INFLUENCE OF FOUR FOLIAR FERTILIZERS ON THE QUALITY AND QUANTITY OF THE PRODUCTION OF CABERNET SAUVIGNON GRAPES IN THE CONTEXT OF IRON CHLOROSIS

Emilian TUDOR[1], Adriana GRIGORE[2], Mihail DUMITRU[2], Carmen SÎRBU[2], Traian CIOROIANU[2]

e-mail: emilian.tudor@gmail.com

Abstract

The quantity and quality of the grape crop in the conditions of iron deficiency may be significantly improved by the use of foliar fertilizers. Among the four types of foliar fertilizers, the best results in mitigating the effects of iron deficiency were attained by the fertilizers which, in addition to a complex mineral composition, also had a content of organic matter in the form of humic acids (V4) or protein hydrolysate (V5). The differences show that the organic elements have a stimulating influence on the plant metabolism and that the iron alone or even a complex foliar fertilizer with micro and macro-elements has a smaller impact on the crop (in terms of both quality and quantity) than the mineral-organic combinations. Moreover, a less favourable aspect can also be noticed, namely the fact that the fertilizers with an organic content contributed to a larger extent to the increase of the total nitrogen content in the grape, possibly influencing the wine clarification process.

Key words: iron chlorosis, grapevine, grapes, iron, foliar fertilizers