

## ABSTRACT

### THE RESEARCHES ON TO DETERMINE OF ADAPTATIONS OF SOME ALMOND CULTIVARS IN AYDIN ECOLOGY AND PERFORMANCES OF THEIR SAPLINGS IN TERMS OF EARLY FRUITING

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This research was carried out in fruit science collection orchards in Horticulture Department, Agriculture Faculty, Adnan Menderes University in Aydın province and almond parcels in Dalama country in Aydın province between 2009 and 2011 years. The aim of this research is adaptation of late flowering almond cvs. and promoting of their early fruiting. Texas, Nonpareil, Ferraduel, Ferragnes, Primorski ve Tuono cvs. which is grafted on seedlings were used. To promote flower bud formation, the applications of ringing (girdling effect) and making wider branch angle have been carried out. Phenological observations and developmental performances with morphological observations were made. In addition that, chlorophyll, total sugar, total starch, total carbohydrate and amygdalin contents as biochemical have been determined. As a result of all evaluations, in terms of phenologically, Texas and Ferragnes cvs. in fruit collection orchards and Texas, Ferragnes and Tuono cvs. in Dalama country were flowered lately. In terms of morphological developments, Tuono cv. for both location and ringing and making wider branch angle applications gave better results when compared to control. When the amount of chlorophyll and its density were evaluated, Tuono cv. and ringing and wider branch angle applications became more noticeable. Ferraduel, Ferragnes cvs. and the plants made wider branch angle application had the highest total sugar and total starch. Ringing in both location, Primorski cv. in fruit collection orchards and Ferraduel cv. in Dalama country had the highest amygdalin contents. In terms of bud counting, ringing application and Tuono cv. had bigger values.

**Key words:** Almond, ringing, branch angle, adaptation, flowering