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MEDIA RELEASE

Embargoed: 1 November 2016

CROP WILD RELATIVES RESCUE MISSION TAKING ROOT

As scientists from grains genebanks across 18 countries converge in Australia to discuss protecting the future of our world-wide food crops, the focus of Australian and international efforts at seed conservation and use is taking on a new target – crop wild relatives. They are to our food plants what wolves are to dogs, distant cousins of well-known food crops like rice, potato maize and wheat, but they have not been collected and conserved in genebanks.

"Losing diversity is losing opportunities for creating a food secure future. The diversity of wild relatives of the crops we know represents a game changer for agriculture but many of them and their habitats are under threat from urbanization, pollution, deforestation, war and climate change," said Marie Haga, Executive Director of the Global Crop Diversity Trust.

Ms Haga will be attending the meeting of global genebank managers and will also speak at a panel on 2 November in Canberra with Crop Trust board member, The Hon Tim Fischer, former PM of Australia and chair of the Crawford Fund, to highlight the important role of crop wild relatives and the global system of genebanks in developing crops adapted to the impacts of climate change.

Other speakers are Dr Luigi Guarino, Director of Science and Programs at the Crop Trust and Dr Judy West, Executive Director of the Australian National Botanic Gardens. The free public event (3-5pm at CSIRO Discovery Centre, Acton) is being supported by the Crop Trust, the Crawford Fund and the Department of Foreign Affairs and Trade.

"Collecting and conserving crop wild relatives provides scientists, breeders and farmers around the world with plants that have resistance to extreme weather conditions, and diseases and pests we have never seen before," said Ms Haga.

"We know that the scraggly wild relatives of domesticated crops hold genetic diversity to help us develop more resilient crop varieties. You only have to see these crop wild relatives where they grow to know they are hardy plants withstanding drought, pests and disease. But they are missing from the world's genebank collections."

Ms Haga explained this is why the Crop Trust, in collaboration with Kew's Millennium Seed Bank, is leading the *Adapting Agriculture to Climate Change: Collecting, Protecting and Preparing Crop Wild Relatives* project, a 10-year endeavor funded by the government of Norway, with partners across the world collecting many of the most important crop wild relative species. According to the first global survey of the distribution and conservation of 1076 wild relatives of 81 crops, more than 95% are insufficiently represented in genebanks, with 29% totally missing.

"As our Vice Chair Tim Fischer has said, we badly need more collecting and more conserving, in Australia and around the world, so we can produce more with less -- less water, less fertilizer and less land," she said.

"We have only recently recognized Australia as one of the critical regions around the world that hold the wild diversity we need for the stability of global agriculture. For example, wild relatives of rice and sorghum have been found in northern Australia," she added.

The head of the Australian Grains Genebank, Dr Sally Norton, is hosting the meeting of global genebank managers and spends a good deal of time sowing, harvesting and storing 'ancestral' seeds by hand for the Australian collection.

"The handfuls of seed that are a result of all our field efforts might not seem much, but these seeds are critical to the global effort underway protecting the future of our food crops," Dr Norton said.

The *Adapting Agriculture to Climate Change* project is also ensuring the long-term conservation of crop wild relatives, and facilitating breeding.

"Under this project, Australia is leading important pre-breeding work, crossing wild relatives of sorghum and alfalfa with the domesticated varieties our farmers plant across the globe", said Luigi Guarino, Director of Science and Programs at the Crop Trust. Dr Guarino previously coordinated and managed a regional plant genetic resource network for the Pacific Island countries and territories.

"The past century has seen extraordinary changes in agricultural production. The planet's food supply has grown increasingly dependent on only a few crops. No nation is able to feed itself by indigenous crops alone, nor can it rely solely on the crop diversity within its borders," he said.

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The free public event "The Crop Wild Relatives & Genebanks: Global Insurance for Climate Change" will be held at the CSIRO Discovery Centre Theatrette, Acton, Canberra, 2 November, 2016; 3-5pm including a networking reception. More info and registration here.

The Crop Wild Relatives Project "Adapting Agriculture to Climate Change" is a global, 10-year effort to collect, conserve and promote the use of the wild relatives of 29 major crops. The Project is being implemented in close collaboration with national and international organisations involved in crop conservation and breeding efforts. More information about the project can be found on the Crop Wild Relatives website.

For media:

- CWR Collecting: https://www.flickr.com/photos/cropwildrelatives/albums/72157675687394985
- CT Collecting: https://www.flickr.com/photos/croptrust/albums/72157674298567581
- A series of videos focusing on parts of the Adapting Agriculture to Climate Change project are here
- Report on <u>The State of the World's Plants</u>

Background on the Global Crop Diversity Trust

- Is an essential element of the funding strategy of the International Treaty on Plant Genetic Resources for Food and Agriculture, adhered to by 141 countries worldwide.
- Spearheaded the biggest biological rescue operation ever of nearly 80,000 crop varieties while working
 with more than 100 institutions in more than 80 countries. As well as national governments, it has a
 number of high-profile supporters, including the Bill and Melinda Gates Foundation.
- Together with the Government of Norway and the NordGen Genebank, manages and funds the ongoing work of the Svalbard Global Seed Vault: a safe and secure vault which now holds 880,000 samples of crops from all over the world.