

PHOTOSYNTHETIC ACTIVITY OF APRICOT VARIETIES CULTIVATED IN THE SOUTHERN ZONE OF THE REPUBLIC OF MOLDOVA

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Research on the growth parameters and photosynthetic activity of apricot plants was carried out in the agroclimatic conditions of the South of the Republic of Moldova, Vulcanesti district, in the farm SRL „Timac-Agro EAFT” on the varieties: *Kyoto, Falaria, Pin Cot, Spring Blush, Orange Red, Farbaly, Parle Cot, Sweet Cot, Wander Cot, Magic Cot, Lili Cot, Big Red*. Determine the indices of photosynthetic activity – the content of assimilatory pigments *cl.a*, *cl.b*, the sum of *cl.a+b* and carotenoids, mg/g.abs.dry subs.; chlorophyll indices (*cl.a/cl.b*), pigment indices (*cl.a+b/carotenoids*) and chlorophyll content (*cl.a+b*), mg/leaf. The studies were carried out in two periods: the deposition of the generative organs and their differentiation. During the period of deposition of the generative organs, an essential change in the thickness of the leaf limb is observed in the varieties studied, especially in the varieties *Spring Blush, Orange Red, Lili Cot* and *Big Red*. The surface of the leaf limb, varies in the parameters 37.53...67.59 cm²/leaf, increases in the varieties *Kyoto, Spring Blush, Orange Red, Wander Cot, Lili Cot* and decreases in the varieties *Falaria* and *Pin Cot*. We can mention that in the *Kyoto* and *Big Red* varieties, a more active growth of the leaf surface is evident during the period of differentiation of the generative organs. In the process of photosynthesis in the leaves, the accumulation of raw and absolutely dry biomass occurs, the parameters of which change from 0.23 (*Big Red*) to 0.53 (*Lili Cot*) g/abs. dry subst. per leaf. Photosynthetic pigments represent some of the most important internal factors that, in certain cases, can limit the photosynthetic rate. In apricot plants, a legitimacy is observed in the high content of *cl.a* compared to *cl.b*. During the period of deposition of the generative organs, the content of *cl.a* changes depending on the particularities of the variety from 2.225 (*Orange Red*) to 3.062 (*Parle Cot*) mg/g. abs.dry subst. At the same time, the level of *cl.b* changes from 0.542 (*Magic Cot*) to 0.901 (*Pin Cot*). The chlorophyll index (*cl.a/cl.b*) in most evenings is in the range of 3.4-4.5/1. The varieties studied are characterized by a high level of carotenoids whose content in the first period of determination changes from 1.038 (*Big Red*) to 1.501 (*Pin Cot*). The pigment index (*cl.a+b/carotenoids*) changes in parameters 2.6-2.9/1.

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