

AVOCADO CULTIVATION TREATMENT FOR CONTROL OF "WEB WORM" AND "FALSE MEASURING WORM"

BIOLOGICAL OBJECTIVE: Eradicate quarantine plague of cobweb worm (Amorbia emigratella) and false meter worm (Trichoplusia ni) in Hass avocado cultivation.

1. OBJECTIVE: Establish a treatment in Hass avocado cultivation to evaluate the effect of the insecticide MIZAR in controlling the pests of avocado cultivation worms.

- 2. LOCATION OF THE DEMONSTRATIVE UNIT: The orchard is located in an undetermined area of Nepal.
- 3. TREATMENT AREA: The numbers suggested here are to be used for the treatment of 1 hectare of avocado orchard.
- 4. SUGGESTED TREATMENT: It is recommended to use "MIZAR" (MEZFER) or equivalent.
 It is an insecticide that regulates the growth of insects, acts against lepidopteran larvae, is not systemic, has activity by ingestion.

AVAILABLE PRESENTATIONS: 250 ml | 400 ml | 1 L Active Substance: Methoxyfenozide

RECOMENDED FOR: Avocado, Corn, Cotton, Cabbage, Broccoli, Cauliflower, Brussels Sprout





5. TREATMENT: The treatments will be applied according to the following table and in accordance with the regulations on the use of environmental pesticides.

THE MEZFER COMPANY MIX PRODUCTS SUGGESTION FOR HASS AVOCADO WORM PLAGUE TREATMENT 2021.

	PRODUCT PICTURE	PRODUCT NAME	DOSIS (Kg I	DESCRIPTION
	T NODOOT TIOTORE		L / Hectare)	
1	AG R-FRI	ENGOR FRUT	1.5	Engor Frut is a biofortified plant nutrient, with a high content of phosphorus and potassium, with minor chelated elements as well as extracts of plant origin containing phytohormones and vitamins. Engor Frut is a Phenological Inductor and Bioregulator. It is an important source of phosphorus and potassium fortified with trace elements and phytohormones that promote increased crop yields. It makes efficient use of water, greater resistance to damage by diseases. Recommended for fruit formation and production stages. http://www.nutrilineagroscience.com/inductores-fenologicos/
2	BIOCOPPER 4º INDIO 20 M E GR B PROMOT SILE	BIOCOPPER HIDRO	4	It is a novel product made with environmentally friendly components, it contains 20% of active ingredient in a formulation of dispersible granules and with a high disposition of copper ions that are released in a controlled manner, resulting in greater biological effectiveness than traditional products. USE TOO IN ANTRACNOSIS PLAGUE. It acts directly on the spores of fungi and bacteria preventing their germination, likewise, it prevents the growth of mycelium and the production of sporangia, thereby limiting the infection or spread of diseases present in crops. Given its formulation, it allows it to act as a protective shield against diseases in the foliage of crops. http://www.biokrone.com/biofungicidas/biocopper-hidro/
3	Name of the second of the seco	MIZAR	0.35	Insect Growth Regulator Insecticide - Liquid, Floable Suspension. The active content is "Methoxyfenozide" which is an insecticide that regulates the growth of insects, acts against the larvae of Lepidoptera, is not systemic, has activity by ingestion. http://mezfer.com.mx/testimonios-category/cultivo-de-aguacate-paracontrol-de-gusano-telaranero-y-gusano-falso-medidor/
4	** President	BREAK THRU BASF®	0.6	BREAK® THRU is a new generation of adjuvants based on the technology of modified organo-siloxane compounds to be used in a mixture of pesticide products and foliar fertilizers that are applied with water. It is a non-ionic adjuvant which acts as a surfactant, humectant, dispersant and penetrant. BREAK® THRU reduces the surface tension of the water, allows the particles of the applied pesticides to penetrate the leaves or insects, as well as a uniform distribution of the pesticides and foliar fertilizers in spray due to its dispersant qualities. Careful observation of the spray application is recommended to determine the proper and efficient application of the pesticide and / or foliar fertilizers. https://documents.basf.com/aa0e8f6a47e7ff61a48022359bb057648c7d688b



6. - APPLICATION SCHEDULE: A single complete application will be made on the aforementioned affected surface.

7.- VARIABLES TO BE EVALUATED:

A. Percentage of control. Monitoring was carried out before application to verify the presence of pests and monitoring 5 days after application to verify symptoms in the body of the worms, caused by the insecticide product MIZAR.

- 8.- PROCEDURE: The mixture described in 2,000 liters of water will be prepared and applied with spray guns, mainly covering the fruits.
- 9.- DAY OF TREATMENT APPLICATION: Indeterminated still by the producer.

10 - RESIILTS

- Evaluate and determine in the monitoring prior to the application the quantity or percentage of fruits with damage. [check if it is greater than 5%]
- Evaluate and determine 5 days after the application the percentage of worms found that presented symptoms characteristic of the action of MIZAR.
- 12, 19 and 26 days after the application of MIZAR the presence of larvae should not be found in a new sampling.

11.- EXPECTED CONCLUSIONS.

- a) The insecticide MIZAR is effective for the control of cobweb worm (Amorbia emigratella) and false measuring worm (Trichoplusia ni) in avocado cultivation, at doses of 350 mL per 2,000 L (liters) of water.
- b) MIZAR provides residual control of worms for a period of 30 days in avocado cultivation.



FIGURA 1. DAÑO CAUSADO EN FRUTOS POR GUSANO TELARAÑERO.

WORM DAMAGE IN THE FRUIT





FIGURA 2. GUSANO TELARAÑERO ENCONTRADO EN FRUTO.

WEB WORM INSIDE THE FRUIT



FIGURA 3. GUSANO FALSO MEDIDOR ENCONTRADO EN HOJAS.

false meter worm found in foliage and stems



FIGURA 5. GUSANO TELARAÑERO ENCONTRADO 5 DIAS DESPUES DE LA APLICACIÓN DE MIZAR, CUERPO CON COLORACIÓN AMARILLO NEGRUZCO, SINTOMAS DE DESHIDRATACIÓN.

WEB WORM FOUNDED 5 DAYS AFTER THE MIZAR TREATMENT. DRY BODY. DEHITRATED.



FIGURA 6. GUSANO FALSO MEDIDOR ENCONTRADO 5 DIAS DESPUÉS DE LA APLICACIÓN DE MIZAR, CUERPO DESHIDRATADO.

FALSE MEASURE WORM FOUNDED 5 DAYS AFTER THE MIZAR TREATMENT. DRY BODY. DEHITRATED.

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