

Owl Boxes 101

Leveraging Barn Owls to Manage
Rodents in Agriculture

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What You'll Learn!

- What are Barn Owls
- About Barn Owls
- Why Agriculture/What's the Problem
- How to build Barn Owl Community
- Start with the Box
- Where/How to install
- How to Cleanout
- Your life after Owl Boxes



What Are Barn Owls?

Species Name: *Tyto alba*

Subspecies: 30 Regional Subspecies

Common Name: American Barn Owl

Found: United States, Less up North

Nicknames: Ghost, Screech, White

Weight: ~16 ounces

Wingspan: 42"

Height: 15" to 16"

Eggs: 2-8

Male: White Belly

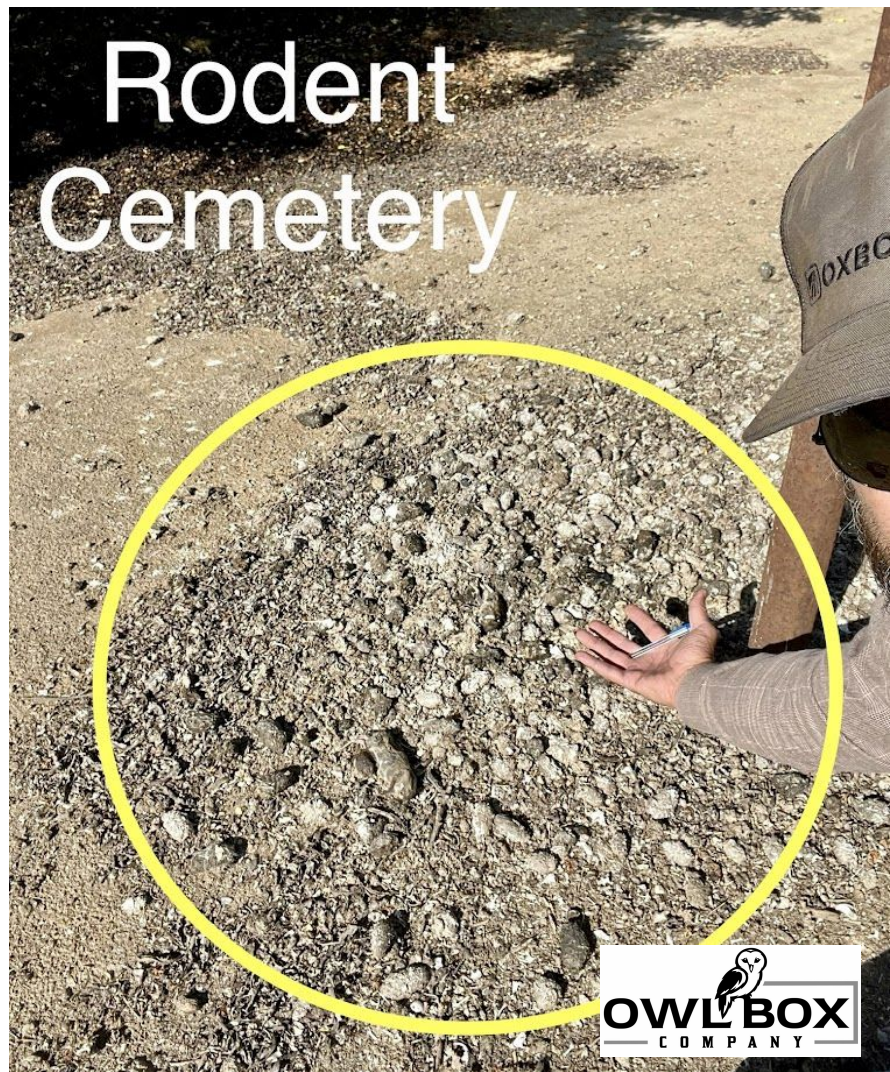
Female: Golden Speckled Belly, Fringe



About Barn Owls

- They SIMPLY HAVE TO EAT SURVIVE!
- 60# Rodents per year
- Here's how they do it...
 - Silent Flight
 - Heart-shaped Disc
 - Asymmetrical Ears
 - Grip Strength
 - Oval Eyes, Light
- Flight: Nocturnal
- Barn Owls are built for Farmers, Farmers are built for Barn Owls!

