

What is new at LUARS this year (2023)?

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Lakehead University Agricultural Research Station (LUARS) has always been on the look out for new agricultural products (crops, crop varieties, fertilizers, Plant Growth Regulators, fungicides and bioproducts) to further improve soil health, soil fertility and crop productivity without any detrimental effect on the environment. This year, we are testing the following new varieties and agricultural products:

New Varieties:

Spring wheat: Redcliff (PT793), which is a high yielding variety bred by the University of Alberta. It is reported to be resistant to prevalent races of stem rust and moderately resistant to Fusarium Head Blight (FHB). Redcliff is acceptable for the Canadian Western Red Spring (CWRS) wheat market class, with improvements in flour yield.

Spring barley: AAC Prairie and PSL Kerns. AAC Prairie is a two row malting barley. It has a good combination of agronomic and disease resistance traits as well as a desired malting quality profile. It could therefore be a useful cultivar for the barley industry. PSL Kerns is a six row feed barley variety.

Oats: Kalio. It is a new milling oat variety that has high yield potential with excellent crown rust protection. It has high beta-glucan content and excellent milling quality. Kalio is suitable for grain, forage and silage production.

Soybean: DKB005-03 (2175 CHU - Compact, medium-height variety with bushy architecture and excellent standability), EXP008-23XF (a high yielding variety from Syngenta), S003-RSX (also from Syngenta, it has excellent standability with very good tolerance to Soybean White Mould and excellent tolerance to Phytophthora Root Rot) and Reynolds (High-yielding multipurpose food-grade variety that is widely adaptable across Manitoba).

Liberty Canola: DKLL82SC (Strong yield potential, early maturity, suitable for straight cut with enhanced pod shatter protection), DKLL83SC (It has all traits of DKLL82SC and it is resistant to Blackleg) and Invigor® L350PC (It is a BASF's highest yielding hybrid in trials to date that combines yield, standability, first-generation Clubroot resistance and pod shatter reduction technology).

Roundup Ready Canola: CS3100 TF (High yielding, full maturity, shatter resistance - excellent straight cut with multigenic blackleg and 1st and 2nd generation Clubroot resistance), DK900TF (Combines strong performance and excellent disease protection, enhanced pod shatter protection suitable for straight cut, Clubroot resistance to predominant pathotypes and resistance to Blackleg), DK901TF (A medium maturity variety with high yield potential, straight cut genetics and Blackleg resistance as well as multigenic Clubroot resistance) and DK902TF (An ultra-early maturity with high yield potential, straight cut genetics and a strong disease package with Blackleg resistance and multigenic Clubroot resistance). As you may know, TF stands for Truflex. TruFlex™ canola gives you more freedom to choose application timing and rates that work for you. You have the flexibility to spray two applications of Roundup (Glyphosate) @ 0.67 L/ac up to first flower or spray Roundup @ 1.33 L/ac once up to the 6-leaf stage. The TruFlex canola system allows for the control of 51 weed species, 24 more weed species than the Roundup Ready canola system.

Dual Canola – Liberty Link and Roundup Ready: DKTFL22CRSC (It features straight cut genetics, Clubroot resistance, a strong Blackleg package and excellent yield potential). By this trait, farmers get benefit of weed control from both Roundup and Liberty herbicides for exceptional control of wild oats, kochia, cleavers, waterhemp and more.

Corn: Hybrid MS 8022R (It has exceptional spring vigour and early season growth – towering over many hybrids. Plants are tall with moderate to high ear placement. It flowers early for its maturity and sets up grain quickly after pollination) and Hybrid MS 7420R (Aggressive seedling vigour allows for rapid emergence and canopy closure. Seedlings develop into large, robust plants with wide leaves. Large ears have kernels with soft texture with increased digestibility. White cobs increase feed palatability. Early flowering allows movement north of zone).

New fertilizer: Puryield 45-0-0, which is a polymer coated urea. Because of its polymer coating, N is released slowly in the soil for uptake by crop plants matching with their N requirements and consequently N losses to the environment are minimal. We are comparing Puryield with other sources of N (urea, ESN and their blends) on canola and will be testing it on winter wheat in the Fall 2023.

New Bioproducts:

Utrisha N: is a nutrient efficiency biostimulant from Corteva Agriscience that provides crops with a unique way to capture nitrogen (N) from the air and provide it directly to the plants without the risk of loss, helping crops reach their full yield potential. By utilizing Utrisha N in combination with soil nitrogen applications, farmers could get a sustainable alternative source of N that reduces the reliance on soil N uptake, and provides an integrated approach to ensure crops have access to nitrogen throughout the entire season. Since Utrisha N is not applied to the soil there are no chances of losses of N from it to the environment. We are testing Utrisha N in spring wheat at three rates of N application; 0, 45 and 90 kg/ha.

Holganix 800⁺: is a mixture of multiple (over 800) soil organisms that improve soil health. We are testing Holganix 800⁺ in winter wheat and winter rye and on four spring crops (wheat, barley, canola and soybean).

Plus, a lot of other Agronomic experiments. Come visit us at our Annual Summer Tour Day on August 1, 2023 at 10 AM to 12 Noon!

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