

GUIDE TO PEST MANAGEMENT IN RHUBARB

Nova Scotia Vegetable Crop Guide to Pest Management 2011
[RHU1-11]

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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
WEEDS:					
Preplant <i>Perennial weeds including quackgrass</i>	glyphosate	Roundup 356 Sn	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.
		Roundup WeatherMAX	1.67-8.0 L/ha	7	
		Touchdown 480	2.5-7.0 L/ha	7	
	carfentrazone-ethyl	Aim EC	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.
Postemergence <i>Inter-row shielded</i>	paraquat	Gramoxone 200 Sn	2.75-5.5 L/ha	-	Avoid spraying crop as damage may occur.
	diquat	Reglone 240	2.3-4.6 L/ha	-	
	carfentrazone-ethyl	Aim EC	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.
INSECTS:					
Aphids	acetamiprid	Assail 70 WP	86 g/ha	7	Max 5 applications/yr. 12 hr re-entry
	imidacloprid	Admire 240	0.73-1.3 L/ha	45	Apply specified dosage in one of the following methods: <ul style="list-style-type: none"> • Apply specified dosage in 2000 L/ha of water as a narrow (5 cm or less) surface band over seed line during planting. Application should be made with sufficient water to ensure incorporation into the root zone. • Subsurface side-dress on both sides of each row of seedlings or established transplants; apply in 200 L/ha of water. ADMIRE must be incorporated into root-zone. • Post-seeding drench, transplant-water drench, or hill drench; use higher water volumes - sufficient to thoroughly wet the soil. Do not apply more than once per season.
	Flonicamid <i>Added June 16th</i>	Beleaf 50SG	0.12-0.16 kg/ha	0 days	Thorough spray coverage of plant foliage is essential. Minimum of 94 litres of water/ha. Maximum of 3 applications per season, allow 7 days between applications. Avoid overnight storage of spray mixtures, do not use liquid fertilizer as a carrier and do not use adjuvants.
Aphids and Whiteflies	spirotetramat	Movento 240 SC	220-365 ml/ha	3	Minimum interval between applications is 7 days. Maximum of 730 ml/ha of product applied per season. This product is TOXIC to bees through

					direct contamination of pollen and nectar. DO NOT apply this product during crop flowering period or when flowering weeds are present in the field, orchard or vineyard.
		Movento 150 OD	347-585 ml/ha	3	Minimum interval between applications is 7 days. Maximum of 1.17 L/ha of product applied per season. This product is TOXIC to bees through direct contamination of pollen and nectar. DO NOT apply this product during crop flowering period or when flowering weeds are present in the field, orchard or vineyard.
Cabbage looper, Imported cabbage worm, & Diamondback moth	spinosad	Success 480 SC	0.182 L/ha	1	Max 3 applications/yr. Allow 7-10 days between applications
		Entrust 80 W	109 g/ha	1	Max 3 applications/yr. Allow 7-10 days between applications
	spinetoram	Delegate WG	140-200 g/ha	1	Time application for Cabbage Looper with peak egg hatch or small larvae. Repeat applications based on population monitoring. Use higher rate for higher infestations or advanced growth stages. Maximum of 3 applications per year with a minimum re-treatment interval of 5 days.
	chlorantraniliprole	Coragen	250 ml/ha	1	For Cabbage Looper. Begin applications when treatment thresholds have been reached. Maximum of 4 applications per season. Do not apply more than once every 3 days. Do not exceed 1 L of Coragen per ha per season. Apply in a finished spray volume of 100L/ha.
DISEASES:					

Botrytis leaf rot (in forcing sheds)	captan	Captan 80 WDG	1.4-2.0 kg/ha	2	Spray at weekly intervals in 1000L of water. 48 hr re-entry.
		Maestro 80 DF	1.25-2.0 kg/ha	2	
Sclerotinia White Mold (<i>Sclerotinia spp.</i>)	boscalid, pyraclostrobin	Pristine WG	1.0 – 1.3 Kg/ha	0	For suppression of white mold. Apply once per season before disease develops. REI = 24hrs. For hand harvesting and thinning in leafy vegetables do not enter for 9 days after application.

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

PESTICIDE EMERGENCY CONTACT INFORMATION

Poison Control Centres		
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

Environmental Emergencies (Pesticide Spills)	
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

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

Helpful Conversions¹	
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

¹ **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!