Abstract

Keywords: *Ficus carica* L., fig, genotypes, pomological description, cultivation technology, cutting propagation techniques, micropropagation, Romania, Iraq

An interesting fruit species for consumers, as well as for producers and researchers, *Ficus carica* L. has many nutritional and nutraceutical qualities. Originated from Asia, this plant has adapted during centuries to the mild climate areas from our country. Even so, fig tree is not yet planted in commercial orchards, and the Romanian farmers need the recommendation of early ripening varieties, as well as specific crop technologies for the Romanian climate.

The objectives of the current thesis have focused on the one hand on the identification and study of existing fig genotypes in Romania and Iraq and description of the main pomological characteristics of them. On the other hand, the establishment of a vegetative multiplication technology of the selected elites trough cutting and *in vitro* micropropagation, for the fast diffusion in production, was tried.

This paper, entitled "Study of fig (*Ficus carica* L.) populations in Romania and Iraq and their multiplication by conventional and *in vitro* methods", contains 207 pages and is structured in two main parts.

The first part covers 20 pages and is systematized into four subchapters representing bibliographical study on the current state of research and the importance of fig tree cultivation, the current situation and prospects of development of the fig tree crop, the main biological and technological value of cultivated varieties, the current state of fig propagation research.

The second part of the thesis refers to personal contributions and is structured in four subchapters. The first subchapter presents the study of fig population in Romania and Iraq, the second subchapter is devoted to own contributions regarding the conventional propagation methods of fig tree (hard and green wood cutting), the third subchapter is devoted to the personal contributions regarding the *in vitro* propagation of fig genotypes. The last subchapter is devoted to conclusions and general discussions.

The obtained results show the plant characteristics, aspects regarding the pomological description of the selected genotypes, behaviour at soft and hard wood cutting propagation, as

well as the study of the possibility of a micropropagation of selected elites on Murashige and Skoog culture medium supplemented with different hormones combinations.

The paper presents useful conclusions and recommendations for the local market and farmers who want to establish a fig plantation with adapted varieties to the climatic conditions of our country.

At the thesis end, the final conclusions, cited literature and annexes are presented.

The comprise a number of 53 tables and 110 figures and graphs.