

In Ghana, a Bumper Crop of Opinions on Genetically Modified Cowpea

Author: Ankur Paliwal

Undark

Under the noonday sun, Alimatu Alidu uses a stone to grind tomato, red pepper, and small crayfish into a red paste. Drops of sweat collect on her forehead, just below her black headscarf. She adds the paste along with other ingredients into a cooking pot balanced upon a make-shift stove, consisting of two uneven rocks with a small fire burning between them. Once her mixture is sufficiently heated, she adds the final element: boiled cowpea beans. Known as poor people's meat, these faded yellow legumes with a big black dot along the curve are ubiquitous throughout West Africa, including here in Ghana.

Cowpea is a staple in Ghana and other parts of West Africa, where it is believed to have first been domesticated. The legume is a favorite among farmers and laborers, who consume it in the morning before leaving for work and don't feel hungry until sundown. At her doctor's request, Alidu increased her own consumption when she was pregnant, and she used the ground seeds to wean her children. Cowpea is a mainstay of school lunches in Ghana. And because the crop can be harvested within two months of sowing, it fills the "hunger gap" for poor families between May and August when other crops, such as maize, are still young in the field. And cowpea tolerates droughts, which are increasing across sub-Saharan Africa. Every woman in Zinindo keeps some cowpea in her home, says Alidu.

But cowpea has been under attack for years. A winged pest, *Maruca vitrata*, bores into the pods and nibbles away at the seeds, destroying anywhere between 20 and 80 percent of West Africa's cowpea crops every year. In response, scientists have genetically modified cowpea plant lines to resist the pest, and advocates for the technology — which involves altering an organism's DNA in ways that aren't possible through traditional breeding — believe that genetically modified (GM) cowpea can help feed the fast-growing population on a warming planet. It can also help reduce the use of pesticides, they say, freeing up land for other uses, providing enough surplus for regional market opportunities, and giving farmers an additional choice about what to grow.