Agriculture Demonstration of Practices and Technology (ADOPT)

ADOPT provided funding for 41 projects in the June and November 2023 application cycles.

Lentil response to soil residual nitrogen and rhizobial inoculation *(20230404)*

Applicant: Saskatchewan Pulse Growers.

Objective: To demonstrate the agronomic responses of lentil to varying levels of soil residual N in the presence and absence of Rhizobium inoculant.

ADOPT Funding: $31,240

Demonstration of the effect of varying seeding rates on yield and maturity of Winter camelina *(20230408)*

Applicant: South East Research Farm (SERF), Conservation Learning Centre (CLC), Wheatland Conservation Area (WCA), Western Applied Research Corporation (WARC).

Objective: To assess the effects of seeding rates on yield and maturity of Winter camelina in four locations.

ADOPT Funding: $29,000

The response of different seeding dates and methods on forage establishment *(20230412)*

Applicant: Conservation Learning Centre, South East Research Farm.

Objective: To determine the best seeding method (direct seeded vs broadcast and harrowed in) and time (dormant seeded, early-spring seeded, and late-spring seeded) for forages.

ADOPT Funding: $16,400

Demonstrating the Efficacy of Foliar-Applied Nitrogen Fixing Bacteria under an Organic Management System *(20230414)*

Applicant: Conservation Learning Centre.

Objective: To demonstrate, under field conditions the agronomic performance of Envita and Utrisha-N in wheat and mustard production under organic management system.

ADOPT Funding: $6,400

Demonstration of hardiness and galantamine levels in daffodils grown in SK *(20230415)*

Applicant: Saskatchewan Vegetable Growers Association

Objective: To test the winter hardiness of a galantamine producing daffodil variety under Saskatchewan conditions and measure the level of the compound galantamine in the bulbs.

ADOPT Funding: $9,975

Field pea response to soil residual nitrogen and rhizobial inoculation *(20230416)*

Applicant: Northeast Agriculture Research Foundation

Objective: To evaluate the response of pea to an inoculant when seeded into soils with low, high, and extremely high residual nitrogen levels.

ADOPT Funding: $5,000

Increasing the competitiveness of the Saskatchewan pork industry through adoption of best management practices *(20230417)*

Applicant: Prairie Swine Centre Inc.

Objective: To identify current pork production practices and provide guidance on best management practices to pork producers in Saskatchewan.

ADOPT Funding: $18,400

Demonstrating Optimum 4R N Management Strategies for Winter Wheat *(20230418)*

Applicant: Indian Head Agricultural Research Foundation

Objective: To demonstrate the impact of different nitrogen management strategies on yield and protein content of winter wheat.

ADOPT Funding: $10,000

Demonstrating opportunities for 4R nutrient stewardship on tall fescue grown for seed production: applying the right nitrogen fertilizer source, at the right rate, at the right time, and in the right place *(20230419)*

Applicant: Saskatchewan Forage Seed Development Commission

Objective: To demonstrate the use of enhanced efficiency nitrogen fertilizer products eligible for grower rebates under the Ag Climate Solutions, On-Farm Climate Action Fund (OFCAF) program by comparing the influence of three application times for three fertilizer products (Agrotain®, Anvol®, and SuperU®) on tall fescue seed yield and overall economics.

ADOPT Funding: $10,000

Ability of dietary nitrogen content and source to improve growth performance and lean gain in finisher pigs *(20230420)*

Applicant: Prairie Swine Centre Inc.

Objective: To demonstrate the use of adding non protein nitrogen (ie. Ammonium phosphate) into a nitrogen-deficient diet to improve the feeding efficiency/growth of finishing pigs.

ADOPT Funding: $19,970

Demonstrating the efficacy of new foliar fungicides in flax *(20230442)*

Applicant: Saskatchewan Flax Development Commission

Objective: To evaluate and compare the efficacy of recently registered fungicides in flax (Acapela, Dyax, and Veltyma) with two of the older options (Headline EC and Proline 480 SC).

ADOPT Funding: $12,500

Demonstrating the efficacy of foliar-applied nitrogen fixing bacteria products for wheat (Year 2) *(20230451)*

Applicant: SaskWheat

Objective: To demonstrate the effects of commercially available, foliar-applied nitrogen (N) fixing bacteria products on CWRS wheat grain yield and protein.

ADOPT Funding: $33,000

Demonstrating wheat varieties and seeding rates against wheat stem sawfly damage *(20230452)*

Applicant: SaskWheat

Objective: To evaluate the effectiveness of different seeding rates of four wheat varieties with hallow, semi-solid and solid stems on stem sawfly damage.

