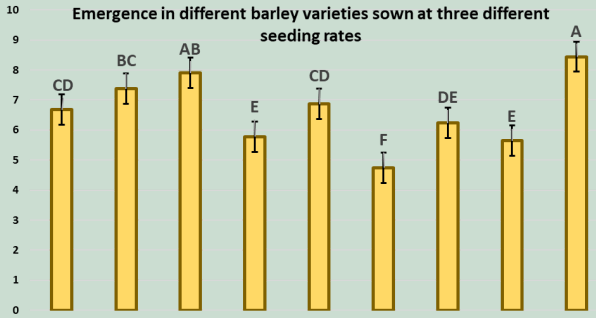
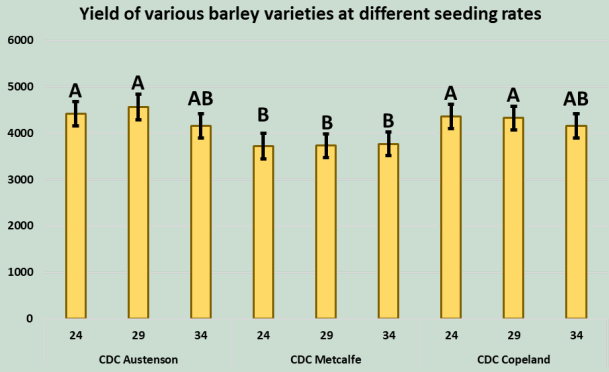
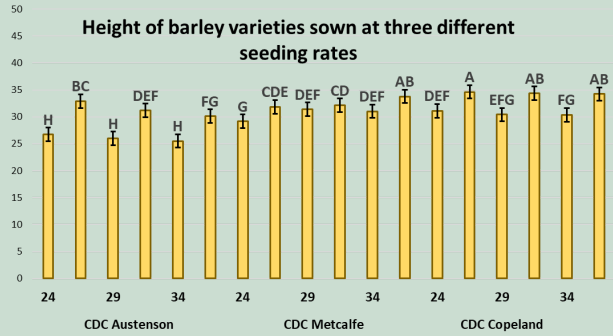
MOST POPULAR BARLEY VARIETIES IN THE NORTH PEACE SOWN AT VARIOUS RATES

Highlights

- Emergence
  - CDC Austenson > CDC Copeland > CDC Metcalfe
- Height
  - CDC Copeland > CDC Metcalfe > CDC Austenson
- Yield
  - (CDC Austenson = CDC Copeland) > CDC Metcalfe







Greatest number of emergent stands were found in CDC Austenson, followed by CDC Copeland and CDC Metcalfe. Despite seeding rates emergence number were 8% higher in CDC Austenson compared to CDC Metcalfe and CDC Copeland varieties ($P<0.0001$) and CDC Metcalfe was 9% compared to CDC Austenson and CDC Copeland ($P<0.0001$). In terms of seeding rates, Number of individuals emerging above ground were greater at the highest seeding rates (34 plants per squared foot) of CDC Austenson and CDC Copeland varieties, but not in CDC Metcalfe at the same seeding rate ($P<0.0001$). As such, those plots sown at 34 plants per square foot showed 4% more of the number of emergent stands ($P=0.0015$) in comparison to those plots sown at 24 and 29 plants per square foot.

Height was evaluated twice during the growing season. Instead of pooling the data, height was treated as repeated measurements. Analysis showed an interaction between height and treatments, much more in relation to varieties rather than seeding rates ($P<0.0001$). It was found that average heights of CDC Metcalfe and CDC Copeland had a 4% difference ($P= 0.0001$) compared to CDC Austenson stand height. CDC Metcalfe was then 9% taller than average heights of CDC Austenson and CDC Copeland ($P=0.0005$) and CDC Copeland was 23% taller than average heights of CDC Austenson and CDC Metcalfe ($P=0.0001$).
Yield was the same in CDC Austenson and CDC Copeland and both were greater than CDC Metcalfe ($P=0.0034$). As such, CDC Austenson yielded 25% more than CDC Metcalfe and CDC Copeland ($P=0.0032$) and CDC Metcalfe yielded 40% less than CDC Austenson and CDC Copeland ($P<0.0001$).

In conclusion, CDC Austenson was the barley variety with most emergent number of individuals and yield whereas CDC Copeland was the tallest variety. Seeding rate impacted height but emergence and yield was mostly influenced by barley variety.