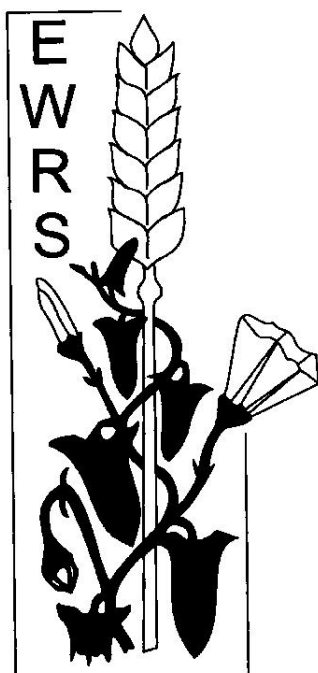

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E W R S

*European Weed
Research Society*

PROCEEDINGS

Ecological methods of weed management in Cumin

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Two field experiments were carried out in order to evaluate the effects of planting date, weed control method and date of weed control on weed number and weed biomass and yield and yield components of cumin (*Cuminum cyminum*) in the experimental research field of the Faculty of Agriculture during 2006 and 2007. Treatments included planting date (30 December, 20 January and 30 February), weeding date (first true leaf, start of branching and beginning of flowering stages) and weed control method (hand weeding, fire treatment and control). The results showed that there were significant differences in the number of weeds between different sowing dates, weeding dates and control methods. The highest mean density and biomass of weeds were obtained on the planting date, 30 February. The first planting date caused the lowest mean weed biomass and the highest cumin yield, compared to later planting dates. Delaying sowing date decreased the straw yield, number of umbellets per umbel, number of seed and biological yield. The highest cumin yield was achieved for the planting date of 30 December and the lowest for the 30th of February. Hand weeding treatment contained lower mean weed density and weed biomass compared to fire treatment. Fire treatment reduced weed growth in the first half of growing season, however, hand weeding significantly reduced weed density and biomass in the second half of cumin growing season that is more critical for seed filling and therefore, highest cumin seed and straw yields were obtained with hand weeding.