

# GUIDE TO PEST MANAGEMENT IN PEAS

**Nova Scotia Vegetable Crop Guide to Pest Management 2011**  
[PEA1-11]

**Revised June 16, 2011 by**

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## **IMPORTANT**

This publication was compiled by representatives from AgraPoint using information from the Pest Management Regulatory Agency of Health Canada, specific pesticide labels, previous Atlantic Provinces Vegetable Pest Guides and manufacturer's information. **This information is continuously changing and therefore it can cease to be current and accurate. Pesticide labels are the best source of information and should always be consulted prior to using a product.** The label is the best source of information on: registered crop uses, rates, days to harvest, compatibility with other pesticides, toxicity and other special information on its effective and safe use

By printing this publication, AgraPoint does not offer any warranty or guarantee, nor do they assume any liability for any crop loss, animal loss, health, safety or environmental hazard caused by the use of a pesticide mentioned in this publication.

## **WARNINGS**

**This publication is meant to be used as a reference for possible pest control options.** Where there are multiple brand names of a specific active ingredient registered in Canada, AgraPoint has only listed a couple for reference purposes and as such does not endorse one brand over another. If you have purchased a generic product not specifically in this guide but has your crop and pest on the label, always follow that product label.

**If any information in this or any other publication conflicts with the information on the label, always use the label recommendation.** If you have an old label, your pesticide supplier should be able to give you the newest label. You are legally responsible for the safe use of pesticides you purchase. This means the safe transport and storage of these materials, the label rates used on crops, and the safe disposal of containers.

Pest	Pesticide Common Name	Pesticide Product Name	Rate	Days to Harvest	Remarks
<b>WEEDS:</b>					
<b>Preplant</b>  <i>Perennial weeds including quackgrass</i>	glyphosate	<b>Roundup 356 Sn</b>	1.25-2.5 L/ha	7	Apply in the fall or spring prior to planting. Annual weed control programs will be necessary to control weeds germinating after planting. For quackgrass control, apply to actively growing quackgrass when at least 4 new leaves are present. The low rate (2.5 L/ha) will provide a minimum of one season control, while higher rates (4.75 to 7 L/ha) will provide longer term control. The low rate of Roundup should be applied in 50 to 100 L/ha water. If higher water volumes are used add a suitable surfactant. Wait 72 hours before plowing under. Best control of quackgrass is obtained when these herbicides are applied in the fall.
		<b>Roundup WeatherMAX</b>	1.67-8.0 L/ha	7	
		<b>Touchdown 480</b>	2.5-7.0 L/ha	7	
	carfentrazone-ethyl	<b>Aim EC</b>	36.5-117 mL/ha	1	Apply in minimum spray volume of 100 L/ha. Refer to label for target weeds, buffer zones and rates. Use high flow rate nozzles to apply the highest spray volume.
<b>Preplant Incorporated</b>  <i>Germinating annual grasses and some broadleaves</i>	trifluralin	<b>Treflan EC</b>	1.2-1.7 L/ha	-	Incorporate within 8 hours of application. Ragweed and mustards are not controlled. This product has a carry over effect on corn and cereal the following year. Use high rate in heavy soils.
		<b>Rival</b>	1.2-1.6 L/ha	-	

