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FEDERALLY REGISTERED PESTICIDES FOR VERTEBRATE PEST CONTROL

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INTRODUCTION

At the 1978 Vertebrate Pest Conference, Glenn Hood talked of vertebrate control chemicals, their registration status at that time, the rebuttable presumptions against registration and effects on users. He presented an overview of reregistration, classification, labeling, application certification, experimental use permits, emergency use and state registrations. Essentially, what he stated is as true today as when he addressed this conference. I'll try not to duplicate his fine presentation but rather give you an update about those long awaited for and somewhat controversial Guidelines for registering pesticides in the United States, the current status of strychnine and 1080 in the RPAR process, review briefly the latest congressional amendments to the Federal Fungicide, Insecticide and Rodenticide Act (FIFRA) under which EPA conducts its pesticide programs and, finally, give you a listing of the current federally registered pesticides for use in vertebrate pest control.

It is appropriate to first briefly review the function of EPA in the pesticide arena and outline the current organization. You are aware, of course, that EPA has a number of responsibilities: these include air, noise, radiation, water, waste management, pesticides, and toxic substances. The Agency is charged by Congress under FIFRA, as amended, to regulate the use of pesticides in the United States. To conduct this activity the Office of Pesticide Programs, within the Office of Pesticide and Toxic Substances is comprised of five Divisions:

Registration, Hazard Evaluation (HED), Benefits and Field Studies, Special Pesticide Review and Program Support. I am currently assigned to the Ecological Effects Branch of HED. The four other branches in HED are Toxicology, Environmental Fate, Residue Chemistry, and Health Effects. Of the 27 sections in FIFRA we deal routinely with Section 3 (Registrations), 5 (Experimental Use Permits), 18 (Emergency Use Permits, Crisis Exemptions), and 24(c) (State Special Local Needs).

GUIDELINES

I wish that I could announce to you that my Agency has published the final Guidelines for Registering Pesticides in the United States. For several years over 200 persons within the Agency have contributed to drafting these Guidelines to inform registrants and the public about the registration process, procedures to follow, and test standards and requirements for the many kinds of pesticide products. On June 25, 1975, the Agency first published proposed Guidelines for Registering Pesticides in the U.S. These proposed guidelines describe the kinds of data which must be submitted to satisfy requirements of the registration regulations. They include sections explaining the scope and the intent of the guidelines; detailing the product performance, hazard evaluation and chemistry data requirements for registration of a pesticide product, and providing guidance on proper label development. It is the intent of the Agency that Guidelines provide meaningful instruction to applicants, registrants, and the general public on the specific data requirements for registration of a pesticide product.

The Agency since 1975 has published four subparts: B, D, E and F which establish the requirements for product chemistry, environmental chemistry, fish and wildlife toxicity data and toxicology data for human and domestic animal safety evaluation.

In March 1980 three subparts (G, I and J) will be published as proposed. They deal with product performance, experimental use permits, and hazard evaluation to nontarget plants and microorganisms, respectively. Other subparts to be published in late 1980 involve label development, hazard evaluation to nontarget insects and proposed guidelines for registering biochemical and microbiological pesticides.

RPAR

There have been delays in the processing of some 50 pesticides involved in the Agency's "Rebuttable Presumption Against Registration" (RPAR). Recently the Special Pesticide Review Division rescheduled completion periods for a number of RPAR compounds. By October of this year position documents 2 and 3 are to be completed for both strychnine and 1080. For those of you not familiar with the RPAR process, it is one of gathering data, both on the hazards and the benefits of a particular chemical and use pattern. The process determines whether a particular pesticide will be afforded continued use as previously registered or requested to be registered, restricted use or cancellation and removal from the market. Section 162.11 (a) (3) (B), (C) of FR. Vol. No. 129 lists the criteria for determinations of unreasonable adverse effects of pesticides. An RPAR shall arise if a pesticide's ingredient(s), metabolite(s) or degradation product(s) meet or exceed certain criteria for risk. These include acute toxicity to humans and domestic animals, hazard to wildlife and chronic toxicity which can reasonably be anticipated to result in local, regional, or national population reductions of nontarget organisms, or fatality to members of endangered species. In the final analysis the benefits are weighed against the risks and the Administrator renders the ultimate decision. The outcome of the RPAR does not, as some imagine, mean automatic cancellation of a product. It may result in label amendments, changes in use patterns, dosage rates or restrictions as to who is authorized to handle the pesticide. There could be very little, or extensive, alteration in labeling. In any event, the RPAR process is intended to reduce environmental hazards in the use of pesticides.

