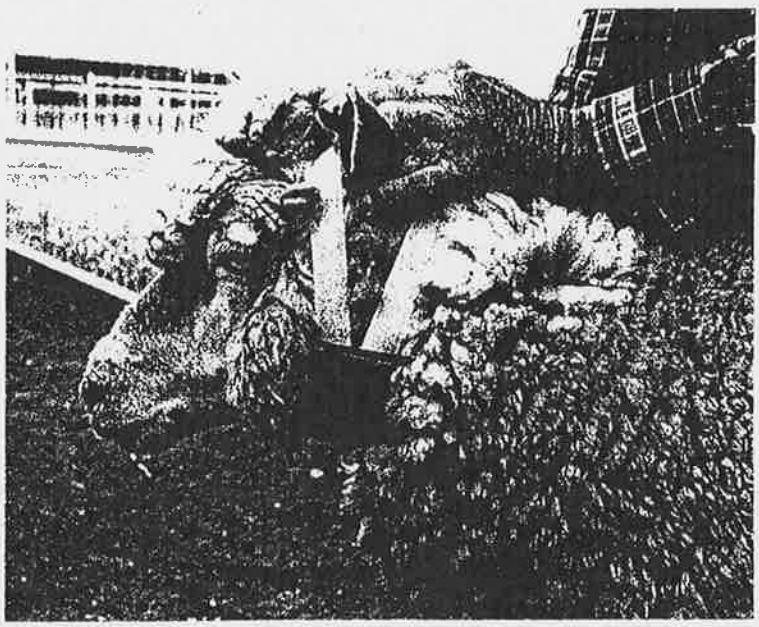
USING THE LIVESTOCK PROTECTION COLLAR IN COYOTE DAMAGE MANAGEMENT



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TECHNICAL BULLETIN FOR APPLICATOR USE OF THE LIVESTOCK PROTECTION COLLAR

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CHAPTER 1
Criteria for Applicators of Compound 1080 Livestock Protection Collars

Applicators of Compound 1080 Livestock Protection Collars, hereinafter Collars, will meet the standards for the general commercial applicator. As the only approved label for collars is the national USDA-APHIS-Wildlife Services product, all applicators will be under the direct supervision of Wildlife Services. All applicators will also be certified by UDAF. Applicators certified for use of Collars must meet the following requirements:

- Read and understand label and labeling information, including all use restrictions.
- Recognize the technical name, sodium fluoroacetate, and understand the basic properties of Compound 1080.
- Recognize potential hazards to humans, domestic animals and to non-target wildlife.
- Recognize general symptoms of poisoning by Compound 1080 in humans and domestic animals and take appropriate action.
- Understand the requirements for direct supervision of non-certified applicators checking collared livestock.
- Recognize situations where Collars can be expected to be safe and effective in addition to being aware of alternative means of control.
- Keep required records on use of Collars.
- Make required reports of suspected poisoning of non-target species and suspected poisoning of humans or domestic animals to the appropriate State regulatory agency or EPA.
- Distinguish between damaged Collars that can be repaired or those that must be disposed of properly.
- Make appropriate repairs to damaged Collars prior to reuse or dispose of properly.
- Properly dispose of animal remains, vegetation or soil contaminated by a punctured Collar.
- Safely handle and store Collars.
- Post and maintain required bilingual warning signs at logical points of access to areas where Collars are in use.
- Perform weekly or more frequent inspection of Collars in use.

A. DEFINITIONS

1. Acute Predacide - Requires only a single dose of toxicant to obtain the desired effect.

2. Animal Damage Control - Removing the number of predators to tolerable densities. (A successful predator control program is the reduction of economic loss to acceptable levels).

3. Bait Shyness - A learned aversion to either toxicant or food items of a toxic bait.

4. Biological Control - An attempt to reduce the population of a species by introducing epizootics (diseases), manipulating the habitat, and/or increasing natural predation.

5. Carnivore - Flesh eating animals.

6. Endangered Species - A species whose prospects for survival and reproduction are in immediate jeopardy. Endangered species are those protected under the Endangered Species Act.

7. Feral - Any animal that has escaped from domestication and is living in a wild state.

8. Integrated Control - A management system that uses all suitable techniques and methods to maintain pest animals at levels below economic injury.

9. Predacide - Any substance or mixture of substances use to repel, destroy, or mitigate predators. Oral toxicity of a toxicant is expressed as: Milligrams of toxicant per kilogram of body weight, (mg/kg).

10. Predator - An animal that habitually preys upon other animals.

11. Preservation - The maintenance of a species at a desired level, in the perpetuation and wise use of natural resources.

12. Scavenger - An animals that principally feeds on carrion (dead animals) or garbage.

CHAPTER 2
Rule R68-7. Utah Pesticide Control Act.
As in effect on December 1, 2002

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R68-7-1. Authority.

Promulgated under authority of Section 4-14-6.

R68-7-2. Registration of Products.

All pesticide products distributed in Utah shall be officially registered annually with the Utah Department of Agriculture and Food.

(1) Application for registration shall be made to the department on forms prescribed and provided by them and shall include the following information:

(a) The name and address of the applicant and the name and address of the person whose name will appear on the label, if other than the applicant.

(b) The name of the pesticide.

(c) A complete copy of the label which will appear on the pesticide.

(2) The department may require submission of the complete formula of any pesticide if it is deemed necessary for administration of the Utah Pesticide Control Act. If it appears to the department that the composition of the product is such as to warrant the proposed claims for it, and if the product and its labeling and any other information which may be required to be submitted comply with the requirements of the act, the product shall be registered.

(3) The registrant is responsible for the accuracy and completeness of all information submitted concerning application for registration of a pesticide.

(4) Once a pesticide is registered under the Act, no further registration is required: Provided that,

(a) the product remains in the manufacturer's or registrant's original container; and

(b) the claims made for it, the directions for its use, and other labeling information do not differ in substance from the representations made in connection with the registration.

(5) Whenever the name of a pesticide product is changed or there are changes in the product ingredients, a new registration shall be required. Other labeling changes shall not require re-

registration, but the registrant shall submit copies of all changes to the department as soon as they are effective.

(6) Whenever a registered pesticide product is to be discontinued for any reason, except when suspended or canceled by the U.S. Environmental Protection Agency (EPA), the Utah Department of Agriculture and Food requires said product to be registered for two years from date of the notice of discontinuation. When a product is found in commercial trade after the discontinuation period, the department will require that the registrant register said product as outlined in Chapter 14, Utah Pesticide Control Act, 4-14-3(1).

(7) The department may exempt any pesticide that is determined either (1) to be adequately regulated by another federal agency, or (2) be of a character which is unnecessary to subject to Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA).

(8) A registrant who desires to register a pesticide to meet special local needs pursuant to Section 24(c) of FIFRA shall comply with Section 4-14-3 of the Utah Pesticide Control Act.

(9) No registration is required for a pesticide distributed in Utah pursuant to an experimental use permit issued by the EPA or under Section 4-14-5 of the Utah Pesticide Control Act.

(10) A registration fee determined by the department, pursuant to Subsection 4-2-2(2), shall be paid annually for each product, regardless of the number of products registered per applicant.

(11) Each registration is renewed for a period of one year upon payment of the annual renewal fee determined by the department, pursuant to Subsection 4-2-2(2). It shall be paid on or before June 30 of each year. If the renewal of a pesticide registration is not received prior to July 1 of that year, an additional fee determined by the department pursuant to Subsection 4-2-2(2), shall be assessed and added to the original registration fee and shall be paid by the applicant before the registration renewal for that pesticide shall be issued.

R68-7-3. Product Labeling.

(A) Each container of pesticide distributed in Utah shall bear a label showing the information set forth in Section 4-14-4.

(B) All pesticide labels shall contain statements, words, graphic material, and any other information required by the EPA.

R68-7-4. Classification of Pesticides.

The commissioner shall classify all pesticide products registered in Utah for "restricted use" or "general use" according to standards consistent with Section 3 of FIFRA. The commissioner shall consider all pesticides and uses classified as restricted by the EPA to be restricted in the State of Utah. He may also restrict the use of additional pesticides if he finds that the characteristics of such pesticides require that their uses be restricted to prevent damage to property other than the property to which they are directly applied or to persons, animals, crops or vegetation other than the pests which they are intended to destroy. Individuals not appropriately certified are prohibited from using restricted-use pesticides, with the exception of those competent individuals working under the direct supervision of a certified private applicator.

R68-7-5. Classification of Pesticide Applicators.

Pesticide applicators shall be classified as commercial, non-commercial, or private applicators according to the following criteria:

(1) Commercial Applicator - any person who uses any pesticide for hire or compensation.

