, showing that the videos have had an impact.

Creative ideas The videos proved successful because they did not promote a single technology – they show what can be done and why it works. After watching the videos, farmers grasp the principles that underlie practices such as composting, and are more motivated and confident to start experimenting.

Léwa Kamaté, a young man from the village of Togo, in Mali, watched the videos, and took us to see his compost pit. But he used the compost for growing vegetables and not in his sorghum fields to help control striga. This was Léwa's first creative departure from the video. Léwa saw that compost pits should be covered with straw or earth, but he covered his with a living layer of sweet potato plants. He then uses the sweet potato leaves to feed rabbits and adds the rabbit dung to the compost. Another creative adaptation!

A group of farmers in the village of N'Tonasso watched the striga videos in 2012 and are still talking about them today. One farmer, Alou Goïta, said that he made a compost pit after watching the videos, a metre wide, five metres long and 1.5 metres deep. He had emptied the compost pit once and refilled it with household refuse, ash and maize husks for next year's compost. The looks of surprise on his neighbour's faces, and the pride in Alou's, showed that most of them had no idea about his innovation. No doubt some of them are now thinking about following his example.

The spread and development of composting, and building healthy, fertile soils is an important part of the fight against striga. And, when creative solutions are most needed, videos can be an excellent medium for sharing information, and stimulating innovation amongst communities.

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Alou Goïta has already emptied and refilled his compost pit once. Photo: Jeffery Bentley

