

From: "Dawn R. Bazely" <dbazely@yorku.ca>
Subject: **hope you are all well - I need to organize baby gifts....**
Date: February 18, 2007 12:12:08 PM GMT-05:00
To: mvicari@yorku.ca

!!! - indeed - doritos should do the trick!

Quoting mvicari@yorku.ca:

Hi Dawn,

Rick Mercer had a good line about this; "of course, we could try to avoid the catastrophe of global warming, but why bother? We've got snacks."

Quoting "Dawn R. Bazely" <dbazely@yorku.ca>:

scarey huh?

----- Forwarded message from saewan koh <s.koh@ualberta.ca> -----

Date: Sun, 11 Feb 2007 19:07:44 -0700
From: saewan koh <s.koh@ualberta.ca>
Reply-To: saewan koh <s.koh@ualberta.ca>
Subject: dear god. . it has come to this
To: "Dawn R. Bazely" <dbazely@yorku.ca>

Work starts on Arctic seed vault

POSTED: 1521 GMT (2321 HKT), February 9, 2007

LONDON, England (Reuters) -- Deep inside the Arctic Circle work is about to begin on a giant frozen Noah's Ark for food crops to provide a last bastion in the battle against global warming.

And within a year the first seeds of what will eventually be home for samples of all 1.5 million distinct varieties of agricultural crops worldwide will be tucked safely inside the vaults deep in a mountain on the archipelago of Svalbard.

There, at the end of a tunnel 120 meters into the side of a mountain, 80 meters above estimated sea levels even if all polar ice melts, and 18 degrees Celsius below freezing, they will stay like a bank security deposit.

"It will be the best freezer in the world by several orders of magnitude. The seeds will be safe there for decades," said Cary Fowler of the Food and Agricultural Organization's Global Crop Diversity Trust.

"Svalbard is a safety backup -- and we hope we never have to use it."

The Norwegian government is footing the \$5 million construction bill and the Global Crop Diversity Trust is providing the estimated \$125,000 a year running costs.

"We are going back to the older varieties because that is where you find the largest genetic diversity ... and diversity is protection," Fowler told Reuters in London.

Svalbard will not find and sort the seeds. That is being left to the various seed banks around the world in the front line of the battle to protect biodiversity.

The function of the Arctic Noah's Ark will be to hold samples of all the food crop varieties in case disaster strikes any of the banks -- like the typhoon that wiped out the Philippines agri crop gene bank in October.

It will also ensure a pristine source of research material for the world's botanists struggling to create crop varieties that will be

able to withstand the massive changes in rainfall patterns and temperature that may come with global warming.

The scientists from around the world predict that global average temperatures will rise by between 1.8 and 4.0 degrees Celsius this century due to human activities, putting millions at risk from rising sea levels, floods, famines and storms.

"Current crops are adapted to the current climate. Start changing that and you change everything," Fowler said. "Plant breeders will have to be designing totally new varieties."

"We already have a water crisis with agriculture and climate change will make it worse. It is not a simply matter of migrating crops northwards. Everything changes -- sunlight, temperature, insects, diseases, pollinators," he added.

He said the Svalbard seed collection would not include modern hybrid varieties because by and large they had genetic diversity bred out of them.

But it would also not rule out genetically modified organisms on the simple grounds that it would be virtually impossible to screen them out and in any case they would never amount to more than a tiny fraction of the total.

The vaults on the remote archipelago 1,500 kilometers north of the Arctic Circle should have been dug and lined with meter-thick concrete by October ready for systems installation and a formal opening early in 2008.

Within two years they should be holding the vast majority of the world's food crop varieties in splendid, frozen and permanent isolation.

Copyright 2007 Reuters. All rights reserved. This material may not be published, broadcast, rewritten, or redistributed.

----- End forwarded message -----

--

Dawn R. Bazely
Associate Professor,
Biology Department, Faculty of Science and Engineering,
Director, IRIS,
Institute for Research and Innovation in Sustainability
Lab: +1 416 736 2100 ext 20109
IRIS: +1 416 736 5784

--

Dawn R. Bazely
Associate Professor,
Biology Department, Faculty of Science and Engineering,
Director, IRIS,
Institute for Research and Innovation in Sustainability
Lab: +1 416 736 2100 ext 20109
IRIS: +1 416 736 5784