(2) Non-commercial Applicator - any person working as an individual or an employee of a firm, entity or government agency who uses or demonstrates the use of any restricted-use pesticide and who does not qualify as a private applicator, nor require a commercial applicator's license.

(3) Private Applicator - any person or his employer who uses or supervises the use of any restricted- use pesticide for the purpose of producing any agricultural commodity on property owned or rented by him or his employer or (if applied without compensation other than trading of services between producers of agricultural commodities) on the property of another person.

R68-7-6. Categorization of Pesticide Applicators.

Applicators shall be categorized in one or more of the categories defined below, based on the application site and the type of work they perform.

(1) Agricultural Pest Control.

(a) Plant. This category includes applicators using pesticides to control pests in the production of agricultural crops including, but not limited to, field crops, vegetables, fruits, pasture, rangelands, and non-crop agricultural lands.

(b) Animal. This category includes applicators using pesticides on animals including, but not limited to, beef and dairy cattle, swine, sheep, horses, goats, poultry, and to places on or in which animals inhabit. Doctors of veterinary medicine or their employees engaged in the business of applying pesticides for hire, publicly representing themselves as pesticide applicators or engaged in large-scale use of pesticides, are included in this category.

(2) Forest Pest Control. This category includes applicators using pesticides in forests, forest nurseries, and forest seed-producing areas.

(3) Ornamental and Turf Pest Control. This category includes applicators using pesticides to control pests in the maintenance and production of ornamental trees, shrubs, flowers and turf. This includes controlling pests on home foundations, sidewalks, driveways, and other similar locations.

(4) Seed Treatment. This category includes applicators using pesticides on seeds.

(5) Aquatic Pest Control.

(a) Surface Water: This category includes applicators applying pesticides to standing or running water, excluding applicators engaged in public health-related activities included in R68-7-6(8).

(b) Sewer Root Control: This category includes applicators using pesticides to control roots in sewers or in related systems.

(6) Right-of-Way Pest Control. This category includes applicators using pesticides in the maintenance of public roads, electric power lines, pipelines, railway rights-of-way, or other similar areas.

(7) Structural and Health-related Pest Control. This category excludes any fumigation pesticide application and is limited to applicators using pesticides in, on, or around food handling establishments; human dwellings; institutions, such as schools and hospitals; industrial establishments, including warehouses, storage units and any other structures and adjacent areas,

public or private; to control household pests, fabric pests, and stored-product pests and to protect stored, processed and manufactured products. This category includes vertebrate pest control in and around buildings.

(8) Public Health Pest Control. This category includes state, federal, or other governmental employees or persons working under their supervision applying or supervising the use of restricted-use pesticides in public- health programs for the management and control of pests having medical and public-health importance.

(9) Regulatory Pest Control. This category is limited to state and federal, employees or persons under their direct supervision, who apply pesticides in a mechanical ejection device, a protective collar, or other methods to control regulated pests.

(10) Demonstration, Consultation and Research Pest Control. This category includes individuals who demonstrate or provide instruction to the public in the proper use, techniques, benefits and methods of applying restricted-use pesticides. This category includes, but is not limited to agricultural field representatives, extension personnel, commercial representatives, consultants and advisors, and persons conducting field research with restricted-use pesticides. In addition, they shall meet the specific standards that may be applicable to their particular activity.

(11) Aerial Application Pest Control. This category includes applicators applying pesticides by aircraft. Aerial applicators are required to be certified in the Aerial-Application Pest-Control Category and any other categories of intended application.

(12) Vertebrate Animal Pest Control. This category includes applicators applying pesticides in the control of vertebrate pests outdoors, such as rodents, birds, bats, predators or domestic animals.

(13) Fumigation/Stored-Commodities Pest Control. This category includes applicators using fumigants to control pests in soils, structures, railroad cars, stored grains, manufactured products, grain elevators, flour mills, and similar areas and items.

(14) Wood-Preservation Pest Control. This category includes applicators who apply wood-preservative pesticides to wood products, such as fence posts, electrical poles, railroad ties, or any other form of wood products.

(15) Wood-Destroying Organisms Pest Control. This category includes applicators using pesticides to control termites, carpenter ants, wood-boring or tunneling insects, bees, wasps, wood-decaying fungi and any other pests destroying wood products.

R68-7-7. Standards of Competence for Certification of Applicators.

Applicators must show competence in the use and handling of pesticides according to the hazards involved in their particular classification by passing the tests and becoming certified as outlined in R68-7-8. Upon their becoming certified, the department will issue a license which will qualify an applicator to purchase and apply pesticides in the appropriate classification.

Standards for certification of applicators as classified in R68-7-4 have been established by the EPA and such standards shall be a minimum for certification of applicators in the State of Utah.

(1) Commercial and Non-Commercial Applicators.
Commercial and non-commercial applicators shall demonstrate practical knowledge by written examination(s) of the principles and practices of pest control and safe use, storage and transportation of pesticides, to include the general standards applicable to all categories and the standards specifically identified for each category or subcategory designated by the applicant, as set forth in 40 CFR, Section 171.4 and the EPA approved Utah State Plan for certification of

pesticide applicators. In addition, applicators applying pesticides by aircraft shall be examined on the additional standards specifically identified for this method of application as set forth herein.

(a) Aerial Application. Additional Standards.

Applicators shall demonstrate by examination practical knowledge of pest control in a wide variety of environments. These may include, but are not limited to, agricultural properties, rangelands, forestlands, and marshlands. Applicators must have the knowledge of the significance of drift and of the potential for non-target injury and the environmental contamination. Applicators shall demonstrate competency as required by the general standards for all categories of certified commercial and non-commercial applicators. They shall comply with all standards set forth by the Federal Aviation Administration (FAA) and submit proof of current registration by that agency as a requirement for licensing as an aerial applicator.

(b) Exemptions. The standards for commercial and non-commercial applicators do not apply to the following persons for purposes of these rules:

(1) Persons conducting laboratory-type research involving pesticides; and

(2) Doctors of medicine and doctors of veterinary medicine applying pesticides or drugs or medication during the course of their normal practice and who do not publicly represent themselves as pesticide applicators.

(2) Private Applicators. Private applicators shall show practical knowledge of the principles and practices of pest control and the safe use of pesticides, to include the standards for certification of private applicators as set forth in 40 CFR Section 171.5. In addition, private applicators applying restricted-use pesticides by aircraft shall show practical knowledge of the additional standards specifically identified for that method of application in R68-7-6(11) of these rules.

(3) Supervision of Non-Certified Applicators by Certified Private Applicators.

(a) A certified private applicator who functions in a supervisory role shall be responsible for the actions of any non-certified applicators under his instruction and control.

(b) A certified private applicator shall provide written or oral instruction for the application of a restricted-use pesticide applied by a non-certified applicator under his supervision when the certified applicator is not required to be physically present. If an applicator cannot read, instructions shall be given in a language understood by the applicator. The instructions shall include procedures for contacting the certified applicator in the event he is needed.

(4) The certified applicator shall be physically present to supervise the application of a restricted-use pesticide by a non-certified applicator if such presence is required by the label of the pesticide being applied.

R68-7-8. Certification Procedures.

(A) Commercial Applicators.

(1) License Required. No person shall apply any pesticide for hire or compensation to the lands of another at any time without becoming certified and obtaining a commercial applicator's license issued by the department. Application for such a license shall be made in writing on an approved form obtained from the department and shall include such information as prescribed by the department. Each individual performing the physical act of applying pesticides for hire or compensation must be licensed. A license fee determined by the department, pursuant to Subsection 4-2-2(2), shall be assessed at the time of certification and recertification.

(2) Written Examination. An applicant for a commercial pesticide license shall demonstrate competency and knowledge of pesticide applications by passing the appropriate written examinations. Examination and educational- material fees determined by the department,

pursuant to Subsection 4-2-2(2), shall be assessed at the time of certification and recertification. Any person applying to become certified or recertified must demonstrate the ability to: (a) read and understand three or more sets of pesticide label directions, copied or transcribed from pesticide containers randomly chosen by division personnel, and (b) demonstrate the mixing and application of pesticides in a safe way. All applicants for a commercial applicator license must pass the general examination and the examination(s) pertaining to the category(s) for which they desire to be licensed. Certification examinations shall be conducted by representatives of the commissioner by appointment. A score of 70 or above is required to pass any written examination. A score of less than 70 on the general standards or category examinations shall result in denial of certification of that test. A person must pass the general and at least one category examination before becoming certified. An applicant scoring less than 70% on any examination may retake the test again the same day, schedule permitting.

