ABSTRACT

Fusarium wilt caused by *Fusarium oxysporum* f. sp. *ciceris* is a soil and seed borne disease affecting chickpea (*Cicer arietinum*). It is widely distributed where chickpea is grown and it causes variable yield losses depending on the level of resistance of the genotype and suitability of environmental conditions for disease development. Thiram and carbendazim fungicides are used in most crops as seed dress fungicides against a wide variety of pathogens. The impact of the 0%, 50%, 100% and 150% of the recommended 1.5g fungicide/kg seed rates of these two fungicides on plant height, periodic dry matter and number of pods and grain yield of chickpea was evaluated in the field in a split plot design. Two varieties, Chania 1 which is moderately resistant and Chania 2 which is highly susceptible were grown. Plant height, dry matter and pods per plant were significantly higher in Chania 1 moderately resistant variety and when grown under increasing rates of fungicide application. Increasing fungicide application rates significantly increased grain yield of chickpea. The highest Grain yield of 1.4 t/ha was obtained from 150% (2.25g/kg seed) application of either thiram or carbendazim for MR Chania 1 was grown and treated with either thiram or carbendazim at 150% rate of application. Farmers should grow Chania 1 chickpea variety to minimize use of fungicide application rates to range within 1.5 to 2.25 g fungicide/kg seed and obtain high chickpea growth; yield attributes and grain yields ranging between 1.32 to 1.4 t/ha, respectively.

Keywords: chickpea fungicide treatment growth and yield parameters