# **TECHNICAL INFORMATION BULLETIN**

#### **OVERVIEW**

Azera<sup>®</sup> Insecticide offers immediate control of soft-bodied and hard-bodied insects for organic production. *Azera* is an organically compliant, broad-spectrum insecticide that delivers quick knockdown and kill of crop damaging insects through both direct contact and ingestion.

#### METHOD OF APPLICATION

- Conventional hydraulic sprayers
- Compressed air sprayers
- Irrigation systems (chemigation)
- By air or by ground

#### PRODUCT, FORMULATION, PACKAGING AND COMPATIBILITY

Signal Word: Caution

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

EPA Registration Number: 1021-1872

Food Handling: Not for use in food handling areas

Stability of Undiluted Product: Stable

Stability of Diluted Product: Agitation recommended; not required. Preferably mix only enough for immediate use

#### **IDENTITY, PHYSICAL AND CHEMICAL PROPERTIES**

Common Name: Azadrachtin, pyrethrins

Appearance: Clear, amber-brown colored liquid

Odor: Mild, sweet odor

Active Ingredients: Pyrethrins, azadirachtin

Flammability: Not classified as flammable or combustible by OSHA

Mode of Action: Sodium inhibitor—disrupts insects' nervous systems. Insect Growth Regulator—inhibits molting and development of immature insects

Class of Chemistry: Pyrethrins, tetranortriterpenoids

Respiration Required: None

Mix or Dilute In: 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**

#### **For Organic Production**

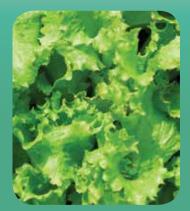
# Growing Crops Outdoors and in Greenhouses

- Azera 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



# azera 🗸







# Buffer the pH of the Azera 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.

# Azera 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.

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

• While Azera 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 Azera.

- In general, using Azera 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 Azera with other products.

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

# 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	cross-striped cabbageworm	grasshoppers
aphids	cucumber beetles	green fruit worm
apple maggot	cutworms	green peach aphids
armyworms	darkling beetles (lesser meal worm)	greenhouse thrips
artichoke plume moth	diamondback moth larvae	gypsy moth (adults & larvae)
asparagus beetle	eastern tent caterpillar	harlequin bug
beet armyworm	elm leaf beetle	Heliothis sp.
bagworm	European corn borer	hornets
bean beetles	European pine tip moth	hornworm
beetles	fall webworm false	imported cabbageworm
blister beetles	chinch bugs	Indian meal moth
boll weevil	fire ants	Japanese beetle
bollworms	firebrats	katydids
borers	fireworms	lace bugs
brown marmorated stink bug	flea beetles	leafhopper
cabbage looper	flies	leafminers
cabbage maggot	forest tent caterpillar	leafrollers
cankerworms	fruit flies	leaftiers
carrot weevil	fruittree leafroller	loopers
caterpillars	fruitworms	lygus
clover mite	garden tortrix	mealy bugs
clover weevil	garden symphylan	Mediterranean flour moth
codling moth	glassy-winged sharpshooter	Mexican bean beetle
colorado potato beetles	grain beetles	millipedes
crane flies	grape leafhopper	moths
crickets	grapeleaf skeletonizer	mushroom flies

#### **KEY INSECTS CONTROLLED (CONT.)**

navel orangeworm onion maggot pear psylla pinworms potato leafhopper psyllids rice weevil ringworms saw-tooth grain beetle scale stink bugs spiders tarnished plant bug thrips tomato hornworm twelve spotted cucumber beetle

vinegar flies wasps webworms weevils whiteflies yellow jackets



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