



PROFESSIONAL BITING INSECT CONTROL



SAFETY  
Effective  
SANDFLY  
ACCURATE  
MOSQUITO  
Health Control  
MIDGE  
Relaxation  
MOSQUITO  
Consistency  
SANDFLY  
Biting-Insects

## NATURE'S GUIDED MISSILES

Like guided missiles, biting insects have highly developed sensors used for locating their prey. It is these sensors that allow millions of these insects to attack you and your customers again and again throughout the biting insect season - This is a war of attrition.

### Biting Insects:

- Annoy
- Vector Disease
- Bite
- Destroy Livestock
- Kill



Mosquito feeding

***"...more deaths occur as a result of biting insect vectored diseases than from any other cause..."***

### Background: Mosquitoes

The 3500 known species of Mosquito enjoy near global distribution, occurring in the tropics and temperate regions, and northwards into the Arctic Circle. They can be found at elevations of 5,500 metres and down mines to depths of 1250 metres below sea level.

### Life Cycle:

In order to reproduce, the female mosquito must feed on a blood meal to obtain the necessary proteins to develop eggs in her ovaries. A female lays 30-300 eggs in one oviposition, depending on species. Ovipositions occur every three days and therefore during a typical lifespan of 30 days between 300 and 3000 offspring can be produced - with half of these being females, a small colony can result in a major hazard almost overnight.

The multiplier effect means population levels explode during breeding periods, causing disease and devastation. However conversely, by destroying one female mosquito using Dragonfly Professional population levels can be well controlled. Imagine killing 1,000 female mosquitoes in one day – what would be the effects on future populations?

## HOW DO THEY ATTACK?

Mosquitoes, midges, sandflies and other biting insects have sharpened their hunting senses and developed a highly sensitive sense of smell, to locate their targeted prey:

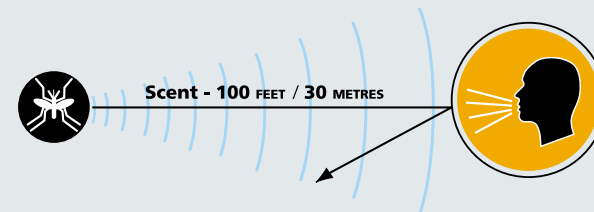
Biting insects are most responsive to 3 attractants:

CO <sub>2</sub>	- exhaled by mammals	} LONG RANGE ATTRACTANTS
Octenol	- exhaled by mammals	
Thermal images	- heat from the blood under mammals skin	} SHORT RANGE ATTRACTANTS

### KEY FACTOR

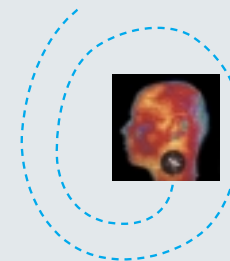
Each species and sub-species of biting insect is attracted to very precise and different levels of each of these 3 attractants. Dragonfly Professional's interactive protection system allows for targeting of specific species of biting insects – An unmatched quality.

Mosquitoes can sense exhaled Carbon dioxide and Octenol from 100 feet / 30 metres



When sensing these two naturally occurring substances biting insects that are looking for a blood meal immediately change direction and home in on their target.

As the insect approaches its prey thermal receptors allow the insect to home in and land on its prey. Rather than merely attacking its prey the insect searches out the most effective place to strike.



Encircling its prey and using a thermal image to locate blood under the skin's surface, the biting insect targets, lands and bites the person where its blood is closest to the surface – to get the best blood meal possible.

Dragonfly Professional hales a new intelligent generation in interactive mosquito control...

## INTELLIGENT BITING INSECT CONTROL

Dragonfly Professional is a new generation in biting insect ( Mosquito, Midge, Sandflies etc) Control – the most technically comprehensive and user-friendly biting insect control solution available. It has been developed through the highest quality research and development process possible over many years, ensuring complete product efficacy and performance.

### Basic Operation:

The Dragonfly Professional turns biting insects highly developed sensory perceptions against them. By imitating crucial biting insect attractants, the Dragonfly Professional confuses the insects, making them believe that the unit is a mammal and a blood meal...

**"...by seemingly offering the very thing that promises the survival of their species, Dragonfly Professional is enticing them towards its electric grid and a certain reduction in their population..."**

### Interactive Protection - Targeting specific Species

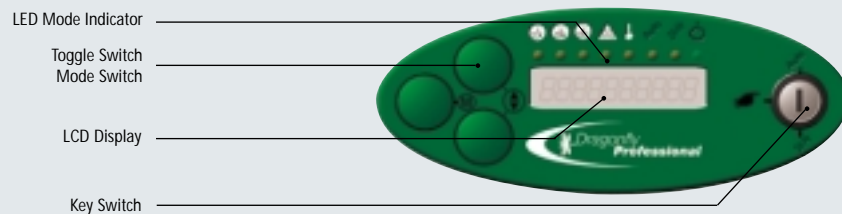
Each biting insect species respond to very specific and unique levels of the attractants. With a huge number of mosquito species alone, and comparable numbers of midge and sand fly species, control of biting insect populations becomes a very complicated matter, with the need for an almost endless number of attractant variations. Just having a trap that releases attractants is not enough to optimise attraction and killing performance of biting insect, more control is needed.

The Dragonfly Professional can be programmed to target specific species of biting insects at the particular times of the day when they active (biting). This is achieved by varying the level of the 3 key attractants, and setting programmable timed profiles.

