Effect of *Cuscuta chinensis* Lam.(Dodder) on the growth and yield of red onion(*Allium cepa*) under net house and field conditions

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Effect of infection of *Cuscuta chinensis* Lam. on the growth and bulb yield of red onion (*Allium cepa*) var.Vethalan was studied under net house and field conditions. Stem cuttings (10 cm long) of *C.chinensis* Lam. were entwined (one cutting/plant) on onion plants established in clay pots filled with a mixture of soil and cow dung (1:1) at one, four and seven weeks after planting (WAP) of onion bulbs as treatments. An untreated control was also maintained. The pots were arranged in a Randomized Complete Design (RCD) with three replications in *Maha* 2003/2004. The experiment was conducted also in a weed infested farmer's field in *Maha* 2004/2005. The plot size used was 1.30 x 0.60 m. Stem cuttings (10 cm long) of *Cuscuta chinensis* were entwined (15 cuttings/plot) at three, six and nine WAP of onion bulbs for the establishment of onion/parasite association. Results indicate that under net house conditions leaf length of the onion plants was significantly reduced when infection was done one WAP, but not four and seven WAP. Leaf discolouration was occurred within a week after infection in all treated plants. The death of onion plants was observed 10-14 days after infection. However, bulb formation was not observed under net house conditions. The yield under field condition was significantly ($p<0.05$) reduced when the infection was made at three and six WAP. However the yield reduction was not significant when the host was infected at nine WAP. Although at any growth stage, onion plants were susceptible for the infection of *C. chinensis* Lam., yield reduction was observed when the infection was done at three and six WAP of the crop under field condition.