Nigeria is ready to meet strong farmer demand for GMO cowpea seeds

Nigerian farmers should have ample access to insect-resistant genetically modified (GM) cowpea seeds for this summer's planting season, scientists say.

Though last year's demand outstripped the supply, the public sector scientists who developed Nigeria's first GM food crop — the pod borer-resistant (PBR) cowpea, or SAMPEA 20T — say they have gone to great measures to make sure farmers can obtain certified seeds this season.

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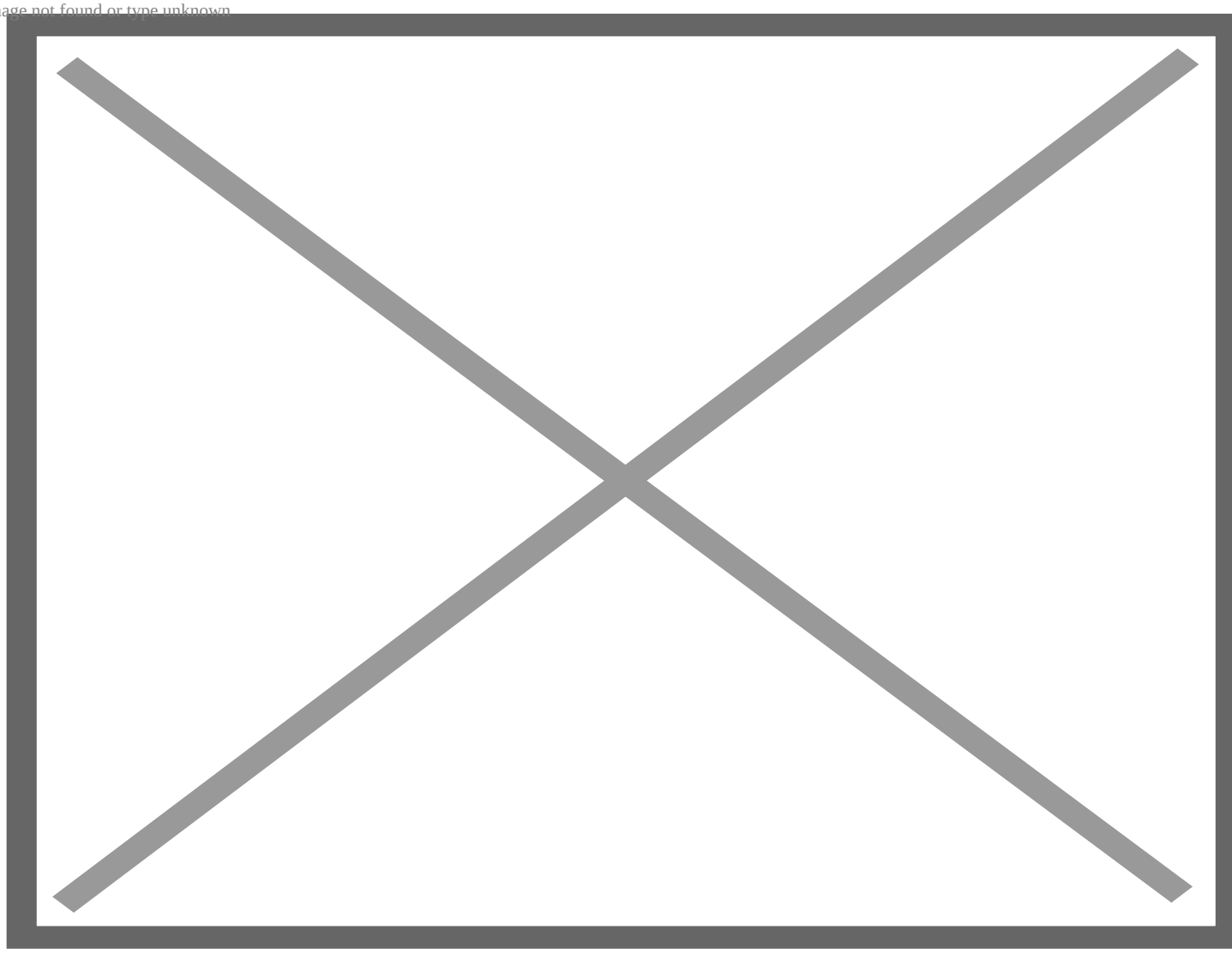

Seed distribution is an important aspect to ensure equity and knowledge amongst smallholders. Credit: Syngenta

Some 2,000 farmers planted the improved seeds in 2021 — a number expected to triple this year, said Prof. Mohammad Ishiyaku, executive director of Institute for Agricultural Research (IAR) and principal

investigator of the PBR project in Nigeria. In response, researchers are expanding seed production eight-fold from the 10,000 tonnes available last year.

Farmers last year reported they were able to achieve higher yields and significantly reduce their use of pesticides by growing GM cowpea, which provides inherent protection from the destructive pod borer pest.

