On-Farm Understandings: Assessing the Impact of Seeding Rates on Wheat and Sunflower Grain Yield through On-Farm Trials

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Spring wheat and sunflower seeding rates were tested across Manitoba through Manitoba Crop Alliance's Research on the Farm program. Evaluating the impact of seeding rates on yield and plant stand densities is important as new wheat and sunflower varieties have become available. Tests were conducted using replicated strip trials, on farmers' fields using their equipment and management practices. There have been 21 and 26 site-years of data collected since 2020, for sunflower and wheat trials respectfully.

Significant plant stand density differences were observed at 50% of wheat sites and 67% of sunflower sites. Where significant plant stand density differences were observed the highest seeding rate resulted in the highest population at 100% and 85% of sites for wheat and sunflowers. Plant stand density did not influence yield at most wheat sites as 11.5% of sites had significant yield differences. 29% of sunflower sites had significant yield differences, with the farmer's normal seeding rate yielding highest at 67% of sites where a significant yield difference was observed.