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"Competing pathways for equitable food systems transformation: Trade-offs and synergies"

Survey and collection of solanaceous indigenous plants in central Vietnam

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Abstract

In Vietnam is a visible erosion of genetic resources and a decline in biodiversity, especially solanaceous plants are seriously threatened in Vietnam. Therefore, one aim was to conduct an inventory of the distribution of solanaceous species in farms and local households in central Vietnam in order to understand the level of cultivation. In this study were conducted investigations and surveys in central Vietnam, searching for regions and communities with high cultivation of non-indigenous and indigenous solanaceous plants. Furthermore, an aim was to collect wild solanaceous species in the nature having a value as food or as medicinal plants. In general the aim of the research was focused on the collection of various accessions of solanaceous species in different regions and creation of germplasm database based on morphological characterisation in order to restrict the loss of solanaceous genetic diversity. One of the studies focused on very economically important species, cultivars and landraces for example the genus - eggplants. Indigenous solanaceous genetic resources often lack information on agricultural characteristics, genotypes and phenotypes because they have not been evaluated in detail. The existing database for genetic resources of indigenous *Solanaceae* plants in Vietnam is underdeveloped because collection, classification and evaluation are not done systematically. This study tried to contribute knowledge in this regard. There are many taxonomic problems with the important indigenous species of the family *Solanaceae* in Vietnam, particularly as the Solanum genus is highly variable and contain a large number of hybrids. Therefore, identification based on morphological characters is quite difficult. Overall, under-utilised indigenous solanaceous species should be collected, evaluated and conserved. In addition, developing of strategies for germplasm conservation for indigenous genetic resources is necessary.

Keywords: Eggplant cultivars and landraces, genetic resources of solanaceous plants, germplasm conservation, wild solanaceous species

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