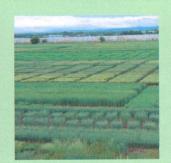
SUSTAINABLE UTILISATION OF PLANT GENETIC RESOURCES FOR AGRICULTURE AND FOOD

BOOK OF ABSTRACTS

International scientific conference 18 – 20 October 2016 Piešťany Slovak Republic























National Agricultural and Foond Centre - Research Institute of Plant Production

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CRYOBANK OF GARLIC (ALLIUM SATIVUM L.) GENETIC RESOURCES IN POLAND

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The Research Institute of Horticulture, Skierniewice, Poland maintains 539 garlic (*Allium sativum* L.) accessions in a field collection (296 bolting garlic accessions and 243 non-bolting garlic accessions). The collection has been maintained since 1986. The plant material was collected on expeditions in various parts of the world. Garlic accessions have been a source of many features needed in breeding, biotechnology and other research branches. To provide a long-term storage, protect from harmful biotic and abiotic factors, preserve the genetic stability and reduce costs of maintaining field collection safe duplicates of the field collection in liquid nitrogen were performed. Cryopreservation has become an alternative, safe and the most effective method for long-term conservation of vegetatively propagated germplasm. Garlic shoot tips isolated from bulbils and *in vitro* plantlets were cryopreserved by vitrification method. On April 1, 2011 the European Tripartite Cryobank was established. A Cryobank Network has been carried out by the three partners from: the Czech Republic, Germany and Poland. At present, 160 garlic accessions from European field collections are maintained in the cryobank, 75 accessions are from Polish collection.

Key words: cryobank, garlic, cryopreservation, genetic resources

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