

PERFORMANCE OF SEMIDWARF SUNFLOWER UNDER DIFFERENT CULTURAL PRACTICES

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Commercial production of semidwarf sunflower hybrids is currently developing in the USA. However, response of this type of plant to different cultural practices is not well known. Experiments were undertaken in North Dakota State University in order to determine the best row arrangement and plant population of semidwarf and standard height sunflower hybrids. Row arrangements consisted of: (i) conventional rows, rows spaced 0.76 m apart, (ii) solid seeding, rows spaced 0.38 m apart, and (iii) twin rows, two rows 0.19 m apart on 0.76 m centers. Plant populations evaluated were: 35, 50, and 75 thousand plants/ha. No statistical response of sunflower yield to differing row arrangement or plant population with either semidwarf or conventional height sunflower hybrids were found. Results of our experiments regarding the effect of plant population and row arrangement on sunflower yield agreed with most research in this area. Sunflower yield can adjust to varying plant population or row arrangement by changing other yield components such as number of seeds per head and average seed weight. Under rainfed conditions semidwarf sunflower hybrid did not show yield advantages.