

Practice Abstract N° 23

Weed management in cherries in an organic system, Spain

INTRODUCTION

In a field trial conducted in a cherry orchard in Spain, four different types of cover crops were sown in late fall in the corridors between the rows of trees: *Ornithopus sativus*, *Trifolium subterraneum*, a biodiverse mixture of *O. sativus* + *T. subterraneum* + *Trifolium michelianum* + *Trifolium resupinatum* + *Trifolium vesiculosum* + *Trifolium incarnatum* + *Lolium multiflorum* and a grass mixture of *Festuca arudinacea* + *L. multiflorum* + *Lolium perenne* + *Dactylis glomerata*. In all plots, the sowing rate of the cover crops was 25 kg ha⁻¹. An untreated control with spontaneous vegetation was also maintained. Two terminations methods were applied: mowing and rolling.

PRACTICAL RECOMMENDATIONS

- 1 It is interesting to look for short-cycle cover crops that can be incorporated before the cherry harvest
- 2 While *O. sativus* and the grass mixture effectively reduced weeds, their high biomass may obstruct cherry harvesting. Alternative species with moderate biomass should be considered
- 3 Excessive rainfall influenced growth cycles, highlighting the need for flexible management strategies that account for weather variability
- 4 Prior control of *C. dactylon* is necessary to avoid allelopathic effects

MAIN RESULTS – OUTCOMES

- 1 *Ornithopus sativus* produced the highest biomass (8,700 kg ha⁻¹), followed by the grass mixture (*Festuca arudinacea* + *Lolium multiflorum* + *Lolium perenne* + *Dactylis glomerata*) at 5,604 kg ha⁻¹ and the biodiverse mixture at 4,969 kg ha⁻¹
- 2 Thanks to a very rainy year, biomass development was very high and dense, which could hinder the cherry harvest (which starts in mid-May)
- 3 The abundant presence of the noxious perennial weed *Cynodon dactylon* (L.) Pers. (Bermudagrass; botanical family Poaceae) prior to the establishment of the trial caused a strong allelopathic effect on the germination of the cover crop seeds. The most severely affected cover crop was *T. subterraneum*



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