CONGRESSIONAL AMENDMENTS TO FIFRA

As far as vertebrate pesticides are concerned, the September 1978 congressional amendments to FIFRA, apply primarily to the waiver of some pesticide efficacy requirements. However, they do not apply to those pesticides which may impact on public health, such as commensal rodenticides. Thus, efficacy data requirements remain in force for products used to control commensal rats and mice, potential rabies vectors (e.g., bats, skunks, raccoons, canids), significant plague vectors and birds in situations where potential threat of disease is a primary reason for control. However, the waiver of efficacy data for most pesticidal products is experimental. All, or some, waived requirements may be enforced at any time by the Administrator, if product failure is reported. A risk/benefit analysis will be conducted prior to conditional registration of all products which contain active ingredients that have been cancelled, suspended or are subject to RPAR proceedings.

Of the approximate 35,000 pesticides containing some 1400 active ingredients, only 1100 comprise the vertebrate pesticides. As Glenn Hood indicated two years ago, the number of new registrations for use in vertebrate pest control are few.

The appended tables show, by category, which products are currently registered. Anyone who wishes to inquire further about the status of any product should contact either William Miller or Dan Peacock of EPA's Office of Pesticide Programs, Registration Division/Insecticide, Rodenticide Branch at (202) 426-9458.

SUMMARY

Vertebrate pesticides include lethal agents; irritants; repellents based on odor, taste, post-ingestional psychophysiological reaction or pharmacological reaction; repellents based on mechanical action such as tackiness or stringiness; anesthetizing chemicals, reproductive inhibitors; and fumigants.

Vertebrate pesticides, properly used, can benefit man by controlling offending animals, whether rats or mice, gophers or prairie dogs, black birds or pigeons, starlings or gulls. However, vertebrate pesticides like all pesticides, if used improperly, can endanger man and nontarget species due to their toxicity. In addition, potential future hazards to human health and wildlife may be created by residues from some long lived pesticides that build up in the food chain and cause widespread contamination of the environment. The EPA endeavors to regulate pesticides under FIFRA to prevent misuse and adverse environmental effects.

Table 1. Federal registrations for sodium cyanide capsules in the M-44 ejector device to control predation to livestock (December, 1979).

	Registrant	Pest Species
1	U.S. Dept. of the Int. Fish and Wildlife Service	Coyotes, red fox, gray fox, wild dogs
2	Wyoming Dept. Agric.	" "
3	Montana Dept. Livestock	" "
4	Oregon Dept. Agric.	" "
5	Calif. Dept. Food & Agric.	coyotes
6	So. Dak. Dept. Game, Fish and Parks	coyotes, red fox, gray fox, wild dogs
7	Colorado Dept. Agric.	" "
8	M-44 Safety Pred. Control Co.	" "
9	Nevada Dept. Agric.	" "
10	New Mexico Dept. Agric.	coyotes and wild dogs
11	Texas Dept. Agric.	coyotes, red fox, gray fox, wild dogs
12	Navajo Nation (Fish and Wildlife Department)	" "
13	Wash. Dept. of Game	coyotes, wild dogs

Table 2. Federally registered commensal rodenticides for use in and around buildings; total products 514 (December, 1979).

Chemical	Number of Products	Type Product	Homeowner Restrictions
I. Multiple-dose chemicals	(438 products)		
1. Chlorophacinone	20	baits	no restrictions
	2	tracking powder	PCO* or Certified Applicator only
2. Diphacinone	75	baits	no restrictions
	1	tracking powder	PCO
3. Fumarin	40	baits	no restrictions
4. Pival	40	baits	no restrictions
5. PMP	5	baits and tracking powders	PCO
6. Talon	4	bait and place packs	no restrictions
7. Warfarin	250	baits	no restrictions
	1	tracking powder	PCO
II. Single-dose chemicals	(77 products)		
A. Baits & tracking powder	(55 products)		
1. ANTU (Norway rat only)	9	bait & tracking powder	PCO
2. Arsenic trioxide	1	bait 1.5% active or less	no restrictions
3. Compound 1080	1	bait	may not be used in home by anyone
4. Phosphorus	2	bait	no restrictions
	1	bait	may not be used in home by anyone
5. Red Squill (rat only)	15	bait	no restrictions
6. Strychnine (mouse only)	8	bait	Certified applicator
7. Zinc Phosphide	18	1-2% bait	no restrictions
		>2% concentrates for dilution	PCO

