Agriculture Demonstration of Practices and Technology (ADOPT)

Funding for these ADOPT projects were approved by the Minister for the June and November 2022 cycles of ADOPT.

Oat varietal response to plant growth regulators *(20220363)*

Applicant: Indian Head Agricultural Research Foundation

Objective: To demonstrate the response of different commonly grown milling oat varieties to Moddus and Manipulator applied at different timings.

ADOPT Funding: $3,260

Lentil response to soil residual nitrogen and rhizobial inoculation *(20220365)*

Applicant: Saskatchewan Pulse Growers

Objective: To demonstrate how small red and large green lentil responds to rhizobial inoculants under varying soil nitrogen (N) levels.

ADOPT Funding: $30,000

Fall rye cover crop effects on canola establishment and response to nitrogen (year 3) *(20220366)*

Applicant: Indian Head Agricultural Research Foundation

Objective: To investigate the effects of a preceding cereal rye cover crop planted in the Fall, on the overall establishment and yield of canola in addition to early season weed densities relative to canola grown with no cover crop.

ADOPT Funding: $10,000

Spring Cereal Re-Seeding Options for Poor Stands of Winter Wheat (Year 2) *(20220367)*

Applicant: Indian Head Agricultural Research Foundation

Objective: To assess the agronomic and economic performance of winter wheat stands compared to re-seeding the spring cereal (barley, oat, and canary seed).

ADOPT Funding: $9,900

Demonstration of Cover Crop Option Following Row Crop Harvest on Irrigated Land *(20220368)*

Applicant: Irrigation Crop Diversification Corporation

Objective: To demonstrate the potential of cover cropping as a soil erosion mitigation strategy after growing row crops (high soil disturbance).

ADOPT Funding: $9,954

Optimum Management of Oats Can Vary Between Varieties *(20220393)*

Applicant: East Central Research Foundation (ECRF), Irrigation Crop Diversification Corporation (ICDC)

Objective: To assess the effectiveness of seeding rate and N fertility on yield, test weight and lodging in two oat varieties (CS Camden and Summit).

ADOPT Funding: $18,350

Resubmission: Effect of land rolling timing on barley grain and silage yield *(20220396)*

Applicant: East Central Research Foundation (ECRF), Western Applied Research Corporation (WARC)

Objective: To demonstrate the advantages of properly timing land rolling operations for barley grain and silage yield.

ADOPT Funding: $15,560

Resubmission: Canary Seed varietal response to agronomic inputs *(20220415)*

Applicant: Canary Seed Development Commission of Saskatchewan

Objective: To assess the effects of seeding rate and fertility on performance of hairy and hairless canary seed varieties in six locations.

ADOPT Funding: $19,200

Resubmission: 4R management: Right rate and placement for fertilizer in oats *(20220416)*

Applicant: Saskatchewan Oat Development Commission

Objective: To assess the impact of fertilizer placement and rate on oat establishment, yield, and quality.

ADOPT Funding: $18,800

Demonstrating the Efficacy of Foliar-Applied Nitrogen Fixing Bacteria for Canola *(20220417)*

Applicant: Saskatchewan Canola Development Commission

Objective: To evaluate the effects of commercially available, foliar-applied nitrogen (N) fixing bacteria products (Envita and Utrisha-N) on the yield and seed quality of canola grown under varying fertility levels and contrasting environments.

ADOPT Funding: $67,000

Determining size profiles of Saskatchewan grown cantaloupe for retail market *(20220418)*

Applicant: Saskatchewan Vegetable Growers Association

Objective: To determine the potential of growing cantaloupe for the Saskatchewan retail market and create a size profile for SK retailers to categorize locally grown cantaloupe.

ADOPT Funding: $9,975

Brussels sprout varieties for fresh market in Saskatchewan *(20220419)*

Applicant: Saskatchewan Vegetable Growers Association

Objective: To identify early maturing brussels sprout varieties and to demonstrate the potential of growing sprouts for the fresh market.

ADOPT Funding: $9,975

Should Canola Management be Modified When Seeding Late? *(20220420)*

Applicant: East Central Research Foundation

Objective: To demonstrate how seeding rates, and N rates should be adjusted when late-seeding canola in early June relative to seeding in early to mid-May.

ADOPT Funding: $8,640

Efficacy of increased pollinator habitat and forage on pumpkin production *(20220423)*

Applicant: Saskatchewan Vegetable Growers Association

Objective: To demonstrate how seeding rates, and N rates should be adjusted when late-seeding canola in early June relative to seeding in early to mid-May.

