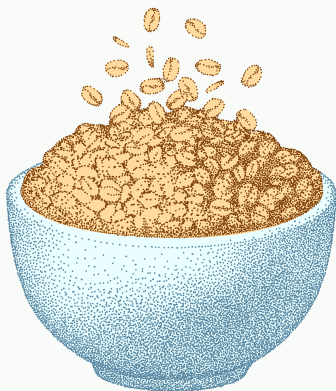


MILLING OAT VARIETY TRIAL



These milling oat varieties were chosen for the 2024 trial by a survey completed by producers in the County of Northern Lights:

- AC Morgan
- AAC Douglas
- CS Camden
- CDC Arborg
- Kalio
- Kyron



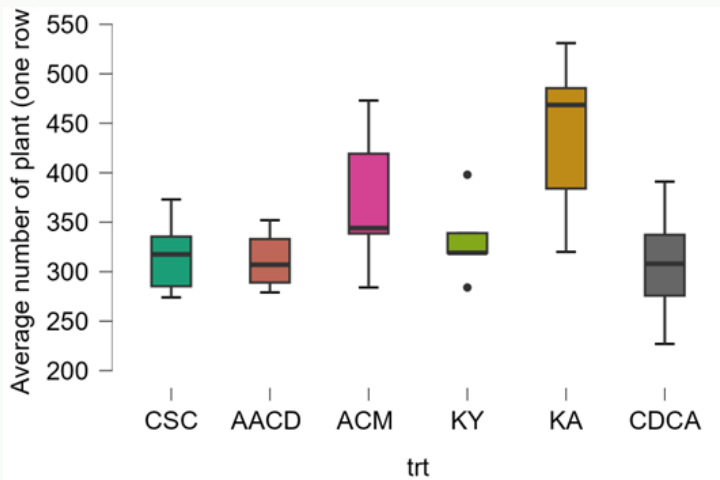
Key Points:

- Kalio has greatest emergence
- No significant differences between the 6 varieties for stand count, height, lodging, yield or protein quality

Task	Timeline	Details
Seeding	May 27	108-166 lb/ac 1" depth
Maintenance	May 20 - June 20	Urea 100 lb/ac S15 80 lb/ac Glyphosate (pre-seed) 1 L/ac Fluroxypur 240 mL/ac Clopyralid 84 mL/ac MCPA Ester 281 mL/ac
Harvest	Sept. 11	Straight-cut

MILLING OAT VARIETY TRIAL

Legend: CSC= CS Camden, AACD = AAC Douglas, AACM = AC Morgan, KY= Kyron, KA = Kalio, CDCA = CDC Arborg

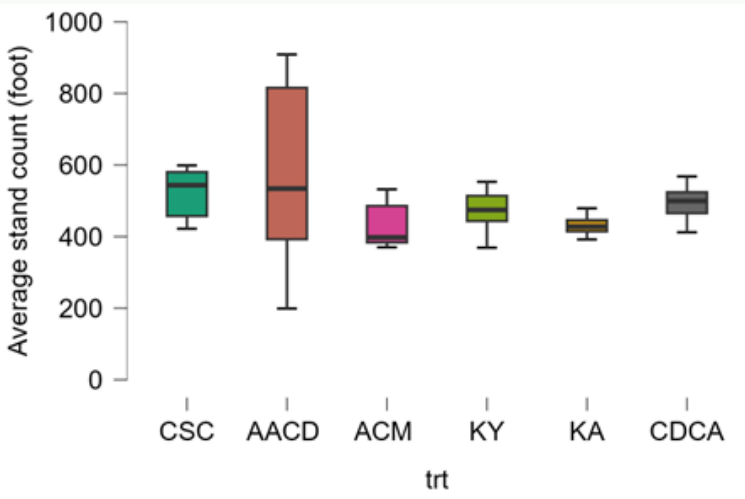


Emergence (plants per row) of six oat varieties 14 days after seeding.

Kalio exhibit significantly higher percentage emergence ($p = 0.023$) compared to CS Camden. Therefore, selecting Kalio may be advantageous for achieving better emergence rates. The other varieties displayed similar emergence rates under the same conditions.

For stand count at maturity, there was no statistically significant difference between the varieties being compared.