Table 2 (continued)

Chemical	Number of Products	Type Product	Homeowner Restrictions
B. Fumigants	(22 products)		
1. Calcium Cyanide**	2	powder	certified applicator
2. Hydrocyanic Acid	1	solid disk	certified applicator
3. Chloropicrin	6	liquid	PCO
4. Sodium Chlorate + Sodium Cyanide	1	solid	certified applicator
5. Gas Cartridge (rats only)	1	solid (2 parts)	no restrictions
6. Carbon Tetrachloride + Ethylene Dichloride + Paradichlorobenzene	1	liquid	no restrictions
7. Methyl Bromide	10	liquid	certified applicator

*PCO = Pest Control Operator
**may be temporarily unavailable

Table 2-A. Federal Registration of Mammal Control Pesticides Exclusive of Commensal Rodenticides (December, 1979).

Mammal	Arsenous oxide	Biomet-12	Calcium cyanide	Carbon disulfide	Carbon detrachloride	Endrin	Ethylene dichloride	Gas cartridge	Gophacide	Napthalene	Paradichlorobenzene	R-55	Sodium cyanide	Strychnine	Thiram	Zinc phosphide	Ziram
	Pesticide																
Cotton rats												x		x		x	
Coyote													x				
Ground squirrels				x	x		x	x			x			x			
Harvest mice						x										x	
Kangaroo rats														x			
Meadow voles						x								x		x	
Moles	x		x		x		x	x			x			x			
Muskrat																x	
Nutria																x	
Pine vole						x								x		x	
Pocket gophers	x			x			x	x	x					x			
-Northern									x			x		x			
-Plains									x			x		x	x		
Pocket mice						x											
Porcupine														x			
Prairie dogs								x						x			
-Black tailed														x		x	
-White tailed																x	
Rabbits										x					x		x
-Jackrabbit										x				x			
Skunks								x									
White-footed mice Peromyscus spp.						x								x		x	
Woodchuck			x					x						x			
Woodrats		x										x			x		

Table 3. Federally registered avian repellents separated into tactile, taste, and odor repellent categories.

Chemical	Percent Active	Product Name	Pest Species	Site	Method of Application
A. TACTILE REPELLENTS					
1. mineral oil 94.45 diakyl dimethyl 5.25 and alkyl benzyl dimethyl ammonium bentonite	99.7	Repel-O-Film	birds	outdoors ledges	hand
2. polybutenes hydrogenated castor oil	48.5 1.5	Bird Tanglefoot pressurized	birds	outdoors buildings	"
3. polybutenes hydrogenated castor oil	97 3	Bird Tanglefoot	birds	"	"
4. polybutenes polyethylene	95 5	Excelcide Bird Repellent	sparrows pigeon starlings	"	"
5. polybutenes hydrogenated castor oil	97 3	Hub States Bird Repellent	birds	"	"
6. polybutenes paloja resins petroleum solvents petrolatum	10 20 20 20 30	Guardian Ava-Tac	sparrows pigeon starlings	"	"
7. polybutenes mineral oil lithium sterate soap diphenylamine	 100	Grosley's Original "No- Roost" Bird Repellent	pigeons starlings	"	"
8. polisobutylene	95.5	Bird Stop	pigeons starlings	outdoors buildings	hand "
9. polisobulylene water kerosene	50.34 42.56 7.10	Roost No More Bird Repellent liquid	birds	outdoors buildings small trees indoors	
10. polybutenes and related alkenes	76	Roost No More Bird Repellent	pigeons starlings sparrows	outdoors buildings	"
11. polybutenes and related alkenes	96	Roost No More	piegons starlings	"	"
12. mineral oil calcium soap polyisobutylene zinc oxide	73 12 5	Bird-Ban	pigeons, sparrows starlings	"	"
13. polybutene	80	4 the Birds	pigeons sparrows	"	"
14. polybutene mineral oil lithium sterate soap diphenylamine	 100	Tower Grezall NP-4 Bird Repellent	birds	"	"
B. TASTE REPELLENTS					
1. lindane	75	Ortho Isotox Seed Treater (75)	pheasant	outside	seed treatment
2. lindane captan	25 12.5	Ortho Isotox Seed Treater (F)	"	"	"
3. coal tar creosote oil	62.67 31.33	Stanley's Crow Repellent	crow	"	"
4. copper oxate	4	Crow-Chex Repellent	crow	"	"
5. thiram	42	Arasan 42-5	birds	"	"

Table 3 (continued).