	imazethapyr	<b>Pursuit</b>	0.312 L/ha	50	Some rotational crop restrictions. Apply only to processing or snow peas. Can be applied PPI or PRE.
<b>Preemergence</b> <i>Germinating annual grasses and some broadleaves</i>	prometryn	<b>Gesagard 480</b>	3.75-4.58 L/ha	55	Pre-emergence to crop and weeds. Will not control triazine resistant weeds. If soil is dry and rain is not expected, light incorporation by harrowing will improve control.
	s-metolachlor / benoxacor	<b>Dual II Magnum</b>	1.25-1.75 L/ha	-	One application per year. Apply in 150-250 L of water/ ha.
<b>Postemergence</b> <i>Grasses</i>	fenoxypop-p-ethyl	<b>Excel Super</b>	0.67 L/ha	75	Apply when annual grasses are at the 1-6 leaf stage. DO NOT apply herbicides other than BASAGRAN within 4 days. 1 hr rain fastness.
	sethoxydim	<b>Poast Ultra plus Merge</b>	0.32-1.1 L/ha 1-2 L/ha	30 (fresh processing) 60 (dry peas)	Apply to actively growing grasses at the 1-6 leaf stage. Do not apply on fresh edible pod peas. Apply high rate for quackgrass. 1 hr rain fastness.
	diclofop-methyl	<b>Hoe-grass 284 EC</b>	2.5-2.8 L/ha	60	
<i>Broadleaf weeds</i>	bentazon	<b>Basagran plus Assist</b>	1.75 L/ha 1-2L/ha	30	Apply when peas have at least three pairs of leaves. Do not apply if rain is expected within 6 hours.
	MCPB/MCPA	<b>Tropotox Plus 400</b>	2.75-4.25 L/ha	-	Apply when peas have 3-6 expanded leaves. Do not apply after 6 leaf stage, when temperature is above 27 C, high humidity or drought conditions.
<b>INSECTS:</b>					
<b>Seedcorn Maggot, Potato leafhopper, wireworm</b>	thiamethoxam	<b>Cruiser 5FS</b>	50-83 ml/100 kg seed	N/A	<b>Seed treatment for commercial seed treatment facilities only.</b> Use high rate for wireworm and to replace one foliar application for potato leafhopper.
<b>Pea Moth</b>	malathion	<b>Malathion 25W</b>	4.25 kg/ha	3	Apply in sufficient water volume to ensure adequate plant coverage.
<b>Aphids</b>	malathion	<b>Malathion 25W</b>	4.25 kg/ha	3	Apply in sufficient water volume to

					ensure adequate plant coverage.
	dimethoate	<b>Lagon 480 EC</b>	275-425 ml/ha	3	Maximum of 2 applications per year. Use a spray volume of 100-300 L of water/ha.
	cyhalothrin-lambda	<b>Matador 120 EC</b>	83-233 ml/ha	14	May also control Lygus bug. Max 3 applications/yr. 24hr re-entry
		<b>Warrior</b>	83-233 ml/ha	14 succulent shelled peas and edible podded peas	<b>Do not use more than 3 applications per season.</b> Apply when the presence of vulnerable pest developmental stages and significant populations occur. Apply in 100-200 L of water / ha.
	methomyl	<b>Lannate</b>	510 g/ha	1	24 hr re-entry
	endosulfan	<b>Thiodan 4 EC</b>	1.5-2 L/ha	7	Processing only
		<b>Thionex 50 WP</b>	1.1-1.75 kg/ha	7	
<b>Cutworms</b>	cyhalothrin-lambda	<b>Matador 120 EC</b>	83 ml/ha	14	Make applications in the evening, as this is when cutworm activity is greatest. 24 hr re-entry.
	permethrin	<b>Pounce</b>	180-390 ml/ha	-	Apply up to 5 leaf stage. Do not disturb soil for 5 days after treating.
<b>Western Bean Cutworm</b>	lambda-cyhalothrin	<b>Matador 120 EC</b>	83-187 ml/ha	14	Repeat sprays at 4-7 day intervals. Do not use more than 3 applications per season.
		<b>Warrior</b>			
<b>Slugs</b>	Ferric phosphate	<b>Sluggo</b>	25-50 kg/ha	0	
<b>DISEASES:</b>					
<b>Angular leaf spot and Rust</b>	boscalid	<b>Lance WDG</b>	420 g/ha	7	Max 2 applications/yr. 4 hr re-entry.
	pyraclostrobin	<b>Headline EC</b>	400-600 g/ha	7	48 hr re-entry
	azoxystrobin	<b>Quadris</b>	500 ml/ha	15	Dry shelled peas. Do not exceed 2 applications per year. Apply at 5%

