WHAT IS THE SVALBARD GLOBAL SEED VAULT (SGSV)?

The purpose of the Svalbard Global Seed Vault is to provide insurance against both incremental and catastrophic loss of crop diversity held in traditional seed banks around the world. The Seed Vault offers “fail-safe” protection for one of the most important natural resources on earth.

WHAT GROUPS ARE INVOLVED IN THE SVALBARD GLOBAL SEED VAULT?

The Seed Vault is owned and administered by the Ministry of Agriculture and Food on behalf of the Kingdom of Norway and is established as a service to the world community. The Global Crop Diversity Trust will provide support for the ongoing operations of the Seed Vault, as well as funding for the preparation and shipment of seeds from developing countries to the facility. The Nordic Gene Bank (NordGen) will operate the facility and maintain a public on-line database of samples stored in the seed vault. An International Advisory Council will oversee the management and operations of the Seed Vault.

WHY SVALBARD?

Svalbard was chosen for several reasons. Its cold climate and permafrost make the area a perfect location for underground cold storage. The surrounding sandstone is stable for building and is low in radiation. In terms of security, Svalbard scores high marks compared to the locations of many other genebanks in the world. The infrastructure is good, with daily flights and a reliable source of energy from local coal supplies. The vault is located an extraordinary 120 metres (393.7 feet) into the rock, ensuring that the vault rooms will remain naturally frozen even in the event of failure of the mechanical cooling system and rising external air temperatures due to climate change.

HOW MUCH DID IT COST TO BUILD THE VAULT?

The Kingdom of Norway spent approximately US$9 million.

WHAT ARE THE DIMENSIONS OF THE VAULT?

The distance from the front door of the portal building to the back of the vault is approximately 145.9 metres (478.7 feet). The width of the each vault is approximately 9.5 to 10 metres (31.2 to 32.8 feet) and the height is 6 metres (19.7 feet). Each vault is approximately 27 metres (88.6 feet) long.

WHAT IS THE NAME OF THE MOUNTAIN HOUSING THE SEED VAULT?

The mountain housing the Seed Vault is called “Platåberget,” or “plateau mountain” in English.

HOW MANY SEEDS WILL BE STORED IN THE SVALBARD GLOBAL SEED VAULT?

The Seed Vault has the capacity to store 4.5 million seed samples. Each sample contains an average count of 500 seeds, so a maximum of 2.25 billion seeds can be stored in the facility. The collection and storage of seeds will continue for some time. When just half of the first of three vault rooms is filled, it will hold the world’s largest collection of seeds.

HOW WILL THE SEEDS BE STORED?

The seeds will be stored at minus 18 degrees Celsius (minus 0.4 degrees Fahrenheit). The seeds will be sealed in specially-designed four-ply foil packages that will be placed in sealed boxes and stored on shelves inside the vault. The low temperature and moisture level will ensure low metabolic activity, keeping the seeds viable for decades, centuries, or in some cases thousands of years. The permafrost will still ensure the continued viability of the seeds if the electricity supply should fail.

WHO WILL OWN THE SEEDS IN THE SVALBARD GLOBAL SEED VAULT?

Depositors will retain ownership rights over the seeds sent to the facility. The boxes with seeds will be sealed by the depositors and will not be distributed to or given access to by anyone other than the depositors.

WHAT TYPE OF SEEDS MAY BE STORED IN THE SEED VAULT?

Priority will be given to crops that are important for food production and sustainable agriculture. The facility will start with receiving security collections of the Consultative Group on International Agricultural Research (CGIAR) and certain key national genebanks. The focus will be on safeguarding as much of the world's unique genetic material as possible and avoiding duplication.

WHY IS THE SEED VAULT IMPORTANT TO DEVELOPING COUNTRIES?

Food security is a challenge in many developing countries. Crop diversity is the resource to which plant breeders must turn to develop varieties that can withstand pests, diseases, and remain productive in the face of changing climates. It will therefore underpin the world food supply. Also, the Seed Vault will ensure that unique diversity held in genebanks in developing countries is not lost forever if an accident occurs. A backup copy will exist in Svalbard.

WHAT ARE THE MAIN DIFFERENCES BETWEEN THE SEED VAULT AND OTHER GENEBANKS?

Svalbard will be a kind of insurance policy for other seed banks. Plant breeders and researchers depend on seed banks around the world to obtain varieties with useful traits that they need. If those seed banks later lose their own resources, because of natural or man- made disaster, the collections could be restored by getting the copies back from Svalbard.

WILL GENETICALLY MODIFIED SEEDS BE STORED IN THE SEED VAULT?

Norwegian law, promulgated prior to the establishment of the Seed Vault and intended therefore to apply more generally to research and use of genetically modified organisms in Norway, effectively prohibits importation of genetically modified seeds and their storage in Svalbard at this time.

https://www.croptrust.org/OUR-WORK/SVALBARD-GLOBAL-SEED-VAULT/FAQ-ABOUT-THE-VAULT/