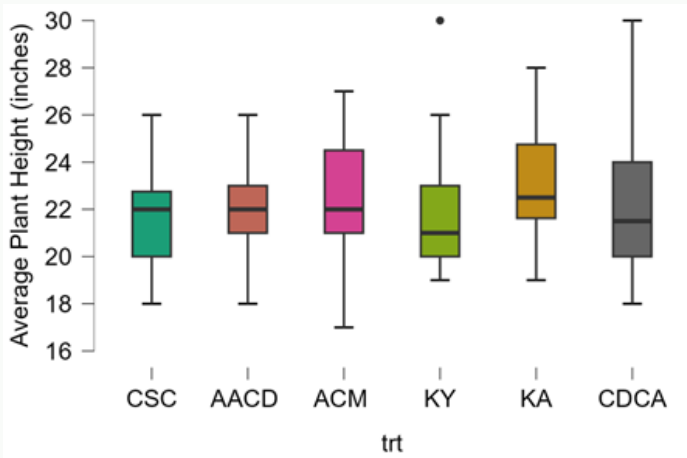
Using descriptive trends, most varieties have a stand count around 500 plants. AAC Douglas shows potential for higher stand counts compared to varieties like Kalio and CDC Arborg. Therefore, AAC Douglas may be preferred if higher stand counts are critical, but additional management practices could reduce variability. Kalio and CDC Arborg can be selected for their consistent performance, especially in environments where survivability is prioritized.



Stand count (plants per row) of six oat varieties 40 days after seeding.

MILLING OAT VARIETY TRIAL

Legend: CSC= CS Camden, AACD = AAC Douglas, AACM = AC Morgan, KY = Kyron, KA = Kalio, CDCA = CDC Arborg

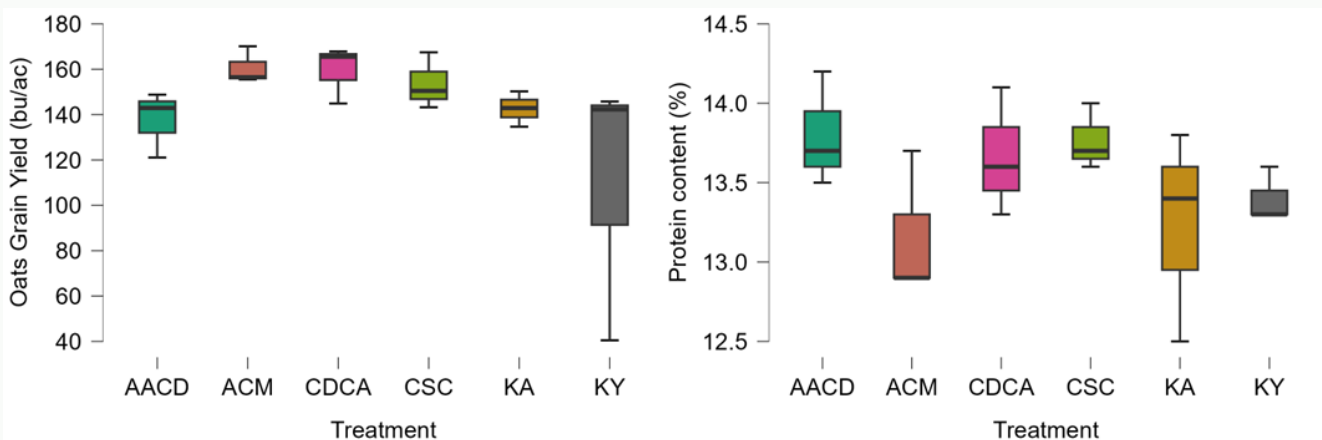


There are no significant differences in plant heights among the oat varieties at maturity ($p = 0.23$). Average plant heights range from 21.567 inches (CS Camden) to 23.05 inches (Kalio). Kalio is the tallest variety while AAC Douglas is the shortest variety.

All oat varieties in the trial exhibit excellent lodging resistance, with ratings equal to 1.0 in late August.

Plant height (inches) of six oat varieties 40 days after seeding.

There are no statistically significant differences among the six oat varieties in terms of yield ($p = 0.24$). However, on the basis of descriptive trends, yields across the varieties generally cluster around the 150 bu/ac mark with CDC Arborg having the highest median yield with low variability, suggesting consistent performance. CS Camden and AAC Douglas appear to have relatively stable and similar yields compared to Kyron, which has the lowest mean yield. There is no significant overall difference in grain protein content amongst the six varieties tested ($p = 0.31$).



Grain yield (bu/ac) of six oat varieties at harvest.

Grain protein content (%) of six oat varieties at harvest.