(3) License Issuance. If the department finds the applicant qualified to apply pesticides in the classifications applied for and for which the prescribed fee(s) have been paid, the department shall issue a commercial applicator's license. The license shall expire December 31 of each year unless it has been revoked or suspended prior by the commissioner for cause, which may include any of the unlawful acts given in R68-7-11. If an application for a commercial license is denied the applicant shall be informed of the reason. The applicator is required to have their license in their immediate possession at all times when making a pesticide application. If the license has been lost or misplaced and a duplicate is requested from the Department of Agriculture and Food, a fee determined by the department pursuant to Subsection 4-2-2(2), must be paid before a replacement license will be issued.

(4) License Renewal, Recertification.

(a) A license will be renewed without examination if the renewal notice is received by the Utah Department of Agriculture and Food of prior to January 1 of any year.

(b) If the renewal notice is received after January 1 but before (March 1), individuals will be required to pay the late fee, and no re-examination will be required.

(c) If the renewal notice is received after March 1, individuals will be required to recertify according to the original pesticide-applicator certification procedures.

Each license shall expire on December 31 of the year of its issuance. Commercial applicators may voluntarily pay a triennial license fee in lieu of the annual license fee. Commercial applicators must recertify every three years, and be subject to re-examination at any time. Information that may be required to insure a continuing level of competence and ability to use pesticides safely and properly due to changing technology, and to satisfy certification requirements as described herein, or meet any other requirements specified by the commissioner shall be added to this rule as often as necessary.

(d)Recertification options:

(i) Complete the original certification process of taking the required general and category test(s) and passing each required test with a score of 70% or above or;

(ii) Attend approved recertification courses and pass the required category examinations with a score of 70% or above or;

(iii) Participate in approved continuing education courses and accumulate 24 credits during the valid three years of certification.

(5) Records Maintained. Commercial applicators shall keep and maintain records of each pesticide application. These records must be recorded within 24 hours after the pesticide application is made. These application records must include the following information:

(a) Name and address of property owner;

(b) Location of treatment site, if different from (a);

(c) The month, day and year when the pesticide was applied;

(d) Brand name of pesticide, EPA registration number, rate of pesticide applied per unit area and total amount of pesticide used;

(e) Purpose of application;

(f) The name, address and license number of the certified applicator who applied the pesticide.

Such records shall be kept for a period of two years from the date of application of the pesticide and shall be available for inspection by the commissioner's designee at reasonable times. The commissioner's designee shall, upon request, be furnished a copy of such records by the commercial applicator.

(6) Exemption.

The provisions of this section relating to licenses and requirements for their issuance do not apply to a person applying pesticides for his neighbors provided he operates and maintains pesticide application equipment for his own use, is not engaged in the business of applying pesticides for hire or compensation, does not publicly represent himself as a pesticide applicator, and operates his pesticide application equipment only in the vicinity of his owned or rented property for the accommodation of his neighbors; provided, however, that when such persons use a restricted-use pesticide, they shall comply with the certification requirements specified herein.

(B) Non-Commercial Applicators.

(1) License Required. No non-commercial applicator shall use or demonstrate the use of any restricted-use pesticide without becoming certified and obtaining a non-commercial applicator's license issued by the department. Application for such license shall be made in writing on an approved form obtained from the department and shall include such information as is prescribed by the department. Each individual performing the physical act of applying restricted-use pesticides must be licensed.

(2) Written Examination. An applicant for a non-commercial pesticide license shall demonstrate to the department competency and knowledge of pesticides and their applications by passing the appropriate written examinations. Examination and educational-material fees determined by the department pursuant to Subsection 4-2-2(2), shall be assessed at the time an individual takes the general and category tests. All applicants for a non-commercial applicator license must successfully pass a general examination based upon standards applicable to all categories. After passing the general examination, applicants must pass the examination(s) pertaining to the category(s) for which they desire to be licensed. Certification examinations shall be conducted by representatives of the commissioner by appointment. A score of 70 percent or above is required for passing any written examination. A score of less than 70 percent on the general or category examinations shall result in denial of certification in that category. A person must passs the general and at least one category examination before becoming certified. An applicator scoring less than 70 percent on any examination may retake the test again the same day, schedule permitting. Any person applying to become certified or recertified must demonstrate the ability to: (a) read and understand three or more sets of pesticide label directions, copied or transcribed from pesticide containers randomly chosen by division personnel, and (b) demonstrate the mixing and application of pesticides in a safe way.

(3) License Issuance. If the department finds the applicant qualified to apply pesticides in the classification(s) applied for, the department shall issue a non-commercial applicator's license limited to such activities and classifications applied for. A prescribed examination and educational material fees shall be required. The applicator is required to have his/her license in his/her immediate possession at all times when making a pesticide application. If the applicator

losses or misplaces their license and requests a replacement from the Department of Agriculture and Food, a fee will be charged as determined by the department pursuant to Subsection 4-2-2(2), and must be paid before a replacement license will be issued. The license shall expire December 31, three calendar years after the issuance of the certification, unless it has been suspended or revoked by the commissioner for cause, which may include any of the unlawful acts given in R68-7-11. If an application for a non-commercial license is denied the applicant shall be informed of the reason.

(4) License Renewal, Recertification. Non-commercial applicators must recertify every three years, and be subject to re-examination at any time. Information that may be required to insure a continuing level of competence and ability to use pesticides safely and properly due to changing technology, and to satisfying certification requirements as described herein, or any other requirements specified by the commissioner shall be added to this rule as often as necessary.

Recertification options are:

(a) Complete the original certification process of taking the required general and category test(s) and passing each required test with a score of 70% or above or;

(b) Attend approved recertification courses and pass the required category test(s) with a score of 70% or above or;

(c) Participate in approved continuing education courses and accumulate 24 credits during the valid three years of certification.

(5) Records Maintained. Non-commercial applicators shall keep and maintain records of each application of any restricted-use pesticides. These application records must be recorded within 24 hours after the pesticide application is made. These records must include the following information:

a) Name and address of property owner;

(b) Location of treatment site, if different from (a);

(c) The month, day and year when the pesticide was applied;

(d) Brand name of pesticide, EPA registration number, rate of pesticide applied per unit area, and total amount of pesticide used;

(e) Purpose of application;

(f) The name, address, and license number of the certified applicator who applied the pesticide.

Such records shall be kept for a period of two years from the date of application of the pesticide and shall be available for inspection by the commissioner's designee at reasonable times. The commissioner's designee shall, upon request, be furnished a copy of such records by the non-commercial applicator.

(6) Exemption. The provisions of this section shall not apply to persons conducting laboratory research involving restricted-use pesticides as drugs or medication during the course of their normal practice.

(C) Private Applicators.

(1) License Required. No private applicator shall purchase, use or supervise the use of any restricted-use pesticide without a private applicator's license issued by the department. Issuance of such license shall be conditioned upon the applicator's complying with the certification requirements determined by the department as necessary to prevent unreasonable adverse effects on the environment, including injury to the applicator or other persons. Application for a license shall be made in writing on a designated form obtained from the department.

(2) Certification Methods. Any person applying to become licensed must demonstrate the ability to: (a) read and understand three or more sets of pesticide label directions, copied or transcribed from pesticide containers randomly chosen by division personnel, and (b)

demonstrate the mixing and application of pesticides in a safe way. All first-time Private Applicators must successfully pass a written test. A score of 70 percent or above is required for passing any written test. A score of less than 70 percent will result in the denial of certification.

(3) Emergency-Use Permit. A single restricted-use pesticide may be purchased and used by a non- certified person on a one-time-only basis if an emergency control situation is shown to exist. Before purchasing the product, the applicant shall participate in a discussion concerning safe use of the specific product with a representative of the Utah Department of Agriculture and Food. Following an adequate discussion of same, the Department of Agriculture and Food may issue the applicant a permit to purchase and use the product on a specific site on a one-time-only basis. The applicant shall be required to become certified before being authorized to further purchase and use restricted-use pesticides.

(4) License Issuance. If the department finds the applicant qualified to apply pesticides, the applicant shall be issued a private applicator's license. Examination and educational-material fees determined by the department pursuant to Subsection 4-2-2(2), shall be assessed at the time of certification and recertification. The license issued by the commissioner shall expire on December 31, three calendar years after issuance, unless the license has been revoked or suspended by the commissioner. If an application for a private license is denied, the applicant shall be informed of the reason. If the license has been lost or misplaced and a duplicate is requested from the Department of Agriculture and Food, a fee determined by the department pursuant to Subsection 4-2-2(2), must be paid before a replacement license will be issued.

(5) License Renewal, Recertification. A person applying to recertify must demonstrate the ability to : (a) read and understand three or more sets of pesticide label directions, copied or transcribed from pesticide containers randomly chosen by division personnel, and (b) demonstrate the mixing and application of pesticides in a safe way. All certified private applicators must recertify every three years, or more frequently if determined necessary by the department, by satisfying any of the following procedures or any other requirements specified by the department.

