

Demonstration Event: Extrusion and Analytical Methods for Starch and Flour Innovation

Co-organized by the University of Saskatchewan and
Saskatchewan Food Industry Development Centre

Day 1

August 5th 2026 at University of Saskatchewan

51 Campus Dr, Saskatoon, SK (Room 3E21)

9 AM - 12 PM: Demonstration of low-glycemic starch modification by research-scale extrusion

12 PM - 1 PM: Lunch

1 PM - 3:30 PM: Demonstration of analytical instruments for starch and flour research



Day 2

August 6th 2026 at SK Food Centre

2335 Schuyler St, Saskatoon, SK

10 AM - 12 PM: Demonstration of starch modification by pilot-scale extrusion and food application prototypes

12 PM - 2 PM: Lunch and networking



RSVP

by July 24th 2026



<https://www.surveymonkey.ca/r/PG6Q9F8>



Core Instrument List

Carbohydrate Chemistry and Utilization Lab (Dr. Yongfeng Ai)



UNIVERSITY OF SASKATCHEWAN
College of Agriculture
and Bioresources
DEPARTMENT OF FOOD AND BIOPRODUCT SCIENCES
AGBIO.USASK.CA



DSC

- Starch gelatinization and retrogradation
- Protein denaturation
- Other thermal properties



HPLC-RI

- Molecular-weight distribution



Rheometer

- Rheological properties
- Starch gelation



RVA 4800

- Starch/flour pasting (95-140°C cooking)



HPAEC-PAD

- Profiling of sugars and oligosaccharides
- Starch branch-chain-length distribution

Saskatchewan Food Industry Development Centre



Cleextral EV32 Twin-Screw Extruder

- Co-rotating
- L/D ratio 24:1
- Gravimetric feeder
- 30 kg batch capacity



Fitz Hammer mill

- Interchangeable screens
- Throughput 2-130 kg/h
- Particle size reduction
- Functionality modification of protein, starch, and fiber

Tray drier

- Hot-air convection
- Max. batch 200 Kg
- Temperature range 30-150°C

