

Active Ingredients:

Novaluron and Acetamiprid

Insecticide Groups:

Group 4 and Group 15

Formulation:

Novaluron 100 g/L and Acetamiprid 80 g/L = EC

Application Rates and Packaging:

One Case:

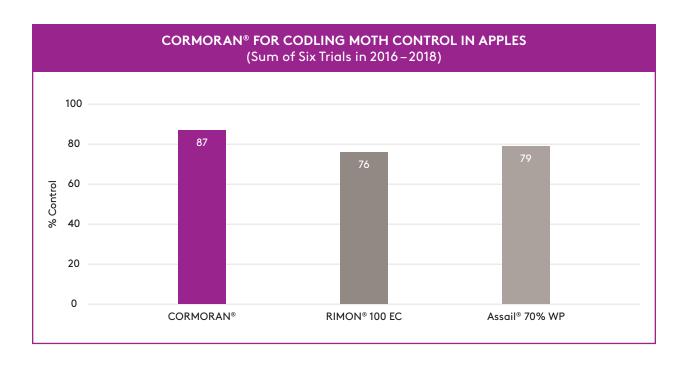
- 2 x 10.08 L
- Application rates vary by crop and pest. See pages 5–7 for more information and consult the label for complete details.

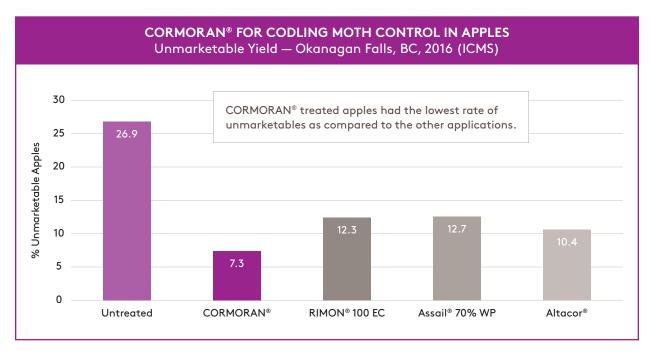
SERIOUS INSECT PROTECTION

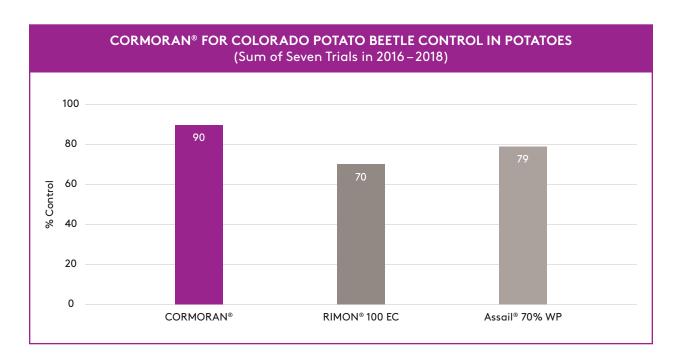
Why include CORMORAN° in an insecticide rotation?

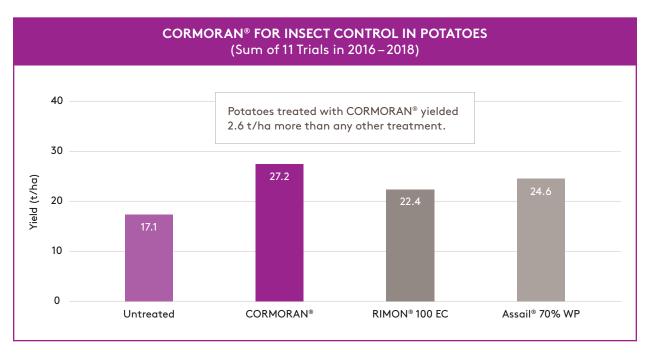
- Rapid knockdown action combined with extended residual control
- Dual modes of action for resistance management
- Control of all damaging stages of target insects including immatures and adults
- Two distinct modes of action providing excellent control
- Excellent rotational product

Field Test Results











HOW IT WORKS:

CORMORAN® kills insect eggs by contact and larvae by ingestion. Containing two modes of action, CORMORAN® provides both rapid knockdown and residual control of insect pests.

