

The Influence of Treatments with Ceraltin[®] used for Grafting upon the Main Phenological Phases in some Rose Cultivars

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SUMMARY

The evolution of the rose as a plant genus, its domestication and its prevalence in world culture and art demonstrate the immense popularity of this ornamental species (Wagner, 2002). The monitoring of the rose plants grafted in the year 2009 was carried out in the experimental field in the framework of the Fruit Research Station Cluj. Phenological and biometric observations of three rose cultivars were carried out „Golden Elegance” - HT group, „Foc de tabără” - Foribunda group and „Afrodita” - shrub roses group, grafted on the *Rosa canina* „inermis” rootstock; from this combination of scion-rootstock the best results were obtained in the year of grafting (2009). As a result, 108 roses were taken into account from the 324 roses grafted in the previous year. The phenological phases that we studied were: bud sprouting, the start of shoot growth, the formation of flower buds and flowering. From the analysis of experimental data, using the „Duncan” test (Ardelean *et al.*, 2002), it was found that in the roses treated with the Ceraltin[®] for increasing grafting compatibility and better subsequent plant development, the phenological phases take place very significantly earlier as compared to the untreated control. Regarding the process of bud sprouting, the average difference between the plants treated with the Ceraltin[®] and the untreated ones is of almost one week. The first and the second waves of flowering take place four -five days earlier in the case of cultivar „Foc de tabără”, whereas in the case of the other two cultivars the difference in flowering is non-significant (maximum one day). Regarding plant height, in the roses treated with the Ceraltin[®], an increase with 3-7 cm was observed, as compared to the untreated control. The number of flowers/plant/year was higher, there were 2-3 more flowers in the treated plants as compared to the untreated ones. Based on the experimental data, these positive effects may be caused by the early start of vegetative growth of the roses treated with the Ceraltin[®]. As a result of inducing this earliness, in the first year of vegetation the plants benefited from the time necessary for development and hardening, so that in the following year their vegetative and productivity potential was greater than that of the untreated plants. We can conclude that treating the plants with the Ceraltin[®] in the process of grafting can cause a slight increase in the vigour and the productivity of the treated plants.

Keywords: rose, phenological phases, Ceraltin[®]

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