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PESTWEST NEWSLETTER

DID YOU KNOW...

Assuming that every individual survived to reproduce, a single housefly could produce up to 190,000,000 billion flies in a season

The maximum distance that a housefly *(Musca domestica)* has been recorded to disperse is 20 miles

The most important tasting organs of a housefly are on its tarsi or feet

Sarcophaga species (flesh flies) give birth to young larvae instead of laying eggs

PestWest®
FLYING INSECT SCIENCE

When is a UV lamp not a UV lamp?

UV lamps stop producing UV light long before their visible light declines but users can't tell by looking at them.

The PestWest UVA Meter is easy-to use, enabling you to monitor the condition and quality of UV tubes in any electric fly trap so that both you and your customers get the best results-making the UVA Meter the perfect addition to your toolbox.

UV lamps need to be changed annually however this may be more frequent if exposed to sensitive areas or natural sunlight.

SPRING CLEANING:
Out with the old and in with the new

It's that time of the year again, days are getting longer and the first flowers are blooming. It is also time to prepare for the coming insect season and change UV-tubes in your electronic fly killers and sticky board traps.

Which brings us to the question: what do you do with the used tubes? The answer is quite simple: Recycle them! Not only is it the right thing to do for the environment but it is illegal to put UV-tubes from a non-domestic situation in the waste bin.

All UV-tubes contain mercury and are designated as Hazardous Waste under the WEEE directive (Waste Electrical and Electronic Equipment) which came into force in July 2007. Hazardous waste must only be treated through bona-fide recycling and recovery operations and as a business operator you have a 'Duty of Care' to ensure that this is done safely and according to the directive by an authorised organisation or you could be held responsible (refer to http://www.netregs.gov.uk for more information)

The great news is that PestWest have already paid for the cost of collection, treatment, recovery and disposal of waste and you can easily dispose of this waste through Recolight. Recolight is a specialist recycling service organisation for fluorescent and mercury lamps and has established a national network of collection points where you can arrange for the lamps to be delivered to. To find your nearest collection point, simply go to the Recolight website www.recolight.co.uk and use their mapping tool. All you have to do then is to drop off your used tubes and Recolight will take care of the recycling process.

Remember, by recycling we can ensure a better future environment by reducing the amount of waste going to landfill and ensuring that limited material resources are used more efficiently. By demonstrating your commitment to recycling waste lamps you not only fulfil your legal obligations but also make a significant contribution to reducing the impact of harmful waste on the environment.

CLUSTER FLY *Pollenia rudis*

IDENTIFICATION

Adults are 7-9mm. Has distinct stripes on the thorax with golden hairs. Grey pattern to the abdomen.

CHARACTERISTICS

Parasitize earthworms and can be found in large numbers in attics and voids during cold weather/winter months.

CONTROL

Insect light traps are very effective. Exclusion through sealing the openings, leading to the interior and chemical barriers provides good protection.

The cluster flies are in the genus *Pollenia* in the blowfly family Calliphoridae.

Unlike more familiar blowflies such as the bluebottle genus *Phormia*, they do not present a health hazard because they are not associated with human food. They are strictly parasitic on earthworms; females lay their eggs near earthworm burrows and cracks in the ground, the larvae then use the earthworm as their food. The flies are a nuisance especially when the weather turns colder, as the adults move into the structures to rest over the winter.

They are often seen on windows and in rooms during the winter, on sunny days or when the temperature rises. During these brief periods of activity they use their remaining energy reserves and can be found "spinning" on surfaces.

The typical cluster fly *Pollenia rudis* is about 7 mm long (a little bigger than a house fly) and can be recognised by distinct lines or stripes behind the head, short golden-coloured hairs on the thorax, and irregular light and dark grey areas on the abdomen. Cluster flies are typically slow moving.

Normally the Cluster fly serves in nature as a pollinator and goes through about 3 generations per year, culminating with their autumn mass migration.

Cluster flies have a wide distribution, being a common pest in North America, where they have spread widely across the continent. Six species are found in Britain and thirty one in Europe. *Pollenia* species are also numerous in Australia and New Zealand (over 30 spp).

For more information go to **www.pestwest.com**

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Time to change those UV tubes.

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The fly season will soon be upon us. Houseflies, lesser houseflies and blowflies will become more apparent during the spring and summer months.

Because of their widespread distribution, their extremely high rate of reproduction and their ubiquitous presence in domestic premises, commercial kitchens, hospitals, restaurants, etc. there is a continuing need for effective fly control measures to be in place.

The control of adult flies can be considered in two categories, namely chemical and physical measures.