Registered Crops	Key Insects Controlled	
 Alfalfa (grown for seed) Apples Brassica leafy greens (crop subgroup 4-13B) Bushberries (crop subgroup 13-07B) Head and stem brassica vegetable crops (crop group 5-13) Peppers (bell and non-bell) Potatoes Strawberries Stone fruits (crop group 12-09) Sweet corn 	 Alfalfa looper Alfalfa plant bug Aphids Apple maggot Armyworm Blueberry flea beetle Blueberry gall midge (Cranberry tip worm) Blueberry maggot Blueberry spanworm Cabbage looper Cherry fruit fly (suppression) Cherry fruitworm Codling moth Colorado potato beetle Cranberry fruitworm Diamondback moth Dogwood borer European apple sawfly 	European corn borer Green fruitworm Gypsy moth Imported cabbageworm Japanese beetle Leafhopper Leafroller Lesser appleworm Lygus bug Mullein plant bug Oriental fruit moth Plum curculio Spotted-wing drosophila Strawberry clipper weevil Strawberry rootworm Swede midge Tarnished plant bug Tentiform leafminer Thrips

WATER VOLUME:

• Ground: 80 - 400 L/ac • Do not apply by air

RAINFASTNESS:

Avoid application when heavy rain is forecast.

REGISTERED AND SUPPORTED TANK MIXES:

- Acramite® 50 WS
- Luna Sensation™
- Polyram® DF WSP
- Pristine® WG
- Syllit® 400 FL

CROP STAGING AND RATES:

Crop	Insects Controlled	Rate	Application Instructions
Apples	Leafhopper, Tentiform leafminer	0.28 L/ac	Apply in minimum finished spray volume of 400 L/ac by ground.
	Aphids	0.28 - 0.42 L/ac	Repeat applications if needed to maintain control but do not make applications < 12 days apart. Do not apply more than 2.8 L/ac per season.
	Gypsy moth, Japanese beetle, Mullein bug	0.34-0.5 L/ac	
	Green fruitworm	0.42 L/ac	
	Apple maggot, Codling moth, European apple sawfly, Oriental fruit moth, Plum curculio	0.42 - 0.5 L/ac	
	Lesser appleworm, Tarnished plant bug	0.5 L/ac	
	Dogwood borer	0.6 L/ac	
Potatoes	Colorado potato beetle	0.18 - 0.28 L/ac	For Colorado potato beetle, do not apply more than twice to a single generation and do not apply to successive generations. Apply in minimum finished spray volume of 80 L/ac by ground.
	Armyworm, Cabbage looper	0.18 - 0.3 L/ac	
	Leafhopper	0.2-0.3 L/ac	
	Aphids, European corn borer	0.26 - 0.3 L/ac	
			Do not apply more than once every 10 – 14 days.
Stone fruits (Crop Group 12-09): American plum, Apricot, Beach plum, Black cherry, Canada plum, Cherry plum, Chicksaw plum, Chinese jujube, Damson plum, Japanese apricot, Japanese plum, Klamath plum, Nanking cherry, Nectarine, Peach, Plum, Prune plum, Plumcot, Sloe, Sweet cherry, Tart cherry and cultivars, varieties and/or hybrids of these commodities	Oriental fruit moth (Ontario only)	0.58 - 0.84 L/ac	Applications per season: Maximum of four(4)
	Cherry fruit fly (suppression, cherry only), Plum curculio (under high plum curculio pest pressure, the level of damage reduction may be limited to suppression)	0.84 L/ac	Apply in minimum finished spray volume of 405 L/ac. Use the high rate under heavy pest pressure. Do not apply during bloom. Minimum re-application interval of 10 days.



Сгор	Insects Controlled	Rate	Application Instructions
Peppers (bell and non-bell)	Colorado potato beetle (CPB)	0.18 - 0.28 L/ac	Do not apply more than 1.05 L/ac per season.
	Aphids	0.2 L/ac	Apply in at least 80 L/ac by ground.
	European corn borer	0.26-0.3 L/ac	For CPB, do not apply more than twice to
	Armyworm, Cabbage looper	0.18 - 0.3 L/ac	a single generation and do not apply to successive generations.
			Do not make applications less than 7 days apart.
Strawberries	Aphids, Leafhopper	0.2-0.3 L/ac	Apply in a minimum application volume
	Strawberry clipper weevil, Tarnished plant bug	0.36 L/ac	of 80 L/ac by ground. Do not apply more than once every 10 – 14 days or 3 times per season. Do not apply during bloom.
Brassica (cole) leafy vegetables (Crop Group 5): Broccoli, Chinese broccoli, Broccoli raab (rapini), Brussels sprouts,	Alfalfa looper, Armyworm, Cabbage looper, Diamondback moth, Imported cabbageworm	0.18 - 0.3 L/ac	Applications per season: Two(2) at low rate One(1)1 at high rate
Cabbage, Chinese cabbage (bok choy or napa), Chinese mustard cabbage	Aphids	0.26-0.3 L/ac	Apply in a minimum finished spray volume of 81 L/ac by ground.
(gai choy), Cauliflower, Cavalo broccoli, Collards, Kale, Kohlrabi, Mizuna, Mustard greens, Mustard spinach, Rape greens and cultivars, varieties and/or hybrids of these commodities	Lygus bug, Swede midge	0.3 L/ac	Do not apply more than 0.68 L/ac per season.
Leafy vegetables – Brassica leafy greens (Crop Subgroup 4-13B):	Aphids	0.26-0.3 L/ac	Apply in a minimum finished spray volume of 80 L/ac by ground.
Arugula, Broccoli raab, Chinese broccoli, Abyssinian cabbage, Seakale cabbage, Bok choy (Chinese cabbage), Collards, Garden cress, Upland cress, Hanover salad, Kale, Maca, Mizuna, Mustard greens, Radish leaves, Rape greens, Wild rocket, Shepherd's purse, Turnip greens, Watercress, as well as cultivars, varieties and hybrids of these commodities			Do not apply more than once every 7–10 days or more than 3 times per season.