Chemical	Percent Active	Product Name	Pest Species	Site	Method of Application
6. endrin*	50	Red-top Endrin 50	birds	outside	seed treatment
7. measurol	50	Mesurol 50% Hopper-Box Treater	blackbirds	corn	"
8. measurol	75	Mesurol 75% Wettable Powder	robins, starlings, finches, grackles, sparrows, bluejays, cedar waxwings	cherries	sprayer
9. mesurol*	50	Hopkins Mesrepel	blackbirds	outdoor (corn)	seed treatment
10. mesurol*	50	Bonide Cro-x	"	"	"
11. mesurol*	18.75	Borderland Black	"	"	"
C. ODOR REPELLENTS					
1. naphthalene	100	Wil-Kil	pigeons sparrows	indoors	hand

*restricted

Table 4. Federally registered avian toxicants and chemiosterilants.

Chemical	Percent Active	Product Name	Pest Species	Site	Method of Application
AVIAN TOXICANTS					
A-1 4-Aminopyridine (Avitrol)	0.5	Avitrol Bird Trip	house sparrows pigeons blackbirds cowbirds	inside/ outside structures	hand spot treatment
A-2 "	0.5	Avitrol Wheat	sparrows blackbirds cowbirds	outside feedlots	"
A-3 "	1.0	Avitrol Pelletized Feed	starlings	inside/ outside structures	"
A-4 "	0.5	Avitrol Sorghum	sparrows blackbirds cowbirds	"	"
A-5 "	0.5	Avitrol Mixed Grain	"	"	"
A-6 "	1.0	Avitrol Double Strength Corn Crops	blackbirds cowbirds starlings	"	"
A-7 "	0.5	Avitrol Corn Crops	sparrows blackbirds cowbirds	"	"
A-8 "	0.5	Avitrol Whole Corn	pigeons	inside/ outside structures	hand spot treatment
A-9 "	1.0	Double Strength Whole Corn	crows	outdoors feeding areas	"
A-10 "	0.8	Avitrol Corn Chops peanut butter	starlings	outdoors feedlots	"
A-11 "	25	Avitrol Concentrate	gulls	outdoors feeding areas	"

Table 4(continued).

Chemical	Percent Active	Product Name	Pest Species	Site	Method of Application
A-12 4-Aminopyridine (Avitrol)	50	Avitrol Powder Mix	starlings	outdoors cattle feed-lots	hand spot treatment
A-13 "	0.3	Avitrol Corn Chops-99	starlings blackbirds cowbirds	outdoors ripening sweet and feed corn	air or ground
A-14 "	0.3	Avitrol F C Corn Chops 1-10 Concentrate	reformulation repacking	n/a	n/a
A-15 "	.03	Avitrol F C Corn Chops -99S	red-winged blackbird yellow-head blackbird common grackle starlings	sunflowers	broadcast air high clearance
B-1 Endrin*	91.4	Rid-A-Bird Control Liquid	starling english sparrow pigeon	outdoors/ indoors buildings pipeyards loading docks bridges	
C-1 Fenthion (entex)	"	Rid-A-Bird 1100	"	"	
D-1 Starlicide	1	Purina Starlicide	starlings blackbirds	outdoors (livestock and poultry operations)	
D-2 "	97	Purina Starlicide Technical	n/a	n/a	
D-3 "	0.1	Purina Starlicide Complete	starlings blackbirds	outdoors (livestock & poultry operations)	
D-4 "	98	Compound DRC-1339	starlings blackbirds	outdoors (livestock & poultry operations (concentrate for reformulating use only)**	
D-5 "	98	1339 Gull Toxicant 98% Concentrate	herrings, great black-backed gulls	coastal area of northeastern U.S. near breeding area of colonial nesting birds**	
E-1 Strychnine*	0.6	Ehrlich's Pigeon Bait Poison Grain	pigeon	outdoors (buildings)	hand
E-2 "	0.6	Ehrich's English Sparrow Bait Poison Grain	house sparrows	"	"
E-3 "	0.6	Poisoned Grain	pigeon	"	"
E-4 "	0.6	Guardian Strych-nine Whole Grain Poisoned Grain	pigeon	"	"
E-5 "	0.6	Sparrow-Cracks	house sparrow	"	"
E-6 "	0.6	Pigeon-9	pigeon	"	"

Table 4 (continued).

