

Technical Data Sheet



PHEROMONE LURE

PRODUCT CODE

BF546001 BioLure®UNIPAK™

PRODUCT DESCRIPTION

Attractant formulation for *MEDITERRANEAN FRUIT FLY Ceratitis capitata* (Wiedemann)
(Unipak lure)

Dispenser
Active Ingredients

Membrane sachet dispenser system
Ammonium Acetate (FFA)
Putrescine (FFP)
Trimethylamine hydrochloride (FFT)
25 dispensers per sachet pack
Impermeable clear Nylon laminate sachet.

Packaging
Sachet Material

The Unipak lure consists of a patented, membrane dispenser system designed to release a synthetic food lure that attracts female Mediterranean Fruit Flies (Medfly, *Ceratitis capitata*) into traps. This product is the result of a joint development effort between the *United States Department of Agriculture - Agricultural Research Service (USDA-ARS)* and *Suterra LLC*. It can be used in any crop where there is a need for detection of Medfly populations or Mass trapping where this is permitted.

PEST STATUS:

This is a very important pest of soft fruit throughout the Mediterranean, Africa, central and southern America and Western Australia. The female lays her eggs under the surface of maturing fruits. The maggots consume the fruit and render it inedible.

IDENTIFICATION

The adult Medfly is approximately the size of a housefly; thorax is glistening black with a characteristic mosaic pattern of yellowish-white lines. The abdomen is yellowish with two silvery crossbands, and the wings are banded and blotched with yellow, brown and black.

BIOLOGY

In cooler regions Medfly overwinters as a pupa or adult, but in warmer regions where host fruit is continuously available, reproduction is continuous. Females may deposit 2 to 10 eggs through a small hole in the surface made by the ovipositor, but many other eggs may be laid in the same hole by other females. Single females may produce as many as 800 eggs. Eggs hatch in 10 to 20 days, depending on temperatures. Larvae burrow in the host for 10 days to 6 weeks before exiting. Puparia form in the soil at about 2 inches or under protective debris. Pupation is completed in 10 to 50 days. Two to 12 generations per year have been reported for the species. The fly can move from one crop to another so that it is not restricted to the seasonality of one crop.

RECOMMENDATIONS FOR USE:

TRAP:

McPhail or Tephri type or other suitable fruit fly traps. Water or oil in the base of the trap can be used to kill trapped insects. Where approved insecticides such as DDVP may be used instead.

TRAPPING SEASON:

It should be noted that the exact time of insect emergence will vary with location and seasonal variation and the susceptibility of the crop to be monitored. In the more temperate regions, the insect is predominantly a problem through the spring and summer. In the tropics it may be present all year round

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TRAP PLACEMENT & DENSITY FOR MONITORING:

Monitoring

For monitoring purposes, traps should be placed at a density of 1 per 2 hectares, in host trees that bear ripe fruit and foliage. If available, sites with multiple suitable hosts should be selected. Shade and shelter, however, especially in hot weather, are also important considerations. The trap should be placed in the brightest (warmest) part of the tree in open shade (not in full sunlight at any time). Traps should be placed 1/2 to 1/3 of the tree canopy, and at approximately 1/2 to 2/3 of the distance from the trunk to the outer edge of the foliage. Never hang traps below the foliage canopy, and avoid hanging them at less than 1 metre above the ground. Relocate the traps whenever the fruit at the site is removed. Maintain a foliage free space of 30 to 50cm around the trap, but always ensure that foliage and ripening fruit surround it.

Mass trapping

Where mass trapping is permitted traps should be placed at a density of 50 per hectare following the placement guidelines given above. Traps should be placed before the crop becomes susceptible to attack and maintained until after the crop is harvested.

CHANGE OF LURES AND TRAP SERVICING:

Lures have an effective life of 120 days, depending on temperature.

Handle lures with gloves and avoid contact with skin or clothing. In order to activate the lure, carefully remove the lures from the protective package, and place in trap. The lure is active as soon as it is removed from the sachet pack. Do not tamper or open the dispenser itself. The old dispenser should be completely removed from the area of use and disposed of to prevent interference with the fresh replacement dispenser. Replace trapping liquid on a regular basis as required or replace insecticide as recommended by the supplier.

OBSERVATIONS AND DATA RECORDING:

Catches should be recorded weekly in low populations but more frequently in orchards with high populations. Record the trap catch on a trap record sheet.

NOTE: To avoid affecting the efficiency of the trapping system it is strongly recommended that traps be used for only the one species. Never use the lures for other species in this trap.

RECOMMENDATIONS FOR STORAGE AND HANDLING

The dispensers from Agrisense-BCS are supplied in labelled and batch coded vapour proof sachets. The dispensers are provided either separately or as components of monitoring systems inside system boxes together with the appropriate trap. The dispensers and systems should be kept under good storage conditions at below 15°C. Kept under these conditions the dispensers and systems will retain their activity and attractancy for a minimum of 18 months. Lures may be stored at room temperature. **Do not freeze.** We do not recommend storing dispensers for more than this time even in a refrigerator. Agrisense-BCS pheromone dispensers have a known and declared period of activity after opening of the sachet. After this time the expired pheromone dispenser should be renewed.

For Safety, Environmental and Disposal details see the corresponding Material Safety Data Sheet

LIMITED WARRANTY

This lure is warranted to deliver attractants for the duration specified above, at a constant temperature of 25° Celsius. Traps and lures are supplied by AgriSense. to provide a means to monitor insect pest populations as a guide to timing of spray applications for certain insects. They should be regarded as a supplementary aid in insect control planning. Spray programs should not be altered solely on the basis of data obtained from using these products. Unless otherwise noted, trap placement and density recommendations are based on generalized principles and field experience with certain insects. These recommendations may not apply for each specific pest, population density, season or location where traps are used. Users shall themselves determine the suitability of the products for their intended use and shall assume all risk and liability arising from such use.

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