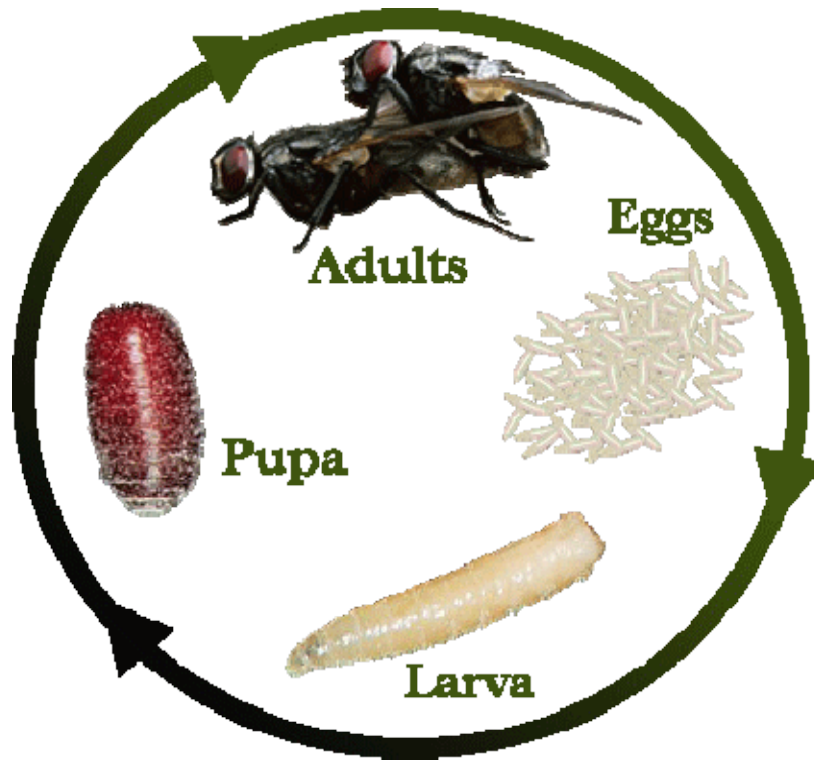


OREGON FEEDER INSECTS

<http://www.oregonfeederinsects.com>



The Common House Fly
Musca domestica

What is Musca Domestica?

F.L. Cockerum

<http://www.oregonfeederinsects.com/aboutproducts.html>

Musca domestica is one of the most widely distributed organisms on earth and occupies a basic position in the food chain. It is in every stage of its life cycle food for some other animal or plant. If for some reason an insect population fails, all that consume them suffer diminished fecundity and possible starvation. If the insect population is robust and the other myriad environmental factors aren't weakening the system, reproduction and survival can be wildly successful. Far from disgusting, this little bug is noble and is consumed with alacrity by Rothschild's Pheasants straight from the jungle, penny-sized frogs, aquarium & pond fish, and canaries captive-bred for generations. The housefly in its several forms will not fill every niche in live feeder insect use, but it will fill many better than anything else available so far.

Insect-eating birds are generally brought into peak breeding condition by eating the foods that are best suited for rearing their young. The effect of that food is not limited to just its nutritional value. Abundant availability of the right food has a positive effect beyond nutritional concerns and has real environmental and behavioral significance for captive breeding birds. Adult birds that have some live, soft wriggling larvae, knowing that their young will thrive on just such a food, seem to have a heightened sense of confidence that results in better and more fertile eggs. Since the attractive live larvae are exactly what the chicks need, they start eating far sooner than if left to figure out that they should peck a lethargic or headless beetle nymph or some grain compound. Another noticeable behavioral change with the use of dry fly pupae is a reduction in feather picking and cannibalism among adult birds.

As a feeder insect, the two most useful of the developmental stages of the housefly are the larvae (maggot) and the pupae (cocoon). They are simple creatures comprised of excellent material. Their substance, over a period of time as brief as one hundred hours, allows for the metamorphosis of a simple "eating machine" into a complicated and elegant master of the earth. That substance has valuable proteins, 18.5% in live larvae, and lipids. During metamorphosis amazing chemical changes take place. From larvae to pupae the Vitamin A content increases five and a half times, and Vitamin C, 12 times. A calcium to phosphorus ratio of 1:1 is supposed to be best for birds. In the most common feeder insects the C:P's are: cricket, 1:2, meal worm, 1:13.5, and housefly 1:3.4. A C:P ratio of 1:1 was achieved by Allen and Oftedal for crickets, and I regularly augment housefly larvae to 1:2.5.

But, all of that goodness is of little use if they are too difficult to find, use, control, or are too expensive. Use the correct feeding techniques, avoid overfeeding, and there will be no need to worry about the ambient fly population increasing. If properly handled, shipped and cared for, housefly larvae will keep well for up to three weeks. It is important that the fly larvae be raised on a vegetable diet. If the maggot eats meat, it may have contact with the bacteria associated with droopneck (*Clostridium botulinum*). A vegetable diet for the larvae eliminates this worry. Another application for the fly is as adult on the wing. If that is the case, like for certain waterfowl or reptiles, adult flies will emerge from live larvae if they are left to pupae in several days. In the eighteen years that I have studied and bred these amazing four-wingers, others have fed them out in all the stages and presentations I've mentioned above to nearly two hundred species of birds. The birds appeared to be healthier for it, producing more and better offspring. This fly is a splendid tool for the aviculturist. It works very well, is economical and the existing delivery system insures that they arrive in perfect condition. The informed use of *Musca domestica* in captive breeding programs is helpful in numerous ways.

Over the years I have developed quite a few processed foods for birds and fish that all contain a significant quantity of processed insect material. Unlike the manufacturers of most of the world's other bird and fish foods, we at Skipio's™ have had the ability to start with the insects to produce foods for insectivores rather than using a vegetable base source of nutrients. Some of our results follow as the [Skipio's™ Aviary Supplements](#) and [Wild Bird Food products](#). Further research and development of our work is continuing at our Oregon insectary.

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Product Analysis

Dehydrated *Musca domestica* Pupae

Count per pound	45,000	Amino Acid Profile	
Calories per gram	6.13	<input type="checkbox"/> Aspartic Acid	5.38%
Ca : P	1:3.375	<input type="checkbox"/> Threonine	2.33%
Crude Protein	55.5	<input type="checkbox"/> Serine	2.19%
Fat (EE)	19.2%	<input type="checkbox"/> Glutamic Acid	6.59%
Fiber ADF	17.5%	<input type="checkbox"/> Proline	2.08%
Fiber AL	3.4%	<input type="checkbox"/> Glycine	2.39%
Fiber NDF	4.6%	<input type="checkbox"/> Alanine	2.49%
Carbohydrate	7.8%	<input type="checkbox"/> Cystine	0.46%
Ash	6.9%	<input type="checkbox"/> Valine	2.54%
Selenium ug/g	2.0	<input type="checkbox"/> Methionine	1.35%
Copper ppm	46	Isoleucine	1.84%
Iron ppm	606	Leucine	3.30%
Zinc ppm	454	Tyrosine	2.81%
Maganese ppm	226	Phenylalanine	2.54%
Calcium	.40%	Lysine, Total	3.06%
Phosphorous	1.35%	Histidine	1.84%
Sodium	.90%	Arginine	2.65%
Magnesium	.36%		
Potassium	1.62%		
Vitamin A IU/100gm	2.89		
Vitamin B1 *	6.0		
Vitamin B2 *	18.3		
Vitamin C *	8.3		
Niacin *	17.6		