

**UCD VET VIEWS
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FLY CONTROL FOR BEEF CATTLE—2006

As I write this column in early April it is difficult to imagine when spring might arrive; but it will and soon after summer and the fly season will be upon us. With all the moisture, mild temperatures, and grass growth this could be a very bad fly season. Cattle pests, such as flies, cost cattlemen by increasing treatment costs, lost production, irritation to the cattle, and because of the diseases they can transmit. Fly infestations cost the U.S. cattle industries more than \$1.6 billion yearly. Horn flies alone cost cattle producers \$876 million a year. Horn flies are very stressful to cattle because they take 24 to 38 blood meals per day—per fly! California cattlemen report that face flies are the worst pests, followed by horn flies and stable flies.

Face flies, in addition to producing eye irritation due to their feeding behavior, serve as mechanical carriers of the causative agent of Pinkeye in cattle (infectious bovine keratoconjunctivitis [IBK] caused by the bacterium *Moraxella bovis*). Pinkeye consistently ranks as one of the top five most costly diseases in California beef cattle. Feeding by horn flies, stable flies, horse flies, and other bloodsucking flies mechanically transmits several disease organisms as well as causing irritation and decreased weight gains.

Both face flies and horn flies develop resistance to insecticides over time. For maximum prevention, it is advisable to switch the class of drug you use each year or two. If you used an organophosphate ear tag last year, use a pyrethroid ear tag this year. Additionally, if you plan to use a pyrethroid ear tag this year, use an organophosphate spray this year. Alternating the classes of drugs in this manner will increase the success of your preventive program. It is also recommended that application of ear tags be delayed until the fly population is relatively high so that the possibility of the flies developing resistance this year is lowered. Sprays, back rubbers, face rubbers, and dust bags can be helpful in reducing the fly populations early in the season, before ear tag application. Then, as the fly populations increase, apply the *fresh* ear tags to achieve maximum benefit. Always follow the manufacturer's label directions for ear tag application. If they call for two ear tags--use two ear tags! **If you need ear tags to prevent Pinkeye in the calves--use the tags in the calves. In the fall always remove the ear tags.** If the ear tags are left in the cattle the flies that over winter—particularly the face flies—will develop resistance to the drug you used and it will no longer be as effective.

Face flies and horn flies lay their eggs in cow manure and the larvae can **only** develop in cow manure. Therefore, some of the compounds that are fed or given orally that kill the larvae in the manure pat can be very effective. One example of this is the insect growth regulator methoprene. This compound is an insect growth regulator (IGR), which is safe, and resistance does not develop to this product. It can be used in “feed through” products, where the drug passes through the manure unchanged and kills the fly larvae in the manure. Other insecticide products are available that can kill the fly larvae when used as a “feed through”, such as Rabon. Rabon is an organophosphate and resistance can develop to this compound. Some of the eartags now contain a compound that increases the effectiveness of the insecticide. One of these compounds is piperonyl

butoxide (PBO) and it increases the activity of the primary insecticide in the ear tag. You may notice that a few of the products available last year are no longer on the market in California.

IMPORTANT DETAILS TO REMEMBER FOR FLY CONTROL AND PESTICIDE USE ARE:

1. Plan ahead for insecticide and ear tag purchases; fly season will arrive.
2. Consult with your veterinarian regarding active ingredient(s) in these products and their record of effectiveness in your area.
3. Always follow instructions, warnings, and precautions: these products can be toxic to you, your children, pets, and others working with them around the chute. Use disposable latex gloves when handling the ear tags. Keep the donuts and coffee away from the tags!
4. Follow label withdrawal times and keep records of treatment dates, products and lot numbers.

CALIFORNIA REGISTERED PESTICIDES FOR CATTLE: 2006

EAR TAGS

<u>PRODUCT NAME</u>	<u>ACTIVE INGREDIENT</u>	<u>CHEMICAL CLASS</u>	<u>MANUFACTURER</u>
Co-Ral Plus	Diazinon + Coumaphos	Organophosphate	Bayer
Cylence Ultra	beta-Cyfluthrin	Pyrethroid+PBO	Bayer
Diaphos R_x *	Diazinon + Chlorpyrifos	Organophosphate	Y-TEX
Double Barrel	Cyhalothrin + Pirimiphos	Organophosphate	Schering- Plough
Dominator	Pirimiphos	Organophosphate	Schering- Plough
GardStar Plus	Permethrin	Pyrethroid	Y-TEX
Max-Con	Cypermethrin + Chlorpyrifos	Pyrethroid + Organophosphate	Y-TEX
New Z Diazinon	Diazinon	Organophosphate +PBO	Farnam
New Z Permethrin	Permethrin	Pyrethroid	Farnam
Patriot	Diazinon	Organophosphate	Boehringer- Ingelheim
OPTimizer	Diazinon	Organophosphate	Y-TEX
Python & Python Magnum	Zeta-cypermethrin	Pyrethroid	Y-TEX
Saber Extra	Cyhalothrin	Organophosphate	Schering- Plough
Super Deckem II	Permethrin	Pyrethroid	Destron- Fearing
Warrior	Diazinon + Chlorpyrifos	Organophosphate	Y-TEX
Zeta Gard*	Zeta-cypermethrin	Pyrethroid	Y-TEX

***Available only through a licensed veterinarian.**

SPRAYS

<u>Active Ingredient</u>	<u>Example Brand Names</u>
Dichlorvos	Vapona
Permethrin	Ectiban, Permethrin, Atroban, Permethrin, Insectrin
Tetrachlorvinphos	Rabon
Tetrachlorvinphos-Dichlorvos	Ravap

POUR-ON APPLICATIONS

<u>Active Ingredient</u>	<u>Example Brand Names</u>
Cyfluthrin	Cylence
Fenthion	Lysoff
Permethrin	DeLice, Expar, Hard Hitter, Ectiban, Atroban, Ultraboss
Cyhalothrin	Saber

BACK RUBBERS AND FACE RUBBERS

<u>Active Ingredient</u>	<u>Example Brand Names</u>
Permethrin	Ectiban, Insectrin
Tetrachlorvinphos-Dichlorvos	Ravap

DUST BAGS

<u>Active Ingredient</u>	<u>Example Brand Names</u>
Permethrin	Permethrin, Ectiban
Tetrachlorvinphos	Rabon dust
Zeta-cypermethrin	Python

FEED-THROUGH INSECTICIDES

<u>Active Ingredient</u>	<u>Example Brand Names</u>
Tetrachlorvinphos	Rabon oral larvicide
Methoprene	IGR Mineral, Starbar

Please Note, the active ingredients are available under a number of brand names and those listed are examples only and not specific endorsements or recommendations. ALWAYS READ AND FOLLOW LABEL INSTRUCTIONS CAREFULLY.

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