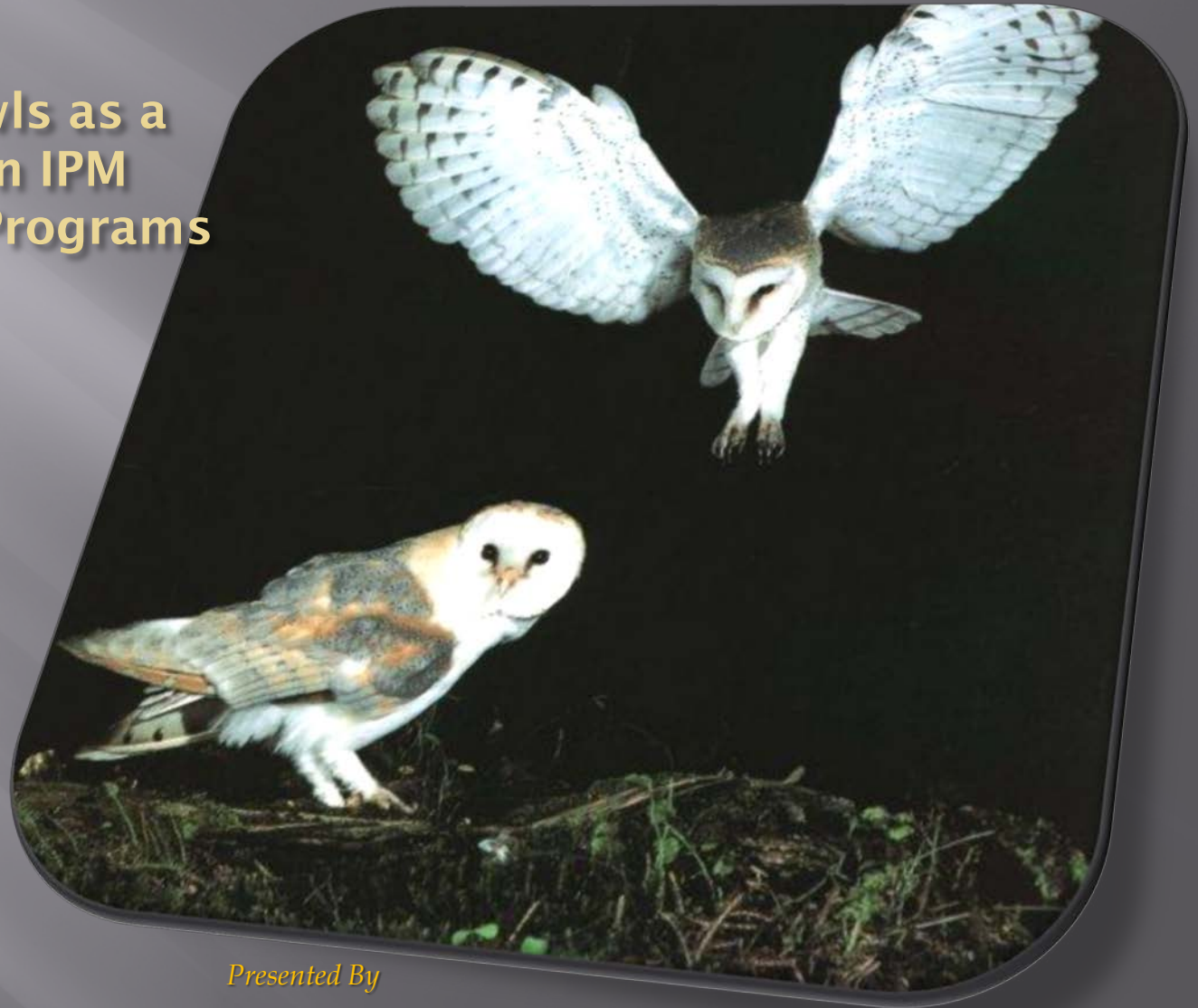


Use of Barn Owls as a Supplement in IPM Rodent Control Programs



Presented By

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A Brief Overview

- ❖ Gophers damage crops, plants, and landscapes
- ❖ Conventional control methods
- ❖ What do barn owls eat?
- ❖ Can barn owls help control rodents?
- ❖ Best practices in using barn owls for rodent control

Pocket Gophers, Moles and Rats can Pose Serious Economic Loss to Orchards, Vineyards, Crops and Landscapes by:

- ❖ Inflicting serious damage on developing root systems
- ❖ Damaging irrigation systems
- ❖ Undermining fields, levees, ditch banks, etc.
- ❖ Coyotes and dogs contribute by trying to “dig out rodents.”









