



Henderson County Master Gardeners Weekly News Article January 15, 2018

Global Seed Vault Provides Plan B

by Sherry Sorrell, HCMGA Intern

Halfway between the Arctic Circle and the North Pole lies the small town of Svalbard, Norway. It is perhaps the best hope for the future of food agriculture across the globe. Svalbard is the home of the Global Seed Vault.

A 'Plan B' of sorts for securing the planet's food seeds and genetic material, the idea of the vault began in the 1980's as Norway used Svalbard's abandoned coal mine to bank duplicates of seed collections. The idea grew and evolved until 2001 when the International Treaty on Plant Genetic Resources for Food and Agriculture was established and opened to national governments to sign on.

Svalbard's arctic location and the fact that it is the world's farthest north town with regularly scheduled flights made it ideal for the vault. So, the government of Norway agreed to fund and establish the Svalbard Global Seed Vault.

Built into the side of a permafrost mountain, the tunnel extends more than 400 ft to the storage facility where temperatures are kept around zero degrees. Additionally, if there is a power failure, the surrounding permafrost keeps the temperature below freezing, thereby ensuring the viability of the seeds.

The vault opened and received its first seeds in February, 2008. It has the capacity to store 2.25 billion seeds or 4.5 million samples. Currently, about 930,000 samples are stored. National, international, research, and non-government organizations send duplicate seeds from their collections as a failsafe to secure future crops. Each sample of 500 seeds remains the property of, and can only be accessed by, the depositor; however the multi-lateral treaty requires that depositors must share results of their research with other members.

As more and better food varieties are developed, new crops are resistant to diseases and pests, and everyone shares in the knowledge. If members wish to keep their research to themselves, they agree to pay into a fund a percentage of any commercial gains made. The Global Crop Diversity Trust, established by the treaty, uses the funds to support gene banks, conservation, and developing agriculture in developing nations.

Since the vault opened in 2008, there has been only one withdrawal. ICARDA (International Center for Agricultural Research in the Dry Areas) facilities were destroyed by war in Aleppo, Syria. The organization withdrew their duplicates in 2015, and used them to grow new crops, harvested the seeds, and re-established regional seed banks in Lebanon and Morocco. They re-deposited the majority of what they had withdrawn in 2016 and 2017, with the remainder to arrive at Svalbard for the 10th anniversary in February, 2018.

There are over 391,000 species of plants in the world with 50,000 edible. Fifty percent of calories consumed by humans come from three: maize, wheat, and rice. Species are disappearing, farmers are mono-cropping, and war, economics and the unpredictability of Mother Nature demand we work together to preserve the biodiversity of our planet and our food.

Whether called Doomsday Vault or Fort Knox of Food, the Global Seed Vault ensures the future of our plant. For without food, what else matters?

For more information, call 903-675-6130, email hendersonCMGA@gmail.com or visit www.henderson-co-tx-mg.org.