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WASTEWATER INNOVATION



Table olive production plant in Ormylia – Chalkidiki, Greece

Cultivation of olives in Chalkidiki covers an area of 31,000 ha, with 5 million trees and 19,000 producers. This is the 1/3 of the cultivated area of the Prefecture. In the region of Ormylia Chalkidiki (Sithonia) about 1,000 families cultivate 8,000 acres. Table olive production is a seasonal activity, as well as a water-intensive procedure, therefore a significant volume of wastewater is produced within short time (campaign period: September – November). Furthermore, olive processing wastewater is characterized by high organic (5,000 – 15,000 mg COD/L) and salinity (4,000 – 12,000 $\mu\text{S}/\text{cm}$) levels. In the specific table olive production plant, all the wastewater is collected in a lagoon and an integrated bacteria dosing and pumping system has been installed on-site, in a pre-constructed container, particularly designed for wastewater treatment via bioaugmentation. Analytical results have proved method's high performance and applicability, as > 90% reduction of COD has been achieved in less than 7 months, following the end of the campaign period. As a result, treated effluent characteristics complied with the specifications of a neighboring domestic sewage treatment plant, where it is finally disposed.

