

Rhynchophorus ferrugineus, Red Palm Weevil,
Trap and Lure
Technical Information



AgBio Inc, USA; www.agbio-inc.com

Problem: Female RED PALM WEEVIL lay eggs in wounds created by harvesting, pruning & off-shoot removal. Weevil larvae tunnel in palm stem & can kill palms. Infested palms are sites of infestation for other palms. Females can lay ~350 eggs (Butani, 1975). Life cycle: eggs <1 week; larvae ~4-6 weeks; pupae ~2-3 weeks; adults ~12-16 weeks.

Solution: Regular surveys to detect infested palms, sanitation removal & recovery of infested palms, insecticide spraying of infested palms & pheromone trapping are methods to decrease infestation.

Pheromone Trapping: Weevils can fly over 1 km per day. Pheromone trapping intercepts dispersing weevils & significantly reduced new infestation.

Optimization of Trapping:

Trap Design:

- Sides of traps must be rough to allow weevils to crawl inside.
- Entry holes must be made in traps to allow weevil entry.
- Entry holes should be near ground level to allow weevils to easily crawl inside.



Trap Location:

- Spacing of 100 meters between traps is recommended.
- Buried traps are more effective than traps on palms.
- Traps in shade retain water longer.

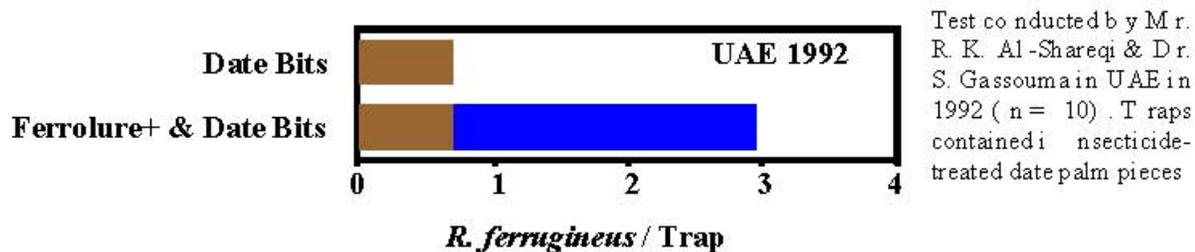


Baiting of traps:

Pheromone & Food Required:

Pheromone of *R. ferrugineus* is a mixture of 4-methyl-5-nonanol & 4-methyl-5-nonanone (Bio-Pesticides, Brit. Crop Prot. Council, 1998). Long term trial in Saudi Arabia confirmed 65% higher capture rates using both components (**Ferrolure+**) than with single component lures containing only 4-methyl-5-nonanol (R. A. Abozuhairah et al, Int. Congress Ent., Florence, Italy, 1996).

- **Combination of Food & Pheromone in traps increases efficiency.** Date fruit, sugarcane, apples & bananas are all satisfactory foods.

