UK COOPERATIVE EXTENSION SERVICE
UNIVERSITY OF KENTUCKY — COLLEGE OF AGRICULTURE

INSECT CONTROL ON SWINE - 2007

ENT-23

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The information and directions for the use of these pesticides are not as complete as the product label and are intended to be used as guidelines only. Read the entire label before buying and using any pesticide. Check carefully for specific instructions and slaughter restrictions. Many insecticides are sold under brand names not listed in this publication. Check labels for the names of recommended active ingredients.

Lice

Lice are often found on jowls, legs, inside the ears, and on the underside of the body. These areas need to be covered thoroughly. A second treatment is usually needed to break the life cycle; the label will usually give a minimum retreatment interval. In come cases bedding treatments may be needed to control severe infestations.

Lice Insecticides Sprays and dusts -	Rate /50 gal Water	Days to slaughter	Notes
Atroban 11% EC/ Eciban 10% WDL/ Insectrin X, Permectrin II (permethrin)	See label – rates vary with product concentration.	5	14 day retreat
Co-Ral 1% D (coumaphos)	Ready-to-use	0	10 day retreat
Prolate/Lintox - HD 11.6% EC (phosmet)	2 qts	1	14 day retreat
Ectrin 5.7% EC (fenvalerate)	1 qt	5	14 day retreat
Rabon 50% WP Rabon 3% D (stirofos)	4 lb Ready-to-use	0 0	1-2 qts of spray/animal 3-4 oz of dust /animal
Taktic 12.2% EC (amitraz)	See label Use within 6 hrs of mixing.	3	Treat again in 10 to 14 days.

Lice Insecticides Pour-Ons	Rate	Days to slaughter	Notes
Permethrin Pour On, Synergized DeLice, SwineGuard Pour On (permethrin)	See label, rates vary with product concentration	5	4 fl oz per animal
Ectrin 10% WDL (fenvalerate)		1	
Tiguvon 3% PO (fenthion)	½ fl oz per 100 lbs	14 35 day retreat	May be used on gestating and lactating sows.
Point-Guard (amitraz)	See label	7	

Injection Ivomec 1% or Double Impact can be injected subcutaneously a dose of 1 cc per 75 pounds of body weight. There is an 18 day slaughter interval. Dectomax Injectable (doramectin) will control hog lice.

Mange Mites and Lice

Effective control of mange mites and lice on swine requires sound management practices as well as proper selection and application of insecticides. Mites and lice are spread by direct contact among animals within the herd. New animals added to the herd should be treated before coming in contact with other animals. Pens should be thoroughly cleaned and disinfected before introducing uninfested animals. Since mange can spread rapidly among new-born pigs, it is a good practice to treat boars before the breeding season and sows before farrowing. If an outbreak of lice or mange does occur in a herd, the entire herd should be treated.

The materials listed in the tables below are recommended for control of mange mites and lice. Products listed for mange mites will also effectively control lice. If lice are the only problem, additional insecticides may be used (see Lice on Animals table above). Sprays should be applied with equipment large enough to thoroughly wet the animals. A second treatment, 2 weeks after the first, may be needed to control newly emerged lice or mites. Sprays should be applied on a warm, sunny day so animals will dry rapidly. Dusts are generally less effective than sprays but can be used if only a few animals need treatment. Pour-ons and bedding/pen treatments are effective against lice and are recommended in cold weather when spraying is prevented. Always be sure to read and follow label directions, including pre-slaughter intervals. Do not contaminate feed or water. Follow label precautions against simultaneous use of these products with medications for internal parasite control.

Sprays and Dusts - Mange Mites

Insecticide	Rate / 50 gal water	Preslaughter Interval
Atroban 11% EC/Ectiban 5.7% EC/Permectrin II (permethrin)	See label	5 days 14 day retreat
Ectrin 10% WDL (fenvalerate)	1 qt	1 day 14 day retreat
Prolate Lintox-HD 11.6% EC (phosmet)	2 qt	1 day 14 day retreat
Taktic 12.5% EC (amitraz)	1 qt	3 days 7-10 day retreat

Injection Ivomec 1% or Double Impact can be injected subcutaneously a dose of 1 cc per 75 pounds of body weight. There is an 18 day slaughter interval. Use sterile equipment and sanitize the injection site with a suitable disinfectant. A 0.27% formulation is available for small pigs. Dectomax Injectable is labeled for mange mite control on swine.

Feed Through Ivomec Premix, at the rate of 2 parts per million in the feed for 7 consecutive days, can control mites and lice. Pigs may be slaughtered for consumption only after 5 days form the last treatment.

Pour-On Point-Guard (amitraz) is applied to the back line and ear with an applicator gun. There is a 7 day slaughter interval. SwineGuard (10% permethrin) is applied across the back of the head and ears, and down the back line at the rate of 3 ml per 100 pounds of body weight.

Lice (Bedding/Pen Treatments)

Insecticide	Mixing rate
Co-Ral 1% D	2 oz/30 sq ft of bedding
Rabon 3% D	1 lb/150 sq ft of bedding

Wound Treatment Catron IV (permethrin) can be used on swine to protect wounds from flies and maggots.

