

Integrated Pest Management Partnership Projects



Presentation to the Pest Management
Advisory Council

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PMRA Mission

- To protect human health and the environment by minimizing the risks associated with pest control products, while enabling access to pest management tools, namely, these products and sustainable pest management strategies.



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Integrated Pest Management

- “A decision-making process that uses all necessary techniques to suppress pests effectively, economically and in an environmentally sound manner”

– (Expert Committee on Integrated Pest Management,
Canadian Agri-Food Research Council)



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Integrated Pest Management

- manage crops to prevent pests
- identify potential pests
- monitor
 - environmental conditions
 - pest and beneficial organism populations
 - pest damage
- treatment decisions based on thresholds



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Integrated Pest Management

- reduce pest populations to acceptable levels
 - biological, mechanical, behavioural control methods
 - targeted applications of pesticides when necessary
- evaluation process



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IPM and pesticides

- pesticide applications
 - when warranted and well-timed
 - in concert with other management practices
 - reduce possible adverse health or environmental impacts of pesticide use
 - delay development of resistance



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IPM Partnership Projects

- PMRA coordination and facilitation
- voluntary
- partners including grower organizations, manufacturers, other federal government departments, provinces, research establishments and other non-government organizations



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IPM Partnership Project

- develop implementable national strategy
 - grower/user-driven approach
- opportunities for technology transfer
- pest management context for registration decisions, new products and strategies



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IPM Partnership Projects

- **FOCUS:**
 - growers
 - implementable strategies
- **KEY TO SUCCESS:**
 - active involvement of growers/users and advisors



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IPM Partnership Projects

- Late blight of potatoes
- Sea lice in salmon aquaculture
- Colorado potato beetle
- Urban landscapes
- Spruce budworm in forestry



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IPM Partnership Projects

- Alternatives to methyl bromide in the food processing sector
- Apple orchards
- Canola
- Cranberries



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Food processing

- phase out of methyl bromide
- alternatives for food processing sector
- no single replacement for methyl bromide: combination of preventative and treatment practices necessary
- good base of progress in alternatives



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Food processing

- Key partners: Methyl Bromide Industry Government Working Group
 - Canadian Pasta Manufacturers' Association
 - Food and Consumer Products Manufacturers of Canada
 - Canadian Spice Association
 - Canadian National Millers Association
 - Canadian Pest Control Association
 - Agriculture and Agri-food Canada, Environment Canada, Industry Canada



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Food processing

- Steps in IPM for food processing:
 - assessment
 - development of pest management plan
 - plan implementation
 - evaluation of plan
 - adjustments



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Food processing

- Elements of pest management plan:
 - building and materials design and retrofitting
 - exclusion practices
 - good sanitation practices
 - building maintenance
 - inspections and monitoring
 - pest identification
 - physical and chemical controls



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Food processing: Key conclusions

- IPM strategy, pest management plan tailored for specific locations and needs
- Commitment by senior management to implement IPM strategy, allocate expertise to lead and manage
- Consistent and effective sanitation the most important component of an IPM plan



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Food processing

- IPM document on third printing
- Presented by Canadian reps to MBTOC
- applicators promoting IPM, using IPM document for training



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Canola

- Crop wide IPM strategic plan
- Key partners
 - Canola Council of Canada
 - Canadian Canola Growers Association, Canadian Federation of Agriculture, Agriculture and Agri-Food Canada
 - US Environmental Protection Agency, US Canola Association



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Canola: IPM strategic plan

- assist growers and industry ensure North America is the leading world supplier of canola products
- provide a framework for identification and resolution of canola pest management problems in a sustainable systems approach which recognizes economic, environmental and social considerations.