(a) Training Course. Completion of a training course approved by the Utah Department of Agriculture and Food which may require passing a written test with a score of 70% or above or;

(b) Self-Study Program. Successful completion of an approved written test. A passing score of 70 percent or above is required or;

(c) Written Examination. Successful completion of an approved written test. A score of 70 percent or above is required to pass or;

(d) Accumulate nine credits of approved continuing education during the valid three years of certification.

(D) Employees of Federal Agencies. Federal Government Employees wishing to be certified in Utah shall be required to qualify as non-commercial applicators by passing the appropriate examinations, unless such requirement is waived upon presentation of adequate evidence of certification in the appropriate categories from another state with comparable certification requirements. In the event a federal agency develops an applicator certification plan which meets the Utah certification standards, employees of that agency who become certified under that plan may qualify for certification in the State of Utah.

(E) Certification of Out-of-State Applicants.

When a pesticide applicator is certified under an approved state plan of another state and desires to apply pesticides in Utah, he/she shall make application to the department and shall include, along with the proper fee and any other details required by the Act or these rules, a true copy of his credentials as proof of certification in the person's state of residence and a letter from that

state's department of agriculture stating that he/she has not been convicted of a violation of any pesticide law and is currently licensed as a pesticide applicator in that state. The department may upon review of the credentials, issue a Utah certification to the applicator in accordance with the use situations for which the applicator is certified in another state without requiring determination of competency; provided that the state having certified the applicator will similarly certify holders of Utah licenses or certificates and has entered into a reciprocal agreement with the State of Utah. Out-of-state pesticide applicators who operate in Utah will be subject to all Utah laws and rules.

R68-7-9. Dealer Licensing.

(A) In order to facilitate rules of the distribution and sale of restricted-use pesticides, it is necessary to license dealers who dispense such materials.

(1) License Required.

It shall be unlawful for any person to act in the capacity of a restricted-use pesticide dealer, or advertise as, or presume to act as such a dealer at any time without first having obtained an annual license from the department. A license shall be required for each location or outlet located within this state from which such pesticides are distributed; provided, that any manufacturer, registrant or distributor who has no pesticide dealer outlet licensed within this state and who distributes a restricted-use pesticide directly into this state shall obtain a pesticide dealer's license for his principal out-of-state location or outlet; provided further, that any manufacturer, registrant or distributor who sells only through or to a pesticide dealer is not required to obtain a pesticide dealer's license.

(2) License Issuance. Application for a pesticide dealer's license shall be on a form prescribed by the department and shall be accompanied by a license fee determined by the department pursuant to subsection 4-2-2(2). If the department finds the applicant qualified to sell or distribute restricted-use pesticides and the applicant has paid the prescribed license fee, the department shall issue a restricted-use pesticides dealer's license. Pesticide dealers may voluntarily pay a triennial license fee in lieu of the annual license fee. This license shall expire December 31 of each year, unless it has been previously revoked or suspended by the commissioner for causes which may include any of the unlawful acts included in R68-7-11.

(3) License Renewal. License-renewal fees are payable annually before January 1. Pesticide dealers may voluntarily pay a triennial license fee in lieu of the annual license fee. If the renewal of a pesticide dealer's license is not received prior to January 1 of any one year, an additional fee determined by the department pursuant to Subsection 4-2-2(2), shall be assessed and added to the original license fee and shall be paid by the applicant before the license renewal shall be issued.

(4) Records Maintained. Each dealer outlet licensed to sell restricted-use pesticides shall be required by the department to maintain a restricted-use pesticide sales register by entering all restricted-use pesticide sales into the register at the time of sale. A register form, provided by the department, shall include the following information:

(a) The name and address of the purchaser.

(b) Brand name of restricted-use pesticide purchased.

(c) EPA registration number of restricted-use pesticide purchased.

(d) Month, day and year of purchase.

(e) Quantity purchased.

(f) Signature and license number of the purchaser, pesticide category, expiration date of license, or signature of purchaser's agent (uncertified person) if letter of authorization is on

file. Letter of authorization must include names of agents, signature and license number of purchaser.

Such records shall be kept for a period of two years from the date of restricted-use pesticide sale and shall be available for inspection by the commissioner's designee at reasonable times. The commissioner's designee, upon request, shall be furnished a copy of such records by the restricted-use pesticide dealer.

(5) Exemption. Provisions of this section shall not apply to: (a) a licensed pesticide applicator who sells restricted-use pesticides only as an integral part of his pesticide application service when such pesticides are dispensed only through equipment used for such pesticide application (b) Federal, state, county, or municipal agency which provide restricted-use pesticides only for its own programs shall be exempt from the license fee but must meet all other requirements of a pesticide dealer.

(6) Responsible for Acts of Employees. Each pesticide dealer shall be responsible for the acts of each person employed by him in the solicitation and sale of restricted-use pesticides and all claims and recommendations for use of restricted-use pesticides. A dealer's license shall be subject to denial, suspension or revocation for any violation of the Pesticide Control Act or rules promulgated thereunder, whether committed by the dealer or by the dealer's officer, agent, or employee.

R68-7-10. Transportation, Storage and Disposal of Pesticides and Pesticide Containers.

No person shall transport, store, or dispose of any pesticide or pesticide containers in such a manner as to cause injury to humans, vegetation, crops, livestock, wildlife or beneficial insects or to pollute any waterway in a manner harmful to any wildlife therein.

R68-7-11. Unlawful Acts.

Any person who has committed any of the following acts is in violation of the Utah Pesticide Control Act or rules promulgated thereunder and is subject to penalties provided for in Sections 4-2-2 through 4-2-15:

(1) Made false or fraudulent claims through any media misrepresenting the effect of pesticides or methods to be utilized;

(2) Applied known ineffective or improper pesticides;

(3) Operated in a faulty, careless or negligent manner;

(4) Neglected or, after notice, refused to comply with the provisions of the Act, these rules or of any lawful order of the department;

(5) Refused or neglected to keep and maintain records required by these rules, or to make reports when and as required;

(6) Made false or fraudulent records, invoices or reports;

(7) Engaged in the business of applying a pesticide for hire or compensation on the lands of another without having a valid commercial applicator's license;

(8) Used, or supervised the use of, a pesticide which is restricted to use by "certified applicators" without having qualified as a certified applicator;

(9) Used fraud or misrepresentation in making application for, or renewal of, a registration, license, permit or certification;

(10) Refused or neglected to comply with any limitations or restrictions on or in a duly issued license or permit;

(11) Used or caused to be used any pesticide in a manner inconsistent with its labeling or rules of the department if those rules further restrict the uses provided on the labeling;

(12) Aided or abetted a licensed or an unlicensed person to evade the provisions of the Act; conspired with such a licensed or an unlicensed person to evade the provisions of the Act; or allowed one's license or permit to be used by another person;

(13) Impersonated any federal, state, county, or other government official;

(14) Distributed any pesticide labeled for restricted use to any person unless such person or his agent has a valid license, or permit to use, supervise the use, or distribute restricted-use pesticide;

(15) Applied pesticides onto any land without the consent of the owner or person in possession thereof; except, for governmental agencies which must abate a public health problem.

(16) Applied pesticides known to be harmful to honeybees on crops on which bees are foraging during the period between two hours after sunrise and two hours before sunset; except, on property owned or operated by the applicator.

(17) For a commercial or a non-commercial applicator to apply a termiticide at less than label rate.

(18) For an employer of a commercial or non-commercial applicator to allow an employee to apply pesticide before that individual has successfully completed the prescribed pesticide certification procedures.

(19) For a pesticide applicator not to have his/her current license in his/her immediate possession at all times when making a pesticide application.

(20) To allow, through negligence, an application of pesticide to run off, or drift from the target area to cause plant, animal, human or property damage.

DO'S AND DON'TS FOR THE LIVESTOCK PROTECTION COLLAR

DO

Read the label and instructions before using collars.

Plan how to target coyotes to your collared animals before using collars.

Use the appropriate size of collar: small collar for 15-50 lb. animals, large collar for animals over 50 lbs.

Be sure to position collars correctly (See Section I.D.2.).

Check and repair fences if necessary before putting collared animals in pasture.

Notify neighbors that collars can be hazardous to free-ranging pets.

Keep warning signs in place as long as collars are being used (See Section II, 10).

Check collared animals weekly or more often to be sure that all are present and collars are in position and not punctured (See Section II, 11).

Properly dispose of all collars, animals, vegetation, soil, water, leather clothing, and containers contaminated by 1080 (See Section II, 13 and 14).

Report any suspected poisoning of nontarget animals or humans (See Section II, 6).

