



Planning for worst case, scientists building gene bank of wild Israeli plants in danger of extinction

Israeli plant life, among world's richest, to be dried and preserved at Beit Dagan site

By Zafir Rinat

The Agriculture Ministry's research institute at the Volcani Center at Beit Dagan has a major project underway to build a gene bank of wild Israeli plants that are in danger of extinction. If a particular species disappears in the wild, it can be reintroduced from the gene bank. So far, seeds from about 185 plant species have been collected by the agency, which is formally known as the Agricultural Research Organization. There are currently about 400 species of wild plants in Israel that are considered endangered to one degree or another among the thousands of species present in the country.

Experts say Israel's wild plant life is among the most varied and rich in the world, because the country is located at the intersection of species found in Africa and others from Central Asia. The major threats to the survival

of plant species here are destruction of habitat from construction, threats by invading species and pollution.

The director of the Beit Dagan gene bank, Rivka Hadas, explained that the project was established with a number of goals in mind, including collecting seeds of plants that are of benefit to humans, either for human consumption, as animal feed or for landscaping. She said the project is being carried out in cooperation with the Israel Nature and Parks Authority with support from the Environmental Protection Ministry. Hadas said the project was designed to maintain the collection of seeds for decades and even centuries so they are available to future generations.

When they arrive at the Volcani Center, the seeds for the bank undergo a careful process of cleaning and drying. Some of the seeds from every species are also sent to Kew Gardens in London

in what Dr. Hadas described as a backup system in case a mishap occurs that could endanger the Israeli seed bank. A priority list has been developed in conjunction with the Nature and Parks Authority of the species at greatest risk that are therefore first priority as additions to the collection.

Searching for samples

A group of botanists has begun touring the country in search of seed samples. They have also been in touch with other possible sources of specimens, such as botanical gardens. Priority has also been given to an area of the

Sharon region where real estate development has threatened rare species, and to the Acre region. Among the most endangered species is a local species of *Lathyrus*, a type of flowering sweet pea which is unlike any related species in the world. Another is the flowering *Cirsium alatum*, seeds from which were gathered in the Beit She'an valley two years ago. The seeds were planted at the Volcani Center and the plants that

grew from them have produced close to 100,000 seeds. Some of the plants have been given to the Nature and Parks Authority to be returned to nature.



The genetic seed bank at Beit Dagan.

Alon Ron