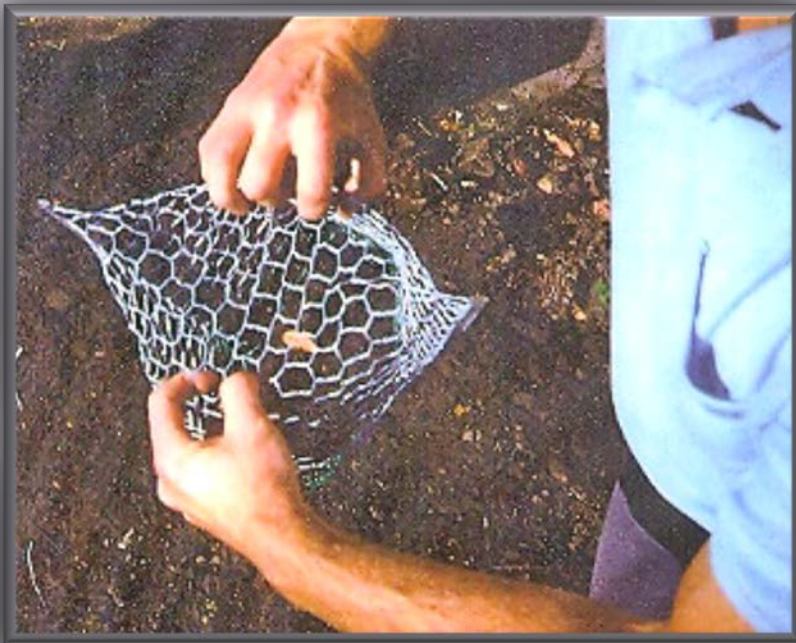




Non-Lethal Methods Include:

Root Cages - Galvanized Hardware Cloth

- ✓ Very effective when installed correctly
- ✓ Expensive to install
- ✓ Lots of work



Repellants (castor oil mixed with liquid dish soap)

- ✓ Moderately effective
- ✓ Must be applied every few weeks
- ✓ Not feasible for large areas

(confirmed by research at University of Nebraska)



Electronic Gopher Chasers

- ✓ Might be somewhat effective in clay soils
- ✓ Not effective in sandy soils



Professional Lethal Controls

Extermination

Very expensive (*\$1400.00 annually per acre*)

- ❖ Strychnine Bait
 - ✓ Very Effective
 - ✓ Could be fatal to pets and other gopher predators





❖ Anti-Coagulant Bait

- ✓ Less expensive
- ✓ Less humane than strychnine
- ✓ "Safer" for pets and other predators

❖ Fumigation

- ✓ Involves use of poison gas in burrows
- ✓ Works best when soil is moist
- ✓ Fumigants can not be used around buildings
- ✓ Lots of paperwork

❖ Carbon Monoxide

- ✓ Very effective with right equipment
- ✓ Tractor exhaust slow and hard on engine







❖ Explosive Devices

- ✓ Combustion of propane and oxygen
- ✓ Kills gophers through concussive force and destroys burrow system
- ✓ Has several potential hazards



- ❖ Gas cartridges, i.e., smoke bombs, not effective for gopher control (*University of California*)



❖ Traps

- ✓ Lots of work
- ✓ “Gotta keep at it”
- ✓ Not practical for large areas















What Do Barn Owls Eat?