Minimize human activity in pastures where collars are being used.

Keep records up-to-date as directed in the labeling (See Section II, 5).

Take collars off when predation has stopped, or is not expected to occur.

Store collars properly when not in use (See Section II, 15).

Wear waterproof gloves when handling the collars.

Wash your hands with soap and water after handling collars.

DON'T

Waste time by placing collared animals where coyotes won't attack them.

Use collars if your livestock can be protected more easily or economically by other measures.

Use so few collared animals that coyotes won't find them.

Use more than twenty (20) collars in any 100-acre or smaller pasture, or more than fifty (50) collars per section (640 acres) of pasture (See Section II, 17).

Use collars on unfenced, open range (See Section II, 8).

Use contaminated animals for food or feed (See Section II, 19).

Use leaking or damaged collars (See Section II, 12).

Remove toxicant from collar (See Section II, 7).

Use until you have consulted Section II, 16, for those counties where its use has been prohibited or requires written permission from the local office of Endangered Species, Fish and Wildlife Service.

SECTION I
USER INSTRUCTIONS

A. INTRODUCTION AND THEORY

The Livestock Protection Collar (LP Collar), invented by Roy McBride of Alpine, Texas, exploits the coyote's habit of killing sheep and goats by bites to the throat. As described in McBride's U.S. Patent No. 3,842,806 (issued in 1974), coyotes that attack collared livestock usually bite through the collars and receive oral doses of the contents. When used with a toxicant such as sodium fluoroacetate (Compound 1080), Livestock Protection Collars kill the attacking coyotes. Collars may be applied only by specifically certified Livestock Protection Collar applicators or persons under their direct supervision (See Section II, 2). This Technical bulletin is part of the EPA-approved labeling and contains detailed instructions for safe and effective use of LP Collars.

Coyotes' attacking and feeding behavior do not seem to be affected by the presence of LP Collars. Attacking coyotes usually kill and feed upon collared animals just as they would if no collar were present. After a lethal dose of sodium fluoroacetate (Compound 1080) has been ingested, symptoms of intoxication typically do not appear for two or more hours. Death occurs from two to seven hours (average 4 hours 20 minutes) after the collar is punctured.

When LP Collars are used properly, coyotes may puncture them in 75 percent or more of their attacks. A 100 percent puncture rate is unlikely to be achieved because coyotes sometimes attack body sites other than the throat. Effective use of LP Collars requires not only that collars be positioned correctly, but also that coyote attacks be directed or targeted to collared livestock. Targeting may be difficult or impossible under some conditions. If coyotes are killing less than once per week, the collar technique may be impractical. Collars are recommended for ranches with high rates of coyote predation and management conditions that permit effective targeting of predations to collared livestock.

Experienced persons usually can evaluate local conditions quickly to decide whether or not collars will be effective. In addition to the basic problem of targeting, other factors to consider in deciding whether or not to use collars include availability and effectiveness of other control methods; costs of collars; labor requirements to collar and monitor livestock; potential hazards of collars to humans, domestic animals including pets, and nontarget wildlife; and severity of predation.

B. TOXIC PROPERTIES OF SODIUM FLUOROACETATE (COMPOUND 1080)

Compound 1080 is highly toxic to warm-blooded animals, including man, when taken internally. Humans are not likely to be poisoned except by ingestion of LP Collar contents.

Based on available estimates of toxicity (0.7-2.1 mg/kg) one LP Collar contains approximately 2 to 6 lethal doses for a 150-pound man. Before using collars, read the label (Appendix A) and the Use Restrictions in this Technical Bulletin (Section II) carefully.

The toxic solution in the LP Collars contains a yellow dye (tartrazine) which is used as a safety marker. Punctured, damaged, or broken collars together with clothing, animal remains, vegetation, soil, or other materials marked by this dye must be cleaned and disposed of in accordance with the label and Sections I.D.5. and II: I3 of this Technical Bulletin. Collars with minor damage to straps or fastenings may be repaired by applicators as long as the toxicant reservoirs have not been punctured and do not leak.

Compound 1080 is hazardous to domestic animals including livestock and pets. Dogs are particularly susceptible. In field studies, dogs have died after they attacked collared livestock and punctured the collars. As little as 0.1 ml of LP Collar contents may be fatal to a 25-pound dog. Dogs could be poisoned by scavenging the carcasses of collared livestock. Therefore, to minimize the potential hazard to dogs, promptly dispose of all livestock carcasses as well as coyote carcasses suspected of being poisoned by Compound 1080 according to instructions in this bulletin.

Pen studies have shown that an adult sheep can be fatally poisoned by eating forage containing as little as 1 ml of 1080 solution from LP Collars. Although no livestock appeared to have been poisoned by eating contaminated vegetation during the 5 years of field testing, it could happen. Therefore, contaminated forage must be disposed of as directed on the product labeling.

C. DESCRIPTION OF COLLARS

The LP Collar is a rubber bladder that contains a solution of Compound 1080, with neck straps for attachment to a sheep or goat. The type of collar used most up to 1985 has two Velcro neck straps (0.75 inches wide and 22-25 inches long on new collars). Three-strap models also are available and are intended for use on goats. Each collar has two toxicant reservoirs that contain 150 mg (0.15 grams) of sodium floroacetate (active ingredient). Each collar contains a total of 300 mg (0.3 grams) of sodium floroacetate (active ingredient).

LP Collars of two sizes are available. The small collar is intended for lambs and kids weighing from 15 to 50 pounds; the larger for sheep and goats weighing more than 50 pounds. LP Collars are not recommended for small animals (under 25 lbs.). A small collar, properly placed on a lamb is shown in.

D. MANAGEMENT OF COLLARS ON SHEEP AND GOATS

1. Things to do before putting LP Collars on livestock:

a. Be sure you have enough LP Collars (see Section E).

b. Inspect all LP Collars for leaks and inspect straps to be sure they are securely

attached. Do not use leaking or torn collars or collars on which the straps are coming loose. Loose straps may be reattached by sewing.

c. Check the fence around the pasture where collared animals are to be placed and repair as necessary to keep animals within the pasture.

d. Establish locations for warning signs, and be sure you have enough signs (see use restriction 10).

e. Inform neighbors of your intent to use LP Collars and advise them of the potential hazards to free-roaming dogs.

f. If ear tags or other marks are to be used, have the tags and related equipment on hand.

g. Have an emetic (1-ounce bottle of syrup of ipecac) available when LP Collars are to be handled. Also have a few good-quality plastic bags or other leak proof containers on hand for packaging damaged collars.

h. Select and pen the target flock (animals to be collared).

2. Attaching Collars

a. Hold collars up to the necks of target livestock to determine the size of collar needed for each animal. The rubber portion of the collar should come up to the ear. If the collar is too small, there will be an unprotected region below each ear. This will result in a lower puncture rate than would be obtained with collars of proper size.

b. One person can put collars on livestock, but the task is much easier for a two-person team. One person holds each animal while the other attaches its collar. To attach a collar, hold it in position under the animal's throat. Tighten the rear strap over the animal's neck just behind the ears and fasten it temporarily. Then tighten the front strap over the head between the eyes and ears and fasten it securely. Straps should be positioned to keep the rubber part of the collar directly below the ear . On goats with horns, the front straps may pass in front of both horns or in front of one horn and behind the other. If necessary, use string or twine to tie the front strap to one or both horns to keep the collar in position. Once the front strap is in position, readjust the rear strap if necessary and secure it. If the straps are longer than needed, a knife or scissors can be used to trim off the excess. Fasten the strap ends by stapling.

c. LP Collar straps must be tight enough to prevent collars from slipping out of position, but not so tight as to choke the animal or cause sores. Each strap should be loose enough that the applicator can insert two fingers between the strap and the animal. Collars stay in place well on animals with wool or mohair, but may be difficult to keep in position on newly shorn or slick-necked animals, particularly goats. Head and neck conformation varies among animals and it may be impossible to keep collars in place on some individuals. They should be taken out of the collared flock.

d. A suitable method of permanently identifying individual animals in a target flock is required to keep track of LP collared livestock. One such method is the use of numbered ear tags. Tags that can be read from a distance of 50 feet or more are most useful. If you are using ear tags, attach them before the animal is collared.

e. When the LP Collar is in place, release the animal into a corral or other confined area and observe it carefully. Listen for labored breathing that may indicate the collar is too tight. When first released, collared sheep and goats often shake their heads, rub or make other attempts to rid themselves of the collars. This behavior will stop within a few hours if collars are not too tight. After you are satisfied that the collars are properly attached, move collared animals to the desired location.

f. Place warning signs at logical points of access, (See Section 11.10).

g. After handling LP Collars, wash your hands with soap and water.