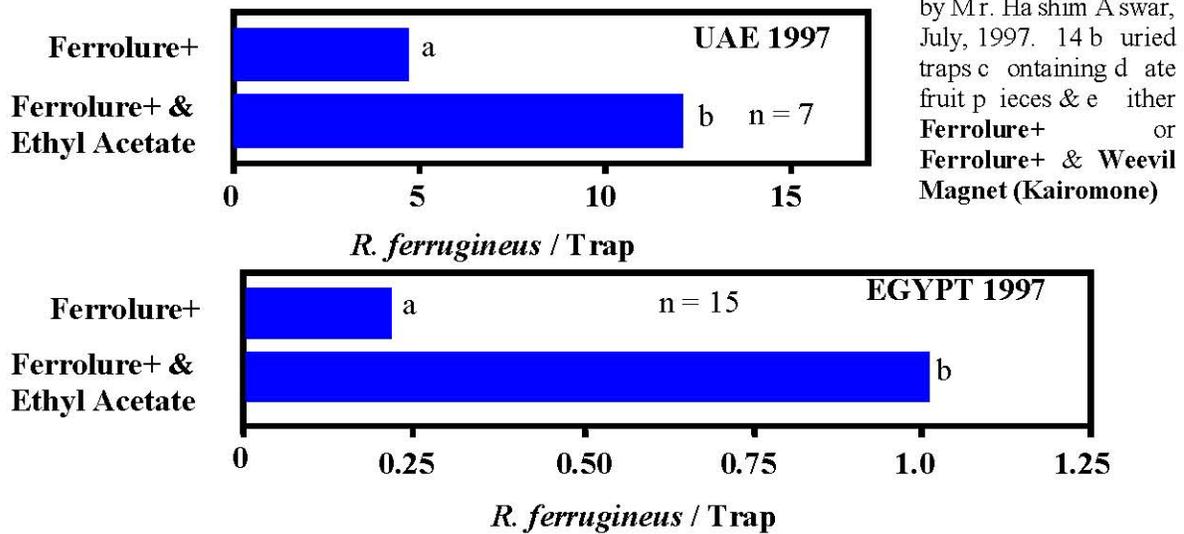


- Food can be treated with ~1-3% AI non-repellant insecticide:

Recommended non-repellant insecticides: Deltramethrin, Carbaryl Chloropyriphos

Repellant insecticides: Acetelic, Endosulfan, Quinaphos

Addition of plant kairomone lures to pheromone / food traps increases capture of *R. ferrugineus*.

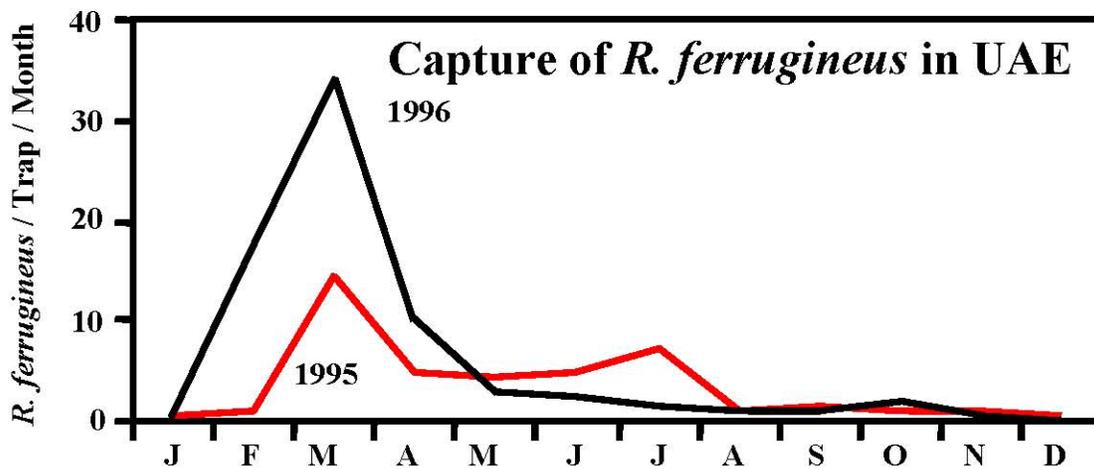


Test conducted in Egypt by Dr. G. Moawad & Y. El-Sebay, August, 1997. 30 bucket traps on ground containing bigas, molasses & either Ferrolure+ or Ferrolure+ & Weevil Magnet (Kairomone) (Proceedings of FAO Workshop on Red Date Palm Weevil & its Control, Dec. 1998, Cairo).

Result: Addition of kairomone, ethyl acetate, increases captures 2.5-5X.

What to expect from trapping weevils

- **High captures February to May**
- **Lower Infestation rates**



Integrated Pest Management for the Control of Red Palm Weevil in the UAE Eastern Region, Al Ain F. A. A. El Ezaby, O. Khalifa & A. El Assal, First Int. Conf. On Date Palms, Al-Ain, UAE, March 8-10, 1998.