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Canola

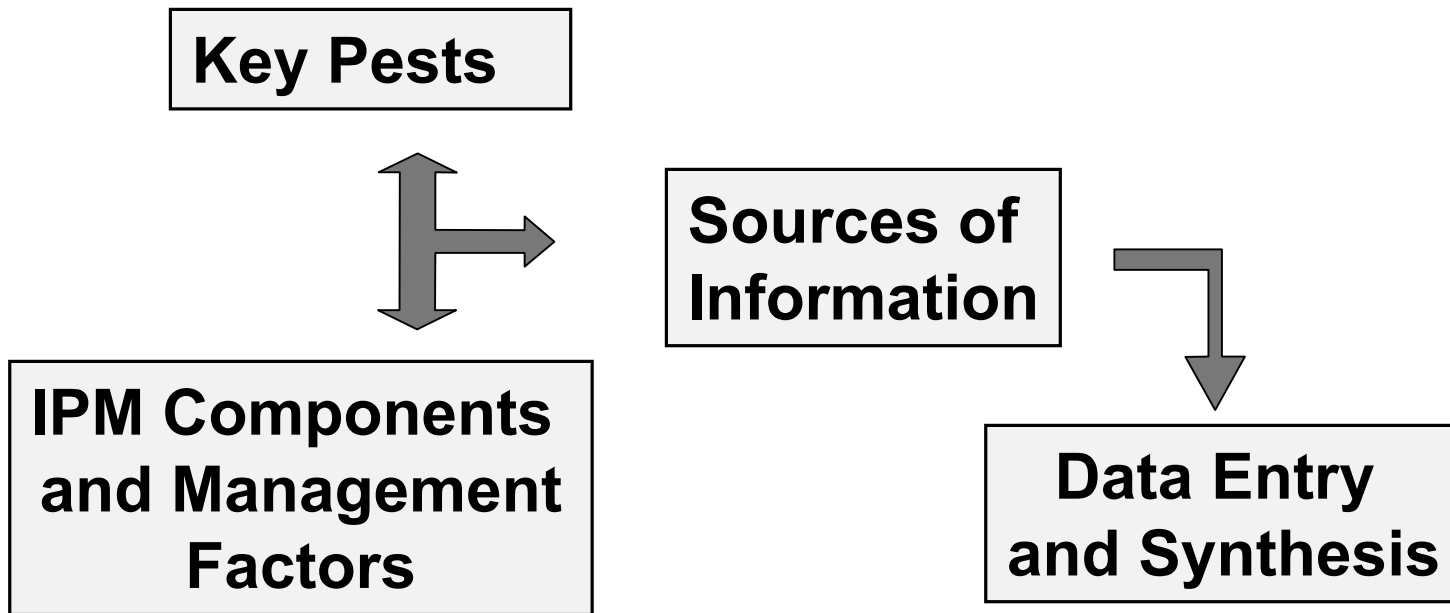
- framework document for IPM in canola
- canola pest management matrix
- measuring adoption
- regional IPM teams: “Taking IPM to the Farm Gate”
- communication: “Taking IPM to the Public”



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Development of Canola Matrix



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Overview: Canola IPM matrix



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Next steps

- Measure adoption of IPM
- Strengthen links to regulatory decisions
- Incorporate in broader risk reduction policy



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Late blight

- severe fungal disease; Irish potato famine
- new aggressive strains, fungicide resistance
- Key partners:
 - Canadian Horticultural Council
 - Agriculture and Agri-Food Canada



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Late blight

- Elements of prevention and control:
 - healthy seed
 - crop varieties and resistant cultivars
 - sanitation and cull clean-up
 - cultural practices and rotation
 - forecasting techniques and scouting systems
 - scheduled preventive fungicide programs
 - application technology
 - harvesting, grading and storage monitoring



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Late blight: Key conclusions

- IPM must be adopted by all for effective control of late blight
- Fungicides are a tool for use within IPM, not sole method of control
- Fungicides to be used as protectants; eradicator use can promote resistance



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Late blight

- > 7000 copies of Fact Sheet to potato growers, manufacturers, governments, associations
- incorporation into provincial grower handbooks
- elements of the strategy used in control efforts against late blight



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Sea lice - salmon aquaculture

- outbreak of sea lice, severe losses
- emergency registrations, need for therapeutants or other control strategies
- Key partner:
 - Salmon Health Consortium



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Sea lice - salmon aquaculture

- outbreaks a pressing concern
- use of long-term integrated strategies for managing sea lice is important to the sustainability of the industry and the environment in which it operates.



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Sea lice - salmon aquaculture

- Management for prevention:
 - location of sites: sources of infection, water quality, water flow
 - year-class separation
 - following of sites
 - management of fish densities, use of clean nets



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Sea lice - salmon aquaculture

- Monitoring pest populations and pest damage
 - basis for decisions to treat
- Reducing pest populations to acceptable levels
 - Effective treatment + minimizing potential for negative impacts



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Sea lice - salmon aquaculture

- Regional workshops
 - growers, veterinarians, provinces
 - practical next steps: who can do what?
- Interventions:
 - availability of treatments
 - enhancement of technology, training for treatments in some areas
 - refinement of treatment triggers



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Sea lice - salmon aquaculture

- Monitoring
 - occurs to some extent in all regions
 - need standardization, systematic compilation and sharing of results,
- Prevention
 - great awareness and acceptance of key preventive husbandry practices
 - have been adopted to some extent
 - site availability a key factor

