

KERR, ERIC D.\*, ROBERT G. WILSON, and DAVID D. BALTENSPERGER, University of Nebraska Panhandle Research and Extension Center, 4502 Ave. I, Scottsbluff, NE 69361. - Comparison of several trap crop species on soil populations of *Heterodera schachtii*.

Certain host and nonhost crop species and specialized trap crop species modify the population level of the sugar beet nematode, *Heterodera schachtii*. Corn, GN dry bean, sugar beet, crambe, oil radish, and Sudan grass were grown in *Heterodera schachtii* infested soil in western Nebraska over a four month period beginning 14 June and ending 14 October 1994. The initial nematode population was 12.7 eggs/cm<sup>3</sup> of soil. Plot size was one row (.56 M spacing) x 1.2 M long. A randomized complete block design utilized 3 replications. Plots were furrow irrigated with surface water. Final nematode populations in soil were 36.2, 18.1, 12.0, and 10.4 egg/cm<sup>3</sup> following crambe 'NM 2', sugar beet 'SX-1', corn 'NK 3639', and bean 'Harris', respectively. Egg density decreased following oil radish to 3.6, 3.7, and 7.5, for oil radish varieties 'Pegletta', 'Adagio', and 'Nemex', respectively, but only to 11.1, 9.6, and 8.9/cm<sup>3</sup> following Sudan grass 'Trudan 8', 'Sordan 79', and 'Hidan 36', respectively. In an associated test, 22 genetically diverse varieties of crambe were followed by egg populations ranging from 30.2 to 71.3 eggs/cm<sup>3</sup>. The 49.1 mean was a 3 fold increase over the initial population of 15.7 eggs/cm<sup>3</sup>.