A systems approach to developing a new oilseed cover crop

**Genetic Resources for oil composition, oil content, and protein content**

- Mutants with the improved oil characteristics have been identified and genes controlling such traits have been confirmed.
- High linoleic – hearty healthy oil; High linolenic – aquaculture; High Oleic – Oil stability

- Wide-range of mutants with the differences in oil content identified.
- Pennycress oil with improved oil characteristics has the potential in food products

- Reduced shatter increases seed yield and expands harvest window.
- Mutations in IND1 gene have been confirmed with the reduced shatter trait.

- Wide-range of mutants with the differences in protein content identified.
- Plant based proteins can be one of the potential ingredients in food products.

- Reduced glucosinolate increases seed meal nutrition and quality.
- Several mutations have been identified in glucosinolate related pennycress genes.

Multi-disciplinary teams optimize new oilseed crop for food, feed, and fuel.

Creating solutions for domestication and adoption of pennycress as a crop.