Chemical	Percent Active	Product Name	Pest Species	Site	Method of Application
F-1 Compound PA-14**	99.5	Compound PA-14 Stressing Agent	blackbirds starlings cowbirds	outdoor roost	by air
AVIAN CHEMOSTERILANTS					
A-1 20,25 diazacholestenol dihydrochloride	0.112	Ornitrol	pigeons	outdoor ground	hand

*restricted
**for use by U.S. Fish & Wildlife Service personnel trained in bird control or persons under their direct supervision

Table 5. Federally registered tracking powders for the control of rats and mice.

Chemical	Company Name, Address	For Control of Norway Rat	Roof Rat	House Mouse	Indoor Use Only	Method of Application Tracking Patches	Foot/Power Duster	PCO Use Only
Multiple-dose Rodenticides								
1. 0.2% Chloro-phacinone	Chempar Chemical Co., Inc. 260 Madison Ave., N.Y., N.Y. 10016	YES	YES	YES	YES	?	?	YES
2. 0.2% Diphaci-none	Velsicol Chemical Co., 341 E. Ohio St., Chicago, IL 60611	YES	YES	YES	?	YES	No	Yes
3. 2.18% PMP	American Fluoride Corp. 17 Hunting-ton Place, New Rochelle, N.Y. 10801	YES	YES	YES	?	?	Yes	Yes
4. 2.18% PMP	Motomco, Inc. Clark, N.J. 07066	YES	YES	YES	?	Yes	No	No
5. 2.18% PMP	Clarence Board and Sons, Inc., 105 E. Commercial, Leon, IA 50144	YES	YES	YES	Yes	No	Yes	
6. 1.0% Warfarin	Prentiss Drug and Chemical Co., 3637 7th Ave., N.Y., N.Y. 10001	YES	YES	YES	Yes	Yes	No	Yes
7. 0.2% Chloro-phacinone	Chempar Chemical Co., Inc. 260 Madison Ave., N.Y., N.Y. 10016	YES	YES	YES	Yes	Yes	No	Yes
Single-dose Rodenticides								
8. 20% ANTU	American Fluoride	YES	NO	NO	No	Yes	Yes	No
9. 92% ANTU	American Fluoride	YES	NO	NO	No	Yes	Yes	No
10. 25% ANTU	Master Laboratory Beaver Falls, PA 15010	YES	NO	NO	No	Yes	Yes	No
11. 92% ANTU	Fine Organics, Inc., 205 Main St., Lodi, NJ 07644	YES	NO	NO	No	?	?	No
12. 20% ANTU	Insect Control Sales and Service, 341 E. Fulton St., Ephrata, PA 17522	YES	NO	NO	No	Yes	Yes	No
13. 20% ANTU	Stephenson Chemical Co., Inc., Box 87188 College Park, GA 30337	YES	NO	NO	No	?	Yes	Yes

Table 5 (continued).

Chemical	Company Name, Address	For Control of Norway Rat	Roof Rat	House Mouse	Indoor Use Only	Method of Application Tracking Patches	Foot/Power Duster	PCO Use Only
14. 92% ANTU	Hub States Chemical & Equipment Corp., Indianapolis, IN 46202	YES	NO	NO	No	Yes	Yes	No
15. 0.2% Scilliroside	MGK, 8810 10th Ave. N., Minn., MN 55427	NO	NO	YES	Yes	Yes	No	No
16. 10% Zinc Phosphide*	Bell Laboratories Madison, WI 53705	NO	NO	YES	Yes	Yes	No	Yes

*restricted

Table 6. Federally registered pesticides for vertebrate control separated by use groupings.

