

# FACT SHEET

#URCD FS-21

El Dorado County & Georgetown Divide  
Resource Conservation Districts  
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Placerville, CA 95667 (916) 295-5630



## BARN OWLS

**I**t's white, heart-shaped face, light color, and quickness leaves a ghostly image of something flying through the night. A night creature with keen senses and a long raspy scream, the *Tyto alba* (BARN OWL), hunts from perched positions or while flying silently in total darkness searching for prey.

This beautiful bird weighs approximately one pound, is 15 inches in length, and has a wing span of about 40 inches. They live in farmlands and woodlands, often near human habitation. As their name implies, barn owls nest in barns as well as buildings or bird houses. They do not build nests but lay eggs in dark nesting sites such as holes in rotted trees, rocky cliffs, bluffs, and structures with appropriate cavities. Barn owls can be found roosting in dense conifers such as an Aleppo Pine.

Building a nesting box and establishing perching sites can encourage barn owls to your property. Owl nesting boxes could be placed in trees, tall posts, poles, or in barns. Summer is the best time to mount a nesting box. The houses need to be located in a shaded area to avoid direct sunlight. The entrance should face the east, out of prevailing winds. The nesting box should have a hinged lid or door for checking and cleaning the nest. The lid should be secured immediately after the first egg is laid, then not disturbed until the nesting season is complete.

The female lays 1 to 11 white eggs between November and July. If the nesting box is NOT occupied at the end of winter or early spring by a nesting owl, check the box weekly for wasps. This time of year paper wasps can colonize



*(photo provided by the Raptor Center,  
University of California Davis)*

quickly in the box rendering it useless as a nesting spot. W. Paul Gorenzel, wildlife biologist for the University of California's Cooperative Extension Service, uses a pyrethrin-based wasp spray in Western Bluebird nesting boxes. Sprays of this type kill by contact, are short-lived, and have no residual action. Gorenzel's article "Want to Help Wildlife? Start a Nest Box Trail!" published in *Outdoor California's* February 1993 issue states that using a pyrethrin-based wasp spray will not harm adult or nestling birds that might be in the box later. Wasps move slow when temperatures are cold. Therefore, early morning would be the best time to spray nesting boxes. Wasp invasion can continue through April.

The barn owl's hearty appetite for meadow mice, gophers, and ground squirrels provides essential rodent control for landowners. Their

presence can be confirmed by finding owl pellets on the ground beneath trees or buildings. Birds that swallow their prey whole or in large pieces produce pellets. A pellet is the consumed nondigestible remains of the owl's prey, such as bone, teeth, hair, and feathers. This matter is formed into a ball by the owl's stomach muscles which is then regurgitated. Dissecting a dried owl pellet can tell you the type of rodents that are being consumed by identifying the bones found.

## YOU CAN LEARN MORE ABOUT OWL PELLETS AND THEIR CONTENTS

Owl Pellet Kits can be purchased from:

### CREATIVE DIMENSIONS

P. O. Box 1393  
 Bellingham, Washington 96227  
 (206) 733-5024

### NASCO WEST

1524 Princeton Avenue  
 Modesto, California 95352  
 (209)529-6957

*SOME KITS INCLUDE: Owl pellets, study guides, plastic forceps, and magnifying lens, Bone sorting charts and posters sold separately.*



(photo provided by the Raptor Center, University of California Davis)

## BARN OWL SEEK-A-WORD GAME

*(Find and circle the words listed below. A word or group of words can be found vertically, horizontally, forwards, backwards, or corner to corner; but, only in a straight line. No words will continue around corners or change direction.)*

M O N K D S I L E N T A E L  
 I O L R P R E D I G K R W P  
 C E I W W L O T X P G O R O  
 A B L A O T Y T S R D T E C  
 O R M R N N B H I E O P A K  
 W P R E Y O R L C D N A N E  
 X H M O A E C A K A L R I T  
 T S I D W D F T B T M B G G  
 A T T T P Y O X U O E A H O  
 L N R E E E T W L R T R T P  
 O E X K L O L E M A N N P H  
 N D N M I L W L L I B A H E  
 S O A P I C E L T W C X L R  
 M R P E R C H P O S O E R O

The following list of words are related to Barn Owls. Answers can be found on page 7.

