



Fruit Flies are one of the world's most destructive and difficult to control pests, and it is estimated that in Australia alone over 60,000 hectares of commercial cropping is under threat with cost to industry estimated to be more \$50 Million annually.

However a new approach to the problem using an Australian designed biological trap could be the answer, and not only for larger horticultural enterprises but smaller operations and, importantly, domestic growers too.

While control measures in the past have concentrated on the male fruit fly, CeraTrap, backed by Spanish pharmaceutical company Bioiberica, tackles the problem from a female perspective.

Bioiberica, a company specializing in protein hydrolysis has developed a specific protein that has proven to be highly attractive to the fruit fly. Regular emissions of volatile organic compounds attract the female fruit fly particularly and once the fly enters the trap it is unable to escape and drowns in the fluid.

Research in Australia has confirmed that the product attracts both the Queensland and the Mediterranean fruit fly and due to the specific nature of the formulation it is less attractive to other insects. The product has been stabilized to ensure that it remains active for the duration of the cropping period. A cost effective trapping system will be available to ensure that the product is affordable within the orchard budget.

CeraTrap is used in a mass trapping program where 50 -100 traps are employed per hectare depending on area treated and or crop sensitivity to fruit fly.

Fruit fly are polyphagous in nature, high mobile and adaptable and attack during fruit ripening period and traditional control of fruit fly is based on insecticide treatments; however these products are now under review and have actually been banned in many countries.

In Australia there are over 80 species of fruit flies many of which are not considered a pest, however there are at least 16 species that infest commercial crops.

The two main species are the Queensland Fruit Fly (*Bactrocera tryoni*) and Mediterranean Fruit Fly (*Ceratitis capitata*). Queensland Fruit Fly (QFF) is native to Australia and is found along the eastern seaboard from Cairns in Queensland to Bairnsdale in Victoria and including Darwin and Alice Springs. Mediterranean Fruit Fly (MedFly) is an introduced species from South Africa and infests the coastal areas of Western Australia from Carnarvon in the North to Donnybrook in the South including the hills districts of Perth.



State Governments in Australia spend over \$20 Million in Sterile male release programs, baiting and monitoring fruit fly. Home gardeners in fruit fly areas lose most of their susceptible fruit to fruit fly and allow infestations to spread within the surrounding area.

Fruit Fly exclusion zones, Area Wide Management Programs and fruit fly free zones have been established in many parts of Australia to access markets that restrict fruit entry from areas affected with fruit fly. These programs have been successful in some situations but do break down from time to time as monitoring fruit movement within these areas is extremely difficult and expensive.

It is generally accepted that alternative management programs or control measures need to be established possibly using combinations of treatments.

One such program which has been widely accepted in Europe is control by mass trapping.

Traps for fruit flies have been widely used for many years and there are a number of “backyard” preparations that have been and are used with limited success. Traps using pheromones with or without insecticides are used primarily for male attraction to monitor fruit fly activity within a given area.

Protein based baits and attractants have been known to work well on controlling fruit fly but require regular re-dosing.

For further information and images, please contact:

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