

Protecting the weedy and wild kin of globally important crops

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Over the past few decades, crop breeders have increasingly relied on the wild and weedy relatives of domesticated crops as new sources of disease resistance, drought tolerance, and other traits. But just like all wild plant species, these "crop wild relatives" (CWR) are also at risk of decline and extinction due to habitat loss, pollution, and climate change.

On Wednesday, Nov. 6, 2013, two speakers will describe the latest efforts to identify and protect the wild relatives of domesticated crop plants around the globe. The presentations are part of the American Society of Agronomy (ASA), Crop Science Society of America (CSSA), and Soil Science Society of America (SSSA) International Annual Meetings, Nov. 3-6 in Tampa, Florida.

Scientists estimate that 30 percent of [plant species](#) are now of conservation concern in just the United States alone. And crop wild relatives are possibly even more vulnerable because they've tended to be overlooked both by agricultural scientists and the conservation community.

That's now beginning to change. As more and more people recognize the importance of CWR to agriculture and food security, national and global efforts to catalog and conserve these plants are ramping up.

On Wednesday, Nov. 6, at 1:05 pm, Nora P. Castañeda of the International Center for Tropical Agriculture (CIAT) in Cali, Colombia, and the University of Birmingham, UK, will report on her team's

research to gather and analyze data on the distributions of the wild relatives of 80 important [food crops](#) worldwide. After identifying hotspots of CWR diversity globally and comparing these against the CWR species already preserved in gene banks, the scientists have now generated a list of taxa in critical need of future protection.

On Wednesday, Nov. 6, at 1:20 pm: Colin Khoury, of CIAT and Wageningen University in the Netherlands, will discuss a recently completed inventory of CWR in the United States, as well as plans for protecting these plants both in gene banks and in the wild.

Although North America isn't known as a hotspot for crop plant diversity, the inventory uncovered nearly 4,600 CWR in the United States, including close relatives of globally important food crops such as sunflower, bean, sweet potato, and strawberry. In Florida, CWR include Indian pumpkin, or Okeechobee gourd, an endangered wild relative of squash that grows only on the shores of Lake Okeechobee; and Florida gama grass, a source of [disease resistance](#) and other useful traits in corn that is only found in Florida and Cuba.

Provided by American Society of Agronomy

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