Nigerian farmers welcome new cassava varieties: ‘My joy knows no bounds’

Nigerian farmers are enthusiastic about the government’s approval of five new varieties of NextGen cassava that promise to double yields and offer other benefits.

“My joy knows no bounds,” said Adesina Adeagbo, chief executive officer of Greenland Farm. “The approval of the new varieties means we can have better seeds resistant to weather conditions to plant next year.”

Adeagbo noted that 2020 was one of the worst planting seasons that Nigeria’s cassava growers have ever experienced as rainfall delays hindered growth of the plant roots and farmers who could not afford herbicides and pesticides lost a huge chunk of their output to weeds and insect pests.

Angela Opara, founder of Chinonye Local Food Processor, agreed that the next planting season looks promising due to the release of the new varieties. The long shelf life of the NextGen varieties helps keep cassava from fermenting before it gets to the market, Opara said.

Opara — one of the farmers who participated in the field trials of the new varieties — noted the increased yield of the new varieties as yet another highlight to anticipate in the coming season. They are also resistant to cassava mosaic disease, bacteria blight and insect pests like cassava green mite, among others.

The cassava varieties approved for release — Game-Changer, Hope, Obasanjo-2, Baba-70 and Poundable — were developed by the National Root Crops Research Institute (NRCRI) and the International Institute of Tropical Agriculture (IITA), with support from NextGen Cassava, a project based in Cornell University’s Department of Global Development.

The five new varieties are meant to serve three different market segments: granulated and paste products (garri/fufu), cassava for industry (starch) and fresh market consumption, said Chiedozie Egesi, project lead for NextGen.

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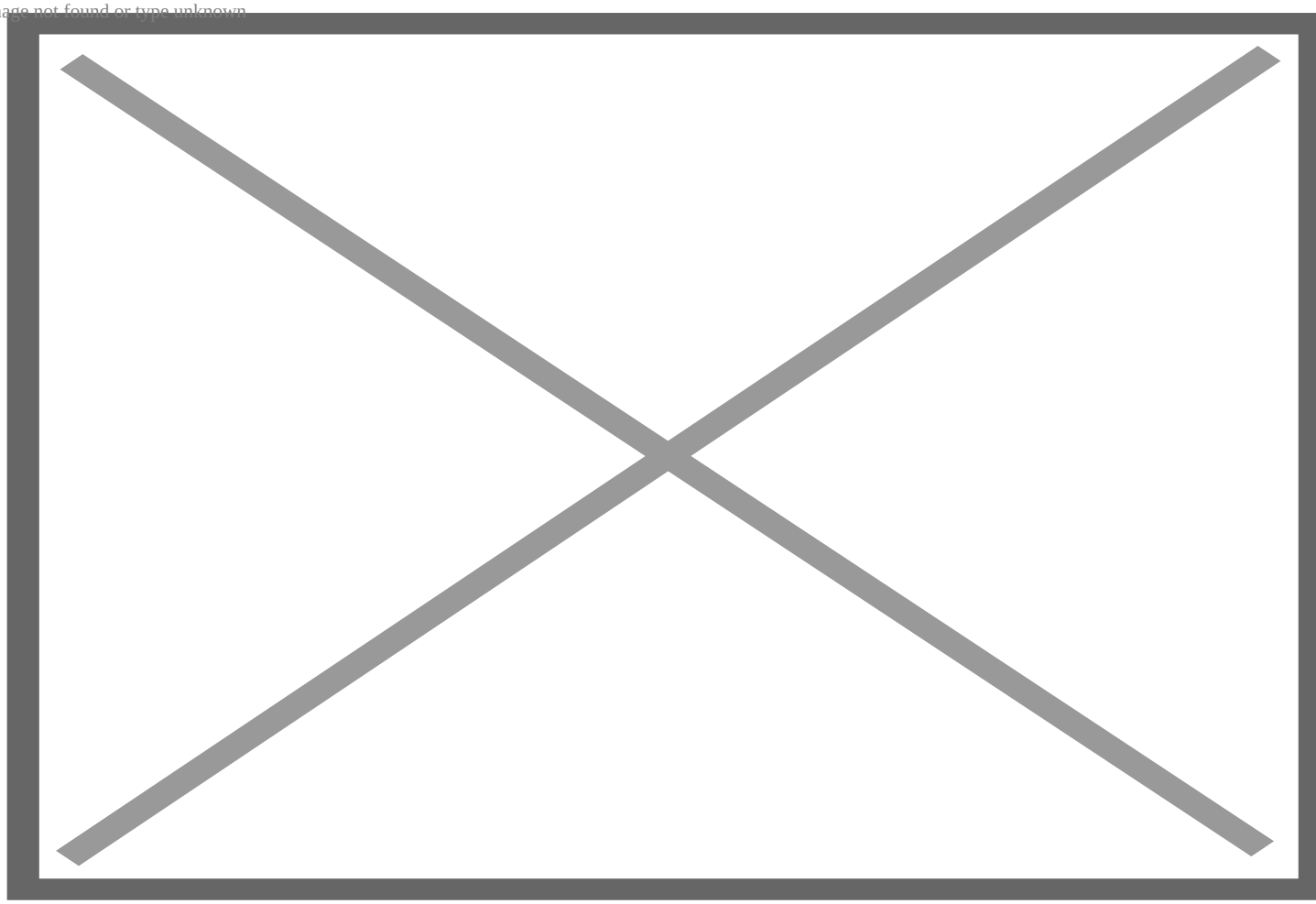