					disease infect and then repeat after 14 days.
<b>Sclerotinia</b>	boscalid	<b>Lance WDG</b>	560-770 g/ha	7	Max 2 applications/yr. 4 hr re-entry.
	<i>Bacillus subtilis</i>	<b>Serenade MAX</b>	3.0-6.0 Kg/ha	0	<b>Serenade Max is a biopesticide that will only suppress the indicated diseases.</b> Make the 1 <sup>st</sup> application at planting and prior to crop emergence. Make a 2 <sup>nd</sup> application as a directed spray with multiple nozzles per seed line in sufficient water to ensure thorough coverage of lower plant leaves and surrounding soil surface within 7 days of thinning. Repeat applications on a 7-14 day intervals if conditions for disease development persist.
		<b>Serenade ASO</b>	4.0-15.0 L/ha	0	<b>Serenade ASO is a biopesticide that will only suppress the indicated diseases. For Botrytis blight and Sclerotinia stem rot:</b> Begin application soon after emergence or transplant and when conditions are conducive for disease development. Repeat on 7-10 day intervals.
<b>Powdery Mildew</b>	sulfur	<b>Kumulus DF</b>	1.5 kg/ha	1	Apply at first appearance of disease and repeat at 7-10 day intervals as required.
	azoxystrobin	<b>Quadris</b>	500 ml/ha	15	Do not exceed 2 applications of Quadris/yr. Apply at 5% disease infect and then repeat after 14 days.
<b>Asian Soybean Rust</b>	azoxystrobin	<b>Quadris</b>	500 ml/ha	15	Do not exceed 2 applications of Quadris/yr. Apply at 5% disease infect and then repeat after 14 days.
	propiconazole + azoxystrobin	<b>Quilt</b>	1-1.5 L/ha	30 (dry legumes) 15 (edible podded legume)	Do not exceed 2 applications of Quilt/yr. Apply at first sign of disease and then repeat after 14 days. Apply with a minimum of 45 L/ha

<b>Botrytis Pod Rot</b>	<i>Bacillus subtilis</i>	<b>Serenade MAX</b>	3.0-6.0 Kg/ha	0	<b>Serenade Max is a biopesticide that will only suppress the indicated diseases.</b> Begin applications at the first sign of disease, or when conditions become conducive for disease development. Repeat as necessary on a 7-10 day interval.
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Use the following web link to search for any pesticide label mentioned in this guide, or any other pesticide registered in Canada:

[http://pr-rp.pmra-arla.gc.ca/portal/page?\\_pageid=34,17551&\\_dad=portal&\\_schema=PORTAL](http://pr-rp.pmra-arla.gc.ca/portal/page?_pageid=34,17551&_dad=portal&_schema=PORTAL)

# PESTICIDE EMERGENCY CONTACT INFORMATION

<b>Poison Control Centres</b>		
Nova Scotia	800.565.8161 or 902.428.8161	IWK, Halifax, NS
New Brunswick	911	Ask for Poison Information
Prince Edward Island	800.565.8161 or 902.428.8161	IWK, Halifax, NS
Newfoundland	709.722.1110	Dr. Charles A. Janeway Child Health Care Centre, St. John's, NF

<b>Environmental Emergencies (Pesticide Spills)</b>	
Transport Canada Regional Operations Centre (24 hours)	
Nova Scotia	800.565.1633
New Brunswick	800.565.1633
Prince Edward Island	800.565.1633
Newfoundland	800.563.9089

## ABBREVIATIONS & CONVERSIONS

<b>Formulation and Measurement Abbreviations</b>			
FORMULATIONS		MEASUREMENTS	
DF	Dry flowable	mL	millilitre
EC, E	Oil-based emulsifiable concentrate	kPa	kilopascal
WDG	Wettable dry granule	kg	kilogram
WP, W	Wettable powder	g	gram
Sn	Solution	L	litre
		BIU	Billions of International Units
		ppm	parts per million (1000 ppb)
		ppb	parts per billion (1/1000 ppm)

<b>Helpful Conversions<sup>1</sup></b>	
kPa X 0.14 = pounds per square inch (psi)	millilitres X 0.035 = fluid ounces
hectares X 2.47 = acres	litres X 35 = fluid ounces
kilograms X 2.2 = pounds	litres X 0.22 = imperial gallons
kilograms per hectare X 0.89 = pounds per acre	litres per hectare X 14.17 = fluid ounces per acre
kilograms per hectare X 0.40 = kilograms per acre	litres per hectare X 0.40 = litres per acre
	degree-days C X 1.8 = degree-days F

<sup>1</sup> **Pesticide Units of Measurement**

It is not recommended to convert label rates to imperial units because there is a high probability of mathematical and rounding errors. Present day pesticides are formulated to be more effective in smaller amounts. Therefore, even small conversion errors can lead to the use of incorrect rates (either too high or too low). Use metric – you will be glad you did!