

TECHNICAL NOTES

U.S. DEPARTMENT OF AGRICULTURE

Portland, Oregon

SOIL CONSERVATION SERVICE

Forestry No. 23

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ANIMAL REPELLENTS

Damage to shrubs, vines, and tree seedlings by wild animals costs Oregon landowners millions of dollars annually. Chemical repellents can be useful in preventing or controlling this damage. Repellents may be used alone or as part of an integrated approach with practices such as fencing, baiting, trapping, or hunting. Repellents can be classified either as "area" repellents or "taste" repellents. Some compounds have both properties.

Area repellents impart an odor to plants or localities that many animals find offensive. Ammonia compounds, bone tar oil, putrefied eggs, and naphthalene have odors which are repellent to some animals. Various "home remedy" repellents, including human hair, bone meal, and mountain lion scent have also been used as repellents, although data on their effectiveness is largely unavailable.

Taste repellents give plants a disagreeable taste. The most commonly used taste repellents contain the fungicide Thiram (tetramethylthiuram disulfide). Many taste repellents will not protect plants during the growing season unless new growth is treated as it emerges.

During times of food shortage repellents may not give adequate protection to plants, since many animals, when facing a choice between starvation and eating a food of low preference, will continue to feed. Also, the effectiveness of repellents may be reduced as animals become accustomed to the novel odor or taste. The use of repellents to control animal damage is in many circumstances only a short-term solution. Repellents may give protection lasting from several weeks to several months, depending upon the type and weather conditions.

Mention of specific products implies neither endorsement of products nor criticism of products not listed. Contact SCS State Staff Forester for sample labels and additional product information. NOTE: Always use chemical repellents according to label directions.

REPELLENTS FOR THE CONTROL OF ANIMAL DAMAGE

<u>Trade Name</u>	<u>Chemical</u>	<u>Company</u>	<u>Target Species</u>	<u>Use Locations</u>
HINDER	Ammonium soaps of higher fatty acids (15%)	Leffingwell 111 S. Berry Street Brea, Calif. 92621 (714)-529-3973	Deer Rabbits	Fruit and nut trees Fruit vines & bushes Vegetables Ornamental trees & shrubs Nursery & field stock
RO-PEL	Benzyl-diethyl (0.065%) Thymol (0.035%)	Burlington Scientific 91 Carolyn Blvd. Farmingdale, NY 11735 (516)-694-9000	Deer Mice Beaver Rabbits	Ornamental trees & shrubs Nursery & field stock
MAGIC CIRCLE DEER REPELLENT	Bone tar oil (93.75%)	J.C. Ehrlich Chem. Co. 840 William Lane Reading, PA 19612 (215)-921-0641	Deer	Fruit and nut trees Fruit vines & bushes Vegetables Ornamental trees & shrubs Nursery & field stock
HOT SAUCE ANIMAL REPELLENT	Capsaicin (2.54%)	Miller Chemical and Fertilizer Corp. Box 333 Hanover, PA 17331	Deer Rabbits Mice	Fruit & nut trees* Fruit vines & bushes* Vegetables** Ornamental trees & shrubs Nursery & field stock
DEER-AWAY BIG GAME REPELLENT	Putrescent whole egg solids (36%)	Flora and Fauna Labs 8500 Pillsbury Ave. So., Minneapolis, MN 55420 (612)-881-6908	Deer Elk	Dormant fruit & nut trees Ornamental trees & shrubs Nursery & field stock
BONIDE RABBIT & DEER REPELLENT	Thiram (11%)	Bonide Chemical Co., Inc. Yorkville, NY 13495 (315)-736-8231	Deer Rabbits Mice Moles	Fruit & nut trees* Fruit vines & bushes* Ornamental trees & shrubs Nursery & field stock
NOTT CHEW-NOT	Thiram (20%)	Nott Manufacturing Pleasant Valley, NY 12569 (914)-635-3243	Deer Rabbits Mice	Fruit & nut trees* Fruit vines & bushes* Ornamental trees & shrubs Nursery & field stock
MAGIC CIRCLE RABBIT REPELLENT	Thiram (20%)	J.C. Ehrlich Chemical Co. 840 William Lane Reading, PA 19612 (215)-921-0641	Deer Rabbits	Fruit & nut trees* Fruit vines & bushes* Ornamental trees & shrubs Nursery & field stock
GUSTAFSON 42-S	Thiram (42%)	Gustafson, Inc. P.O. Box 660065 Dallas, TX 75266-0065 (214)-985-8877	Deer Rabbits Mice	Fruit & nut trees* Fruit vines & bushes* Ornamental trees & shrubs Nursery & field stock
SCRAM 42-S	Thiram (42%)	Wilbur-Ellis Co. 191 West Shaw Ave. Fresno, California 93704 (209)-226-1811	Deer Rabbits Mice	Fruit & nut trees* Fruit vines & bushes* Ornamental trees & shrubs Nursery & field stock

NOTE: *Limit application to the period before fruit sets or after fruit has been harvested.

**Limit application to the period before edible portion begins to form.