...FROM THE DESK OF
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CCA 4R

Between the Rows

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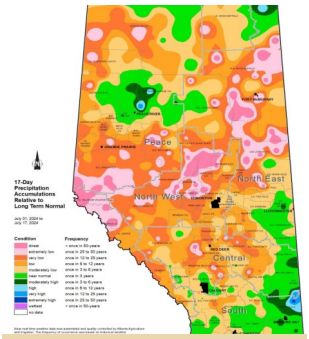
INSIDE THIS ISSUE:

Soil Moisture Update

Soil moisture conditions have improved over the last few days. We received measurable rainfall Tuesday and Wednesday and now it looks like we could get as much as 1 1/2" by Friday night. Last year we also got a crop saving rain in late July. The late rain last year re-started canola crop that were basically done flowering and new branches and flowers emerged. This year's crop needs this rain to recover from 5 consecutive days of >30 heat. I don't know if the fields done flowering will have the same capacity to re-start after that devastating week. Canola crops still in bloom (many treated with foliar boron) will take advantage of this rain. Prolonged flowering means more blooms, more pods and higher yield. The precipitation map I included only goes to July 17, but is the latest I have.



Precipitation from July 1-17, 2024.

Preharvest Sprayer Care

With fungicide applications done, and so far no signs of Bertha armyworms or heavy lygus bugs, sprayers are generally parked. Since they are parked, it is a good time to get them ready for the bust pre-harvest application season. At harvest, time is condensed, the days are shorter, the demands for timely application critical and we can't afford to be waiting for your sprayer to be ready to roll.

Now, I'm not a maintenance guru, so I'll leave it to you to take care of mechanical repairs. What I'm talking about here is taking care to properly clean out the tank, lines, screens and chem-handlers. The first step is to empty and clean the main filters, which can accumulate slime and such from dugout water. Then flush all the lines, raise both boom ends, leave the center boom down, then do the reverse. Each nozzle and nozzle screen must be cleaned. A pail filled with rinsing solution and an old toothbrush may help here. Recent research has shown that multiple rinses with less volume are more effective than large volume rinses. For example with a 1200 gallon tank rather than rinsing with 1000 gallons, do 3 with 140 gallons each. If your sprayer was ever left overnight or longer during this past spray season, extra care may be required. Certain herbicides can tightly stick to walls, hoses and fittings if left too long in the tank. This residue may not come off the next time you spray, but does have a habit of coming off when you don't expect it. If you have had your sprayer sit with chemical at anytime during the season, then I suggest one cleanout be with ammonia (Finish) and one with a detergent based cleaner (All Clear).

Now would also be a good time to use the last water rinse as a chance to calibrate your sprayer to double check everything is good there. Also always safely dispose the rinsate. Spray it out over the field, don't dump it out in one spot in the bush.

Taking the time to ensure your sprayer is in tip top shape prior to the harvest rush.

Lygus Bug Scouting and Thresholds

Excessive Heat and Canola Flowering

Early Instar (Don't count)

3rd Instar (count)

Adult (right)

Lygus bugs have piercing-sucking mouthparts. They use these to puncture plant tissue and suck plant juices. They also inject salivary enzymes that, in some cases, cause more damage than their mouth-parts. Lygus at the third instar or larger can damage buds, flowers and seeds. Lygus at the third instar or larger feed on the developing seeds, causing them to discolour, deflate and shrivel.

Scouting

Scout lygus at late flowering and podding stages using a standard insect sweep net of 38 cm (15") diameter. Take ten 180° sweeps, and aim to sweep the flowers and pods while moving forward. In thick crops, take a couple of steps and stand while sweeping vigorously. If you are not seeing a few pods in the net, sweep harder. Count the number of big lygus in the net. For lygus bug monitoring, sampling is most accurate when repeated at a total of 15 spots within the field. Observation of lygus have shown that lygus populations are relatively evenly distributed across canola fields at podding.

Count adults and late-instar nymphs. Nymphs are young lygus, and only the larger nymphs do enough damage to be included in sweep net counts. A key feature is the black dots on the back. Count nymphs with developing wingpads or dark shoulder blades. Don't count them if they're small and don't have any sign of a dark growth where wings are developing. Also make sure not to confuse them with alfalfa plant bugs or aphids. Small nymphs (without black dots) don't feed very aggressively, and they are vulnerable to heavy rains and wind that push them down in the canopy or to the ground where they drown or other insects eat them. If you are seeing a lot of earlier nymphs, check again every few days. It may take as little as a week for lygus to grow from early to late instar stages. If swathing is a week away and most lygus are small nymphs, these are unlikely to be a threat before the crop is cut.