Dr. Chiedozie Egesi. Credit: Cornell

“It is no longer news that Nigeria is the biggest or largest producer of cassava in the world. What is important is, what is Nigeria making out of the production? Is Nigeria maxing out its potential to produce cassava?” said Egesi, who believes the new varieties can help revive the nation’s agricultural sector.

“Cassava is an important staple food in Nigeria, but the different uses of cassava are what we have not really harmonized. We are the highest producer of cassava but we’re still producing a quarter of what we should and that is where the project’s interest lies,” he added.

Genomic selection

The five new varieties were developed with a tool called genomic selection, which uses mathematical modeling combined with DNA data information to select the best varieties for field testing. “Among more than 5,000 potential varieties that were developed we have five among them that we believe would move the cassava industry forward,” Egesi explained.

Prior to release, they were tested by more than 100 farmers in 13 Nigerian states that represent 10

agroecological zones.

The new varieties, which are conventionally bred, are high-yielding and can resist some of the worst cassava diseases and pests. Some varieties have other unique attributes that make stand them out on the market, including drought-tolerance and a consistently high dry matter content.

“You know when we talk about yield, we talk about yield per unit area per time,” Egesi said. “So, per unit area, if I used to get eight tonnes per hectare, which is the average yield of farmers in the past, we will be able to make it double and that is what the new varieties have shown to be doing. So, you’ve doubled your yield within the same area and time, that is really a jump on your income.”

Some of the new varieties also offer a consistent level of dry matter content, regardless of when farmers harvest.

“In the older variety when there is too much rain, the dry matter drops,” Egesi said. “Now the industry doesn’t like to buy those type of varieties, and when they do buy, they pay the farmers lower and they were losing [money]. But these new varieties give the farmers better value. That’s very important for us and that is what we want to achieve.”

Egesi maintained that for Nigeria to successfully shift its economy from crude oil to agricultural production, it must provide farmers with the right seeds.

“So, we need to have all that worked out,” he opined. “We have not invested in the seed industry for cassava. We’re just starting now. We have many things going on, but the foundation is the variety and that is what the NextGen cassava is trying to improve on.”

Farmers will be able to buy seeds for all five new varieties by the next planting season from the early generation seed companies, IITA GoSeed and Umudike Seeds. The two private companies certified by the National Agricultural Seeds Council (NASC) were able to rapidly multiply the seeds using a new technology called a Semi-Autotrophic Hydroponic (SAH) system.

The seed council is regulating the system to ensure people buy genuine and quality seeds, he said.

The production part alone of the cassava value chain could provide Nigeria with 16 million jobs, including farming, distribution and sale of crop inputs, processing, marketing, etc., Egesi said. He stressed that agriculture must be treated as business to encourage the interest of youth.

“We are not maximizing the production of cassava because we do not have a clear-cut value chain, and you cannot maximize production without the right varieties,” he said. “So, we have been advocating the strengthening of the seed value chain by encouraging the agroprenuer system. It is an opportunity young people should be encouraged to get into. So, giving these seeds away would be a disincentive to what we

are advocating for. The era of giving out seeds for free is gone. We should encourage agrobusiness to boost agriculture and benefit maximally from the benefits."

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