Rodent Cemetery



Why Agriculture/What's the Problem

- Provides tons of food, shelter and little predatory pressure
- Abundance of rodents (ie. Gophers, Rats)
- **Botta Pocket Gopher** - cheek pouches carry food
 - All areas in California, except dessert, rocky acres
 - Home: 200-2,000 square feet
 - Live almost completely subterranean, except to;
 - Push out dirt, build mounds, seek new territory or graze on nearby succulents
 - Damage: Irrigation hose, above ground, under pressure. Orchard Floor (gopher mounds)
 - Male seeks female, digs to her. Mating tunnel, kicked out
 - Gestation: 19 days
 - 50/50 sex ratio
 - Litters/year: 1-2, 3
 - Pup/litter: 5-6 pups per litter (1-13)
 - Weans at 28-35 days
 - Reproduction Ready: 90-120 days
 - Math: 2 liters, 6 pups, 40% mortality, 12 months: 15-25



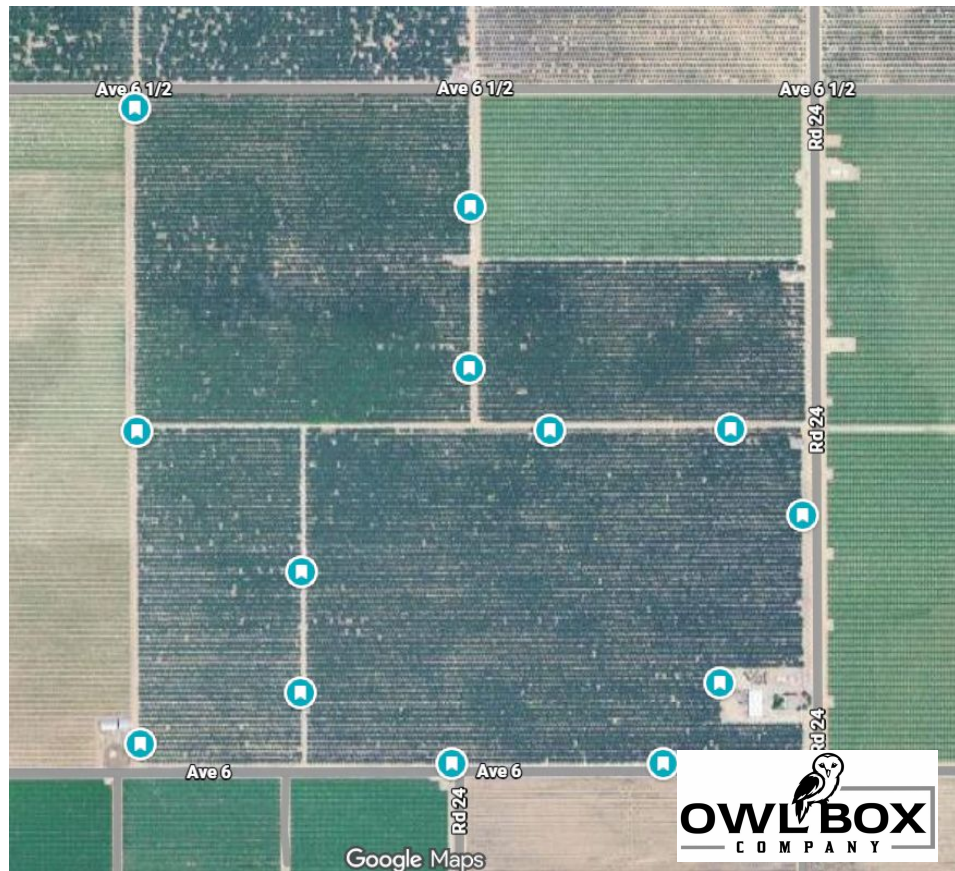
Why Agriculture/What's the Problem Cont.

