

GUIDE TO PEST MANAGEMENT IN SWEET POTATO

Nova Scotia Vegetable Crop Guide to Pest Management 2011
[SWTPOT1-11]

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
WEEDS:					
Preplant <i>Perennial weeds including quackgrass</i>	glyphosate	Roundup 356 Sn	2.5-7.0 L/ha	-	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	-	
		Touchdown 480	2.5-7.0 L/ha	-	
	carfentrazone-ethyl	Aim EC	36.5-117 mL/ha	1	
Stale Seedbed Technique	diquat	Reglone L	2.3-4.6 L/ha	-	Apply before crop emergence to foliage of emerged weeds. Read label for water volumes required per hectare.
	paraquat	Gramoxone L	2.7-5.5 L/ha	-	
	glufosinate ammonium	Ignite 15 Sn	2.7-5.0 L/ha	-	

Post Transplant Pre Weed Emergence	clomozone	Command 360 ME	1.55 L/ha	95	Apply in a minimum of 95 L/ha. One application per season. Read label for crop rotation restrictions.
	chlorthal	Dacthal W-75	18 kg/ha (max per season)	-	Apply uniformly to the soil at transplanting. "Layby" application can be made 6 weeks after transplanting. If weeds are present, the crop should be weeded and cultivated prior to application.
Post Emergence Grasses	sethoxydim	Poast Ultra Merge	1.1 L/ha 1-2 L/ha	30	Apply to actively growing grasses.
INSECTS:					
Potato Flea Beetle, Tuber Flea Beetle, potato Leafhopper	Lambda-cyhalothrin	Matador 120 EC	83 ml/ha	7	Apply in a minimum of 100L of water/ha. Do not apply more than 3 applications per year; allow 7 days between applications.
		Warrior	83 ml/ha	7	
Two Spotted Spider Mite and Whiteflies	spiromesifen	Forbid 240 SC	500-600 ml/ha	7	Maximum of 2 applications per season. Minimum of 7 days between applications. Minimum application volume of 100 L/ha
Aphids and Whiteflies	spirotetramat	Movento 240 SC	220-365 ml/ha	7	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	7	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.
	Flonicamid <i>Added June 16th</i>	Beleaf 50SG	0.12-0.16 kg/ha	7	Aphids only. 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.
DISEASES:					
Bacterial Soft Rot (Post Harvest)	Hydrogen peroxide	StorOx	100 ml / 10L of water	-	Spray diluted solution on tuber to runoff after harvest and before storage. Use 4.15-8.30 L of water per tonne.
White mould	<i>Bacillus subtilis</i>	Serenade MAX	2.0-4.0 Kg/ha	0	Serenade Max and Serenade ASO are biopesticides that will only suppress the indicated diseases. Begin applications soon after emergence and when conditions become conducive for disease development. Repeat as necessary on a 7-10 day interval.
		Serenade ASO	8.0-15.0 L/ha	0	

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
EC, E	Oil-based emulsifiable concentrate	kPa	kilopascal
EG	Water dispersible granule	kg	kilogram
F	Flowable	g	gram
G	Granule	L	litre
L	Liquid	BIU	Billions of International Units
WDG	Wettable dry granule	ppm	parts per million (1000 ppb)
WP, W	Wettable powder	ppb	parts per billion (1/1000 ppm)
WG	Wettable granule		
SC	Suspension concentrate		
Sn	Solution		

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!