



WATER – A FRAME OF HEREDITARY POTENTIAL MANIFESTATION

Gallia Butnaru

Banat University of Agricultural Sciences and Veterinary Medicine, Department of Genetic Engineering/Genetics/Research Centre "Genetic Resources, Molecular and Cytogenetics Analysis", 119 Calea Aradului, 300645 Timisoara, Romania, e-mail: galliab@yahoo.com, Phone: 0256.277219, Fax: 0256.200296

Abstract

The effects of different waters loaded with different amount of $^2\text{H}/\text{D}$ were investigated. Water presence is essential for active or dormant tissues in order to describe their characteristics. The present paper concerning different water types study is important both for basic and applicative research point of view. Natural (Cibu, mineral, salty, radioactive, still waters), man prepared ("pure", Pi or "life", magnetized, deuterium depleted or heavy waters) and plant prepared (π water, grapevine sap) were used to point out their involvement in plant cell and gene activity and finally in phenotypical expression. In the last decades, different organisms such as: bacteria, fungi, plants, insects and sometimes lab mice were investigated. In order to emphasize the water influence upon organism's variance analysis was applied. Each water type revealed either strong or weak influence upon seed germination, plant growth rhythmicity, prolificacy, and disease tolerance. Only a general comparison could to be done because each of them has its particular influence upon gene activity and finally upon phenotype. This paper emphasizes the involvement of different isotopically distinct water as a gene "moderator".

Key words: genotype and phenotype expression, isotopically distinct environment, water types

Received: September, 2010; Revised: November, 2010; Accepted: November, 2010