House Fly Control in and around Swine Facilities

Effective An on-going sanitation and manure management programs are is essential to maintaining fly populations at low levels. Manure, spilled feed, and wet bedding straw should be removed twice a weekly in order to interrupt the fly breeding cycle of flies. Manure should either be spread onto fields to dry or placed in lagoons to liquefy. Insecticides may be applied as residual sprays, non-residual knockdown or contact sprays, baits, or feed additives will provide only temporary relief unless breeding sites are eliminated. Always read and follow label directions.

Residual Fly Sprays

Insecticides may be applied as residual surface sprays, non-residual space sprays, baits, manure sprays, or feed additives. Always read and follow label instructions before applying insecticides for fly control. Treat walls, ceilings, posts, and other fly resting sites. Spray these areas thoroughly and to the point of runoff. In order to minimize control failures due to insecticide resistance, do not apply products the same insecticide, or insecticide within from the same chemical class (particularly pyrethroids), repeatedly throughout an entire season. See product labels for use rates. Rotation of pyrethroid and organophosphate insecticides can reduce the potential for development of resistance.

Synthetic Pyrethroid Insecticides	Organophosphate Insecticides
cyfluthrin - Countdown 2 EC or Countdown 20% WP	diazinon - Dryzon 50% WP
deltamethrin – Annihilator WP	naled - Fly Killer Dd
fenvalerate - Ectrin 10% WDL	stirofos - Rabon 50% WP
lambda-cyhalothrin - Grenade 10% WP	stirofos + vapona Ravap EC
permethrin - Atroban 25% WP or 11% EC, Ectiban 7% EC or WP, Expar, Gardstar, Insectaban, Insectrin X, Overtime, Permaban, Permectrin II 10% or 25% WP	**Spinosyn**
	spinosad Elector

Do not contaminate food, water or utensils with spray. Do not treat animals directly. Remove animals from barns when using Diazinon or Baytex. One gallon of spray treats 500-1,000 square feet, depending on the type of surface (See label directions). Apply to walls, ceilings and other fly resting sites. Alternate applications of pyrethroids and organophosphates. Residual fly spray materials listed above provide control for 1-7 weeks.

Fly Traps

Large numbers of flies can be caught in baited fly traps but the traps may not do not cause any significant reduction in total fly numbers. In addition, this approach does not thing to eliminate fly breeding sites. Electrocuting light traps may reduce house fly and stable fly numbers in closed buildings.

Contact sprays, fogs, or spaces sprays provide rapid but short-term control of flies present during treatment. Repeat as needed. Do not contaminate feed or water. Animals may be present during application but do not apply space sprays directly to livestock. In order to minimize control failures due to insecticide resistance, do not apply the same insecticide, or insecticide within the same chemical class (particularly pyrethroids), repeatedly throughout an entire season. It is best to alternate applications of pyrethroids (permethrin, pyrethrins) with organophosphates (naled, dichlorvos) to reduce the potential for insecticide resistance. See the label for use rates.

Contact Sprays, Fogs or Space Sprays House fly control
Ectiban 5.7% or Permectrin II (10%) (permethrin) Pyrethrins + synergist (several brands) Vapona Feedlot Spray 43.2% EC (dichlorvos)

Fly baits can be scattered where house flies congregate to provide some temporary reduction in numbers. Never use baits where cattle or other domestic livestock can eat them. Place baits in areas where flies congregate, such as window sills or doorways. Baits alone will not control fly populations. They should be used along with sanitation and other insecticidal methods (e.g., residual and space sprays). Baits containing the active ingredient methomyl include Apache, Fatal Attraction, Golden Malrin Fly Bait Plus, and Tailspin. Dipterex 1% Bait contains trichlorfon.

Active Ingredient Insecticide	Insecticide	Chemical Class
imidacloprid	Quick Bayt	chloronicotinyl
methomyl	Apache, Fatal Attraction, Golden Malrin Fly Bait Plus, Tailspin	carbamate
trichlorfon	Dipterex	organophosphate

Feed Additive - Rabon 7.76% Premix may be used as a feed additive for fly control. See the label for rates.

Summary of insecticides for use on swine

* A numerical classification system has been developed to make it easy to recognize the modes of action of insecticide products. Insecticides with the same mode of action belong to groups with unique numbers. Selection of a labeled product from a different number category (different mode of action) will help to slow down the development of resistance to either group. For example, alternate use of pyrethroid insecticides and pyrethrins sprays (Category 3) with labeled organophosphate insecticides (Category 1B).

Pesticide Common Name	Brand Name	Mode of Action Classification*	Slaughter Interval (days)
Amitraz	Point-Guard, Taktic	19	See label
Coumaphos	Co-Ral	1B	0
Deltamethrin	Annihilator	3	-
Dichlorvos	Vapona	1B	--
Famphur	Warbex	1B	35
Fenthion	Lysoff, Spotton, Tiguvon	1B	21 – 35 See label
Fenvalerate	Ectrin	3	1
Ivomectin	Ivomec	6	49
Methoprene	Altosid	7A	-
Naled	Dibrom	1B	-
Permethrin	Atroban, DeLice, Durasect, Ectiban, Expar, GardPermectrin, Insectrin	3	0
Phosmet	Prolate/Lintox-HD, Lintox,	1B	3
Pyrethrins	Pyrethrins	3	0
Spinosad	Elector	5	2
Stirofos	Rabon	1B	
Stirofos + Dichlorvos	Ravap	1B	1
Trichlorfon	Dipterex	1B	21