Rodents that are active at night

- ❖ Adult barn owls average two meals per night year round
- ❖ During incubation (*first 5 weeks*)
 - ✓ Five meals per night per adult
(...rodents, birds, bats, bugs...)
- ❖ After egg hatch (*next 8 weeks*)
 - ✓ Two meals per night per adult
 - ✓ At least 5 meals per night per owlet
 - ✓ Owlets scream for food sunset to sunrise

Sometimes adults may raise a second brood



























Can Barn Owls Help Control Rodents?

❖ Significant Body Counts

- ✓ Adult owls eat over 600 prey animals per year
- ✓ Owlets eat over 1000 prey animal per year

Barn owls can thin your rodent population

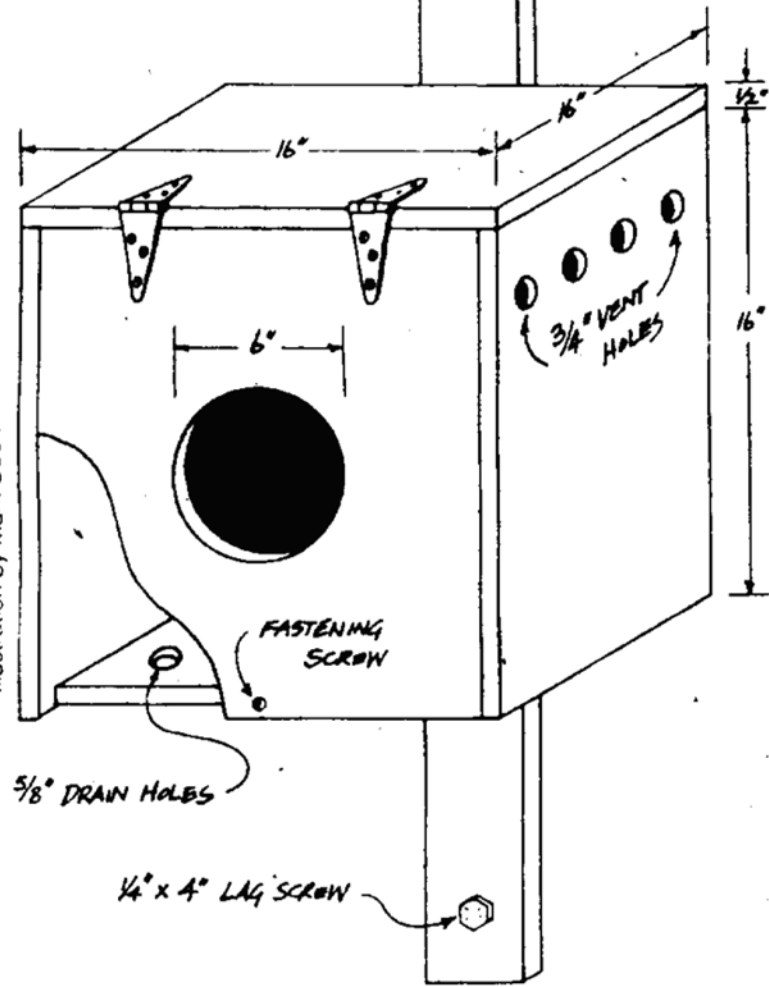
Installing Owl Boxes to Attract Barn Owls

Some very respected biologists believe owl boxes do nothing to reduce rodent populations, but the boxes make it very comfortable for the owls.

❖ Number of Nest Boxes

- ✓ A nest box for every 10 to 20 acres
- ✓ More is O.K.
- ✓ Need enough owls to keep ahead of rodent reproductive rates

Illustration by Mark Cook







❖ Direction Entrance to Face

- ✓ Anywhere BUT toward prevailing winds

❖ Height of Installation

- ✓ 8 -10 feet or higher
- ✓ Use a height that is safe to install and clean
- ✓ Metal poles to reduce predators

❖ Substrate in Nest Box

- ✓ Wood shavings or mulch
- ✓ **DO NOT** use cedar products

❖ Maintenance

- ✓ Clean and replace substrate every year or two
- ✓ Some organic certification programs require annual cleaning

❖ Best Time to Install Boxes

- ✓ Anytime
- ✓ Barn owls are constantly checking out new roosting & nesting sites











