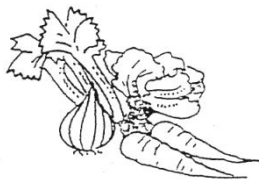


# MCRS IPM SCOUTING SERVICES 2024



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## ONTARIO CROPS RESEARCH CENTRE-BRADFORD (MUCK CROPS RESEARCH STATION) DEPARTMENT OF PLANT AGRICULTURE UNIVERSITY OF GUELPH



### THE MCRS INTEGRATED PEST MANAGEMENT (IPM) TEAM

#### **IPM COORDINATOR**

Tyler Blauel  
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#### **PROGRAM ADVISOR**

Dr. Mary Ruth McDonald  
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#### **BUSINESS ADMINISTRATOR – Bradford Co-operative Storage Ltd**

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#### **RESEARCH STATION MANAGER**

Shawn Janse  
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#### **RESEARCH TECHNICIAN**

Kevin Vander Kooi  
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#### **SCOUTS**

Two scouts hired for the 2024 season

## **MCRS IPM GOAL**

To provide the vegetable growers in the Holland Marsh and surrounding area with access to intensive crop monitoring services in order to protect crops from significant damage with the minimum use of pesticides.

## **WHAT IS IPM AND WHAT ARE THE POTENTIAL BENEFITS?**

Integrated Pest Management (IPM) is a method for utilizing cultural, biological and chemical controls in an organized manner that results in reduced usage of chemicals, selection of least toxic pesticides, more effective pest control and decreased health and environmental concerns. IPM programs are implemented to effectively manage pests while minimizing the amount of pesticides necessary to provide satisfactory control, which is an economic benefit as well. Crop scouting and pest and disease forecasting are integral parts of IPM. Scouting and forecasting for diseases and insects throughout the season help identify what the current and future issues are or will be in a field, allowing for proper management to prevent crop damage.

## **PAYMENT SCHEDULE**

The 2024 IPM service is sponsored by the Bradford Co-op and industry partners. Sponsors are welcome. The Ontario Agri-Food Innovation Alliance also provides support for these services. All fields will be scouted at \$60 per acre, payable through the Bradford Co-op. There is a minimum field size of 10 acres.

## **COMMUNICATION**

Growers will be given a report on the day each individual field is scouted. Information from fields and MCRS sites will also be collected and summarized in an IPM summary (Agriphone) twice a week (Monday and Thursday). A copy of the Agriphone will be e-mailed to member growers. The Agriphone will also be circulated to all the sponsors and posted at the Co-op and on the MCRS website (<https://bradford-crops.uoguelph.ca/>). Important highlights will be shared through our X (@MUCKIPM).

## **DESCRIPTION OF SERVICES**

### **CONFIDENTIALITY**

-all grower information will be considered confidential

### **ON-SITE CROP MONITORING**

- the start date of the crop monitoring program will coincide with the appropriate crop stage and/or development of pest pressures
- qualified scouts will monitor the crops observing insects, diseases, weeds, physiological disorders and any other pest problems
- approximately 20-30 minutes will be spent per 10 acre block
- different techniques will be used to determine the state of the field including field walks, trap counts, sweep net counts and weather monitoring
- scouts will monitor the crops twice weekly throughout the growing season
- the IPM Coordinator will visit fields on a regular basis to assist scouts and address any grower concerns
- access to the IPM Coordinator and other qualified personnel will be provided for any management recommendations

### **PEST DIAGNOSIS**

- any pests or diseases that cannot be identified on-site will be brought to the IPM Coordinator and identified via various laboratory techniques
- if the member wishes diagnosis or confirmation from another laboratory, the shipping of samples and cost of diagnosis is solely the responsibility of the member

## **SCOUT TRAINING**

- scouts are hired based on previous work experience, education, agricultural knowledge and capabilities
- scouts will be required to attend training sessions for the crops that they are scouting
- the IPM Coordinator and program advisor will provide training in both the field and classroom on an ongoing basis
- the scouts will be attending weekly meetings with the IPM Coordinator and Program Advisor for review and to discuss arising issues
- the scouts will be required to deliver summaries of each client's field results to the IPM Coordinator for summarization and redistribution to the clients