The chemical treatment of adult fly populations with insecticides has limited use. There may be some occasions when the large numbers of flies present require a space treatment to be carried out but in general there is little point in using what amounts to a relatively large amount of insecticide to kill a few flies. It is wasteful and undesirable, particularly in food preparation and food retail outlets.

On other occasions, chemical treatment with a contact insecticide of surfaces upon which flies alight can prove a successful method for adult control, but the flies frequently change their behaviour and alight on adjacent, untreated surfaces.

Generally physical measures to control adult flies are preferable and they can be divided into 2 categories:

1) prevention of entry ;
2) trapping.

1. Prevention of entry.

Stopping adult flies entering premises by using various screening methods is often extremely successful. It is essential, however, that screens are well-fitted and well-maintained.

Too often screens are constructed and put in place and work well for a few weeks or months, only to be subsequently damaged. The damage is most often caused accidentally by the people working in the premises. Fly screens need to be inspected regularly and maintained properly like all items used in pest control. If the screens on windows or on doors are not maintained properly they will not function effectively.

2. Trapping.

When adult flies do enter premises it is generally possible to trap them in a number of ways. By far the most common traps used in pest control are ultra violet (UV) fly traps.

Fly traps which use UV light as an attractant are the most successful at attracting a wide range of flying insects and they are the industry standard for fly control throughout the world.

Insects for many thousands of years have used the UV rays from the sun by which to navigate and almost all insects have a strong visual response to UV light.

The tubes which are employed in high quality electrical fly traps produce UV rays, which are invisible to the human eye, peaking around the 365 nm wavelength, thus exploiting the visual responses of the insects.

Much research has been carried out into the production of these UV fly attracting units. Investigations continue into the most attractive colour of tubes, the orientation of the tubes within the units is considered, as indeed is transformer design and glue board technology. All this research leads to constant changes and improvements.

Technology used in trapping the flies once they have become attracted to the UV light is basically of two types:

- the insects are killed in a electrical grid of high voltage;
- the insects are trapped on a board covered with adhesive material.

Both types of units use tubes coated with phosphors to produce the ultra violet light at the appropriate wavelength to attract flying insects.

The phosphors within the tubes producing the ultra violet rays deteriorate and it is essential that these tubes be changed at regular intervals.

Springtime is an ideal time for tubes to be changed so that they will be producing the maximum UV during the times when the flying insect populations will be peaking.

Flying insects vary in their response to light stimuli. Responses depend upon the species and sex of flying insect and the region of the eye on which the light falls.

However, no matter what the insect, there is always a response in the UV region of the spectrum since the UV from sunlight has for so long been used by insects in their navigational and searching behaviours.

The design of a trap to catch a large number of different species of urban insects therefore has to be a compromise, using a wavelength that is going to be the most favourable to the greatest number of insect species. That is why the most effective traps of this type use units emitting light within the 350 to 385 nm range.

It is therefore essential to have efficient new tubes producing good quality UV light.

One final aspect related to the placement and use of UV flying insect control units is the insistence by many food manufacturers and retailers that any glass fluorescent tubes are coated with a protective layer.

This layer of material is added to protect food from any chance of glass fragments being found in it, should the tubes shatter. The same requirements are being applied to the tubes in UV fly control units.

It is extremely important to ensure that the shatterproof coating applied to the tubes is permeable to UV light.

In a number of tests we have found that some of the coating cut out a large proportion of the light at the 350 and 365nm wavelengths. These are precisely the wavelengths which are important in attracting the flying insects.

This is why it is important to make sure that when a coating is applied, it permits the through-flow of the vital UV light.

During 2008 there have been new manufacturing standards introduced which refer to the "Fragment Retention Lamps". All lamps will have to meet the IEC61549 standard.

When purchasing replacement tubes which meet these new standards, look for tubes which have the characteristic "black band" around one end. Use only these tubes as the band indicates that they are suitable for fly control and have a guarantee of quality.

Quantum BL

Make the change: more attraction, lower running costs

- **Use less energy to produce maximum attraction**
  - Maximum UVA light emission at 365nm – optimum wavelength to attract pest flies
- **Environmentally responsible - compliance with legal requirements**
  - special phosphor-mix that does not require lead to produce UVA light
  - use only the minimum amount of mercury necessary
- **Maintain better peak attraction for longer**
  - special phosophor-mix results in slower reduction of UVA light output
- **Maximum safety with Dupont Teflon® fluoropolymer shatterproof coating**
  - comply with new legal standard IEC61549 for shatterproof tubes
  - guaranteed glass retention & excellent impact resistance
  - excellent UVA permeability (less than 5% loss)

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