ALMINA

POMEGRANATE

Evaluation Report on the Effects of Almina, a Product Developed by Minitalya Tarim, on Pomegranate Plants in Aksu District of Antalya

The product was applied in an orchard of 90 decares with 10-year-old pomegranate trees of the Hicaz variety in Abdurrahmanlar (with a planting distance of 4 m x 4 m between rows and above rows). After 5 foliar applications with a period of 3-4 weeks in the trial area, the effects of Almina use and the differences created were examined.

In April 2021, treatment and control plots were determined in the orchard in accordance with the standard trial pattern, located side by side. All maintenance and applications throughout the orchard were identical and the only difference between the control plot and the treatment plot was the Almina applications.

- Foliar applications of Almina in the orchard were started in April at a dose of 1.5 kg /100 l during pre-flowering, fruit setting, fruit growth and ripening stages.

After the treatment, a difference of approximately 7-8 degrees was detected in the temperature measurements made on the fruit surface. This difference in temperature is of great importance. When the temperature on the surface of the pomegranate fruit exceeds 41°C, sunburn damage begins to occur. At the time of ripeness, especially in dark-colored pomegranate fruits, the skin surface of the fruit facing the sun burns due to excessive lighting during the day. The burned area turns completely black and small cracks appear on this area in time, such cracks decrease the market value of the fruit when combined with water stress.

Plants undergo heat stress at 37.5 degrees Celsius during sunny hours and stop photosynthesis. This difference in temperature created by Almina treatment causes an increase in the amount of photosynthesis in 24 hours by delaying the entry of the plant into heat stress and accelerating its recovery from heat stress. Therefore, a positive difference was observed in green parts and fruit development compared to the control plot.

With the calcium content of Almina and its coating on the plant, Almina prevented water loss and provided a significant reduction in the cracking problem.

In general, the comments of garden owners, traders and interested agricultural engineers can be summarized as follows:

- Increase in shoot growth
- Darkening in the color of leaves
- Thickened and widened leaves
- Reduced cracking
- Minimization of sunburns
- Increase in size and quality of pomegranate
- Increase in yield