

Are African farmers in danger of becoming slaves to patented seeds?

GMO critics often complain about the health and environmental dangers of biotechnology, and proponents have responded largely with scientific evidence of its comparative safety.

But the controversy is more than just a disagreement over risks. It is a meme for larger social and political issues: the role of corporations and intellectual property rights in our local and global food system. In other words: what kind of food system do we want?

News stories on GMOs tend to vilify the technology and corporations for larger systematic faults. We see that inclination when *Mother Jones* reporter went to Ghana to write about 4H's role in educating the local population on agricultural issues. Her article titled "[How America's Favorite Baby-Goat Club Is Helping Big Ag Take Over Farming in Africa](#)" reported that 4H has a partnership with Dupont Pioneer to hand out non-GM hybrid seeds. (Dupont is also a major producer of genetically modified seeds, which are not approved for sale in that country).

From a business standpoint, Dupont's project makes perfect sense. By handing out free seeds, Ghanaian farmers are educated through first hand experience about the benefits of using its products.

But, *Mother Jones* claimed the seeds don't fit well within the world of Ghanaian farmers. Butler interviewed local organic activists.

It costs 10 times as much, and while Ghanaians typically save their own seeds to plant the next year, hybrid seeds get weaker by the generation; each planting requires another round of purchasing. What's more, says Devlin Kuyek, a researcher with the sustainable-farming nonprofit Genetic Resources Action International, because hybrid seeds are bred for intensive agriculture, they typically need chemicals to thrive. "Hybrid maize requires lots of fertilizers and pesticides to get the yields they talk about, so that requires dependency," he says. "Farmers end up losing their seed supply and getting hooked on expensive foreign seeds."

The reporter did not address whether the added costs associated with the hybrid seeds are justified by substantially improved yields. That's certainly true in most advanced agricultural countries, where almost all farmers, including organic farmers, choose to use more expensive hybrid seeds because of the yield bonanza.

But Ghana is not the United States. Yes, Ghanaian farmers do need better seeds. But, they need better seeds no more than they need better agricultural policy, better market conditions and a slew of other things.

Furthermore, Dupont is not the only one organization handing out seeds in Africa. Local and national research institutes and nonprofit groups are also distributing seeds—ones that farmers can replant the next year. Farmers can choose between more expensive hybrids, some that need to be repurchased each year, or replantable seeds that may yield far less, and make their own cost-benefit calculation.

Does that sound like corporate control?

In a recent article in Vanguard, a newspaper in Nigeria, Assistant Director of the National Root Crops Research Institute Chiedozi Egesi discussed how his public organization works with Harvest Plus and the International Institute of Tropical Agriculture to hand out nutritionally enhanced vitamin A cassava roots. There is no intellectual property right prohibiting replanting:

If you plant 25cm of the improved stem this year, if you plant one stick of 25cm of this year we expect you to get at least a minimum of eight sticks from it next year. That is how we have been giving it to people. We expect you to replant so that you multiply it and our target is to increase the hectare of cultivated land with vitamin A cassava.

So far, the researchers have released six varieties of Vitamin A cassava to 300,000 farmers. However, the varieties are conventionally bred, though the researchers do have genetically modified varieties in the pipeline. Due to lack of regulatory structure for GMOs in Nigeria, those varieties cannot be released.

Of course, those who see corporate control under every rock might argue that research on genetically modified foods, even when done by public research institutes in Africa, are somehow ‘tainted’ because they received some funding from global philanthropies such as the Bill and Melinda Gates Foundation or supported by foundations like the Donald Danforth Plant Science Center, which was started with a gift from Monsanto. To GMO critics, any association with a corporation, no matter how distant, raises suspicions or worse.

The landscape of agricultural research is much more complex than critics might have you believe. There are many decision makers and controlling many of them, let alone all of them, is impossible.

The public and policymakers need to ask better questions. Are farmers really ‘forced’ to buy more expensive hybrid and GMO seeds? Does it matter if seeds are patented? How much economic freedom do farmers have to choose seeds and agricultural systems? Do engineered traits increase profits or address the pressing needs of farmers—or both? Do multinational companies “control” global agriculture?

Although it sometimes is not getting a lot of attention, the public, many farmers, companies and international trade groups are already having that discussion.

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Additional resources:

- [Is 4H trying to hook African farmers on costly seeds?](#) Grist
- [Guardian's John Vidal attacks Gates Foundation for links to Monsanto and Cargill \(on site funded by Gates Foundation\)](#), The Guardian
- [Why the Gates Foundation wants to make Golden Rice](#), Humanosphere
- [Monsanto in the anti-GMO crosshairs: Fair or foul?](#) Genetic Literacy Project
- [New approach to food aid: DuPont, U.S. help African farmers](#), Des Moines Register