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Evaluating chickpea lines for disease resistance in western Nebraska

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Chickpeas (*Cicer arietinum*) are a newly emerging alternative crop for western Nebraska. Interest in this crop is increasing with approximately 4,000 hectares cropped per year over the last 5 seasons. Several disease problems have been identified that will limit optimal production success if left unchecked. These diseases include Ascochyta blight, caused by *A. rabiei*, and a root disease complex consisting of *Rhizoctonia solani*, *Fusarium* spp., and *Pythium* spp. Thus trials were conducted at multiple locations (2003–2004) throughout the Nebraska Panhandle for testing chickpea lines and cultivars for yield potential and tolerance to both types of diseases under both dryland and irrigated conditions. Differences were observed between entries and their yield response to the different irrigation systems. In general, those entries with better root disease tolerance tended to yield better from irrigated production, while those more susceptible to disease performed better under dryland conditions. Identification of better sources of resistance is encouraging for the new chickpea industry in Nebraska and this process will continue as interest and production expands.