INFORMATION

Winter camelina (Camelina sativa [L.] Crantz) has potential for use as a cash cover crop that provides both ecosystem services and economic benefits. It produces a high quality edible oil with high levels of α-linolenic acid, a heart-healthy omega-3 fatty acid. Fall seeded winter camelina can be harvested early enough in following summer to allow planting a second crop (Gesch and Archer, 2013). However, research is needed to assess the harvest timing of winter camelina to allow early planting of double crops.

OBJECTIVE:
- To determine optimum harvest time of winter camelina to maximize seed yield and quality.

MATERIALS AND METHODS
- Locations: Rosemount (RMST) and Morris, Minnesota.
- Soils at Rosemount: well-drained Waukegan silt loam (fine-silty or sandy-skeletal over sandy, mixed, superactive, mesic Typic Hapludoll).
- Soils at Morris: Barnes loam soil (fine-loamy, mixed, superactive, frigid Calcic Hapludoll).
- Parameters measured: Aboveground biomass, height, seed yield (at 8% moisture content), moisture content at harvest, and oil content (NMR).

RESULTS AND DISCUSSION
- No differences were observed in aboveground biomass at different harvest times at either locations.
- Maximum seed yield occurred by mid-June in RSMT (HT 5: June 19) and late-June in Morris (HT 6: June 26) corresponding to seed moisture of around 48 to 51% (Figures 3, and 4).
- Likewise, maximum seed oil content corresponded to the same HT as maximum yield at both locations.
- By HT 8 (July 6), seed moisture was 12% at Morris and HT 7 (July 5), it was 6% at RSMT.

CONCLUSIONS
- For winter camelina, seed yield and oil content were maximized (i.e., physiological maturity) by about mid-June, corresponding to moisture contents around 48 to 51%.
- Approximately, an additional two weeks of drying were required for seeds to reach a moisture content conducive to machine harvesting and storage.
- Research is planned to evaluate the use of harvest aids to hasten camelina seed drying and harvest.

REFERENCES