Thresholds

A threshold of 20-30 per 10 sweeps is suitable for good growing conditions. Threshold tables developed from lygus research in the 1980s and 1990s were very specific about the estimated damage of each lygus bug in 10 sweeps relative to crop price and cost of control. That level of precision below one lygus per sweep is deemed inaccurate in light of new data from Agriculture and Agri-Food Canada lygus research in the recent years.

Timing

Pods are the focus for crop protection efforts against lygus. The most vulnerable crop stage for lygus feeding is after flowering and when seeds are enlarging on lower pods. After sweep netting, look for sticky sap spots on pods and stems before making the spray decision. Oozing on pods suggests active feeding. If sweep net counts exceed thresholds, but there is no evidence of pod damage, you could decide to hold off on spraying. Alternatively, if evidence of feeding is present but sweep net counts are low, try sweep netting again in another area or another time of day. Counts can be dependent on weather conditions; avoid windy and rainy conditions.

The threat generally ends when most pods become "leathery" and when seeds inside are firm. As outer pod tissue toughens up and seeds become firm to roll, lygus can no longer penetrate the pods or seeds with their mouthparts.

Other considerations

The presence of other peat species such, as diamondback moth larvae or bertha armyworms can also play a role in deciding if to spray. Conversely the presence of beneficial insects and fungus (such as those that control bertha armyworms) should also play just as an important role.

Questions? Call me.

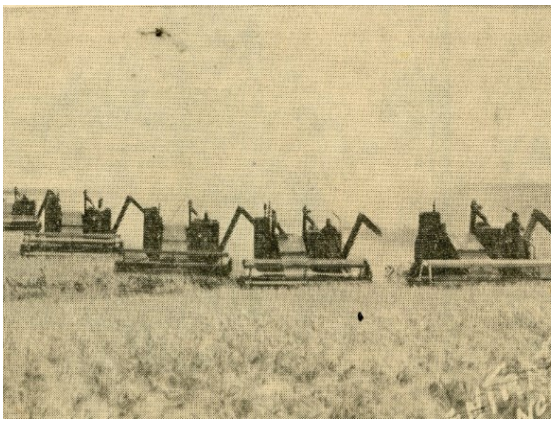
Combining History

Combining history

By Courtney Jankowski

Despite record yields in 1942 in Canda and the USA, many people globally where starving due to World War II. By 1944, the U.S. War Food Administration set a goal to harvest 1 billion bushels of wheat. However, this goal was hindered due many farmers fighting in the war and the War Production Board (WPB) preventing the production of much needed tractor parts.

Joe Tucker, vice president and sales manager of Massey-Harris, saw this conundrum as a prime environment to introduce the company's new No. 21 one-man, self-propelled combine. Tucker went to the to the WPB and promised if they would allow him the materials to build 500 machines, he could harvest 15 million bushels of grain from across the USA and Canada. Furthermore, this new combine would release roughly 1,000 tractors for other work, save 500,000 gallons of fuel, and prevent the loss of 500,000 bushels typically damaged by traditional tractor drawn combines. The WPB approved Tucker's plan and he got to work.



Tucker's military-like plan began in May of 1944 in Texas and California, where hundreds of the new No. 21 combines cut rice and barley. The combines then moved for the wheat in the Pacific Northwest and back into Oklahoma. By July, Kansas, Colorado and Nebraska where being harvested by the same machines, followed by the Dakotas in August. They didn't stop there though. Tucker had his No. 21 combine in Canada's wheat field throughout September as well.

In the end the 500 combines cut 1,019,500 acres for a total yield of more than 25 million bushels of grain while saving 333,000 man-hours and 500,000 gallons of fuel. These iconic red combines were shown in newspapers and discussed on the radio increasing Massey-Harris's reputation and essentially ending the tractor pulled combines. As a thank you the Canadian government allowed Massey-Harris to cease war work and convert back to farm equipment manufacturing months before the war's end. This allowed Massey-Harris Co. to become a major supplier in the USA and Canada, which continues into today.

La Crete Through Time

By Courtney Jankowski

In base of the Buffalo Head Hills lies the Hamlet of La Crete. This breath-taking area has been a sanctuary for many people, including its founders the Rivard Brothers in 1918 from World War I. During the 1930's a strong Mennonites population began to arrive looking for peace from the rapidly changing world.

The fertile lands surrounding the area proved to be ideal for farming. By the 1960's roads connected La Crete to the rest of the province increasing commerce and introducing new residents.

La Crete has consistently seen the highest increase of population in the area since 1990's and is one of the few places in Canada considered to be bi-lingual in English and German.

Today La Crete boasts a population of 3,500 residents and is an essential hub for business. It still holds strongly to its historical and religious heritage, which can be learned about at the Mennonite Heritage Village.

La Crete Through Time

Farming is Fun