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WBC Management in Dry Beans

Tracey Baute, Field Crop Entomologist,
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From the BauteBUGBlog.com

We are nearing or at peak flight for WBC. This is nearly 3 weeks ahead of last year. Much of the corn crop is starting to be less attractive for them. Late planted fields not in tassel yet will still be their target but if those are not available, then they will move on to dry beans and snap beans. WBC will continue to lay eggs over the next two to three weeks so scouting in both corn and beans must continue. However, scouting and monitoring in dry beans is a little more complicated.

WBC eggs and larvae are nearly impossible to find in dry beans. They do the exact opposite of what they do in corn. They like to lay their eggs on the underside of dry bean leaves and tend to do this on leaves that are deeper in the canopy. Larvae do a little bit of leaf feeding but as they grow, they start to only feed at night and go after the pods to feed and mine into. So trying to scout for these critters in dry beans is frustrating to say the least. And thresholds established in Nebraska and other western states do not seem to work properly for dry beans grown in the great lakes region.

Instead, we recommend you take a 3 step approach.



Bayer CropScience



Ministry of Agriculture,
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WBC Management in Dry Beans

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Step 1. Monitor traps to determine peak flight for your area. Having two traps in each dry bean field will give you an idea of when peak flight will take place. We know that you should expect pod feeding 10-20 days after peak moth flight. If you don't have traps directly in your own field, at least get an idea of when traps in your area have reached peak moth flight. Over 400 traps are monitored through the WBC trap network for Ontario and Quebec. Trap count maps are available at: <http://www.cornpest.ca/default/index.cfm/wbc-trap-network/weekly-maps-of-wbc-trap-catches/>

Step 2. Scout neighbouring corn fields that are not in full tassel yet. As mentioned, WBC is a completely different beast in corn than in dry beans. It is much easier to scout for WBC eggs in corn as they are quite visible and are laid on the top leaves of the plant. If there is a corn field near the dry bean field that hasn't fully tasseled yet, scout it instead. Go out and scout these fields now. Walk in 5 areas of the corn field and slowly walk by 20 plants.

Follow the helpful tips that I posted on the previous blog entries titled [WBC Eggs Found in Fields in Ontario](#) and [Facts You Need to Know to Scout and Manage WBC in Corn](#). If 5% of the plants inspected have egg masses on them, know that your dry bean field is also at risk. But you still need to scout for pod feeding to accurately time your spray application (see Step 3).

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Figure 1. WBC Hole Close-up
Credit to Chris DiFonzo (MSU)

WBC Management in Dry Beanscontinued

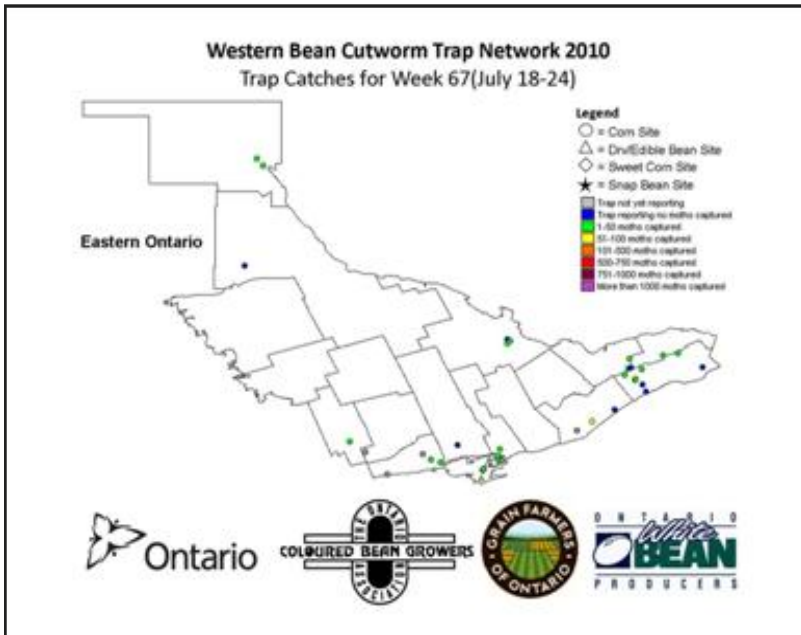


Figure 2. Eastern Ontario WBC Trap Counts (July 18—24, 2010)

