

Effect of olive knot on olive oil quality in Algeria

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Inspections were conducted in one of the areas most badly affected by olive knot –Bni Ouarthilane in the Setif region – to confirm the presence of this disease in Algeria. Morphological, biochemical, physiological and pathogenetic assays revealed that the isolates obtained from diseased samples belonged to *Pseudomonas savastanoi* pv. *savastanoi*, the causal agent of this disease. These data confirm the presence of the disease in Algeria, which has often been reported solely on the basis of symptoms. A tandem study was conducted to investigate the effect of the disease on oil quality. Samples of olive oil were extracted from olives (cv. Frantoio) harvested in two areas of Umbria from sound trees and trees with severe and intermediate symptoms of the disease. The results show that the bacterium does not have any effect on crop production, fruit weight or oil quality (acidity, peroxide value). In fact, all the oils extracted were extra virgin grade. In addition, it was demonstrated that total polyphenols content is not related to the disease. The conclusions of the sensory analysis were clear: it is impossible for consumers to detect defects linked to this disease.