

What is new at LUARS this year (2026)?

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We keep on testing new crops, new crop varieties and new fertilizers/and other products, every year to find out if there is anything that works better than the existing ones. Few exciting things we have to show you this year are hullless black, Ethiopian and purple barley (AAC Magenta). AAC Magenta is highly prized for its exceptional health benefits, containing premium levels of **anthocyanins** (antioxidants), **beta-glucan** (a cholesterol-lowering fiber), and protein. Conventional barley cannot be eaten by human beings because of its hulls that have to be removed before it could be eaten by human beings, whereas the animals can eat barley with hulls. Ethiopian barley is a nutrient-rich, heirloom whole grain native to Ethiopia. Prized for its dark mahogany colour, nutty flavour, and chewy texture, it is packed with fiber, protein, and antioxidants. Because it is a hullless grain, its nutritious bran layer remains intact. We have added 22 new crop varieties to our varieties portfolio; including AAC Rivers a high-yielding, midge-tolerant Canada Western Red Spring (CWRS) wheat, two new Liberty Canola varieties (MC 5172 LL and InVigor® L355 PC), two Trueflex canola varieties (BY6214TF and BY6222TF), three soybean varieties (S002-N7E3, S005-F4E3 and S008-P8XF) and two corn varieties (MS 7760 DBR and MS 7822DBR), and some sorghum (CGSH9 and CGSH28), Pearl millet (CGPMH7 and CSSPMH90) and Foxtail Millet (AERC1) varieties. The millets are drought tolerant (very relevant under the prevailing dry conditions) and can be used both as forage (whole plants) and their seeds as human food.

We are testing UtrishaTM N and Envita, that can help plants to fix atmospheric nitrogen lowering dependence on nitrogen fertilizers, on wheat and canola. Some of the other interesting experiments include optimizing seeding time for canola and see the effect of different seeding times on the nitrogen requirements of canola and measures to reduce the effect of drought on wheat, barley and canola, by increasing the rates of potassium application. Potassium could induce drought resistance in crops.

We are continuing testing (i) Taurus Ag Poly Phosphate (**TAPP**), a new P fertilizer, against the conventional P fertilizer in spring wheat and canola. It is a unique combination of **essential plant nutrients**, strategically designed to ensure **season-long plant nourishment**. It is a special blend of Crystal Green SynchroTM 50 and Polysulphate Premium® that ensures delivery of Phosphorus (25 %), Potassium (8 %), Sulphur (7.5 %), Calcium (12.5 %), Magnesium (1.6 %), and also some other nutrients; Chloride, Boron and Zinc, (ii) Azotobacter, a naturally occurring soil bacteria that can fix atmospheric nitrogen, obtained from a company in India, that we are testing in wheat, barley and canola, and (iii) tests on effect of Holganix, a bioproduct containing 800⁺ bacteria, on nitrogen and phosphorus requirements of canola, and Holganix that harnesses the power of over 800 species of soil microbes and is reported to increase yield, reduce the need for fertilizers, improve crop resilience against stress, and boost soil health, and (iv) high efficiency N fertilizers (ESN, **urea Super^U** and **PurYield**) on winter wheat and canola. We are evaluating **GHG emissions** from ESN *vis-à-vis* urea in canola with Dr. Gautam Das, Professor of Physics, Lakehead University, as the lead researcher.

We have a lot more to show you including two fertilizers experiments on alfalfa. **We have 48 experiments in total.** Our new collaborative project with RAIN Algoma funded by OAFRI

“Maximizing Crop Potential through Nutrient Management for alfalfa and Sustainability Practices for Sorghum Sudan Grass in relation to seeding rate and allelopathy effects” on forages is in the third year.

It will be interesting to see that winter camelina, a new oil seed crop, has survived exceptionally well and winter canola too has survived this year at LUARS.

Come join us on our Annual Summer Tour Day at LUARS on July 30, 2026 at 10-12 noon, and we will show you all what we are doing for our enterprising producers!

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