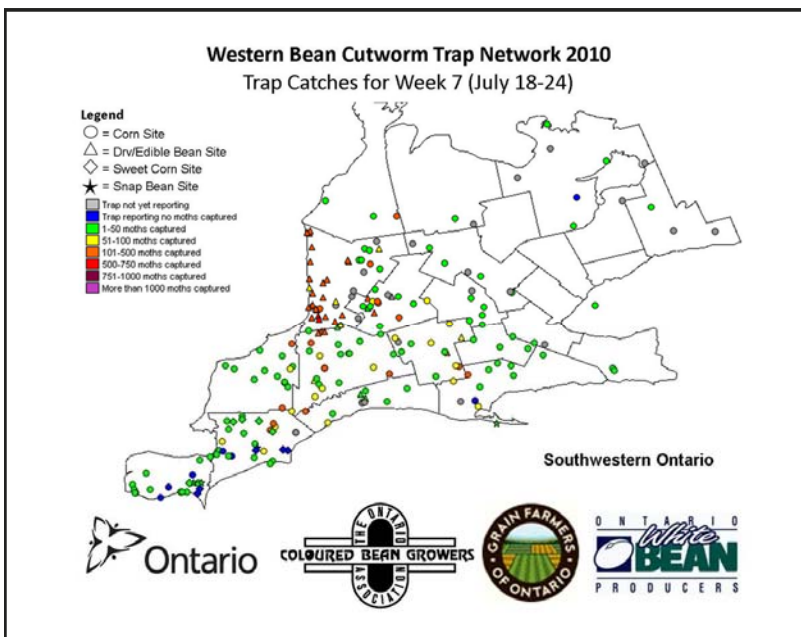


Figure 3. Southwestern Ontario WBC Trap Counts (July 18—24, 2010)

Step 3. Scout for Pod Feeding in Dry Bean Field. You can effectively manage WBC in dry beans once you have found pod feeding in your field. Pod feeding should start 10 to 20 days after peak moth flight has been observed (Step 1). But again, ensure that pod feeding is taking place to avoid a misapplication of insecticide in your field. Some growers in Michigan are trying to spray for WBC in their dry bean fields now, before they even have pods present on the plants which is not the correct timing to effectively control WBC in dry beans. Wait until there are pods present for WBC to feed on. Spraying once pods are present, ensures that you are maximizing your chances of effectively controlling the larvae when they are about to do economic damage. Spraying too early when pods are not present is a premature application and will result in you needing to spray again when pods need protecting. Spraying at the correct time when feeding is present ensures there is a decent amount of residual to protect the crop for a week or so during the critical time.

Scout 20 plants in 5 areas of the dry bean field. Leaf feeding may be evident but is not economic. Inspect pods for surface feeding and entry holes. Don't confuse the surface feeding caused by bean leaf beetle adults. If the bean leaf beetles are doing the damage, you should be able to easily find them in the crop. If no bean leaf beetles are present, it is most likely WBC feeding.

Spray the crop once pod feeding has been found. Matador is registered for WBC control in dry beans. See the [2010 Supplement for the OMAFRA Field Crop Protection Guide](#) for rates and recommendations.

Matador/Warrior Insecticide Labels Expanded via Minor Use Program to Control Western Bean Cutworm on Corn and Legume Vegetables

Jim Chaput, Minor Use Co-ordinator, OMAFRA, Guelph

The Pest Management Regulatory Agency (PMRA) recently announced the approval of URMULE registrations for **MATADOR/WARRIOR INSECTICIDE** for control of Western Bean Cutworm (WBC) on corn (all types) and Legume vegetables (crop group 6) in Canada. The active ingredient cyhalothrin-lambda was already labeled on a wide range of crops including grains, oilseeds, vegetables and fruits. Note that Warrior will eventually replace Matador in the marketplace.

This minor use project was submitted in 2009 by the minor use office of OMAFRA as a result of minor use priorities established by growers and extension personnel in Canada. The minor use label expansion for Matador/Warrior Insecticide is a significant step towards developing a pest management toolkit for WBC on corn and Legume vegetables in Canada. WBC has been increasing in incidence in the mid-western U.S. and southern Ontario and has caused significant damage in Michigan and Ohio. Effective pest management tools are urgently required in Canada.

The following is provided as a general outline only. Users should consult the complete label before using Matador/Warrior Insecticide.

Matador/Warrior Insecticide can be used for control of WBC on corn and Legume vegetables at a rate of 83 - 187 mL per ha in 100 – 200 L water per ha for ground applications and 10 – 40 L water per ha for aerial applications (Matador only) on corn and 20 L water per ha on Legumes. Application should be based on the presence of vulnerable pest developmental stages and significant populations as determined by local monitoring. Applications can be repeated at 4 – 7 day intervals.

For corn do not apply more than 3 times per year; only two of which may be by air (consult label for aerial application instructions). Do not apply

within 1 day of harvest for sweet corn, 14 days of harvest for silage corn and 21 days of harvest for field corn, popcorn and seed corn.

For Legume vegetables do not apply more than 3 times per year; only two of which may be by air (consult label for aerial application instructions). Do not apply within 7 days of harvest of edible podded beans, 14 days of harvest of edible podded peas, succulent shelled beans and peas and 21 days of harvest of soybeans, dry beans, dry peas, lentils and chickpeas.

Matador/Warrior Insecticide should be used in an integrated pest management program and in rotation with other management strategies to adequately manage resistance.

Follow all other precautions and directions for use on the Matador/Warrior Insecticide labels carefully.

This minor use project was sponsored by the minor use office of OMAFRA as a result of minor use priorities established by producers and extension personnel in Canada. We also wish to thank the personnel of **Syngenta Crop Protection Canada Inc.** for their support of this registration and the personnel of the **Pest Management Regulatory Agency** for evaluating and approving this important pest management tool.

For a copy of the new minor use label contact Tracey Baute, OMAFRA, Ridgetown (519) 674-1696, Jim Chaput, OMAFRA, Guelph (519) 826-3539 or visit www.syngenta.ca.