3. Monitoring collared livestock

a. Once collared animals are in the desired location, the pasture should be checked every 7 days or more often if frequent predation is expected. During each check, try to locate each animal and observe collars to be sure they are in position. If the collar has slipped out of position, catch the animal and reposition its collar. Inspect each animal's neck for yellow dye which could indicate a punctured or leaking collar. If the dye is seen, catch the animal and check the collar. Replace any damaged or leaking collars. See the label and Section I.D.5 and Section II.12 of this Technical Bulletin. Collars on small kids or lambs may require periodic adjustment to allow for growth.

b. When searching for collared livestock, watch for both animal carcasses and congregations of scavenging birds that could indicate the locations of carcasses. Whenever you visit a pasture, record the identity of each collared animal seen. Check each warning sign weekly to insure it is in place and is legible.

Based on experienced gained in research studies, you will not see each collared animals every time you visit large, brushy pastures. Any animal not accounted for in two consecutive checks may be dead. An intensive search for it must be made. In addition, if more than three collared animals are not accounted for during any one check, an intensive search for these animals is required. Pastures must be systematically searched in their entirety or until the missing animals are located.

c. If more than nine collars and/or collared animals are unaccounted for during any 60-day period, remove all collars from animals and terminate their use. Seek technical advice if necessary to determine and correct the cause(s) of collar loss. Collar use may be resumed after adequate steps have been taken to prevent further, excessive loss of collars, (See Section IUI).

d. Routine checks of LP collared livestock are difficult if the animals are secretive or wild. Feed concentrates can be used to train animals to come to you or your vehicle.

This facilitates the identification and inspection of collared livestock. It also helps to have a few tame animals in the collared flock. Binoculars may be useful for inspecting collared livestock from a distance.

e. Infrequently, LP collars may be missing from carcasses of sheep or goats killed by coyotes. In research studies, missing collars appeared to have been carried or dragged away by coyotes. Some were found as far as a half mile away from kill sites, but about half of the missing collars were never recovered. Coyotes sometimes cache (hide or bury) them. When ever a collar is missing, make a reasonable effort to find it. (See Section 11.1 1).

f. If you see any animal other than the target animals (coyotes) that you think may have been poisoned, report it promptly to the Utah Department of Agriculture and Food. Any suspected poisoning of threatened or endangered species must be reported immediately. (See Section II. 6).

4. Handling collars and contaminated animal remains, vegetation, clothing, water and soil:

a. The toxic solution in the small LP Collars contains a yellow dye, tartrazine, which is used as a marker for the presence of 1080 on punctured, damaged, or broken collars; on clothing, animal remains, vegetation, soil, or other materials; and in water. Always use waterproof gloves when handling collars or any materials known to be contaminated by 1080.

b. Inspect carcasses of collared animals to determine the cause of death. When the carcasses are fresh (within 24 hours after death), coyote kills usually are obvious. Remove punctured collars carefully and examine the punctures. Holes made by coyote teeth usually can be distinguished from accidental punctures. When collars are punctured by cactus thorns, the thorns sometimes remain in the holes.

c. If the LP Collar was punctured, remove it carefully to minimize leakage and place in a leak proof plastic bag or other container for transport to your disposal site. If necessary, double bag the collar to prevent leakage. Examine the carcass for contamination as indicated by the yellow dye. Cut away the contaminated parts for disposal along with the punctured collar, (See Section II. 12-13). Dispose of what remains of the carcass using your normal practice. Cut or dig up contaminated forage and soil and place them in a leak proof container for transport to the disposal site.

d. If the LP Collar was not punctured, the applicator can reuse it on another animal. Dispose of the carcass using your normal practice. No special handling of the carcass is required. If an unpunctured collar has only minor damage to the straps or fasteners, the applicator may repair it.

e. When predation has stopped, or when LP Collars are to be taken off for other reasons such as shearing, gather the collared flock into a corral. Hold each animal and inspect its collar for punctures. Loosen the neck straps and pull them free. Do not pull so hard you rupture the collar. It may be necessary, particularly with Angora goats, to use a

knife or scissors to free collar straps from the animals' hair. Clean unpunctured collars as necessary and return them to locked storage until you need them again.

f. If clothing becomes contaminated with 1080 solution, remove it promptly. Wash clothes before wearing them again. Contaminated leather clothing, including gloves and footwear, should be disposed of in the same manner as contaminated animal remains because pesticides cannot be easily cleaned from leather (See Section II. 13).

5. Disposal of damage LP Collars and other contaminated materials.

a. Damaged, punctured or leaking LP Collars, contaminated animal remains, vegetation, soil, water, and leather clothing must be properly disposed of. The preferred method is by deep burial under 3 feet of soil in a safe field location at least one-half mile from human habitations and water supplies. For disposal on the ranch, it may be convenient to drill several deep holes using a mechanized post hole auger, or to make a trench with a backhoe. Then, as waste materials are produced, they can be dropped into the hole or trench and covered with earth. Not more than 10 collars may be buried in any one hole. If buried in a trench, each group of 10 collars must be at least 10 feet apart.

Incineration may be used instead of burial for disposal in the field (preferably on property owned or managed by the applicator) at least ½ mile from human habitation and water supplies. Place collars and waste (listed above) in an incinerator or refuse hole, saturate with diesel fuel, and ignite. Attend the burn until the contaminated material is completely consumed.

Alternatively, contact your State Pesticide or Environmental Control Agency or the Hazard Waste representative at the nearest EPA Regional Office for guidance in disposing of wastes at approved hazardous waste disposal facilities.

b. When snow or frozen ground make on site disposal impractical, up to one cubic foot of wastes may be stored in a leakproof container, in a dry, locked place for up to 90 days.

E. DIRECTING COYOTE PREDATION TO LP COLLARED LIVESTOCK

1. General Comments

The process of directing coyote predation to collared livestock is called targeting. Knowledge of targeting is still in its infancy and should improve as more people gain experience with LP Collars. Three different approaches or targeting strategies are described here. Ranchers and predation control specialists are encouraged to apply these methods as necessary to achieve the best results in their own circumstances.

2. Targeting Strategies

a. Place LP Collars on vulnerable livestock. Collaring all sheep or goats on a ranch would solve the targeting problem. This strategy has not been tested due to the cost of collars and the large number that would be required in large flocks (over 100 animals). Nevertheless, in small flocks (50 or fewer animals) it may be practical to collar all the lambs or kids. In flocks with 50 to 100 lambs or kids, it may be worthwhile to collar the smallest 20 to 50 individuals. Do not use more than 20 collars in any pasture under 100 acres, or more than 50 collars per square mile of fenced pasture.

b. Use target (LP Collared) flocks. When coyotes are killing in particular pastures, remove all vulnerable livestock. Place 20 to 50 collared lambs or kids with their mothers in the pasture while all other vulnerable animals are penned at night or moved elsewhere. Add uncollared adult sheep or goats to the target flock to increase its total size to 50 or 100 head. If coyotes have been killing adult sheep or goats in the area, both adults and kids in the target flock should be collared. Remove collars 30 days after predation ceases, or when the risk of predation has abated.

   This was the strategy used in most field tests and is the usual approach when LP Collars are introduced onto a ranch where depredation is in progress. This strategy also can be employed by placing collared flocks in vacant pastures one or two months before large bands of sheep or goats arrive.

c. Collar vulnerable individuals in large flocks. Coyotes usually prefer kids or lambs to adult goats or sheep. Experience with Angora goats has shown that if a few collared kids are placed in wether[1] flocks (5-10 collared kids per 100 uncollared adults), coyotes will select the kids. As this strategy has not been tested on sheep, it is not recommended on sheep at this time.

3. Mistakes in Targeting

As with any new technique, one must learn how to use LP Collars before optimum results can be expected. Following is a list of some mistakes commonly made by persons learning this technique:

a. Placing collars where effective targeting cannot be expected. In an example, 20 lambs were collared in a ewe-lamb flock containing hundreds of lambs. Coyotes subsequently killed the uncollared lambs. Effective targeting did not occur because collared lambs were far outnumbered by uncollared lambs that were equally attractive to coyotes.

