AGROECOLOGY FOR WEEDS

# Practice Abstract Nº 24
# Weed management in olives in an organic system, Cyprus

## INTRODUCTION

In the olive plantation in Cyprus, four cover crop treatments and four weed management practices were evaluated. The cover crops sown in winter were: *Vicia spp*. (seeding rate 24 kg ha$^{-1}$), *Pisum sativum* (seeding rate 22 kg ha$^{-1}$) and the triple species mixture of *Vicia spp.* + *P. sativum* + *Triticum durum* (seeding rate 8 + 8 + 4 kg ha$^{-1}$). An untreated control without cover crop was also included. In the plots with cover crops, the following four weed management practices were tested: untreated control, mechanical weed control by mowing, mulching (placing 20 cm straw under the experimental trees) and mechanical weed control by hoeing.

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## MAIN RESULTS – OUTCOMES

- *Vicia spp.* was selected for future trials due to its low growth height, which minimizes interference with farm operations and reduces fire and snake habitat risks
- The combination of the cover crop *Vicia* spp. x rotary tillage, *Vicia* spp. x mulching and Pea x mowing resulted in a low weed biomass
- Weed biomass was significantly higher in untreated cover crop plots, with *Vicia spp.* × untreated control and *P. sativum* × untreated control, potentially due to nitrogen availability promoting weed growth

## PRACTICAL RECOMMENDATIONS

1. Mulching and mowing consistently reduced weed biomass across treatments and should be considered for sustainable weed management in olive orchards
2. Combining *Vicia spp.* with rotary tillage, *Vicia spp.* with mulching, and *P. sativum* with mowing resulted in the lowest weed biomass



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