Digging Deeper: Identifying long-coleoptile wheat for dry seeding success

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Abstract

Farmers would benefit from longer coleoptile wheat cultivars for deeper seeding during dry conditions. Spring and winter wheat (*Triticum* aestivum L.) cultivars were screened for coleoptile length. Screening revealed significant variation among popular Canadian cultivars, some with long coleoptiles suited to moisture-limited conditions. Winter wheat coleoptile length ranged from 6.6 to 9.7cm, and spring wheat coleoptile length ranged from 5.2 to 10.8cm. AAC Brandon and AAC Starbuck are similar height, but AAC Brandon's coleoptile was 2.2cm longer. AC Vortex and AAC Coldfront had similar coleoptile length but varied in height by 20cm. There was a significant, positive relationship between tall plant height and longer coleoptile length, but some semi-dwarf spring wheat cultivars like AAC Brandon had long coleoptile length (>9cm).