

Biotechnology, supercomputer take on cassava pests, disease

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A Perth team is using the most powerful research supercomputer in the southern hemisphere to fight world hunger.

U.S. computational biologist Laura Boykin has travelled to Perth to lead the team trying to eradicate the spread and domination of whiteflies in East Africa, which causes almost 50 percent destruction to a tuber called cassava, an important food crop in the region.

“Cassava is a crop that 800 million people depend on for their daily calories,” Boykin said.

“The whitefly is transmitting two types of viruses in East Africa ... the cassava crops are dying and farmers are having a really long hunger season.”

As part of a Bill and Melinda Gates grant, Boykin’s team at the University of Western Australia is working on identifying the DNA of the species responsible for the obliteration of crops.

“Up until 2007 people thought that only one species of whitefly existed,” she said.

“Now we know there are at least 34 confirmed species of whitefly globally.

“Our role here is to identify the enemy ... ultimately we want to be able to hand farmers cassava crops that are resistant to the whiteflies and the viruses they carry.”

Boykin said Perth’s supercomputer Magnus was able to crunch the huge amount of data generated by trying to identify the DNA of the flies.

She recently presented at the UN’s Solutions Summit.

“The Solutions Summit identified 17 global goals,” she said.

“The first one was ending poverty and number two was zero hunger.

“The work we do hits dead on with both of those.”

Read full, original post: [Perth supercomputer powers world hunger fight to eradicate devastating whitefly from Africa](#)