TECHNICAL INFORMATION BULLETIN

OVERVIEW

PyGanic® Crop Protection EC.1.4 II offers immediate insect control for organic production. *PyGanic* is an organically compliant, broad-spectrum, contact insecticide that delivers quick knockdown and kill of crop-damaging insects.

VALENT

METHOD OF APPLICATION

- · Conventional hydraulic sprayers
- · Crack and crevice treatments
- · Compressed air sprayers
- Irrigation systems (chemigation)
- · By air or by ground

PyGanic Crop Protection EC 1.4

PRODUCT, FORMULATION, PACKAGING AND COMPATIBILITY

Signal Word: Caution

Packaging: Quarts (6 per case), Gallons (4 per case)

EPA Registration Number: 1021-1771

Food Handling: Not for use in food handling areas

Stability of Undiluted Product: Stable

Stability of Diluted Product: Agitation recommended; not required. Mix only enough

for immediate use.

IDENTITY, PHYSICAL AND CHEMICAL PROPERTIES

Common Name: Pyrethrins

Appearance: Clear, amber-brown colored liquid

Odor: Mild, sweet odor

Active Ingredients: Pyrethrins

Flammability: Not classified as flammable or combustible by OSHA

Mode of Action: Sodium channel modulator – disrupts insects' nervous systems

Class of Chemistry: Pyrethrins Respiration Required: None Mix or Dilute: Water only

Activity: Quick knockdown, contact kill and flushes insects from hiding

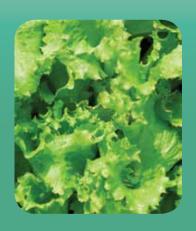
Shelf Life: 1 year in original commercial packaging stored at room temperature

USE AREAS

Growing Crops Outdoors and in Greenhouses

- *PyGanic* may be used on most crops because its active ingredients are exempt from tolerances when applied to growing crops
- Ornamental plants grown indoors or outdoors







Buffer the pH of the PyGanic spray solution to 5.5 - 7.0.

Application of the spray solution with a pH outside of this range may result in poor performance on target pests.

PyGanic is a contact insecticide – good coverage is key.

The amount of water used as a carrier has to be sufficient to achieve good coverage and contact target insects.

PyGanic may be applied in conjunction with a spreader or wetting agent.

 While PyGanic should be compatible with most products, conducting a small-scale test to ensure the lack of phytotoxicity of the combination is recommended.

Consider application in early morning, late evening or during the night.

Reduced UV exposure and lower temperatures will increase performance and reduce impact on pollinators.

For most situations, start at the "mid" application rate for *PyGanic*.

- In general, using PyGanic at the rate of 32 fl oz/A provides excellent knockdown and kill of insects. Conditions under which increasing the rate used per acre are recommended:
 - Extremely high insect populations
 - When the insect population is dominated by late- stage immatures or adults

Tank mix PyGanic with other products.

 PyGanic adds quick knockdown and kill, broad-spectrum control and resistance management benefits to other crop protection products such as Bts, azadirachtin, spinosad and neem oils.

Carefully monitor insect populations and apply when insects are early in their life stage.

- Monitor your crops for the first appearance of insects and treat the insects during the early stages of colonization.
- . Apply when the target insects are active to increase the direct contact during the early stages of colonization.

Remove beneficial insects or apply when beneficial insects are not present.

KEY INSECTS CONTROLLED

ants aphids apple maggots armyworms artichoke plume moth asparagus beetle bagworm bean beetles beetles blister beetles boll weevil cabbage looper cankerworms carrot weevil caterpillars clover mite clover weevil codling moth Colorado potato beetles

crickets

flies fruitflies crane flies greenhouse thrips cross-striped cabbageworm cucumber beetles harlequin bug darkling beetles (lesser meal worm)

elm leaf beetle European corn borer European pine tip moth fall webworm fire ants firebrats fireworms flea beetles forest tent caterpillar fungus gnats

diamondback moth larvae

eastern tent caterpillar

fruittree leafroller glassy winged sharpshooter grape leafhopper grapeleaf skeletonizer green fruit worm green peach aphids

gypsy moth (adults & larvae)

heliothis sp.

hornets hornworm

imported cabbageworm Indian meal moth Japanese beetle katydids

lace bugs leafhopper leafrollers leaftiers loopers lygus mealy bugs

Mediterranean flour moth Mexican bean beetle

millipedes mushroom flies navel orangeworm onion maggot pear psylla potato leafhopper

psyllids rice weevil

saw-tooth grain beetle

KEY INSECTS CONTROLLED (CONT.)

scale stink bugs spiders tarnished plant bug thrips tomato hornworm twelve spotted cucumber beetle vinegar flies wasps webworms whiteflies yellow jackets



