REPUBLIC OF KENYA

KALRO
Kenya Agricultural & Livestock Research Organization

NAVCDP
NATIONAL AGRICULTURAL VALUE CHAIN DEVELOPMENT PROJECT

Avocado False Codling Moth *(Thaumatotibia leucotreta)*

KALRO E-mimea Plant Clinic

KALRO/NAVCDP Factsheet No. 199/2024

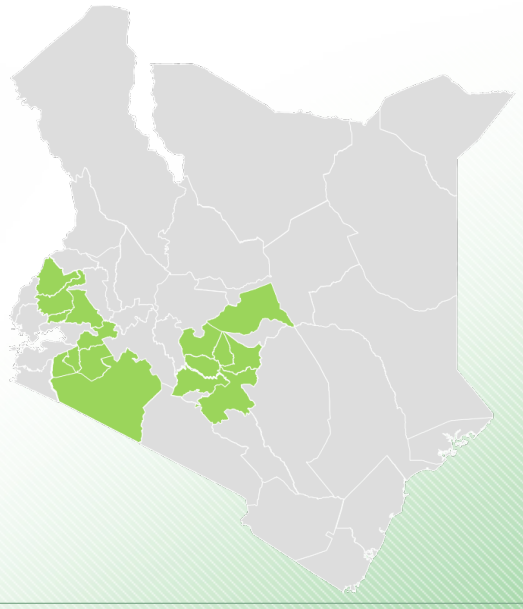
Other crops:	Roses, citrus, peppers (Capsicum spp.), pomegranates, macadamia, and maize

False Codling Moth adult and larvae, Source: Pest and Diseases Image Library, Bugwood.org

False codling moth damage of avocado fruit Source: Joseph Mulwa, KALRO

Pest Name	**False Codling Moth *(Thaumatotibia Leucotreta)***
Description	• Adult is a small brownish, night-flying moth • Females lay eggs singly, mostly on fruit • Larvae are white to pinkish in color with brown to black head
Diagnosis/Identification	**Symptoms** Because false codling moth is an internal feeder, few symptoms are actually displayed by the larvae: - After emerging from the egg, the young larva tunnels into the fruit. - The larva feeds from inside the fruit with frass or excrement being produced at the entrance of larval tunnels. - When larvae exit the fruit to enter the third stage (pupa), the rind around the point of infestation will turn yellowish-brown as the tissue decays and collapses. - Exit holes are approximately one millimeter in diameter. - Infested fruit produce white exudate from the damaged points that eventually develops into spots and mold.

	- Premature ripening and fruit drop can also occur with infestations 3–5 weeks after penetration by the larvae.
Conditions prevailing that contribute to success	- Presence of other host plants flowering/fruiting at the same time with avocado - Low soil fertility and insufficient soil water supply
Conditions prevailing that contribute to failure	- Proper soil fertility and water management
Management Strategy	The following management options are recommended: *Cultural Management* • Start seedlings should be clean and free of the pest. • Scout 2-3 times a week for initial symptoms and timely control. • Hang yellow thick polythene sheets pasted with gel/sticky surface about five feet by two feet close to the crops. • Practice field sanitation by collecting fallen fruits, leaves as well as twigs and destroy by burying at least 40cm deep to the soil to prevent FCM larvae from emergence. • Ensure that pruning is undertaken to remove infected twigs and also improve on air circulation. • Ensure that the orchard is weeded and other agronomic practices are carried out. • Avoid inter-planting avocado with beans, grape, citrus, guava, chillies, peppers, pomegranate, and pineapple that are susceptible to attack by the false coddling moth. • Use mesh or net barriers to keep the pest out of the crop or hand pick the mature larvae from the crop. • Use sex pheromone traps to monitor the adult moths and increase the pheromone traps density to 2 traps per acre for management purposes. • Use traps such as CRYTRACK from Kenya Biologics at one trap per acre with action thresholds of 5-7 moths caught per acre per trap per night. *Biological Management* • Use BACIGUARD 16WDG 15g/20L and repeat sprays after 14 days interval • Use *Bacillus thuringiensis* (Bt) at 0.49kg/Acre to effectively manage this pest • Spray with entomopathogenic fungus, and • *Beauvaria* products such as Beauvitech at rate 10g/20 lts water. Spray interval 7 days • Use entomopathogenic nematodes (*Heterorhabditis bacteriophora*) based products such as Larvanem at 500,000 nematodes per satchet for 100 square meter.

	Chemical Management • Apply insecticides from the flower-bud formation stage until the fruits are fully developed. The most susceptible stage is at bud formation, flowering period, and early fruit development. • Spray lambda cyhalothrin products such as Pentagon (10-15 ml/20 l). Spray with indoxicarb-based products such as Indox at the rate of 10 ml/20 l water. • Spray with UPHOLD 360 SC, AVOKING 200 SC **Note:** *Agrochemicals should be used in consultation with pro fessional practitioners and considering existing cautionary/safety measures, particularly the manufacturer's instructions.*
Mandate Centres	More information can be obtained from: ICRI KALRO–NSRC **Email:** kalro.sericulture@kalro.org **Address:** P. O. Box 7816-01000, Thika ABIRI KALRO Perkerra **Email:** director@abiri.org **Address:** P. O. Box 32-30403, Marigat KALRO Seed **Email:** info.kalroseeds@kalro.org; info@kalro.org **Address:** P. O. Box 6223-01000, Thika KALRO-NARL Kabete **Email:** cd.narl@kalro.org; info@kalro.org **Address:** P. O. Box 14733-00800, Nairobi **Website:** www.kalro.org
Geographic Coverage	This is pest is found in major avocado producing areas in Kenya. Research is ongoing.
Geographic Coverage The project counties for avocado are Bomet, Bungoma, Embu, Kakamega, Kiambu, Kericho, Kirinyaga, Kisii, Machakos, Meru, Muranga, Nandi, Narok, Nyamira, Nyeri, Uasin Gishu, and Vihiga Project counties Counties where pest has been observed	

Expert Names – Dr. Mr., Mrs., Ms. (circle one)	Mulwa J., Kasina M., and Nyaga A.
Expert Contact Details	Joseph.Mulwa@kalro.org - KALRO NSRC, Thika Muo.Kasina@klaro.org – KALRO ABIRI, Perkerra tony.njue.nyaga@gmail.com – KALRO Seed
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Disclaimer: The content of this publication is for general information to avocado farmers and technical staff only and no person should act, or fail to act on the basis of the information herein without professional advice from crop health experts affiliated to Kenya Agricultural and Livestock Research Organization (KALRO).	This factsheet was produced by KALRO as part of commercialization of avocado with support of National Agriculture Value Chain Development Project (NAVCDP)

Contacts:
Director General
Kenya Agricultural & Livestock Research Organization, Kaptagat Road, Loresho Nairobi Kenya
P.O. Box 57811, City Square, Nairobi, 00200, Kenya
Email: info@kalro.org
Safaricom: +254 722206986/722206988
Airtel: +254 733-333-223/4/733333299/4

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