MONITORING IN THE NATIONAL GENE BANK

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Abstract. *This article presents the first version of a personal assistant specialized in supporting the work of the head of the national gene bank. The National Gene Bank, which is part of Bulgaria's national security, was founded in 1984 with the aim of preserving the diversity of cultivated plant species and their wild relatives. Currently, it stores over 60,000 samples, 43,147 of which are under long-term storage conditions. The base collection consists of 33 families, 150 genera, and 600 plant species. The gene bank is the largest on the Balkan Peninsula. The collection maintained in the National Gene Bank is published in the European electronic catalogue of plant genetic resources EURISCO.*

In accordance with the standards, the samples are subject to control checks every 10 years. Each control check is a multi-stage process involving various specialists. On average, about 6,000 control checks are carried out per month. The huge number makes it very difficult for the gene bank manager to monitor and control the implementation of the controls. To assist him, we are developing a specialized personal assistant that will monitor the parallel checks and prepare the necessary information and warnings for the gene bank manager. In addition, the assistant will monitor the conditions in the bank's cold storage rooms, for which purpose a suitable interface is being developed to extract data from the sensor network installed in the bank.

Key words: National Gene Bank, Monitoring, Personal Assistant, Control Checks, Data Management, Digitization in the Agricultural Sector.

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