



Standard Guide for Use and Development of Strychnine as an Avicide¹

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INTRODUCTION

Vertebrate animal control as a science lacks many of the methods and procedures which are well established in other pest management areas. It requires skills that are highly dependent upon field experience. This is particularly true with wild species that are capable of developing learned behavioral patterns. Control of these species is difficult and sometimes impossible to standardize. The committee recognizes that an effort to standardize must be made to improve the science and to provide reasonable safeguards for legitimate environmental concerns.

1. Scope

1.1 This guide covers the use of strychnine as an avicide and has been developed to supplement registered labeling. Strychnine has an established history as an avicide.

1.2 Regulation of toxic materials in the United States presently prevents further alteration and development of this and other vertebrate pesticides.

1.3 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.* For specific hazard statements, see Sections 5 and 9.

2. Significance and Use

2.1 This guide is meant to aid trained bird control personnel in the safe and effective use of strychnine avicide formulations in urban and rural areas.

3. Product Types

3.1 Strychnine, an odorless, colorless, crystalline alkaloid, has an extremely bitter taste, and is relatively insoluble in water. The sulfate salt is moderately water soluble.

3.2 Use strychnine only on grain or seed baits at concentrations of 0.6 % or less (except where other baits are used against corvids). Always use the lowest effective concentration. (New unpublished research in this area indicated that lower toxic levels can be developed, 1995.)

3.3 Strychnine is used as a single dose avicide.

3.4 Strychnine toxicity may be altered by the use of certain adhesives or diluents in formulations and by bait matrix

characteristics such as size, porosity, and digestibility.

4. Storage

4.1 Store strychnine or strychnine-treated bait, or both, in a locked cabinet in a room where there are no extremes in humidity and temperature. Do not store oils, insecticides, or other odor-emitting materials, in the same room, since odors may be imparted to baits and could adversely affect acceptance. Keep a record of all materials removed or placed in the cabinet.

4.2 All containers used for storage and transportation should bear appropriate labels.

5. Formulation

5.1 Mixing strychnine baits requires training, care, proper equipment, and adequate facilities. It is recommended that individuals lacking these resources purchase prepared baits from established sources. When preparing strychnine baits, gloves, an appropriate respirator, and protective clothing, must be worn. Eating or smoking are prohibited until hands have been thoroughly washed following mixing operations. To reduce environmental exposure, use strychnine with a water-soluble adhesive.

5.2 Care must be taken to formulate bait materials that are acceptable to the target species and that minimize hazards to nontarget species. Bait concentrations and materials must be carefully selected to correlate the amount of strychnine used with the size of the bait particles and species to be controlled. A universally satisfactory formulation does not exist.

6. Areas and Species to Be Treated

6.1 The principal use areas for strychnine baits are agricultural croplands or urban and industrial structures, including locations outside food processing plants. Other areas of use include ranches and farms where live stock feeding operations occur. Use only as prescribed by labeling and as permitted by laws, regulations, and local ordinances.

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