



## POSITION

on dissertation work for obtaining the educational and scientific degree "Doctor" in the field of higher education: 6. *Agrarian sciences and veterinary medicine*, professional field: 6.1. Crop Science, specialty: *Fruit-growing*

**Author of the dissertation:** Georgi Ivanov Govedarov - PhD student in independent preparation at the Department of Fruit- Growing at the Faculty of Viticulture and Horticulture at the Agricultural University in Plovdiv.

**Thesis topic:** POSSIBILITIES FOR ACCELERATED PRODUCTION OF THE PEAR AND THE QUINCE TREES ON DIFFERENT QUINCE ROOTSTOCKS

**Reviewer:** Prof. Dr. Stefan Ivanov Gandev, Fruit Growing Institute, Plovdiv, Higher Education Area: 6. Agrarian Sciences and Veterinary Medicine, Professional direction: 6.1. Crop Science, speciality: Fruit-Growing, appointed as a member of the Scientific Jury with order No. ΠΔ-16-1374 / 13.12.2019 by the Rector of the Agricultural University, Plovdiv.

### **1. Relevance of the problem**

The production of fruit planting material requires two years of cultivation of the plants in a nursery, and in the case of grafting with an intermediate - three years. The topicality of the presented dissertation is expressed in the shortening of this term, by presenting specific guidelines and recommendations for the practice.

In this connection it can be concluded that the topic of the dissertation was successfully selected. It is topical and has practical importance in the production of the pear and the quince trees.

### **2. Purpose, tasks, hypotheses and methods of research**

In the thesis, the goal is not clearly formulated. There are four tasks: in a mother plantation for rootstocks; in a nursery for traditional production; in a nursery for accelerated production and in a mother plantation for the production of budsticks. The research hypothesis is not clearly presented. It is implied by the experiments performed.

The experiments are conducted of the experimental base of the Department of fruit-growing at the Agricultural University-Plovdiv, on the territory of the village of Brestnik.

The studies were carried out with the quince rootstocks Provence quince, MA, Ba 29 and B 12, the pear cultivars Cure and Passe Crassane and the quince varieties Asenica, Triumph and Hemus.

The methods used are up-to-date and the number of indicators is sufficient to interpret the results. Data were statistically processed.

### **3. Visualization and presentation of the results obtained**

The dissertation is written on 112 pages, including the necessary sections, follows the logical structure and has a good layout. Contains 29 tables and 25 figures. The conclusions presented are directly related to the results obtained.

### **4. Discussion of the results and the literature used**

The results are presented correctly and their discussion indicates that the doctoral student is well informed of the topic on which he is working. The dissertation is written in a good scientific style.

The literature used is from 135 authors, with a predominance of foreign language sources. Citations in the text are correct. The sources cited provide sufficient scientific information to interpret the data and conduct the study in its entirety.

### **5. Contributions to the thesis**

Contributions may be divided into contributions of original nature, applied contributions and confirmatory contributions.

#### *Contributions of original character*

- The duration of soldering of grafted pear and quince buds in the traditional and accelerated production method has been established.

-The development of grafted pear and quince buds in traditional and accelerated tree production is presented in the dynamics.

- It is found at quince the most suitable method for producing scions (leaf-bearing buds), as well as the time to make it.

-It has been found that by applying high agricultural technology, standard pear and quince trees can be produced in a one-year-old nursery.

#### *Scientific and applied contributions*

- In the case of accelerated production, it has been found that for better soldering of the rootstocks at the one-year-old nursery, they must be planted in the period 15.11-15.12.

- The thickness of the rootstocks reached in the mother plantation (4-7 and 7-12 mm fractions) does not have a significant impact on their development in the nursery.