ANTICOAGULANTS

- Chlorophacinone
- Diphacinone
- Fumarin
- Pival
- PMP
- Prolin
- Talon
- Warfarin

BAT TOXICANT

- DDT**

BAT REPELLENT

- Naphthalene

BIRD CHEMOSTERILANT

- Ornitrol

BIRD REPELLENT (ODOR)

- Naphthalene

BIRD REPELLENTS (TACTILE)

- Aromatic petroleum solvents
- Castor oil
- Diphenylamine
- Mineral oil
- Petrolatum
- Polybutane
- Polyethylene
- Resins
- Zinc oxide

BIRD REPELLENTS (TASTE)

- Captan
- Coal tar
- Copper oxalate
- Endrin
- Lindane
- Mesurol
- Thiram

BIRD TOXICANTS

- Aminopyridine
- Endrin
- Fenthion
- Starlicide
- Strychnine

DOG ATTACK REPELLENTS

- Allyl isothiocyanate
- Capsaicin
- Diethanolamide condensate of coconut oil
- Triethanolamine salt of lauryl sulfate
- Methylene choride

DOG AND CAT REPELLENTS

- Allyl isothiocyanate
- Amyl acetate
- Anethole
- Bittrex*
- Blood*
- Bone oil
- Capsaicin
- Citral
- Citronella
- Citrus oil
- Cresylic acid*
- Essential oils
- Eucalyptus
- Geranium oil
- Lavender oil
- Lemongrass oil
- Menthol
- Methyl nonyl ketone
- Methyl salicylate
- Naphthalene
- Nicotine
- Paradichlorobenzene
- Pentanethiol*
- Pyridine
- Thiram
- Thymol
- Ziram

DEER REPELLENTS

- Bone oil
- Putrescent whole egg solids
- Thiram
- ZIP

FISH AND LAMPREY TOXICANTS

- Antimycin A
- Bayluscide
- Rotenone
- TFM

Table 6 (continued).

FUMIGANTS

- Calcium cyanide+
- Carbon disulfide
- Carbon tetrachloride
- Chloropicrin
- Ethyl dichloride
- Gas cartridges
- Hydrocyanic acid
- Methyl bromide
- Paradichlorobenzene
- Sodium cyanide

MOLE REPELLENTS

- Paradichlorobenzene
- Thiram

MOLE TOXICANTS

- Arsenic trioxide
- Strychnine
- Zinc phosphide

RABBIT REPELLENTS

- Blood
- Naphthalene
- Nicotine
- Thiram
- ZIP

RABBIT TOXICANTS

- Strychnine

RODENT REPELLENTS

- Biomet-12
- Endrin
- Naphthalene
- Polybutenes
- R-55
- Thiram

RODENT ACUTE TOXICANTS

- Antu
- Arsenic trioxide
- Endrin
- Fluoroacetamide
- Gophacide
- Phosphorus
- Red squill
- Sodium fluoroacetate
- Strychnine
- Zinc phosphide

*Dog repellent claims only
**For use where rabies has been documented through Center for Disease Control, Atlanta, GA.
+may be temporarily unavailable

Table 7. Vertebrate pesticides registered as intrastate products (total of 783 products)*.

Chemical	Total No. Products In Category	Number of Products
I. CHEMOSTERILANTS	0	
II. MULTIPLE-DOSE TOXICANTS	297	
1. Chlorophacinone		27
2. Diphacinone		104
3. Pival		47
4. PMP		0
5. Fumarin		39
6. Warfarin		58
7. Warfarin + Sulfaquinoxaline		22
III. SINGLE-DOSE TOXICANTS	465	
A. Mammal, Bird and Reptile Toxicants (463)		
1. 4-aminopyridine		9
2. Arsenious oxide		5
3. Compound 1080		50
4. Endrin		2
5. Fumigants		24
6. Gophacide		1
7. Red Squill		4
8. Sodium fluoride		1
9. Starlicide		6
10. Strychnine		277
11. Sulfur		0
12. Toxaphene		1
13. Zinc phosphide		83

Table 7 (continued)

Chemical		Total No. Products In Category	Number of Products
B. Fish Toxicants			
1. Rotenone	(2)		2
IV. REPELLENTS	(8)	21	
A. Dog and Cat Repellents			7
B. Dog Attack Repellents			1
C. Mammal and Bird Repellents	(13)		
1. Polybutenes			3
2. Misc. taste			10

*Does not include 24-c registrations