

## METHOD FOR TESTING READY-TO-USE BAIT STATIONS WITH DOGS<sup>1</sup>

OPP Designation: 1.230 (10-29-87)

### 1. Purpose

1.1 This protocol is designed to assess the abilities of ready-to-use bait stations to isolate bait from dogs.

### 2. Rationale

2.1 Thousands of incidents of known or suspected exposures of dogs to commensal rodenticides are reported each year (e.g., Buck, *et al*, 1985). It is suspected that many more exposure incidents are not reported. This protocol has been developed to test the extent to which bait station designs prevent dogs from being exposed to rodenticide baits.

2.2 Dogs' chief weapons for attacking bait stations are their teeth. While dogs of all breeds and sizes may be exposed to rodenticides, larger dogs have greater capacities for damaging bait stations. Consequently, this protocol requires use of relatively large dogs. Subjects should be relatively hungry and otherwise strongly motivated to attack the test station. Dogs used in tests under this protocol should be accustomed to being fed once a day at the same time every day. Each test dog shall be exposed to stations at its normal feeding time, before being fed its daily ration.

2.3 This protocol has been adapted from methods used by manufacturers of bait stations which are sold without bait in them to test their products with dogs. The procedures used by these manufacturers were developed through dialogue with OPP staff. The procedures described in this protocol may be modified in the future based upon knowledge gained through testing, comments from concerned parties, changes in EPA's policies, and other sources. If EPA determines that changes in procedures are sufficient to call into question the results of tests conducted under earlier versions of this protocol, the Agency may require the affected stations to be retested.

### 3. Subjects

3.1 Use at least six adult dogs weighing at least 60 lbs for each test. Select healthy dogs 1-6 years of age. Do not use excessively fat dogs. Each group of six subjects shall include at least two females and at least two males. Use mongrels or dogs of any breed as long as size and age requirements are met. Do not use dogs with small or weak mouths or dogs which have misaligned jaws, or misaligned, missing, or small canine or molar teeth. The group of dogs tested must include at least two different breeds. Mongrels count as one "breed". At least two different breeds should be represented for each sex. It is not necessary that male and female subjects tested include examples of the same breed. For purposes of this protocol, a dog shall be considered to be of a particular breed if its characteristics are consistent with those generally

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<sup>1</sup> William W. Jacobs, Registration Division (7505P), Office of Pesticide Programs, U.S. Environmental Protection Agency, 1200 Pennsylvania Avenue NW, Washington, DC 20460

recognized for the breed. It is not necessary that the subjects have "papers". Use each subject only once with a specific bait station design. Do not use the same subjects for testing more than two different bait station designs.

3.2 Test dogs may wear flea collars. If other ectoparasite control (e.g., dusting, spraying, dipping, bathing) is needed, wait at least seven days from the conclusion of the treatment before starting the test.

#### 4. Procedures

4.1 Test two groups of six dogs. For one group, use bait stations that are secured to an immobile substrate or object by use of the securing method of first choice for the station. (See paragraph 4.1.2 of Protocol 1.228.) For the other group, use stations that are not secured.

4.2 Test dogs in surroundings that are familiar to them. Dogs may be tested on their owners' premises if the conditions of this protocol can be met and its procedures can be followed. If dogs are kenneled, use enclosures that are at least 40 square feet in area. Larger areas are preferred.

4.3 Condition each dog to being fed once a day at a fixed time every day. Exclude dogs that do not feed vigorously and rapidly when food is presented. Persons handling bait stations and feeding and exercising dogs should be familiar to the animals. Dog owners may perform these tasks if they can do so in accordance with the requirements of this protocol. A tester must be present on test day to instruct owner on the method of presenting the station. The tester must record all observations during the test period.

4.4 On the day before test with bait station, remove food dish 30-60 minutes after it has been offered. Remove bones or any other possible sources of food. Instruct others likely to encounter the subject that it is not to be fed. If this condition is violated, do not test the subject. Do not remove water source.

4.5 At normal feeding time on test day, present station to dog at or near location where dog normally is fed. At the time that station is to be presented, the dog will have been without food for 23-23.5 hr. The ready-to-use bait station must contain non-toxic bait otherwise identical in composition to the toxic bait offered in the ready-to-use station.<sup>2</sup> For the test with secured units, build a structure, if necessary, that will permit securing the station according to the method of first choice and otherwise presenting it to the dog in the manner prescribed for baiting rodents by the product label. This structure must be sturdy and heavy enough to prevent the dog from tearing it apart or lifting it along with the station.

4.6 After presenting the station to the dog, withdraw from area to place from which observations are to be made. Avoid actions that might distract the dog. Do not interfere with or encourage dog's efforts to reach bait in the station. Observe the dog continuously for 60

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<sup>2</sup> If the toxic bait contains a dye, this dye also may be omitted from the placebo bait used in the dog test.

minutes. For the next hour, check the dog and the condition of the station at 10-minute intervals.<sup>3</sup> Terminate the test after two hours and provide dog with its normal food ration.

4.7 Photograph top, sides, and bottom of each station tested, paying particular attention to any areas where there is visible evidence (scratches, holes, saliva, etc.) that the station has been attacked.

4.8 Record number and nature of attempts to gain access to material in the station. Determine and record the amount of time spent by the dog in attacking the station and in attempting to get at its contents.

## 5. Reporting Results

5.1 Report breed, age, weight, and general health of all test subjects. Describe holding and test areas, and general procedures used in handling and maintaining animals. Describe animals' feeding schedules, foods normally fed, and general temperament. Describe each test subject's reactions to station and report number and nature of attempts to gain access to material in the station. Report lengths of time that each dog interacted with the station and techniques used to attempt to get at bait. Describe conditions and provide photographs of stations at start and at conclusion of test. (See paragraph 4.7.) Provide photographs of each test subject. Submit copies of all raw data sheets. If trials are videotaped or otherwise visually recorded, submit copies of such videotapes or discs.

5.2 Report and describe all failures that occur in this test. Failures occur when the station fails to isolate the bait from the dog or when the dog compromises the protective features of the unit. Examples of failures include (but are not limited to) instances in which the dog:

- a. contacts or eats the placebo bait;
- b. cracks or breaks the station;
- c. punctures the station;<sup>4</sup>
- d. pulls the station off of its moorings (secured unit tests only); or
- e. pulls the station apart (e.g., by defeating tabs or other locking mechanisms).

5.3 Report results and retain records as prescribed by EPA's Good Laboratory Practice (GLP) regulations (40 CFR §160.185, §160.190, §160.195) and by paragraph 5.1 (above).

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<sup>3</sup> If trial is video-recorded, observer should remain on site for the 2-hr period as indicated here (i.e., observing dog continuously for 1 hr and at 10-minute intervals for second hour).

<sup>4</sup> Scratches and holes that do not go all the way through the surface contacted are not considered to be punctures. All dog-caused scratches and partial punctures of stations must be noted in reports.

6. Performance Standard

6.1 To pass this test, stations must completely deny access or potential access to bait for 100% of test subjects. There may be no failures.

7. Reference

Buck, W.B., Beasley, V.R., Trammel, J.L., and Carlson-Stark, C. (1985) National Animal Poison Control Center annual progress report 1984. College of Veterinary Medicine, University of Illinois, Urbana, IL, 181 pp.