Crop	Insects Controlled	Rate	Application Instructions	
Sweet corn	Aphids	0.2-0.28 L/ac	Applications per season: Two(2)	
			Apply in a minimum 80 L/ac spray volume by ground, no more than once every 21 days.	
			Use the higher rate for heavy infestations.	
Bushberries (Crop Subgroup 13-07B): Aronia berry, Blueberry (lowbush,	Aphids, Blueberry gall midge (cranberry tipworm)	0.3 L/ac	Applications per season: Three (3) Apply in a finished spray volume of 80 L/ac by ground.	
highbush), Chilean guava, Cranberry	Japanese beetle	0.28 L/ac	Do not apply more than once every	
(highbush), Currant (black, buffalo, red), Elderberry, European barberry, Gooseberry, Honeysuckle (edible), Huckleberry, Jostaberry, Juneberry (Saskatoon berry), Lingonberry, Native currant, Salal, Sea buckthorn and cultivars, varieties and/or hybrids of these commodities	Blueberry maggot	0.48 - 0.56 L/ac	10 – 14 days.	
	Blueberry flea beetle, Cherry fruitworm, Cranberry fruitworm, Strawberry rootworm, Blueberry spanworm, Spotted- wing drosophila Thrips	0.56 L/ac		
Alfalfa (grown for seed)	Alfalfa plant bug, Lygus bug	0.3-0.36 L/ac	Applications per season: Two(2) Apply prior to bloom up to when 50% of seed pods are ripe.	
			Use higher rate for heavier infestations.	
			Do not apply more than once in 7 days.	
			Do not exceed more than 0.72 L/ac per season.	



MIXING INSTRUCTIONS:

- 1. Be sure sprayer is clean and not contaminated with any other materials or crop injury or sprayer clogging may result.
- 2. Fill tank ½ full with clean water.
- 3. Start agitation.
- 4. Be certain that the agitation system is working properly and creates a rippling or rolling action on the liquid surface.
- 5. Pour product directly from container into partially filled spray tank.
- 6. Continue filling tank. Increase agitation if necessary to maintain surface action.
- Maintain continuous agitation during mixing and application to assure uniform suspension. If mixture sits without agitation for extended periods, agitate the mixture for at least 10 minutes before use.

CROP ROTATIONS:

There are no rotational crop plant restrictions for this product.

PRE-HARVEST INTERVALS:

- Strawberries: 1 day
- Brassica leafy vegetables (Crop Group 5 and Crop Subgroup 4-13B),
 Peppers, Potatoes, Stone fruits: 7 days
- Bushberries (Crop Group 13-07B): 8 days
- Sweet corn: 10 days
- Alfalfa (grown for seed), Apples: 14 days

STORAGE:

- 1. Store in original, tightly closed container.
- 2. Do not ship or store near food, feed, seed and fertilizers.
- 3. Store in cool, dry, locked, well-ventilated area without floor drain.
- 4. Keep away from fire or open flame, or other sources of heat.
- 5. Store above 2 °C. DO NOT FREEZE. Frozen product may crystallize and not go back into solution.

Quick Tips

Consider early applications (before petal fall) of CORMORAN® to allow beneficial insects to build up later in the season. To minimize the possibility of transient effects on honeybee brood development, do not use CORMORAN® on blooming crops when bees are actively foraging. If orchards have been historically infested with mites or aphids, be sure to scout regularly and use miticides to control their populations.