## **CARROTS:**

- monitored 2x per week for approximately 16-20 weeks until the end of August, then 1x a week in September
- IPM program and OMAFRA guidelines will be followed
- orange sticky traps for Carrot rust flies and Aster leafhoppers
- Carrot weevil traps for carrot weevil count
- sweep nets for Aster leafhoppers, 100 sweeps and counts on sticky traps to determine threshold
- examine 100 plants in the field for additional insect, disease, nutritional and physiological disorders
- recording all counts and observations from each visit

### Major Pest / Disease complexes monitored

- ▶ Carrot rust flies
- ▶ Carrot weevils
- ▶ Aster leafhoppers
- ▶ Aster yellows
- ▶ Leaf blight (*Cercospora* and *Alternaria*)

### Additional Pests / Diseases / Disorders monitored

- ▶ Wireworms
- ▶ Cutworms
- ▶ Seed decay
- ▶ Damping-off
- ▶ Rusty root (Pythium root dieback)
- ▶ Sclerotinia rot
- ▶ Violet root rot
- ▶ Crown rot
- ▶ Crown gall
- ▶ Cavity spot
- ▶ Fusarium rot
- ▶ Forking/splitting
- ▶ Nematodes (root knot, root lesion, carrot cyst)
- ▶ Heat canker
- ▶ Viruses
- ▶ Weeds
- ▶ Physiological disorders and damage
- ▶ Nutritional disorders

## **ONIONS:**

- monitored 2x per week until the end of August
- IPM program and OMAFRA guidelines will be followed
- yellow sticky traps for onion maggot flies in selected fields
- damage plots to assess onion maggot, smut and other diseases/disorders/damage
- 100 plants will be examined for thrips and additional insect, disease, nutritional and physiological disorders
- recording all counts and observations from each visit

### Major Pest / Disease complexes monitored

- ▶ Onion maggot flies
- ▶ Thrips
- ▶ Smut
- ▶ Botrytis leaf blight
- ▶ Downy mildew
- ▶ White rot
- ▶ Stemphylium leaf blight
- ▶ Purple blotch

### Additional Pests / Diseases / Disorders monitored

- ▶ Wireworms
- ▶ Cutworms
- ▶ Damping-off
- ▶ Pink root
- ▶ Root rot
- ▶ Fusarium basal rot
- ▶ Bacterial diseases (Soft rot, Slippery skin, Sour skin)
- ▶ Viruses (Iris yellow spot virus and others)
- ▶ Nematodes (Bulb and Stem)
- ▶ Weeds
- ▶ Physiological disorders and damage (Tip burn, Ozone injury)
- ▶ Nutritional disorders (manganese and zinc deficiency)

## **CELERY:**

- monitored 2x per week for approximately 16 weeks during the growing season
- IPM program and OMAFRA guidelines will be followed
- 100 sweeps for aster leafhoppers to determine threshold
- examine 100 plants in the field for additional insect, disease, nutritional and physiological disorders
- recording all counts and observations from each visit

### Major Pest / Disease complexes monitored

- ▶ Aster leafhoppers
- ▶ Aphids (Green peach and Sunflower)
- ▶ Tarnished plant bug
- ▶ Caterpillars (Cabbage loopers and Cutworms)
- ▶ Aster yellows
- ▶ Leaf blights (early blight (*Cercospora*), late blight (*Septoria*) and bacterial blight)
- ▶ Celery leaf curl (*Colletotrichum fioriniae*)
- ▶ Black heart (calcium deficiency)

### Additional Pests / Diseases / Disorders monitored

- ▶ Leaf minor
- ▶ Carrot weevil
- ▶ Potato leafhopper
- ▶ Slugs
- ▶ Wireworms
- ▶ Fusarium yellows
- ▶ Pink rot (*Sclerotinia*)
- ▶ Viruses
- ▶ Leaf tier
- ▶ Nematodes (Root knot nematodes)
- ▶ Weeds
- ▶ Physiological disorders and damage
- ▶ Nutritional disorders (Cracked stem – boron deficiency, Interveinal yellowing of leaves – magnesium deficiency)