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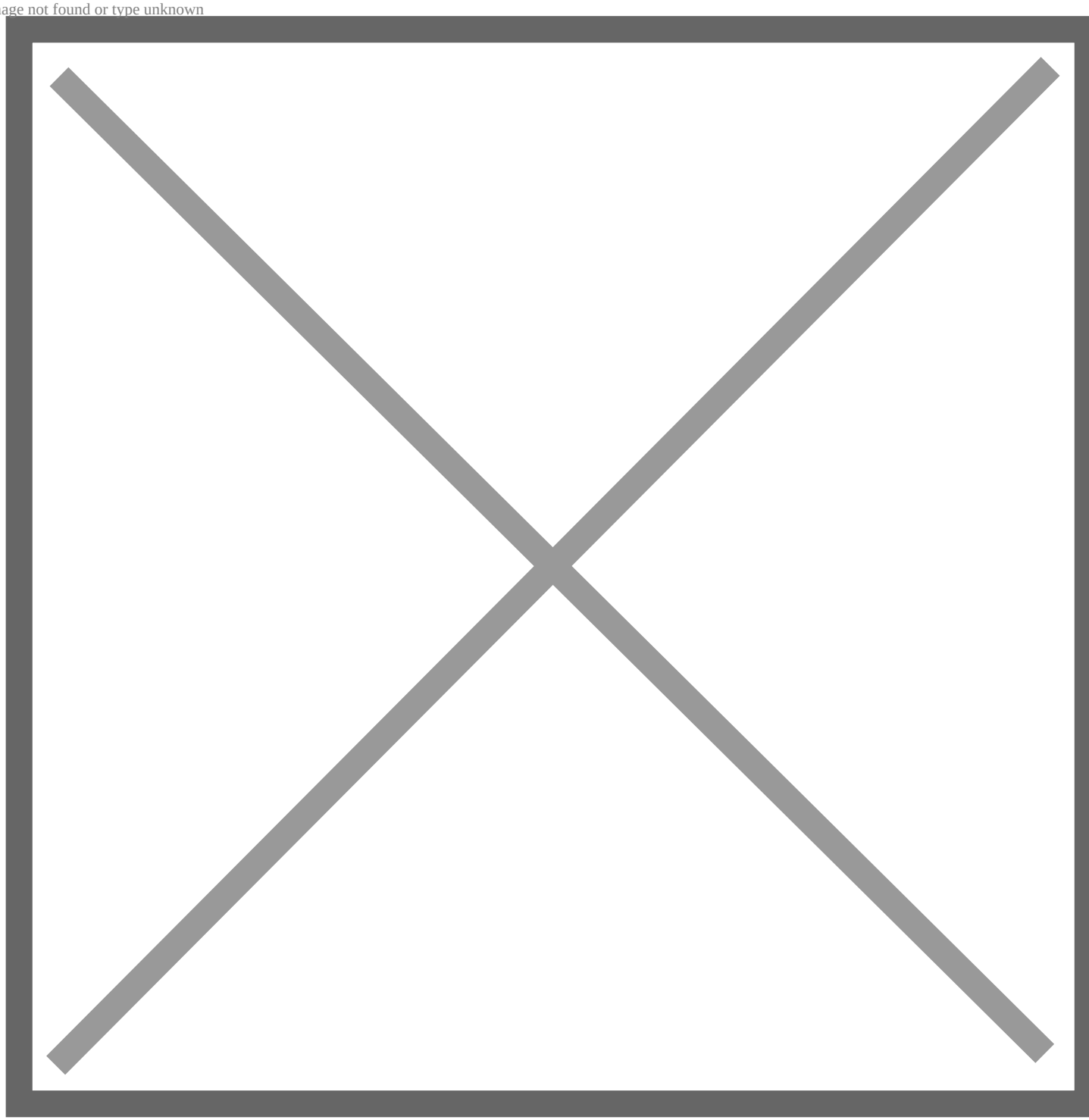

Cowpea is a diverse and useful crop. Genetic modification can allow it to survive tenacious pests using less pesticides. Credit: Herniter et. al.

Dr. Rose Gidado, country coordinator for the Nigeria chapter of the Open Forum on Agricultural

Biotechnology, said farmers who want to grow the crop this year should be able to obtain seeds.

“The demand was so high and is getting higher and higher because those farmers that planted last year had very overwhelming, exciting stories and more people want to get involved,” she said. “Even people who are not regular farmers — civil servants, public servants, etc. — now want to plant PBR cowpea.”

Dr. Onyekachi Nwankwo, West Africa representative for the Africa Agricultural Technology Foundation (AATF), said Nigeria had initially planned for 10,000 tonnes of certified seeds last year but was only able to produce 3,000 — resulting in a shortfall. He attributed the deficit to poor management of seed multiplication by contract farmers, drought and insecurity problems.