ADOPT Funding: $44,760

Benefits of early seeding in spring wheat *(20230454)*

Applicant: Western Applied Research Corporation (WARC), Northeast Agriculture Research Foundation (NARF), Wheatland Conservation Area (WCA).
Objective: To demonstrate that seeding spring wheat earlier than usual in Saskatchewan can lead to higher yields.
ADOPT Funding: $18,500

Increasing flax seeding rates to suppress weeds under organic management *(20230458)*

Applicant: Saskatchewan Conservation Learning Centre Inc.
Objective: To demonstrate how different flax seeding rates affect weed pressure and flax productivity under an organic cropping system.
ADOPT Funding: $18,500

Increasing flax seeding rates to suppress weeds under organic management *(20230458)*

Applicant: Saskatchewan Conservation Learning Centre Inc.
Objective: To demonstrate how different flax seeding rates affect weed pressure and flax productivity under an organic cropping system.
ADOPT Funding: $8,200

Demonstrating spring camelina as an alternative crop option in North Central Saskatchewan *(20230459)*

Applicant: Saskatchewan Conservation Learning Centre Inc.
Objective: To showcase Camelina to local producers.
ADOPT Funding: $9,600

Demonstrating in-crop mechanical weed control using a tine harrow in barley and peas *(20230460)*

Applicant: Saskatchewan Conservation Learning Centre Inc.
Objective: To demonstrate the performance of a tine harrow as an in-crop mechanical weed control tool.
ADOPT Funding: $10,800

Direct seeding a cash crop into cover crops *(20230462)*

Applicant: Saskatchewan Conservation Learning Centre Inc., Wheatland Conservation Area Inc.
Objective: To demonstrate weed control options for – and methods to terminate cover crops before seeding cash crop.
ADOPT Funding: $17,500

4Rs options for post-emergent N in spring wheat *(20230476)*

Applicant: East Central Research Foundation
Objective: To evaluate the efficacy of post-emergent N options in spring wheat relative to side-banding all the N at seeding.
ADOPT Funding: $11,200

When should rapidly-maturing soybean varieties be planted in Saskatchewan *(20230477)*

Applicant: Saskatchewan Pulse Growers
Objective: To determine optimal seeding dates for the rapidly maturing soybean varieties now available in Saskatchewan..
ADOPT Funding: $41,000

Effect of seeding date on intercropping spring and winter cereals for silage and grazing *(20230487)*

Applicant: East Central Research Foundation

Objective: To demonstrate how seeding date and specie selection influences greenfeed and grazing yields from spring monocrop cereals (Haymaker oats vs Maverick barley) and intercrops between these spring cereals with winter cereals (Fridge Triticale vs Italian ryegrass).

ADOPT Funding: $11,860

Evaluating the fertility package of newly available oat milling varieties in SK *(20230489)*

Applicant: Saskatchewan Oat Development Commission

Objective: To demonstrate the yield and quality response of new milling oat varieties to enhanced fertility as compared to a commonly grown and accepted variety.

ADOPT Funding: $39,000

Evaluation of nitrogen stabilizer products in urea ammonium nitrate for wheat and oat *(20230495)*

Applicant: South East Research Farm (SERF), Conservation Learning Center (CLC), East Central Research Foundation (ECRF), Indian Head Research Foundation (IHARF), Wheatland Conservation Authority (WCA), Western Applied Research Corporation (WARC), Northeast Applied Research Foundation.

Objective: To demonstrate the efficacy of several products on reducing nitrogen losses and improving the nitrogen use efficiency of Urea Ammonium Nitrate (UAN) for wheat and oat.

ADOPT Funding: $42,400

Demonstration of novel and niche barley varieties *(20230502)*

Applicant: Saskatchewan Barley Development Commission

Objective: To demonstrate novel and niche barley varieties that might be of interest to local growers and end-users compared to common varieties.

ADOPT Funding: $27,500

Regenerative farming in milling oat *(20230503)*

Applicant: East Central Research Foundation, South East Research Farm, Northeast Agriculture Research Foundation.

Objective: To demonstrate how concepts of regenerative farming can be applied to milling oats. More specifically the project will demonstrate if intercrop practices for forage production can be successfully applied to oats harvested for grain.

ADOPT Funding: $26,990

4Rs-banding shallow may actually increase N loss! *(20230506)*

Applicant: Northeast Agriculture Research Foundation (NARF), Conservation Learning Centre (CLC), Western Applied Research Corporation (WARC), East Central Research Foundation (ECRF).

Objective: To demonstrate how N source and placement can affect N loss and in turn wheat yield and grain protein. More specifically, the following concepts will be demonstrated using wheat yield and grain protein as a proxy for N loss.

ADOPT Funding: $43,490

On-farm nitrate testing *(20230518)*

Applicant: Saskatchewan Forage Council

Objective: To demonstrate the efficacy of two technologies for on-farm nitrate testing compared to lab-testing.

