

## Growing Point

*Garden lessons in the Bible*

Week 6: Of Arks and Floods...

*And God said to Noah, "Make yourself an ark of cypress wood; make rooms in the ark, and cover it inside and out with pitch... And of every living thing, of all flesh, shall bring two of every kind into the ark, to keep them alive with you; they shall be male and female. Of the birds according to their kinds, and of the animals according to their kinds, of every creeping thing of the ground according to its kind, two of every kind shall come in to you, to keep them alive. Also take with you every kind of food that is eaten, and store it up; and it shall serve as food for you and for them. -Genesis 6: 14, 19-22*

God warned Noah that there was going to be a great flood that would cover the whole earth with water. It would not be possible to save every single person, animal, bird and plant. But God did want to save all the species. To do this, at least one mother and one father of each species would need to be saved. So, God instructed Noah to build a giant ark – a place where these animals could be safe during the flood.

Water is a good thing – all living things need water to survive. But, too much water can be a bad thing. Tiny creeks turn into raging rivers and carve new pathways through the earth. People and animals lose their homes. Farmers lose crops. Even though MCC is high on a hill, we have still been affected by the recent seemingly never-ending rains. We have not been able to plant some crops. Some things we planted were washed away in the rains. Things are finally drying out some, but in the meantime, the weeds have been taking over and we might lose more crops from competition with weeds. At least at MCC we don't rely on our garden for income and food for our table. But the impacts are nonetheless very real and they provide an opportunity to talk with kids about environmental issues related to water, about the importance of protecting biodiversity, and about the people and animals whose lives have been devastated by floods.

## Soul Water

*Nurturing your soul through prayer*

Week 6: Of Arks and Floods...

Dear Water-loving God,

Thank you for water.

Thank you for all the life that water makes possible.

Thank you for Noah and his ark.

Thank you for the lessons that Noah's Ark teaches us about water, floods and biodiversity.

Help us to be good gardeners.

Help us to take care of the earth's water.

Help us to protect plant and animal diversity.

Help us to reach out and help other whose lives have been devastated by either floods or drought.

Amen

# Earth Explorations

## *Nurturing Connections to the Soil*

### Week 6: Of Arks and Floods...

Each day, deforestation, global warming and other environmental crises lead to the extinction of more and more plant and animal species. This increasing loss of biodiversity has inspired some scientists to create a modern Noah's ark to preserve seeds from around the world. Learn more about it below.

## **Arctic 'Doomsday' Seed Vault Opens Doors For 100 Million Seeds**

Excerpts reprinted from

[www.sciencedaily.com/releases/2008/02/080226092753.htm](http://www.sciencedaily.com/releases/2008/02/080226092753.htm)

*ScienceDaily (Feb. 27, 2008)* — The Svalbard Global Seed Vault opened February 26 on a remote island in the Arctic Circle, receiving inaugural shipments of 100 million seeds that originated in over 100 countries. With the deposits ranging from unique varieties of major African and Asian food staples such as maize, rice, wheat, cowpea, and sorghum to European and South American varieties of eggplant, lettuce, barley, and potato, the first deposits into the seed vault represent the most comprehensive and diverse collection of food crop seeds being held anywhere in the world.

Built near the village of Longyearbyen on the island of Spitsbergen, the vault at its inception contains 268,000 distinct samples of seeds--each one originating from a different farm or field in the world. Each sample may contain hundreds of seeds or more. In all, the shipments of seeds secured in the vault today weighed approximately 10 tonnes, filling 676 boxes.

The opening of the seed vault is part of an unprecedented effort to protect the planet's rapidly diminishing biodiversity. The diversity of our crops is essential for food production, yet it is being lost. This "fail-safe" facility, dug deep into the frozen rock of an Arctic mountain, will secure for centuries, or longer, hundreds of millions of seeds representing every important crop variety available in the world today.

As well as protecting against the daily loss of diversity, the vault could also prove indispensable for restarting agricultural production at the regional or global level in the wake of a natural or man-made disaster. Contingencies for climate change have been worked into the plan. Even in the worst-case scenarios of global warming, the vault rooms will remain naturally frozen for up to 200 years.

"With climate change and other forces threatening the diversity of life that sustains our planet, 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," said Norway's Prime Minister Jens Stoltenberg.

"Crop diversity will soon prove to be our most potent and indispensable resource for addressing climate change, water and energy supply constraints, and for meeting the food needs of a growing population," said Cary Fowler, Executive Director of the Global Crop Diversity Trust.

"The significant public interest in the seed vault project indicates that collectively we are changing the way we think about environmental conservation. We now understand that along with international movements to save endangered species and the rainforests of the world, it is just as important for us to conserve the diversity of the world's crops for future generations," Maathai said.

"The opening of the seed vault marks a historic turning point in safeguarding the world's crop diversity," said Fowler. "But about 50 percent of the unique diversity stored in seed banks still is endangered. We are in the midst of trying to rescue these varieties. Our success means we will guarantee the conservation and availability of these wildly diverse crops. Forever."

### **Unique Building**

The building of the vault itself has attracted much outside interest due to its location and its unusual engineering, security, and aesthetic features. Its engineering allows it to stay cool with only a single 10-kilowatt compressor, which is powered by locally generated electricity.

The vault consists of three highly secure rooms sitting at the end of a 125-metre tunnel blasted out of a mountain on Norway's Svalbard archipelago. The seeds will be stored at minus 18 degrees Celsius (minus 0.4 degrees Fahrenheit) and sealed in specially-designed four-ply foil packages. The packages are sealed inside boxes and stored on shelves inside the vault.

Each vault is surrounded by frozen arctic permafrost, ensuring the continued viability of the seeds should the electricity supply fail. The low temperature and moisture level inside the vaults will ensure low metabolic activity, keeping the seeds viable. If properly stored and maintained at minus 20 degrees Celsius (about minus 4 degrees Fahrenheit), some seeds in the vault will be viable for a millennium or more. For example, barley can last 2000 years, wheat 1700 years, and sorghum almost 20,000 years.

Anyone seeking access to the seeds themselves will have to pass through four locked doors: the heavy steel entrance doors, a second door approximately 115 metres down the tunnel and finally the two keyed air-locked doors. Keys are coded to allow access to different levels of the facility. Not all keys will unlock all doors. Motion detectors are set up around the site. Boxes of seeds inside the rooms are scanned before entering the seed vault.

# Seeds for Thought

*Additional Resources to Nurture Soil & Soul*

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## Questions to Ponder

The next time you are wondering what your family might do together, or the next time there is a lull in conversation at the dinner table, consider pondering the following questions.

- How many species of living things do you think there are?
- How many species do you think go extinct each day?
- Why do you think animals go extinct?
- Why do you think it might be a good idea to protect biodiversity?
- What ideas do you have about how we might protect ourselves from floods?
- What are some examples of issues related to too much or too little water?
- How do you think wild animals have been affected by all the recent rains?