



## **Land management affects soil losses on Spanish rain fed orchards. The El Teularet soil erosion experimental station**

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Soil quality is highly affected by soil and water losses. Non-tolerable and non-sustainable erosion rates induce soil exhaustion and thus a reduction in soil quality. Land management in agricultural land is a key factor in order to maintain soil quality. In Eastern Spain, where the potential for soil erosion is aggravated by the semiarid climatic conditions and the agricultural tradition of intense ploughing (and now massive application of herbicides), the development of new and environmental friendly agricultural management is a key tool to improve soil and environment quality. The El Teularet soil erosion experimental station is located in the Sierra de Enguera, Valencia province, in eastern Spain. Measurements carried out there during two years on 52 plots of 1, 2, 4 and 16 m<sup>2</sup> have demonstrated that herbicides encourage soil loss, meanwhile other treatments such as ploughing; catch crops; mulching with straw, chipped prunings or geotextiles; growth of weeds or scrub reduce soil losses by three orders of magnitude.

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