ADOPT Funding: $19,600

Standing up with your own stalk: Do the plant growth regulators available for spring wheat improve the productivity of current CWRS varieties? *(20220425)*

Applicant: East Central Research Foundation (ECRF), Irrigation Crop Diversification Corporation (ICDC), Northeast Agriculture Research Foundation (NARF) and Conservation Learning Centre (CLC)

Objective: To evaluate the response of current and common CWRS wheat varieties to registered plant growth regulators.
ADOPT Funding: $38,400

Causes and Potential Preventative Treatments for Post-Harvest Browning of Carrots *(20220431)*
Applicant: Saskatchewan Vegetable Growers Association
Objective: To demonstrate the impact of cold storage time and temperature, the cultivar and wash-line treatments on the severity of post-harvest browning of Saskatchewan-grown carrots.
ADOPT Funding: $9,975

Efficacy of fungicides active ingredient for fusarium head blight (FHB) and deoxynivalenol (DON) management in wheat *(20220454)*
Applicant: ICDC, WARC, ECRF, NARF
Objective: To compare five fungicides registered for the control of fusarium head blight in Saskatchewan.
ADOPT Funding: $27,791

Fertigation Demonstration on Wheat, Canola, and Dry Beans *(20220460)*
Applicant: Irrigation Crop Diversification Corporation
Objective: To demonstrate and compare three different fertigation treatments on wheat, canola, and dry beans at three different timings and identify beneficial treatment recommendations.
ADOPT Funding: $9,608

Demonstrating the response of hybrid brown mustard and composite yellow mustard to proper fertility recommendations *(20220462)*
Applicant: Saskatchewan Mustard Development Commission
Objective: To demonstrate how mustard responds to differing fertility levels of macronutrients based on soil test recommendations. It will also evaluate the effect of boron and zinc on mustard. The overall goal is to help mustard growers understand the fertility requirements of hybrid and composite mustard.
ADOPT Funding: $23,380

The Effect of Acoustic Pulse Technology on Prevention and Treatment of Mastitis in Dairy Cattle *(20220463)*
Applicant: SaskMilk
Objective: demonstrate the use of Acoustic Pulse Technology (APT) in treatment and prevention of clinical mastitis in dairy cows. The APT will be demonstrated against traditional mastitis treatment and prevention.
ADOPT Funding: $10,000

Growing hybrid and composite mustard under irrigation in Saskatchewan, year 2 *(20220464)*
Applicant: Mustard 21
Objective: To demonstrate how the yield of hybrid and composite mustard grown under irrigation compares to canola in Saskatchewan.
ADOPT Funding: $4,699

Finding the right cereal crop to partner with forage pea varieties of different maturity *(20220471)*
Applicant: Northeast Agriculture Research Foundation (NARF)
Objective: To assess three annual cereal crops (barley, oat, and triticale) in binary mixtures with early and later maturing forage pea varieties for forage yield, nutritional value, and conduct an economic analysis.

ADOPT Funding: $8,800

Resubmission: Reduction of cadmium uptake in flax using agronomic strategies *(20220473)*
Applicant: Saskatchewan Flax Development Commission
Objective: To assess the efficacy of zinc and calcium fertilization for reducing cadmium levels in flaxseed. Also, aims to compare economic feasibility of the products.
ADOPT Funding: $33,300

Canola Response to Side-banded Enhanced Efficiency Nitrogen Fertilizer Products *(20220474)*
Applicant: Indian Head Agricultural Research Foundation
Objective: To demonstrate the effects of several side-banded enhanced efficiency nitrogen (N) fertilizer products and blends relative to untreated urea, on canola establishment, yield, and quality.
ADOPT Funding: $8,450

Demonstration of commercial chicory production *(20220476)*
Applicant: Herb, Spice and Specialty Agriculture Association
Objective: To identify the growth potential of chicory varieties for inulin production in Saskatchewan.
ADOPT Funding: $9,975

Exploring Tillage Radish as a Cover Crop in North Central Saskatchewan *(20220483)*
Applicant: Conservation Learning Centre
Objective: To explore the effectiveness of tillage radish as a cover crop to provide nitrogen, promote early weed suppression and increase the yield of the subsequent crop.
ADOPT Funding: $4,000

Demonstration of Barley Underseeded with Ryegrass for Forage Production under Irrigation *(20220485)*
Applicant: Irrigation Crop Diversification Corporation
Objective: To demonstrate the forage yield benefit of underseeding ryegrass with spring seeded forage barley as compared to monocroping of each species.
ADOPT Funding: $7,508

Demonstrating Forage Options in Cropping Rotations *(20220488)*
Applicant: Wheatland Conservation Area Inc.
Objective: To demonstrate various forage options best suited for inclusion into a crop rotation and promote the benefits of having forages in rotations and provide producers with information on moving into a forage phase and coming out of the forage phase of the rotation.
ADOPT Funding: $14,780

