

**CUSCUTA CONTROL IN VEGETABLE CROPS IN THE UNITED ARAB EMIRATES
(U.A.E.).**

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Dodder (Cuscuta spp.) is a stem and leaf parasite which twines on several vegetable and forage crops, fruit trees and desert shrubs and weeds in the United Arab Emirates. It is particularly detrimental to mallow, mint, turnip, tomato, onions, alfalfa and citrus. The sandy light soils and hot climate of U.A.E. favour the germination of Cuscuta seed and the spread and twining of its shoots on the foliage of host plants. Under heavy infestation of dodder, vegetable crops may be completely destroyed. Since Cuscuta parasitizes other weeds before twining on host vegetables, an integrated Weed-Cuscuta management program is needed.

The field experiment was conducted in Masafi, Ras-al-khaimah Emirate, on mint infested with Cuscuta campestris. Two herbicides namely glyphosate (Phosphonomethyl glycine) and Basta (Glufosinate-ammonium) were applied at low concentrations of 0, 25, 50, 100 and 150 ppm (a.i.) in a volume of water at 50 ml/plot. Each micro plot was 50 x 50 cm and was sprayed over the top of the mint foliage and attached dodder. The plots were replicated and randomized complete blocks. Vigour of mint and dodder control were evaluated visually at two times on a scale of 0 (no effect) to 10 (severe phytotoxicity). The results show that post-attachment application of Basta at 25 ppm (a.i.) controlled dodder without significant phytotoxicity to mint; whereas glyphosate destroyed the foliage of mint at concentrations above 50 ppm which partially controlled dodder. The extremely low effective rate of Basta makes it very economical to use, and is currently tested for the selective control of dodder in several vegetable crops.