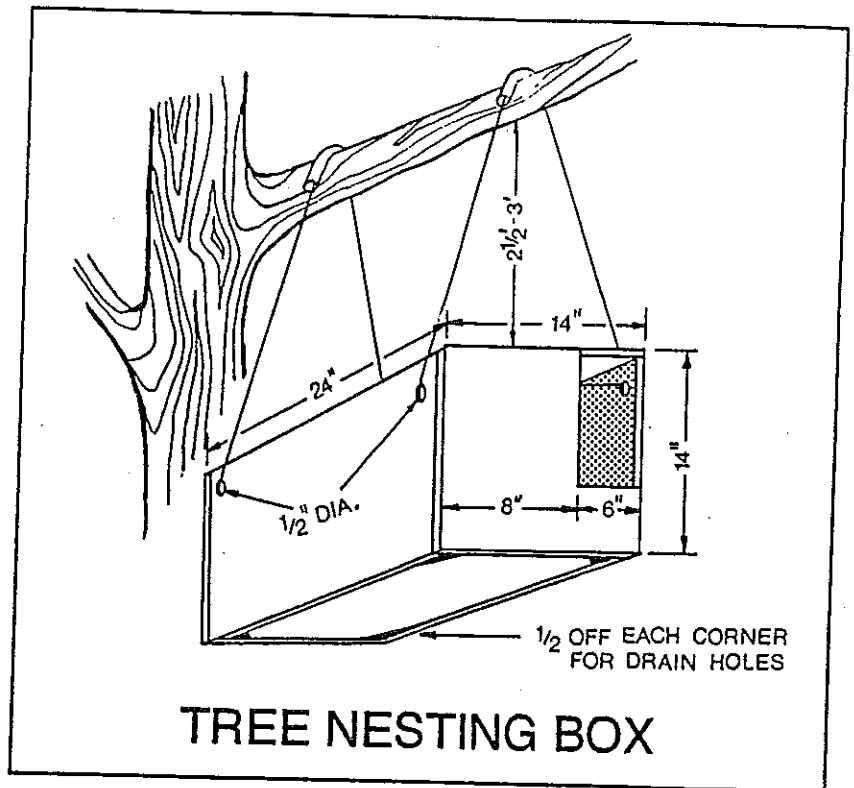
- Monkey Faced Owl  
(common name)
- White Owl (common name)
- Barn Owl (common name)
- Tyto alba (biological name)
- Raptor
- Shrew
- Rodents
- Mole
- Bird
- Talons
- Meadow Mice
- Pellets
- Nocturnal
- Pocket Gopher
- Owlet
- Predator
- Prey
- Egg
- Nest
- Silent
- Perch
- Night

# LOCATING YOUR BARN OWL NESTING BOX IN TREES, ON POSTS OR POLES, OR IN BARN

## TREES

The USDA Soil Conservation Service (SCS) recommends hanging the nesting box by cables  $2\frac{1}{2}$  to 3 feet below a stout tree branch. Run the cable through a old piece of garden hose to protect the branch from being girdled or damaged by the cable. Make sure the opening to the box is clear of branches so owls have easy access. You can place as many as six owl nesting boxes per square acre. Painting the outside of the nesting box camouflage colors, using exterior grade latex or acrylic paint, will reduce human disturbance as well as protect the wood from warping. **Never paint the inside of a bird**

**house or nesting box.** If a natural look is desired, leave the wood bare. Untreated exterior plywood will last for years. Do not use stains. Boiled linseed oil brushed on and wiped, will give a pleasant rustic appearance.



