

# Vectors and Pest Control

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# Vector Control Goal

Ensure the natural inhabitants of the area around the digester do not negatively impact the operation

- Birds
- Flies
- Rodents
- Varmints



Aim is to **prevent infestations before they occur** and to **reduce the availability of food, water and shelter** sufficiently to make the movement patterns and **behavior of the pest predictable.**

# Key Operation: Good Housekeeping

The key to controlling the habitat for pests is good housekeeping.

- Buildings should be neat
- Limit ground cover
- Trash must be under control
- Dumpsters should be clean
- Keep areas free of clutter
- Move unused equipment



# Continual Attention

Examples of items to be addressed:

- Stacks of pipes, pallets and wood
- Leftover food and food waste
- Poorly managed substrate receiving/pits
- Clutter inside/outside of buildings
- Dead & decaying organic material
- Puddles of water
- Decaying material at edge of piles
- Stacks of tires
- Long weeds and grass





# Bird Control

Birds are carriers of disease to facilities and transfer disease from one location to another:

- Effective bird control is very difficult
- One way to control birds is to make the habitat less attractive
- Another are noise/predator options
- Approved/regulated use of poison is another method where allowed
  - Bait the birds to feed and then change the feed with poisoned feed
  - Starlicide Complete- registered for controlling starlings and blackbirds
  - Care must be taken to avoid harming songbirds and other nontarget species.

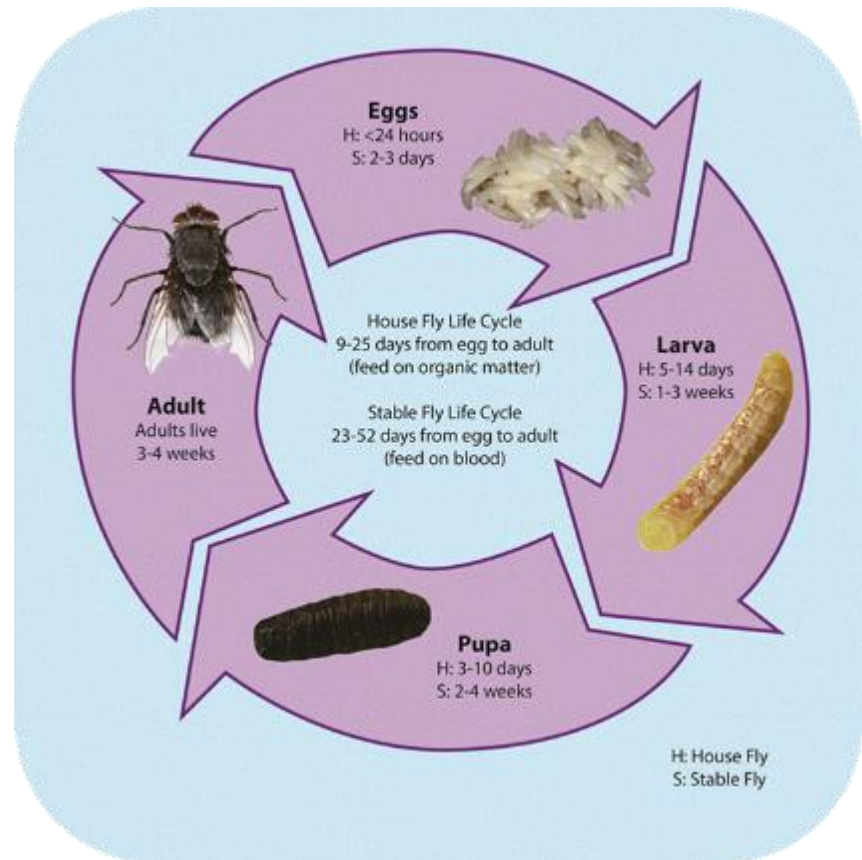


# Fly Control

Flies bite and feed on exposed tissue. Flies can bother both human and animal populations. They carry disease and can be a serious issues in a community if not properly controlled.

Fly control program has four distinct phases:

- Protect the local animal and human population
- Area spraying
- Removal of larval habitat
- Maintenance to reduce attractants



# Fly Control Methods

Protecting the local population is done at living and resting area of the human or animal population.

- Animals should be sprayed twice a week using approved insecticides until the frost kills off flies

Area spraying conducted 2x-week using ultra-low volume sprayer (ULV)

- Spraying should be done in early morning or late evening

Regular cleaning of larvae preferred habitat

- Wet organic piles, moist areas at edge of piles, unattended manure piles

Lime can be used as fly larvicide

- Applied early in the fly season
- Inspected at weekly intervals
- Cover the edge of feedstock piles and all vegetative material

Keep grass/weeds as low to reduce number of flies and other flying insects

# Rodent Issues/Control

Rats and mice carry disease and cause building and equipment damage by gnawing while living in and around the feed/buildings.

Removal of habitat is primary method of control

- When minimizing habitat, rodent behavior becomes more predictable
- This allows for poison to be placed in effective locations

Put poison in bait boxes on paths leading to and from feeding locations





# Varmint Issues/Control

Varmints (racoons, possums, squirrels, coyotes, foxes, skunks, etc.) can transfer disease as well as impact worker safety and facility operations.

- Often considered a secondary problem caused by presence of other pests or availability of food
- Controlling smaller pests and food sources results in less varmints
- Varmint control is often achieved by either hunting or trapping