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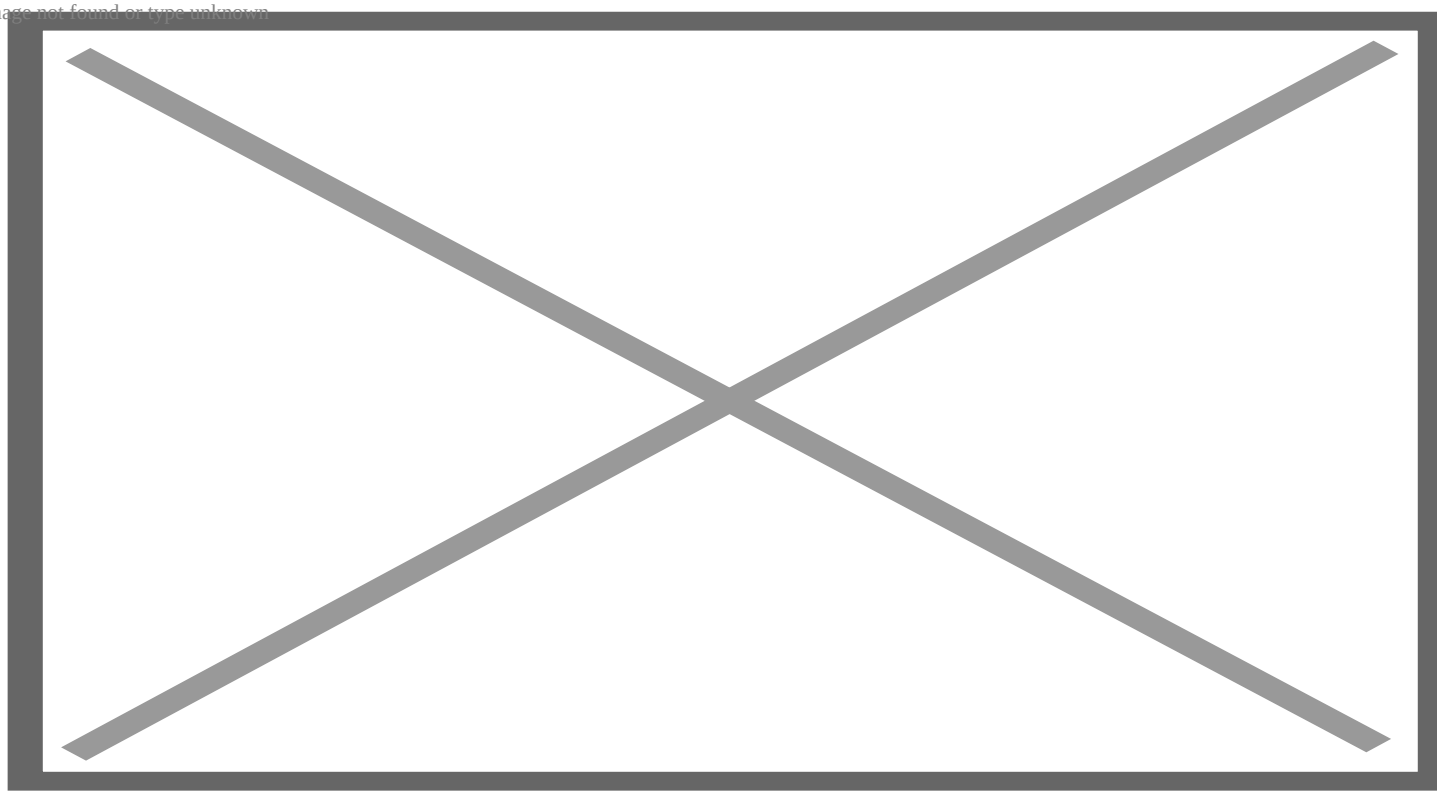

Dr Hakeem Ajiegbe (left), ICRISAT’s Country Representative, Nigeria, explains a seed support initiative to Alhadji Sabo Nanono, Minister of Agriculture and Rural Development. Credit: ICRISAT

In response, scientists and farmers planted seed stock during the normal cropping season and used irrigation to grow during the dry season in hopes of meeting farmer demand this year, Nwankwo said.

Researchers also trained more seed companies and seed certification officers on production guides and certification-related issues to ensure the availability of quality seed. Additionally, the IAR, as well as Maina Seeds, Tecni Seeds and SARO Agrosciences, produced more seeds during the off-season to ensure seed supply meets demand in the coming season.

“To be conservative, we are expecting between 60,000 to 80,000 tonnes of seed for the next cropping season, and it is going to increase progressively as the years go by,” Nwankwo said.

Farmers are growing GM cowpea in all in 36 states of the Federation, including the Federal Capital Territory (FCT), Ishiyaku said.

A Nigerian farmer weeds the GM cowpea he planted next to his maize crop. Credit: Alliance for Science

Gidado noted that the administration of President Muhammadu Buhari “has directed that we grow what we eat and eat what we grow.” Researchers improved the cowpea variety preferred by Nigerian farmers to add traits that can help growers overcome the serious problem of crop loss due to pod borer infestation and reduce the need to import the popular food, known as beans.

Even though the start of the planting season varies — it begins in June in the north-western region and in August in the northeast and north-central regions — farmers across the country will have enough sufficient seed supply because seed production is higher, she assured.

Nkechi Isaac is a deputy editor with Leadership Newspaper, a national publication headquartered in Abuja, Nigeria. She frequently covers biotechnology and biosafety issues. Follow her on Twitter @enkaybc

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