#### The variable factors for each profile are:

- Time Profile On
  - Time Profile Off
  - CO<sub>2</sub> output level
  - Thermal Lure Temperature
  - Octenol
- SPECIES ACTIVE TIME
- SPECIES LEVEL OF ATTRACTANT REQUIRED

By programming these 5 variables an environment with several species of biting insects can be safely protected making the Dragonfly Professional **an unmatched solution.**



Dragonfly Professional control panel

## UNIQUE SYSTEM

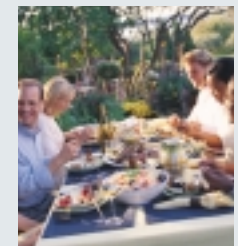
The system that raises the standard for biting insect control

### Unique Characteristics:

- 3 proven key attractants
- Variable level of CO<sub>2</sub> output
- Variable level of Thermal imaging output
- Variable level of Octenol output
- Mechanical lung for CO<sub>2</sub> delivery
- Mammal shaped thermal imaging
- Interactive set-up and control
- Programmable profiles



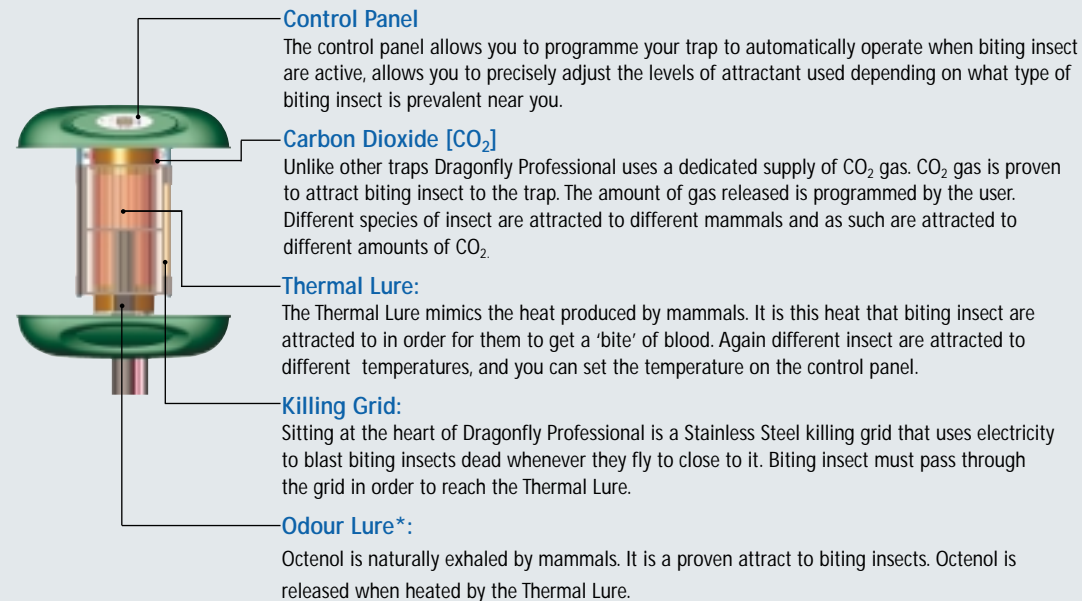
See below for detail on how it works



Placing the Dragonfly Professional between you and the biting insect breeding grounds will help to create a 'barrier effect'.

The trap that is operating at all times the biting insect are active, attracts and kills the biting insect before they bite you.

**SEE BELOW HOW DRAGONFLY PROFESSIONAL WORKS!**



## UNIQUE SYSTEM

### Why Choose Dragonfly Professional:

- Unrivalled research and development
- Highest quality performance and effectiveness
- Leading edge technical design and unique features
- Programmable and precise thermal imaging allowing optimum temperature to be set to attract specific insects
- Programme function allows for economical and efficient use of resources
- Effective targeting of harmful insects
- Pesticide free biting insect control
- Full Product support
- Does not attract ecologically beneficial insects

### GENERAL USES

- Outdoor Swimming Pools
- Garden Parties
- Camping
- Hotel Complexes
- Stables
- Sports events
- BBQ and Patio areas
- Golf Courses
- Outdoor dining areas
- All outdoor events

## DEVELOPMENT PROGRAMME

Dragonfly Professional is developed by **BRANDENBURG** UK Limited: A UK based company with vast experience of design, development and manufacture of Flying Insect Control Solutions. The company's focus is to provide real and quality solutions through partnerships that positively impact on people's lives and business operations, whilst maintaining the environment at the forefront of its mind.

Dragonfly Professional has passed through an intensive test programme, one which is still continuing today as part of **BRANDENBURG** continuing commitment to improve and develop products. The test programme to date has involved trials all over the world, attracting and killing mosquito, midge and other biting insect using test procedures developed by leading entomologists.

### Development Partners Include:

**USDA:** United States Department of Agriculture (whose vision is to enhance the quality of life for the American people and to generate a healthy and productive nation in harmony with the land) completed extensive testing and development work on the Dragonfly system, seeing it inline with their vision and as a way to reduce a significant world health risk.

**In-Phage Ltd., a spin-out company from the University of Edinburgh:** Centre for Tropical Veterinary Medicine: One of the UK's leading biting insect research organisations completing research and testing, led by Dr Alison Blackwell

**Cardiff University:** Professor Janet Hemingway – UK based university organisation renowned for high quality studies and research into the behaviour and control of insects.

**University Sains Malaysia:** Malaysian University with specialist 'Vector Control Research Unit'; undertaking research and testing of the Dragonfly system.

### Dragonfly Professional: The Biting Insect Solution:

Providing you, your staff, friends and customers with the environment that they deserve



## PROFESSIONAL BITING INSECT CONTROL

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Also visit our other websites: [www.b-one.com](http://www.b-one.com) | [www.midmos.com](http://www.midmos.com) | [www.medixair.com](http://www.medixair.com)

For complete 'biting-insect' control solutions, contact MidMos Solutions Ltd.

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