ADOPT Funding: $10,000

Seeding forages with a drone *(20230532)*

Applicant: Saskatchewan Forage Council, Livestock and Forage Center of Excellence, Ducks Unlimited Canada, Sask Bison Association.

Objective: To demonstrate the ability to use a drone to seed grass/legume seed mix to establish on sites otherwise inaccessible by other machinery.

ADOPT Funding: $39,000

Creep feeding and piglet development: new format and formulation approaches *(20230537)*

Applicant: Prairie Swine Centre

Objective: To evaluate piglet performance in farrowing and nursery stages comparing three different creep feeds (standard creep, large pellet with high fiber, and mixture of these) vs no creep.

ADOPT Funding: $20,000

Growing hybrid and composite mustard under irrigation in Saskatchewan, year 3 *(20230539)*

Applicant: Mustard 21 Canada Inc.

Objective: To demonstrate the agronomic and economic performance of hybrid and composite mustard under irrigation in Saskatchewan compared to canola.

ADOPT Funding: $6,000

Regional adaptation of quinoa and response to nitrogen and phosphorus fertilizer applications *(20230540)*

Applicant: Indian Head Agricultural Research Foundation, Wheatland Conservation Area Inc., Northeast Agriculture Research Foundation, Irrigation Crop Diversification Corporation.

Objective: To evaluate and demonstrate the overall adaptation and response to nitrogen (N) and phosphorus (P) fertilization of quinoa across a range of soil climatic zones in Saskatchewan.

ADOPT Funding: $30,750

Plant growth regulator products and mixes to improve crop safety and efficacy in barley *(20230544)*

Applicant: Saskatchewan Barley Development Commission

Objective: To investigate the plant growth regulators and mixes to improve efficacy and crop safety in barley.

ADOPT Funding: $43,600

Fenugreek response to a range of nitrogen fertilizer rates *(20230545)*

Applicant: Indian Head Agricultural Research Foundation (IHARF), Wheatland Conservation Area Inc. (WCA), South East Research Farm (SERF), Irrigation Crop Diversification Corporation (ICDC).

Objective: To demonstrate the response of fenugreek to nitrogen (N) fertility and build upon past work exploring the overall adaption of this crop to a range of Saskatchewan environments.

ADOPT Funding: $28,400

Which cover crop options work best in a northern climate when seeded in the summer in SK? *(20230551)*

Applicant: Northeast Agriculture Research Foundation, Western Applied Research Corporation.

Objective: To inform producers in the region what cover crop options may be suitable as shoulder season options in their annual cropping rotations by showcasing a wide variety of different cover cropping options that are locally available for producers.

ADOPT Funding: $19,600

Does seeding date and rate of canola effect spring flea beetle pressure, yield, and quality? *(20230560)*

Applicant: Northeast Agriculture Research Foundation, Irrigation Crop Diversification Corporation.
Objective: To assess the effectiveness of seeding date and rate as a good management strategy to protect yield in the event of heavy flea beetle pressure.
ADOPT Funding: $18,200

Performance of saline tolerant forages on saline soils *(20230564)*

Applicant: South East Research Farm, Wheatland Conservation Area Inc., Irrigation Crop Diversification Corporation.
Objective: To demonstrate the performance of salt-tolerant forages under saline soil conditions.
ADOPT Funding: $111,000

Enhancing best management practices in outdoor pig production in Saskatchewan *(20230573)*

Applicant: Prairie Swine Centre
Objective: To develop an engagement strategy (engagement platform) for small pig producers in Saskatchewan to increase the adoption of best management practices specifically in areas such as biosecurity, food safety and animal welfare.To demonstrate the potential of growing large cabbage varieties for processing with resistance to sclerotinia and splitting.
ADOPT Funding: $19,400

Demonstrating opportunities for 4R nutrient stewardship on hybrid bromegrass grown for second year seed production: applying the right nitrogen fertilizer source, at the right rate, at the right time, and in the right place *(20230574)*

Applicant: Saskatchewan Forage Seed Development Commission
Objective: To demonstrate the effect of three enhanced efficiency nitrogen fertilizer products, and application times on seed yield.
ADOPT Funding: $12,970

Remote water quality monitoring with FarmSimple technology *(20230575)*

Applicant: Saskatchewan Stock Growers Association
Objective: To demonstrate the effectiveness of remote water monitoring (FarmSimple) technology in monitoring water levels and conductivity to livestock producers.
ADOPT Funding: $12,130

Demonstrating the effects of cultivar choice and heat stress on ripening of tomatoes *(20230580)*

Applicant: Saskatchewan Vegetable Growers Association
Objective: To demonstrate ripening of the Roma and slicer tomatoes at different field and heat stress conditions.
ADOPT Funding: $13,000