

By [Elizabeth Weise](#) , USA TODAY A doomsday seed vault on a remote Norwegian island in the Arctic Ocean opened Tuesday, creating a bank of more than 100 million seeds representing every major food crop on Earth.

The Svalbard Global Seed Vault is meant to be a Noah's Ark for plant genetics. At 4 degrees below 0 F, it will preserve the thousands of regional and local crop varieties farmers worldwide have bred for thousands of years.

Were war, disease, plague or global warming to wipe out any one species, it could be replenished from the seeds stored deep in the permafrost of the mountain vault.

"Norway is proud to be playing a central role in creating a facility capable of protecting what are not just seeds but the fundamental building blocks of human civilization," Norwegian Prime Minister Jens Stoltenberg said in comments relayed by a spokesman.

Numerous seed repositories exist worldwide, but the Svalbard vault is the most comprehensive.

During the opening ceremony, a choir made up of the Norwegian construction workers who built the vault performed, and Stoltenberg and Kenyan environmentalist Wangari Maathai, winner of the 2004 Nobel Peace Prize, carried the first boxes of rice into the vault.

The vault was built on the island of Spitsbergen and is 600 miles from the North Pole. It contains seed samples from 268,000 plants. The push to create it came from concerns about diminishing biodiversity.

Modern industrial agriculture typically concentrates only on a few blockbuster plant types. That means the disease and pest resistance farmers have built up in less-favored crop varieties over many centuries can disappear when the plants are no longer planted. The bank preserves those genetics as a hedge against catastrophe.

The Svalbard Global Seed Vault was financed and established by Norway. It will be operated by the Global Crop Diversity Trust. The vault has the capacity to house 4.5 million samples, or

about 2 billion seeds.

It consists of three secure rooms at the end of a 400-foot tunnel blasted out of the mountain. The seeds are sealed in four-ply foil pouches, which themselves are sealed in boxes.

At their temperature of minus 4 degrees, some of the seeds may be viable for more than 1,000 years. For example, barley has been known to last 2,000 years and wheat 1,700 years.

The vault runs on a 10-kilowatt compressor. If it failed, the permafrost would keep seeds viable for an estimated 200 years.

http://www.usatoday.com/tech/science/environment/2008-02-26-seeds_N.htm