- Provides tons of food, shelter and little predatory pressure
- Abundance of rodents (ie. Gophers, Rats)
- **Roof Rats**
 - Problems: Almond, Pistachio, orchards
 - Damage: Irrigation hose, Eat nuts (a lot!) 1,200-1,700 nuts per hull split to harvest pick up 4-6 weeks.
 - At 20 rats/ac & \$2.00/lb = 370/ac loss/year. 40? 60??
 - Male seeks female, via pheromones. Travel 150-300 feet
 - Gestation: 21-23 days
 - 50/50 sex ratio
 - Litters/year: 4, 8 (high)
 - Pups/litter: 6, (4-12)
 - Weans at 31-32 days
 - Reproduction Ready: 90 days
 - Math: 6 litters, 6 pups, 40% mortality, 12 months: 150-200



How to Build a Barn Owl Community

- Cavity Nesting Birds - Dead tree limbs, fan palms
- Naturally living in our valley, housing crisis
- Barn Owls are free, just need the cavity



Start With The Box

Dimensions: 24" x
17" x 13"

Material: $\frac{3}{4}$ "
plywood, nailed,
glued and sealed

Entrance: Ellipse
(critical)

DO NOTS: Perch,
Patio

Unnecessary: shade
shield, paint white



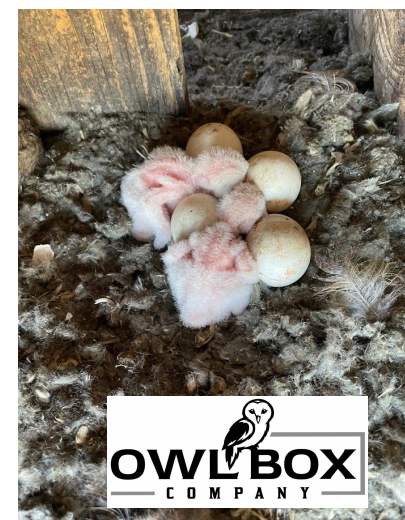
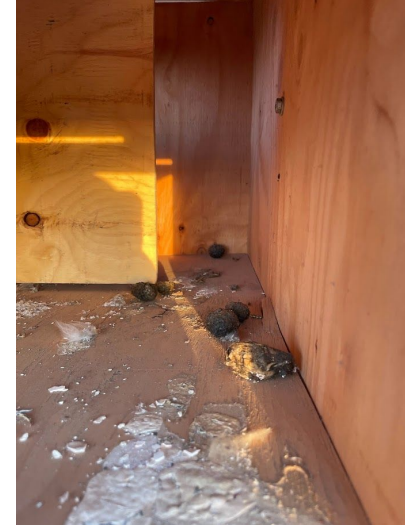
Where/How to Install

- 1 box/10 acres
- Perimeter of ranch block, not inside block
- 10-11' above ground, no more
- Install year around
- Bedding material
- Nesting season, end of year
- Avoid travel areas, farm equipment
- Avoid high-traffic roads
- Face Northeast, East, West



How to Cleanout

- Cleanout once/year, after harvest
- Ladder or truck bed
- Lift lid, screw to box.
- Scrape out, fall to ground
- Replace bedding, leave behind pellets
- 3" deck screws, if needed



That's It! Questions?



MANAGE GOPHER PROBLEMS WITH OWLS

BARN OWL BOXES

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**60 LBS OF
GOPHERS**

EACH BOX WILL CONSUME
60 POUNDS OF GOPHERS
IN A SINGLE YEAR

1 PER 10

ONE BOX PER
10 ACRES IS
RECOMMENDED
FOR EFFECTIVE
GOPHER
CONTROL

LABOR-LESS

OWL BOXES REQUIRE
NO EFFORT COMPARED
TO TRAPPING, BAITING
OR CARBON
MONOXIDE MACHINES

CERTIFIED SUSTAINABLE

FARMERS ARE BEING
ASKED TO CERTIFY THEIR
FARMS SUSTAINABLE AND
THIS IS AN EASY WAY TO
GET STARTED