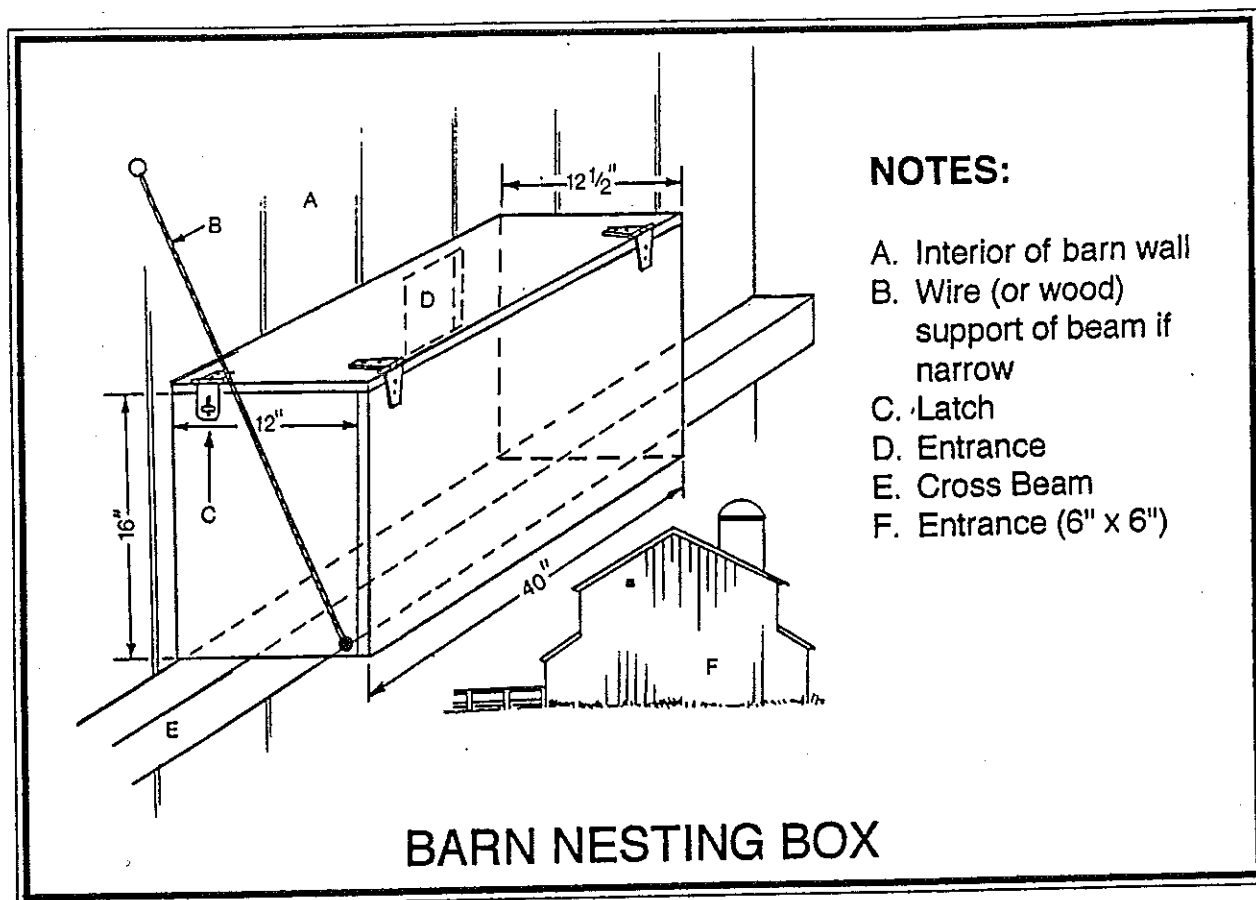
### TREE NESTING BOX CONSTRUCTION NOTES:

1. Make the entrance hole 6 inches wide by 12 inches high.
2. Hang or mount the box 15 to 30 feet above the ground and, if in a tree, about  $2\frac{1}{2}$  to 3 feet below a sturdy branch.
3. Use scrap exterior grade  $\frac{3}{8}$ -inch or  $\frac{1}{2}$ -inch plywood.
4. Use #5 galvanized box nails.
5. Use a marine grade plastic resin or exterior wood glue for assembly.

**SPECIAL NOTE ABOUT WOOD SIZES:** Wood sizes (except plywood) are nominal, e.g.: 1 x 4 x 8 (width x height x length) actually measures  $\frac{3}{4}$  x  $3\frac{1}{2}$  x 8"; 2 x 2 actually measures  $1\frac{1}{2}$  x  $1\frac{1}{2}$ ".

