

RESEARCH CAPACITY

Farming Smarter manages around 4,000 plots per season, split between Lethbridge, AB (dryland and irrigated) and Cypress County, AB (dryland), and Taber County, AB (dryland and irrigated). This allows for varying growing conditions and soil types to choose from. We have multiple Farming Smarter research trials funded by crop commissions and other granting organizations. We are experienced industry trainers and do product demonstrations for Canterra, Dow, DuPont, FMC, FP Genetics, NuFarm, SeCan, SeedNet and others.

SITE CHARACTERISTICS:

Lethbridge AB

~250-300 acres

Clay loam, 4% OM, 7.8 avg pH, 30-100 lbs/ac background N

Irrigation and Dryland

Town of Taber

~15 acres

Sandy Loam, 2.5% OM, 7.6 pH, 17-50 lb/acre background N

Dryland (future irrigation possible)

Pratt & Whitney

~20 acres

Loam to Clay Loam, 4% OM, 7.4 pH, 20-50 lb/acre background N



RESEARCH CAPABILITIES

Our core staff bring the expertise and experience to the planning, execution, and reporting of all our research projects. However, we typically hire 4-6 university students each summer to ensure the field work takes place on time. These students often return for consecutive years. Our equipment lineup allows us to do a wide variety of research from simple variety trials to liquid fertilizer on variable row spacing with different openers.

Seeding

We have 2 custom-built air drills with dual cones and 4 boxes for an endless combination of seed and fertilizer configurations. One is equipped with Pillar Laser openers and calibrated Zero-max gear boxes and the other with Bourgault Openers and hydraulic variable rate metering. The Pillar Laser drill has a removable toolbar that can be fitted with our typical Pillar Laser disc-hoe openers or Stealth Pair row hoe openers. We setup all our plots using RTK guidance where possible. We also have a 4 row Monosem Vacuum Precision Planter for canola and corn studies and built a two row corn planter for variety trials.



PESTICIDE APPLICATION

Our self-propelled bicycle pesticide sprayer insures even maintenance spraying, and our hand booms are calibrated and fitted with low drift nozzles for herbicide trials. We have a 2020 Amazone sprayer with a 16 m boom (to spray 2 replications at once) and variable rate capabilities. Also, we have a removable quad sprayer and truck sprayer for larger blanket applications. We have multiple spacing configurations and drop tubes for in crop fertilizer applications.



FIELD WORK

We have VERIS, EM-38, Greenseeker (NDVI), and a hail simulator equipment for data collection. We also have closely established relationships for the use of drones and imagery in GIS applications.



HARVEST

We have a 2013 Wintersteiger Classic combine (with weight scale and corn header) and a 2021 Wintersteiger Quantum Pro combine, a custom-built biomass/grain dryer and NIR machine for protein and oil measurements.



TEAM EXPERTISE

Our research team has a wide range of expertise in herbicide trials, weed management, PGRs, liquid fertilizer and novel crops. Our extension team provides education through events, demonstration tours and media in all its forms.

Name	Position	Experience	Expertise
Ken Coles	Executive Director	15+	M. Sc., B.Sc., P.Ag, CCA
Jamie Puchinger	Assistant Manager	10+	B.Sc., CCA
Michael Gretzinger	Research Coordinator	10+	B.Sc., CCA
Lewis Baarda	Precision Ag Specialist	5+	B.Sc., M.Sc., CCA
Trevor Deering	Research Associate	5+	B.Sc., M.Sc., CCA
Gurbir Dhillon	Research Scientist	5+	B.Sc., M.Sc., PhD.
Claudette Lacombe	Communication Manager	20+	Journalist
Shelly Barclay	Office Manager	20+	Contracts, budget, reports
Toby Mandel	Field Manager	15+	Site Manager