[1] Wethers are castrated male goats.

b. Placing collars where predation is too infrequent. In one such case, collared sheep were exposed for four weeks during which no predation occurred. The users then lost interest and removed the collars. There was no further predation on this ranch for several months. Collars cannot be used effectively where there is little or no predation.

c. Using target flocks that are too small. In a Montana trial, six collared lambs were left alone in a 640 acre pasture. Coyotes passed through the pasture without finding the collared animals and then killed sheep from a large flock in an adjacent pasture. The larger the flock, the more likely it is to attract coyotes. The optimum size for target flocks has not been determined, but pastures of 100 acres or more should probably contain at least 50 head.

d. Using target flocks are not sufficiently isolated from uncollared livestock. On one small farm, a group of ewes and LP collared lambs were exposed while other sheep on the place were penned each night. Instead of killing in the collared flock, coyotes switched to a neighbor's unprotected flock half a mile away. With small farm flocks, adjacent landowners may have to work together to achieve effective targeting.

e. Using collars of the wrong size. When small LP Collars are used on large sheep or goats, the throat region is inadequately covered. Coyotes frequently kill these animals without puncturing the LP Collars.

f. Attaching collars improperly or insecurely. When LP Collars are attached improperly, or they slip out of position coyotes will kill these animals but are unlikely to puncture the collars.

g. Placing collars on sick or cull animals. Placing collars on sick or cull animals in an effort to avoid sacrificing more valuable livestock may be false economy, as coyotes may not attack ill or lethargic animals. Collars should be used only on animals of the size and kind that coyotes have been killing locally.

h. Greatly increasing level of human activities on ranch while collars are in use. Coyotes often are wary of unusual activity and may temporarily stop killing because of it. Collars should be placed and monitored with a minimum of disruptive activity.

SECTION II
USE RESTRICTIONS

SODIUM FLUOROACETATE (COMPOUND 1080)
LIVESTOCK PROTECTION COLLARS

1. Use of LP collars shall conform to all applicable Federal, State, and local regulations.

2. LP Collars shall be sold or transferred only by registrants or their agents and only to certified Livestock Protection Collar applicators. Collars may be used only by specifically certified Livestock Protection Collar applicators or by persons under their direct supervision.[2]

   The certified applicator is directly responsible for assuring that all use restrictions are met. The certified applicator will decide, in accordance with label directions, when and under what circumstances LP collars will be used. The certified applicator will either apply collars or be physically present where collars are applied by a noncertified person. However, the noncertified person who has received appropriate instructions from the certified applicator may store collars, check collars in the field, remove collars, repair or dispose of damaged collars in accordance with use restrictions, retrieve collars lying in the field, and properly dispose of contaminated material and animal carcasses.

3. Certification of applicators shall be performed by appropriate regulatory agencies. Prior to certification, each applicator shall receive training which will include, but need not be limited to:

   (a) Training in safe handling and attachment of LP collars.

   (b) Training in disposal of punctured or leaking LP collars, and contaminated animal remains, vegetation, soil and clothing.

   (c) Instructions for practical treatment of 1080 poisoning in humans and domestic animals.

   (d) Instructions on record keeping.

4. Registrants or their agents shall keep records of all collars sold or transferred at their address of record. Records shall include the name, address, state where LP Collar certification was issued, certification number of each recipient, and dates and numbers of collars sold or transferred.

[2] "Direct Supervision", as described in this restriction, conforms to the requirements established under 40 CFR 171.6.

5. Each applicator shall keep records dealing with the use of LP Collars and the results of such use. Records shall be maintained in accordance with appropriate State or Federal regulations but for not less than two years following disposal or loss of collars. Such records shall include, but need not be limited to:

   (a) The number of LP collars attached on livestock.

   (b) The pasture(s) where LP collared livestock were placed.

   (c) The dates of each attachment, inspection, and removal.

   (d) The number and locations of livestock found with ruptured or punctured LP collars and the apparent cause of the damage.

   (e) The serial numbers, dates, and approximate location of LP collars lost.

   (f) The species, locations, and dates of all suspected poisonings of humans, domestic animals or non-target wild animals resulting from LP collar use.

6. Any suspected poisoning of threatened or endangered species must be reported immediately (within three days) to the Environmental Protection Agency, as will each suspected poisoning of humans, domestic animals or non-target wild animals. The person to contact at the Environmental Protection Agency is Dr. Tina Levine, Chief, Insecticide-Rodenticide Branch, Registration Division, 401 M Street, SW Washington, DC 20460.

7. Only the registrant or collar manufacturer is authorized to fill LP collars with 1080 solution. Certified applicators are not authorized to fill LP collars. Compound 1080 solution may not be removed from collars and used for any other purpose.

8. LP collars shall only be used to takes coyotes within fenced pastures. Fenced pastures include all pastures which are enclosed by livestock fencing. In addition to wire livestock fences, these may include other man-made fences, such as rock walls, and natural barriers, such as escarpments, lakes, and large rivers, that will prevent escape of livestock. Collars shall not be used on unfenced, open range.

   Use of Livestock Protection Collars shall be limited to fenced pastures[3] no larger than 2,560 acres (four square miles). But where average annual precipitation does not exceed 20 inches and vegetation is sparse, consisting only of short to mid-height grasses and scattered shrubs, collars may be used in pastures up to a maximum of 10,000 acres (16 square miles) in size.

   In no case shall the applicator place LP collared livestock in pastures where compliance with other Use Restrictions, such as monitoring, is impossible; in fenced pastures larger than 10,000 acres; or in unfenced, open range.

[3] Fenced pastures include all grazing land that is enclosed by livestock fencing. This includes wire or other man-made fences such as rock walls, and other natural barriers such as escarpments, lakes and large rivers that will prevent escape of livestock.

9. LP Collars shall be used only where losses of sheep or goats due to predation by coyotes are occurring or, based upon prior experience, where coyote predation can reasonably be expected to occur.

10. Where LP collars are in use, each logical point of access (for example roads, gates and trails) shall be conspicuously posted with a bilingual (English and Spanish, or other second language appropriate for the region) warning sign not less than 8" x 10" in size. Signs shall be inspected weekly to ensure their continued presence and legibility and will be removed when collars are removed. The signs will have a minimum type size for "DANGER-POISON" of 24 point (1/4 inch). The remaining text would be at least 18 point (3/16 inch).

11. All LP collared livestock must be checked at least once every seven days and collars adjusted if needed.

    If any LP collared animal is not accounted for in two consecutive checks, an intensive search for it must be made.

    In addition, if more than three LP collared animals are not accounted for during any one check, an intensive search for these animals is required.

    If more than nine (9) LP collars are unaccounted for during any 60-day period, remove all collars from animals and terminate their use. Do not resume use until adequate steps have been taken to prevent further, excessive loss of collars.

12. Damaged, punctured, or leaking LP collars shall be removed from the field for repair or proper disposal. Damaged collars shall be placed individually in leak proof containers while awaiting repair or proper disposal. Authorized collar repairs are limited to minor repairs of straps and fastenings. Leaking or punctured collars must be properly disposed.

13. Dispose of 1080 wastes (punctured, leaking or otherwise unrepairable LP collars; contaminated leather clothing, animal remains, wool, hair, vegetation, water, and soil) under three feet of soil, at a safe location, preferably on property owned or managed by the applicator and at least 1/2 mile from human habitations and water supplies. No more than 10 collars may be buried in any one hole. If buried in a trench, each group of 10 collars must be at least 10 feet apart.

    Incineration may be used instead of burial for disposal in the field(preferably on property owned or managed by the applicator) at least ½ mile from human habitation and water supplies. Place collars and wastes (listed above) in an incinerator or refuse hole, saturate with diesel fuel, and ignite. Attend the burn until the contaminated material is completely consumed.

    Alternatively, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance in disposing of wastes at approved hazardous waste disposal facilities.

    When snow or frozen ground make on-site disposal impractical, up to one cubic foot of wastes may be stored in a leak-proof container, in a dry, locked place for 90 days.

Metal Container: Triple rinse contaminated and uncontaminated containers with water. Puncture and dispose of contaminated container or rinsate as above.

Plastic Container: Triple rinse with water. Then puncture and dispose of container and rinsate as above.

14. All persons authorized to possess and use LP Collars shall store them under lock and key in a dry place away from food, feed, domestic animals and corrosive chemicals and in outbuildings or outdoor storage areas attached to, but separate from human living quarters.

15. Provisions for protection of endangered species:

The LP Collar may not be used in the following areas due to potential adverse effects to endangered species (California condor).

STATE	COUNTIES OR AREA
California	Fresno, Kern, Kings, Los Angeles Monterey, San Benito, San Luis Obispo Santa Barbara, Tulare and Ventura

The LP Collar may not be used in the following areas without written approval from the nearest U. S. Fish and Wildlife service (FWS, Endangered Species Specialist). If the FWS or the user determines that the use of the collar may adversely impact an endangered species (San Joaquin kit fox, black-footed ferret, Northern Rocky Mountain Wolf, or grizzly bear) in the specific areas requested, the collar may not be used in these areas. Written approval must be obtained annually.

