The Pesticide Management Centre (PMC) was established in 2003 by Agriculture and Agri-Food Canada (AAFC) to enhance competitiveness and sustainability of Canadian agriculture in the area of pest management.

PMC works with Canadian growers, researchers, provincial specialists, international collaborators, pesticide companies, and the federal pesticides regulator, Health Canada’s Pesticide Management Regulatory Agency (PMRA), in fulfilling its mandate on behalf of the agriculture sector. PMC delivers two programs:

- **The Minor Use Pesticides Program** works with grower organizations and provinces to identify crop/pest priorities, and with research partners to conduct field trials and laboratory analyses in support of new minor use pesticide registrations.
- **The Pesticide Risk Reduction Program (PRRP)** facilitates the development, availability and adoption of reduced risk pest management strategies, including biological controls and integrated approaches for both major and minor crops. Biopesticides enhance the pest management tool-box with sustainable solutions for use in reduced-risk pest management strategies. The PMC’s work with biopesticides is carried out primarily within the PRRP.

**SETTING PRIORITIES**

PMC works annually with stakeholders including grower representatives, provincial specialists, researchers, biopesticide companies and PMRA to identify priority biopesticides for regulatory support and implementation project work (Fig. 1).

### INTRODUCTION

Since 2005, PMC has facilitated the development and submission of registration data with the goal to increase the registered biopesticide options available to Canadian growers. This work consists of two processes and follows several steps (Fig. 2).

#### FACILITATING REGULATORY SUBMISSIONS

23 biopesticide products covering 248 uses (Table 1) have been registered in Canada as first time registrations or label expansions as the result of PMC’s submissions over the past 10 years.

**ENABLING TECHNOLOGY TRANSFER AND ADOPTION**

PMC contributes regulatory advice and pathfinding for biopesticide discoveries arising from AAFC research work and registrant companies. Funding for projects involving screening (Fig. 3), scale-up and demonstration trials (Fig. 4) and IPM systems enable the transfer of new biopesticide technologies to Canadian industry and growers.

**FUTURE FOCUS**

Integration of biopesticides into IPM programs

PMC is shifting emphasis away from regulatory data generation trials for biopesticides in response to new guidelines for value data requirements which have been implemented by the PMRA. The new focus is work to integrate biopesticides into IPM systems to enable the uptake of these options in commercial crop situations (Fig. 5).

---

**TABLE 1. Biopesticides registered through PMC’s regulatory support**

<table>
<thead>
<tr>
<th>Product name</th>
<th>Active ingredient</th>
<th>Number of uses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agrilope</td>
<td>Bacillus thuringiensis</td>
<td>20</td>
</tr>
<tr>
<td>Contego</td>
<td>Pseudomonas syringae pv. syringae</td>
<td>30</td>
</tr>
<tr>
<td>Contego SL</td>
<td>Pseudomonas syringae pv. syringae</td>
<td>30</td>
</tr>
<tr>
<td>BioControl</td>
<td>Spinosad</td>
<td>20</td>
</tr>
</tbody>
</table>

---

**CONCLUSIONS**

**CONTACTS**

www.agr.gc.ca/biopesticides

---

**REFERENCES**

Fig. 2. PMC’s biopesticide regulatory support process and proposed IPM project support.

**Fig. 3. A biopesticide screening trial for powdery mildew control in greenhouses on ornamental crops.**

**Fig. 4. A demonstration trial of GF-120 Naturalyte Fruit Fly Bait for the control of apple maggotts in apple orchards.**

**Fig. 5. ACM941 (A) is AAFC’s patented biofungicide with activity against Fusarium head blight in wheat (FHB). Future work could involve integration of a number of FHB control practices including foliar sprays with ACM941 for suppressing blossom infections (B) or treatment of infected crop residues in fall to reduce inoculum levels, use of partially resistant wheat cultivars, and prediction of disease risk using forecasting tools such as DONcast (C) to determine the need and time to spray.**

---

**Figures and Tables**

- **Fig. 1.** PMC’s annual biopesticide prioritization process
- **Fig. 2.** Key steps in the biopesticide submission process
- **Fig. 3.** A biopesticide screening trial for powdery mildew control in greenhouse ornamental crops.
- **Fig. 4.** A demonstration trial of GF-120 Naturalyte Fruit Fly Bait for the control of apple maggotts in apple orchards.
- **Fig. 5.** ACM941 (A) is AAFC’s patented biofungicide with activity against Fusarium head blight in wheat (FHB). Future work could involve integration of a number of FHB control practices including foliar sprays with ACM941 for suppressing blossom infections (B) or treatment of infected crop residues in fall to reduce inoculum levels, use of partially resistant wheat cultivars, and prediction of disease risk using forecasting tools such as DONcast (C) to determine the need and time to spray.

---

**Table 1.** Biopesticides registered through PMC’s regulatory support

<table>
<thead>
<tr>
<th>Product name</th>
<th>Active ingredient</th>
<th>Number of uses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agrilope</td>
<td>Bacillus thuringiensis</td>
<td>20</td>
</tr>
<tr>
<td>Contego</td>
<td>Pseudomonas syringae pv. syringae</td>
<td>30</td>
</tr>
<tr>
<td>Contego SL</td>
<td>Pseudomonas syringae pv. syringae</td>
<td>30</td>
</tr>
<tr>
<td>BioControl</td>
<td>Spinosad</td>
<td>20</td>
</tr>
</tbody>
</table>