

The dynamics of biogenic elements in TMV infested leaves of tobacco type Prilep

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A number of authors, in their investigations on the economic importance of elements C, H, O, as well as other macro- (N, P, K, Ca, Mg) and microelements (Bo, Cl, Cu, Fe, Mn, Mo, Zn) have stated that C, H and O constitute almost 90% of dry matter, and other macro- and microelements have a significant effect on tobacco leaves.

Three year investigations (1997, 1998, 1999) with tobacco varieties P 12-2/1, P 156/1, P 84, P 65/94, inoculated 30 days after transplanting and prior to butonization, revealed that the content of biogenic elements varies depending on the growth stage, time of inoculation and variety.

Thus, the N content ranges 21.0 mg/g dry matter (control variety P 12-2/1) to 36.20 mg/g dry matter (plants inoculated 30 days after transplanting) in the variety P 65/94 in the stage of middle leaf formation.

The content of P, Ca, K and Fe in the leaves of inoculated varieties decreases significantly as compared to the control (15% P; 20% K; 29% Ca and 35% Fe), depending on the variety and time of inoculation.

The Mg content in all varieties and in both periods of inoculation increases significantly (30 - 38%), compared to the control plants of investigated varieties.