

Fly Control:

Why Pest/Fly Control? -

As we stated in The Facts about Flies, flies have been a menace to mankind since biblical times. The importance of fly control is paramount, if not for health reasons, then for financial ones.

Poultry losses run into the millions of dollars annually and cattle weight has been known to drop 10-15% due to the ever-pesky fly.

Every year, newer, stronger chemical pesticides are developed to help control the fly population. The primary reason for new insecticides each year is "resistance" to the products on the market. Resistance is the ability of an insect population to withstand exposure to insecticides. This is acquired by breeding from insects that have survived previous exposures to a pesticide that did not wipe out the whole population. The surviving insect breed and develop a resistant strain that survives insecticide treatment.

Methods of Fly Control -

There are four primary methods of pest management: cultural control, mechanical control, biological control and chemical control.

- Cultural Control- Control by changing the human habits to reduce the problem.
- Mechanical Control- Eliminate breeding sites, install proper drainage, use traps.
- **Biological Control** Consists of the use, exploitation, or manipulation of one life form to suppress the population of another.
- Chemical Control- Use of insecticides.

In most cases, a combination of some or all of these methods may be needed. This is called Integrated Pest Management (IPM).

IPM combines biological, mechanical and cultural techniques with as few toxic chemicals as possible to reduce pest populations to tolerable levels.

TRAPS, BAITS & ATTRACTANTS

I. Traps:

Fly traps come in many shapes and have been in use since medieval times. Traps are designed in 1 of 2 configurations, bottom entry and top entry.

Bottom Entry Traps -

This design is also referred to as a "cone" entry. Flies are attracted to a trap by some type of attractant. In a bottom entry trap, the attractant is placed in a tray under the inverted cone. Over this tray is a shield that will block light. The only light the fly will see is that at

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the top of the cone. The cone is surrounded by a screen. As the fly exits the cone, it is now trapped in the screen and dies of dehydration.

Top Entry Traps -

In a top entry fly trap there are 3-4 holes in the top of the trap. These holes are separated by some sort of divider and are usually covered with a cap to block out the light source. The trap lid is placed on top of a transparent jar and filled with attractant and water. Once the fly enters the trap it cannot locate an exit, consequently it exhausts itself, falls into the water and drowns.

The design of a fly trap is paramount. We all know the attractant is what gets the fly to the trap; however, you must have a combination of attractant and design to get the fly to enter the trap. There are three properties that must be present for an effective fly trap:

- 1. Light Source.
- 2. Interior temperature.
- 3. Aromatic dispensing of smell (Attractants).

Light Source -

Once at a trap, the fly will seek out the food source inside the trap. The best designs involve moving the fly from darkness into light. Once the fly lands on the dark surface it will walk around using its feet sensors to locate the food. The fly sees the light coming from the hole and looks down, feeling secure that it can fly to the food source. After feeding, the fly now seeks to escape from the trap, but sees black when looking back up the hole. With a constant effort to escape, the fly tires, falls into the water and drowns.

Interior Temperature -

The purpose of the bottom entry to a trap is two fold. For some unexplained reason, some flies will not enter a trap from the top. It has been said that the smell concentrates in the cone of the trap making the attraction irresistible. As heat rises, the entry temperature is close to that of the exterior, prompting the fly to hesitate or not enter the trap at all. The trap can become too hot.

Aromatic Dispensing of Smell - (FLY BANQUET)

As stated previously, the attractant is what gets the fly to the trap. **Neither the 'top** entry' nor 'bottom entry' only traps have efficient airflow to dispense the attractant to its potential. With both a top and bottom entry, air runs through the trap (a chimney effect), dispensing the attractant smell even further than a 'top' or 'bottom entry only' trap.

Trap Placement -

There is no exact science for trap placement. Weather conditions affect fly activity and trap effectiveness. When temperatures are above 80F degrees, traps should be placed in shaded areas. As temperatures fall below this, fly activity will diminish and they will seek warmer areas. The trap should then be moved to a sun exposed area.

Traps should be placed at various locations and heights to determine the most effective placement. When testing the placement of the trap, allow 24 to 48 hours for best results.

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