# BARNNS

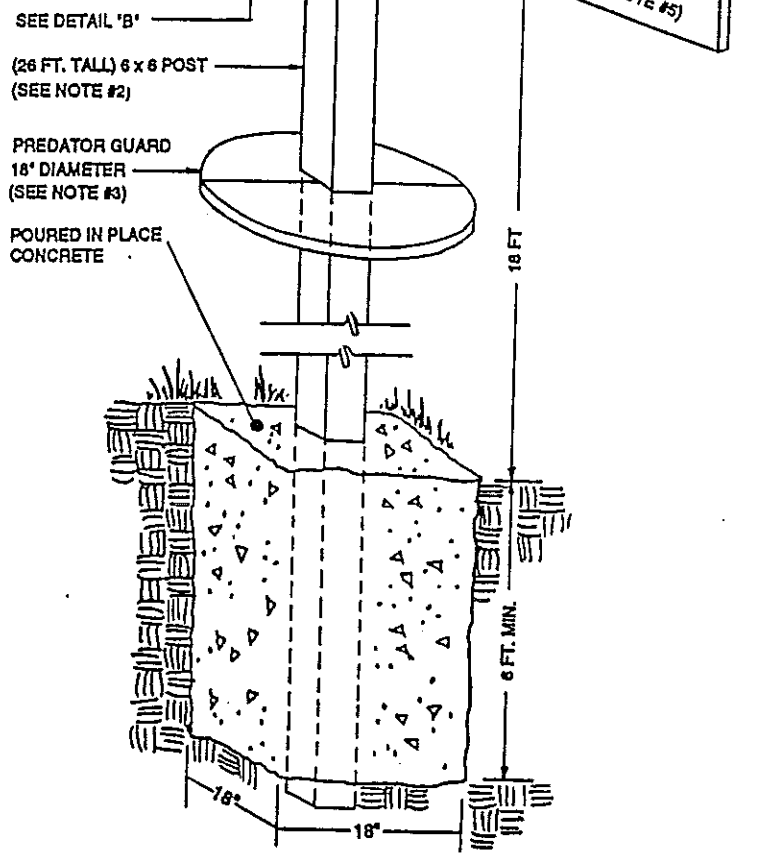
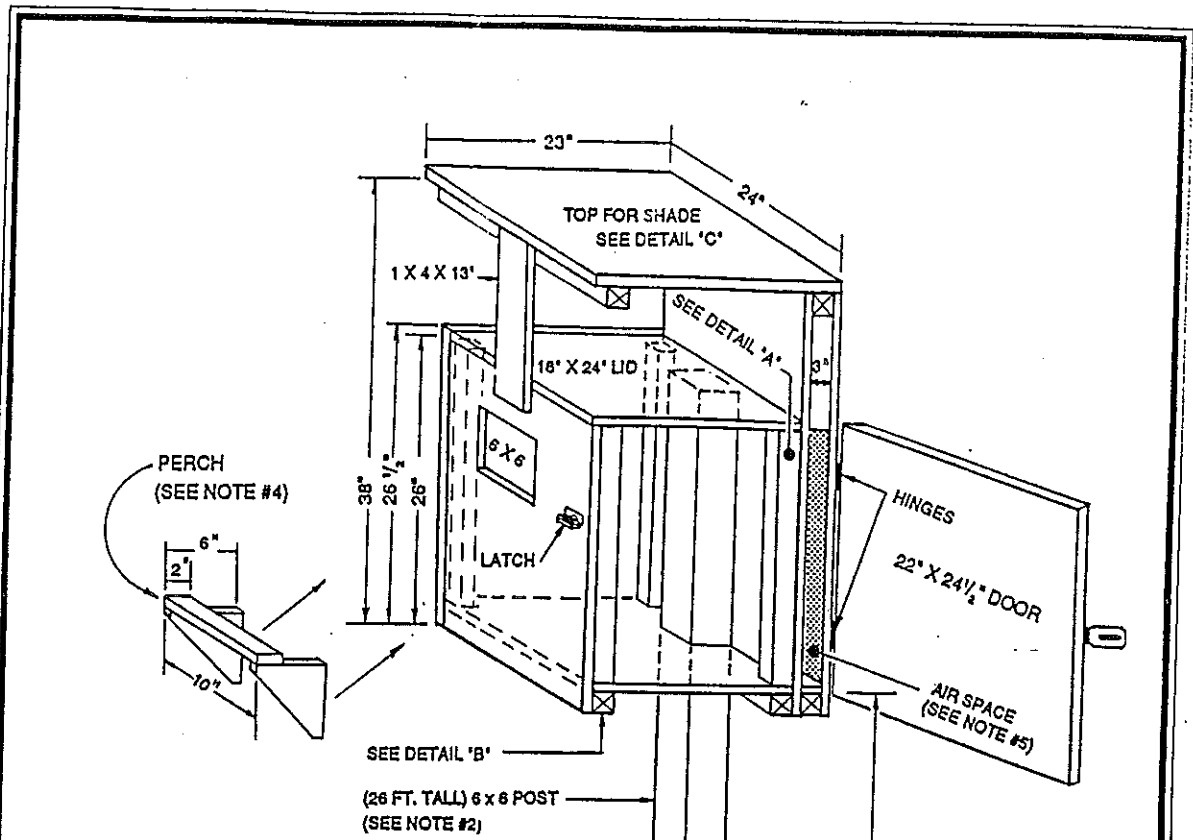
If you have a barn, cut a 6" hole in the side of the barn and mount a nesting box to this opening on the inside wall. The Illinois Audubon Society recommends placing nesting boxes inside barn walls 20 to 25 feet high. Keep the latched top securely locked, except when cleaning.