Demonstrating oat seeding rates as a cultural control method for controlling wild oats in oats *(20220490)*
Applicant: Northeast Agriculture Research Foundation
Objective: To demonstrate oat seeding rates as an integrated pest management strategy for controlling wild oat populations in tame oats.
ADOPT Funding: $6,400

4 RN-Reducing N loss from a post-emergent application of nitrogen and sulfur to hybrid canola *(20220492)*

Applicant: KeeseeKoose SMART Farm
Objective: To demonstrate the impact of reducing nitrogen volatilization loss on canola yield, by using ANVOL treated urea on post-emergent applications on canola.
ADOPT Funding: $10,000

Comparison of Complex vs Simple Low-Input Polycropping Systems *(20220495)*
Applicant: Saskatchewan Forage Council
Objective: To test simple and complex polycrop mixes in Southern Saskatchewan to determine if increasing diversity of seeded blends will result in improved yield or soil nutrient composition.
ADOPT Funding: $14,347

Training Apples on Trellis Wire to Create a High-density Wall Production System *(20220496)*
Applicant: Saskatchewan Fruit Growers Association
Objective: To demonstrate the feasibility of a trellis system to train high-density dwarf apple trees for improved apple production.
ADOPT Funding: $19,530

Demonstrating the advantages of feeding canola meal on fall pasture *(20220497)*
Applicant: Saskatchewan Stock Growers Association
Objective: To assess and demonstrate potential benefits of canola meal supplementation of bred heifers or weaned calves or cow-calf pairs or dry cows grazing mature pasture or stubble fields in the fall.
ADOPT Funding: $12,774

Fall foliar application of low biuret urea to improve sour cherry overwintering success in Saskatchewan *(20220498)*
Applicant: Saskatchewan Fruit Growers Association
Objective: To demonstrate the benefit of foliar split application of low biuret urea applied in early, mid, or late Fall (from late August - September) to sour cherries to help plants withstand Saskatchewan's harsh winters and have better vigor in Spring.
ADOPT Funding: $19,530

Ranch Management Forum Shrink Demonstration *(20220499)*
Applicant: Kerrobert and District Agriculture Society
Objective: To illustrate to participating producers that indeed shrink occurs during transportation.
ADOPT Funding: $445

Demonstrating opportunities for 4R nutrient stewardship on hybrid bromegrass grown for seed production: applying the right nitrogen fertilizer source, at the right rate, at the right time, and in the right place *(20220500)*
Applicant: Saskatchewan Forage Seed Development Commission
Objective: To compare the use of enhanced efficiency nitrogen fertilizer products eligible for grower rebates under the Ag Climate Solutions, On-Farm Climate Action Fund (OFCAF) program based on application timing on yield and economics.
ADOPT Funding: $10,000

Containerized Soilless Blueberry Production Grown under Protected Culture in Saskatchewan *(20220501)*
Applicant: Saskatchewan Fruit Growers Association

Objective: To grow blueberry in soilless media within containers under protected cultivation system.
ADOPT Funding: $19,530

New Cabbage Cultivars for Processing in SK *(20220502)*
Applicant: Saskatchewan Vegetable Growers Association
Objective: To demonstrate the potential of growing large cabbage varieties for processing with resistance to sclerotinia and splitting.
ADOPT Funding: $19,530

Building Resilient Agricultural Croplands *(20220507)*
Applicant: Saskatchewan Soil Conservation Association
Objective: To showcase the potential benefits to shifting the management of marginal acres from crop production to creating habitat or producing forages.
ADOPT Funding: $20,898

A demonstration of the advantages sensehub beef livestock monitoring technology has on beef cattle estrus detection for AI and ET breeding programs *(20220508)*
Applicant: Saskatchewan Stock Growers Association
Objective: To demonstrate at commercial ranch level SenseHub Beef as a tool for estrous detection.
ADOPT Funding: $19,700

Adaptation of Novel Pulse Crops *(20220523)*
Applicant: Saskatchewan Pulse Growers
Objective: To assess the performance of new and novel pulse crops (white and blue Lupin, Fenugreek) in different regions and provide producers with economic and agronomic information on these novel crops.
ADOPT Funding: $18,400

Demonstrating the Efficacy of Foliar-Applied Nitrogen Fixing Bacteria for Wheat *(20230018)*
Applicant: Saskatchewan Wheat Development Commission
Objective: To demonstrate the effects of commercially available, foliar-applied nitrogen (N) fixing bacteria products on the yield and seed quality of wheat grown under varying fertility levels and contrasting environments.
ADOPT Funding: $40,000