State	Counties or Area	Nearest FWS Office/Phone
California	Alameda, Contra Costa, Merced, San Joaquin Santa Clara and Stanislaus	Sacramento, CA 916-979-2710
Idaho	Bonner, Boise (north of State Highway 21) Boundary, Clearwater, Custer (North of local road Running from Sun Valley to Chilly and a corresponding line Northeast from Chilly to Patterson), Fremont, Idaho, Lemhi, Shoshone and Valley	Boise, ID 208-334-1931
Michigan	Keweenaw (Isle Royal) and entire Upper Peninsula	Twin Cities, MN 612-725-3276
Minnesota	Aitkin, Becker, Beltrami, Carlton, Cass, Clearwater, Cook, Crow Wing, Hubbard, Itasca, Kittson, Koochiching, Lake, Lake of the Woods, Mahnomen, Marshall, Pennington, Pine, Roseau, and St. Louis	Twin Cities, MN 612-725-3276
Montana	Beaverhead, Carbon, Flathead, Gallatin, Glacier Lake, Lewis and Clark, Lincoln, Madison, Missoula, Park, Pondera, Powell, Sanders, Stillwater, Sweet Grass and Teton	Helena, MT 406-449-5322

Washington	Pend Oreille, Okanogan (National Park and Forest Land) Skagit and Whatcom	Boise, ID 208-334-1931
Wisconsin	Douglas, Florence, Lincoln, Onida and Price	Twin Cities, MN 612-725-3276
Wyoming	Fremont, Park and Teton and Yellowstone National Park	Helena, MT 406-449-5322

16. The number of LP collars used shall be the minimum necessary for effective livestock protection. For pastures of the following size classes, do no use more collars than the number indicated.

SIZE (ACRES)	NUMBER OF COLLARS
Up to 100	20
101 to 640	50
641 to 10,000*	100

*See Section II. 8.

17. Each applicator will have a one-ounce bottle of syrup of ipecac (to induce vomiting in case of accidental poisoning) available when attaching, inspecting, removing, or disposing of LP collars.

18. No contaminated animal will be used for food or feed.

SECTION III. APPENDICES

A. Registered Label

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

DANGER

Fatal if swallowed. Wear waterproof gloves when handling collars. Wash hands after handling collars or animals that have been contaminated with 1080 solution. Do not use contaminated animals for food or feed.

ENVIRONMENTAL HAZARDS

This product is very highly toxic to mammals and other wildlife. Birds and mammals feeding on carcasses of contaminated livestock may be killed. Keep out of any body of water. Apply this product only as specified on the label.

NOTE TO PHYSICIAN

WARNING SYMPTOMS: 1080 poisoning results from the transformation of fluoroacetate into fluoroacetate within cell mitochondria. Poisoning is characterized by a symptom-free latent period of ½ to 2 hours or longer between ingestion and onset of symptoms (nausea, vomiting, diarrhea, and hyperactive behavior leading to convulsions, coma, and cyanosis). Ventricular fibrillation is commonly noted and is the primary cause of death. Early symptoms include alteration of heart sounds and premature, weak contractions.

TREATMENT: No effective antidote is known, but symptomatic treatment may be effective. Establish respiration; create artificial airway if necessary. Check adequacy of tidal volume. Initiate emesis. If patient is comatose, convulsing, or has lost the gag reflex, endotracheal intubation should precede gastric lavage with large bore tube. Administer activated charcoal and magnesium sulfate. Treat seizures with IV diazepam. Monitor cardiac function closely. Treatment with glyceryl monoacetate (monacetin) may be effective; however, it is experimental and unproven in humans. CONSULT NEAREST POISON CONTROL CENTER FOR CURRENT INFORMATION. Symptoms of non-lethal intoxication will usually subside within 12-24 hours.

UNITED STATES DEPARTMENT OF AGRICULTURE
ANIMAL AND PLANT HEALTH INSPECTION SERVICE
Riverdale, MD 20737
EPA Est No. 46779-TX-01
EPA Reg. No. 56228-22
U.S. PAT. 3,842,806
Net Contents: 30.4 grams (1.1 oz.) per collar

I: ds ws pested-1080 fy1998-22apr98.pm6

★ SPECIMEN LABEL

RESTRICTED USE PESTICIDE

DUE TO ACUTE ORAL TOXICITY AND NEED FOR HIGHLY SPECIALIZED APPLICATOR TRAINING

Collars shall be sold or transferred only by registrants or their agents and only to certified Livestock Protection Collar applicators. Collars may be used only by specifically certified Livestock Protection Collar applicators or by persons under their direct supervision.

SODIUM FLUOROACETATE (COMPOUND 1080) LIVESTOCK PROTECTION COLLAR

For use on sheep or goats to kill depredating coyotes

ACTIVE INGREDIENT
Sodium fluoroacetate. 1.0%
INERT INGREDIENTS. 99.0%
TOTAL: 100.0%

KEEP OUT OF THE REACH OF CHILDREN

DANGER — POISON

STATEMENT OF PRACTICAL TREATMENT
IF SWALLOWED: CALL A PHYSICIAN OR POISON CONTROL CENTER IMMEDIATELY!

IF SWALLOWED: Induce vomiting at once with an emetic such as syrup of ipecac; use as directed. If emetic is not available, drink 1-2 glasses of water and induce vomiting by touching back of throat with finger. Do not induce vomiting or give anything by mouth to an unconscious person. PROMPT TREATMENT IS MANDATORY. GET MEDICAL ATTENTION IMMEDIATELY.
IF ON SKIN - Wash exposed area twice with soap and water.
IF IN EYES - Flush eyes with plenty of water. Call a physician if irritation persists.
IF ON CLOTHING - Remove contaminated clothing and wash before reuse. Dispose of all contaminated leather, including shoes, boots, and gloves, according to the Pesticide Disposal Section. See disposal instructions on back panel.

SEE LEFT SIDE PANEL FOR ADDITIONAL PRECAUTIONARY STATEMENTS.

NOTICE

Seller makes no warranty, expressed or implied, concerning the use of this product other than that indicated on the label. Buyer assumes all risk of use and/or handling of this material when such use and/or handling is contrary to label instructions.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal.

STORAGE: Store Livestock Protection Collars only in original container, in a dry, locked place away from food, feed, domestic animals and corrosive chemicals. Do not store in any structure occupied by humans.

When snow or frozen ground make on site disposal impractical, up to one cubic foot of wastes may be stored in a leakproof container, in a dry locked place for up to 90 days.

PESTICIDE DISPOSAL: Pesticide wastes are acutely hazardous. Improper disposal of such materials is a violation of Federal law.

Dispose of collars and other wastes contaminated by 1080 (carcasses, wool, hair, vegetation, soil, leather, clothing, and water) under three feet of soil, at a safe location, preferably on property owned and managed by the applicator and at least one half mile from human habitations and water supplies.

Incineration may be used instead of burial for disposal in the field, *(preferably on property owned or managed by the applicator)* at least ½ mile from human habitation and water supplies. Place collars and wastes (listed above) in an incinerator or refuse hole, saturate with diesel fuel, and ignite. Attend the burn until the contaminated material is completely consumed.

Alternatively, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance in disposing of wastes at approved hazardous waste disposal facilities.

CONTAINER DISPOSAL:

Metal Containers: Triple rinse contaminated and uncontaminated containers with water. Then puncture and dispose of contaminated containers and rinsate as above.

Plastic Containers: Triple rinse with water. Then puncture and dispose of container and rinsate as above.

COLLAR DISPOSAL: Dispose of punctured or unserviceable collars as above, except that not more than 10 collars may be buried in any one hole. If buried in trench, groups of 10 collars must be at least 10 feet apart.

SEE TECHNICAL BULLETIN FOR ADDITIONAL STORAGE AND DISPOSAL INSTRUCTIONS

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DIRECTIONS FOR USE

It is a violation of State and Federal law to use this product in a manner inconsistent with its labeling or the Compound 1080 cancellation order. Misuse may result in civil or criminal enforcement action.

DO NOT REMOVE TOXICANT FROM COLLARS. DO NOT USE TORN, DAMAGED OR LEAKING COLLARS. Dispose of damaged collars in accordance with the "Storage and Disposal" instructions on this label.

Put collars on the necks of sheep or goats in fenced pastures where coyote predation is occurring or is expected to occur. Use collars only in accordance with the User Instructions and Use Restrictions contained in the accompanying Technical Bulletin.

ENDANGERED SPECIES CONSIDERATIONS

Notice: It is a Federal offense to use any pesticide in a manner that results in the death of a member of an endangered species.

The use of compound 1080 in the Livestock Protection Collar has been determined to pose a hazard to several endangered species. See the technical bulletin (use restriction No. 15) for specific areas where the 1080 collar cannot be used or approval must be obtained from the U.S. Fish and Wildlife Service prior to use.

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