## POST OR POLES

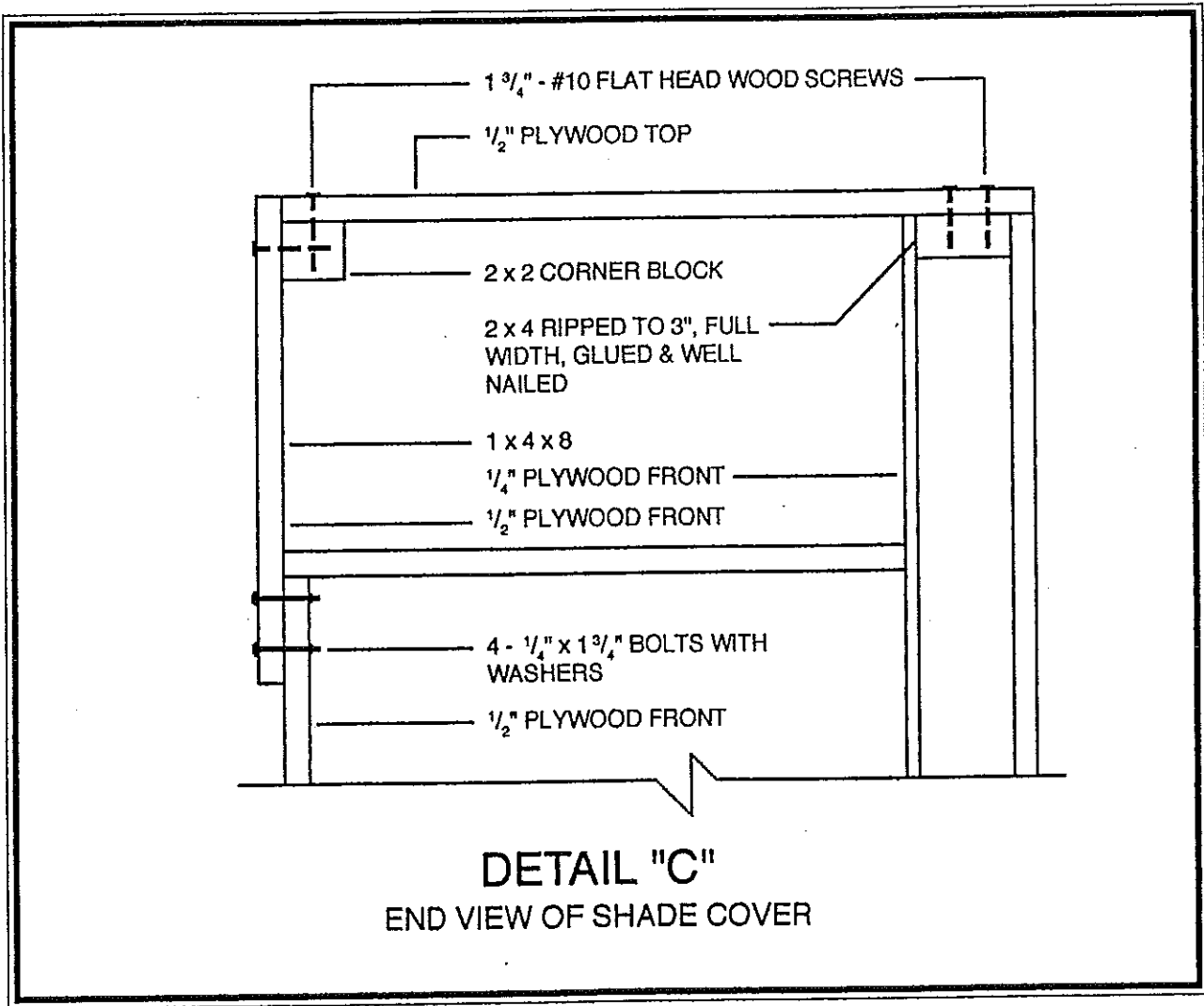
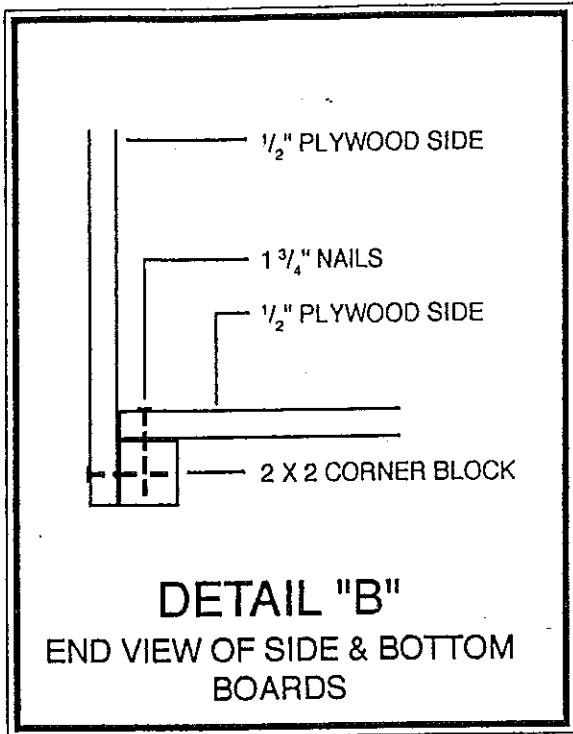
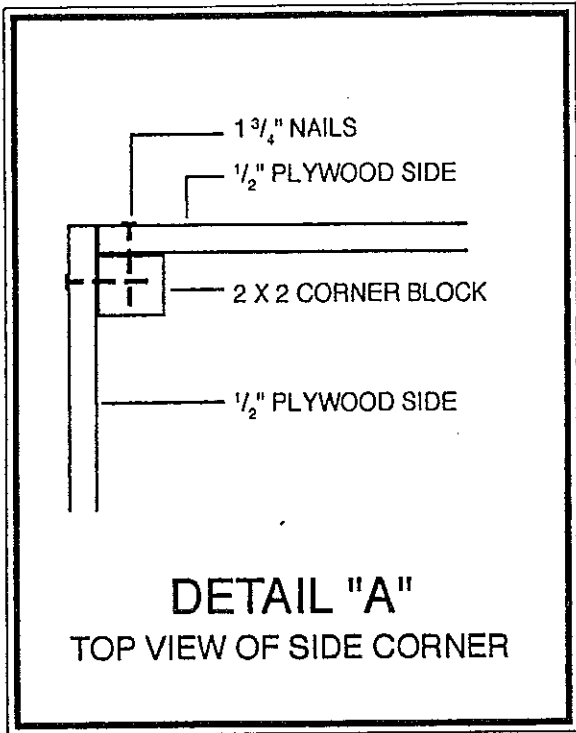
Bill Genn, a Hilmar farmer (south of Modesto), mounts his nesting boxes approximately 20 feet above the ground on poles. The post or pole should be wrapped with an 18 inch circular predator guard. Position the entrance to face east. Provide shade over the roof as shown in the diagram, as well as building a thermal or insulated wall on the west side of the box. Do not lean a ladder against the post that supports the nesting box when checking for wasps or cleaning. It may not be able to support your weight without additional support at the base of the post. To provide additional support, secure 3 or 4 braces at the base.

