... FROM THE DESK OF SCOTT SCHAFFERT P.AG.

# Between the Rows

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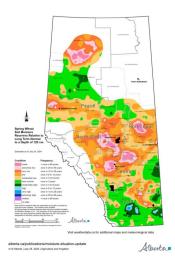
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## Soil Moisture Update

Soil moisture conditions continue to improve in the past week. This moisture was sorely needed after the 9 straight days of +28C temperature from July 14-21. The precipitation map from Alberta Agriculture is from July 25, the most recent from them. But since the heat wave ended we've received anywhere from 10-20m of rain. What also greatly reduced the stress on this year's crop, is that our nighttime lows have been consistently dropping below 15C, allowing the plants a chance to recover. We are seeing a segregation of potential yields based on how each field coped with the heat wave. While variety does have an effect, factors such as seeding date, soil moisture, soil type and fertility levels are also impacting the ability of each individual field to recover. Many of these factors we are able to manage, however what we can't manage is when and where heat waves such as this years occur, and we can't optimize any of these factors with certainty. Simply because we can't manage the weather. As Dwight D Eisenhower put it "Farming looks mighty easy when your plow is a pencil, and you're a thousand miles from the corn field"



## **Proper Sweeping Techniques**

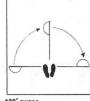
Before all you curlers get excited, this article is not about sweeping that rock past the double guard and making a triple raise take-out. Anyone who has every seen me curl knows I have absolutely no talent on the sheet. No, I'm taking about the proper way to sweep a field to determine what insect threats, and beneficials, we have in our fields. Using the proper technique allows you to determine economic thresholds for insect control by a standard technique.

The standard sweep net has a 35" long handle and 15" (38 cm) diameter net.

- -Sample preferably when the foliage is dry. If the foliage is wet, small insects may stick to the inside of the sweep net bag, making it difficult to identify them and give you an inaccurate count.
- -Keep the net path parallel to the ground.
- -Tilt the net opening so the lower edge of the rim is slightly ahead of the upper rim.
- -Swing the net from side to side in a full 180degree arc. Sweep one stroke per step as you casually walk through the field or down the row.

-In short vegetation, swing the net as deeply as

possible. In taller vegetation, sweep only deep enough to keep the upper edge of the sweep net opening even with the top of the plants. In general, don't let the net go more than 25 cm (10") below the top of the plants.



180° sween.

-Each passage of the net is considered one sweep. Thresholds are based on 10 sweeps.

Observation of lygus have shown that lygus populations are relatively evenly distributed across canola fields at podding, and sweeping protocols equivalent to cabbage seedpod weevil (four spots per field, at two paired locations) is likely appropriate for most fields.

Also: if you're not getting a few pods in your net: you're not sweeping hard enough. "Hurry Hard" as in curling.

## Bug Scouting Update

## **Bug Scouting Update**

As canola finishes flowering, bug scouting season gets into full swing. Pod fill is a critical time for canola yield production. Several species of insects can have detrimental effects on your yield rat this stage. So I've been busy sweeping and scouting. The main threats are lygus bugs, bertha armyworms and diamondback moth larvae, and all three can become an issue at this time.



Lygus bugs have piercing sucking mouthparts and treat a canola pod like your bare arm at a BBQ. The lygus sucks the juice out of seed, causing it to shrivel up. The other problem is that the puncture wound leaves an entry point for fungus to attack the pod.

Bertha armyworms have the most destructive potential of the three. The larvae emerge in mid-July (although its reported that they are a bit late this year due to cooler spring) and progress from eating the lower leaves all the way up to the pods. They continue to grow dur-

ing this time until they are about an inch and half long.

Once they get up to pods they chew their way through the pod stripping the seeds once they're inside.

Diamondback moth larvae can also do damage at this time. The moths do not over-winter but come up as illegal aliens from Texas on upper atmospheric winds. The moths lay their eggs on the underside



of lower leaves. After they hatch they begin to feed on the inside of the leaf, causing a "window pane" effect. The larvae up as small worms that grow to about 1/2 inch long.

So what am I seeing out there? So far, so good. A few of the fields I've scouted have reached the economic threshold for lygus bugs, but numbers of berthas and diamond-back moth larvae are very small. We will continue to monitor these important pests.

#### Holidays

### **Holidays**

I will be taking the next 2 weeks off. My wife Camille is retiring after over 30 years with Alberta Environment, so our family is having a bit of a get together. Gary, Courtney and Sherri will be here if you have any questions while I'm gone and you can always call me, if I'm not available right away I will get back to you as soon as I can. So until August 16, have fun out there and stay safe.

Where did it
start? A
history on
combines

### Where did it start? A history on combines

By Courtney Jankowski

The combine can track its origins to 1826 Scotland, where Reverend Patrick Bell designed a horse-driven scissor machine to cut down stalks. Unfortunately, Reverend Bell didn't patent his invention, therefore today's combines are often contributed to Hiram Moore and John Hascall of Michigan.

Mr. Moore and Mr. Hascall's invention included a reciprocating sickle to cut the stalks; a reel to push the grain onto the platform; and a canvas drape to deliver it to a threshing cylinder. Screens and a fan then cleared the threshed grain. This 17-foot long device was pulled by up to 30 mules, horse, and bulls.

This combining of reaping, threshing and winnowing into one device lead to the name 'combine harvester' or simply 'combine'.

Throughout the years and across the globe many farmers made contribution to today's com

bine. In 1911, the Holt Manufacturing Company introduced the self-propelling combine, greatly reducing the number of men needed to work the machine from 30 to four or five.

Today the combine plays a major role on Canadian farms and has greatly assisted increasing crop production.



Farming is Fun Why did the farmer call his pig "Ink"?
Because it was always running out of the pen.

What do you call a cow with no calf? Decaffeinated.

