ASPECTS REGARDING THE CALCIUM OXALATE CRYSTALS AT THE GRAPEVINES CULTIVATED IN IAŞI AND COTNARI VINEYARDS

Camelia IFRIM[2], Carmenica Doina JITĂREANU[1], Cristina SLABU[1], Alina Elena MARTA[1]

e-mail : camicris@yahoo.com

Abstract

The major function of calcium oxalate crystals in plants implies the adjustment of calcium (Ca) metabolism and the protection against herbivorous animals. The main types of crystals considered to play a protective role are the raphides, their shape being essential in this sense. Recent studies suggest that the crystals' aspect depends of the species, their shape and dimensions being characteristic. The types of *Vitis* studied in this paper make themselves noticed due to the morphological variety of the crystals, their structure in vegetative organs or in the specialized tissues of the same organ. From the five types of crystals mentioned in the specialized literature, three of them were noticed: raphides, druses and prismatic crystals. The differences noticed between the varieties can suggest they had been influenced by the characteristics of the soil, the environmental conditions and even by some genetic factors.

Key words: *Vitis,* calcium oxalate, raphides, druses, idioblasts