

THE INFLUENCE OF PDA, CMA, TA AND V8 CULTURE MEDIA ON THE DEVELOPMENT OF *PHYTOPHTHORA INFESTANS* DE BARY. AND *PHYTOPHTHORA PARASITICA* DAST.

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Abstract

The aim of the study was to learn the influence of culture media on two species of *Phytophthora*. The development and colony appearance was observed for ten days and the number of spores for ten weeks. In order to achieve this experiment two species of the genus *Phytophthora* were used *Phytophthora infestans* de Bary and *Phytophthora parasitica* Dast. and four culture media PDA, CMA, V8 and TA. In determining the number of spores, 63.63 cm² of mycelium were collected from the surface of the culture medium and mixed with 250 ml of sterile water. The containers with sterile water and *Phytophthora parasitica* Dast. and *Phytophthora infestans* de Bary., were placed in a refrigerator at a temperature of 7° C, to make sure that zoospores are released. The number of spores per milliliter was determined for each of the fungi using the hemocytometer. The highest values were recorded on the dishes with PDA medium, where after calculating the average of nine dishes the colony registered a rate of growth of approximately 1.47 cm. According to these observations we can conclude that the PDA is the most favorable for the development of the *Phytophthora infestans* de Bary colony. The highest values of the *Phytophthora parasitica* Dast colony diameter were observed in the plates with V8, where more than half of the plates have reached the edge of the analyzed Petri plates, thus an average diameter of 8.4 cm was registered in the last day of observation. On the TA plates there was also a high growth rate, the diameter of the colony reaching an average value of 5.5 cm at the end of the 10th day of observation. The PDA provided a slower growth rate of the colony diameter, at the end of the observations the colony only measured 3.94 cm, while CMA media composition has provided conditions for development of the average diameter of only 1.67 cm.

Key words: *Phytophthora parasitica*, *Phytophthora infestans*, culture media, number of spores