A landowners efforts to provide, check, and clean owl nesting boxes will be well repaid with rodent control benefits as well as co-habitation with one of mother nature's exciting nocturnal creatures.



- CONSTRUCTION NOTES:**
1. Use 1/2-inch plywood to construct this nesting box with galvanized nails and wood glue.
  2. Build the nest at one end of a 26 foot pressure-treated douglas fir (6 x 6) post, or pole.
  3. Secure (4) 2 x 6 x 6 blocks near the center of the post, placing one block on each side of the post, all at the same height. Place the circular predator guard on top of the blocks and nail in place.
  4. Attach the perch below the entrance hole on the front of the nesting box with wood screws and glue.
  5. Use "Post Hole" concrete, approx. 14 sacks.
  5. OPTION: fill the air space with insulation materials or leave empty.
  6. This structure may not support the weight of a person on a ladder leaning against it without additional bracing.

**NESTING BOX  
ON A POST OR POLE**



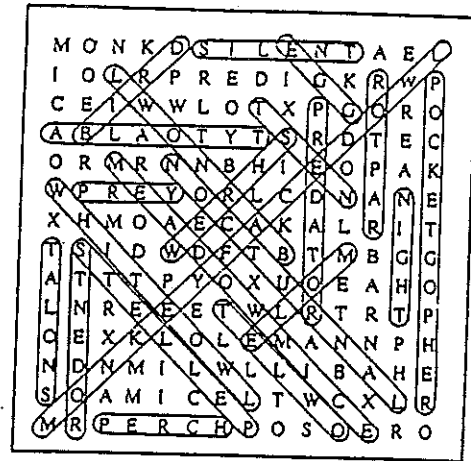
Barn owl mortality results from human disturbance, limb breakage, and attacks by raccoons, opossum, skunks, and bobcats.

The nesting box should be cleaned annually. A trap door will ease cleaning the boxes between users. Once a year at the end of the nesting season, clean the box and place a 2 inch layer of

sawdust in the bottom of the box.

A landowner's efforts to provide, check, and clean owl nesting boxes will be well repaid with rodent control benefits, as well as co-habitation with one of mother nature's exciting nocturnal creatures.

## Answers to Barn Owl Seek-a-Word



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## BOOK REFERENCE LIST



he books listed here are available for review in our office or can be borrowed from your local library. These books can also be purchased from most bookstores. If you have trouble locating any of these books for purchase, please do not hesitate to contact our office for suggestions.

### American Wildlife and Plants

A guide to Wildlife Food Habits by Alexander C. Martin, Herbert S. Zim, Arnold L. Nelson. Dover Publications, Inc., New York, 1961.  
ISBN: 486-20793-5

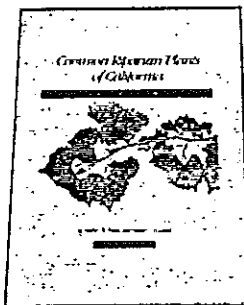


### America's Neighborhood Bats

by Merlin D. Tuttle. University of Texas Press, Austin, 1988.

### Arboriculture -- Care of Trees, Shrubs, and Vines in the Landscape

by Richard W. Harris. Prentice-Hall, Inc., Englewood Cliffs, New Jersey, 1983. ISBN: 0-13-043935-5



### Common Riparian Plants of California

by Phyllis M. Faber and Robert F. Holland. Pickleweed Press. ISBN: 0-9607890-1-4

### A Flora of the Marshes of California

by Herbert L. Mason. University of California Press, Berkeley & Los Angeles, 1957.  
ISBN: 0-520-01433-2



### Growing California Native Plants

by Marjorie G. Schmidt. University of California Press, Berkeley, 1980.  
ISBN: 0-520-03761-8 (hard)  
0-520-03762-6 (soft)



### Hosting the Birds

by Jan Mahnken. Storey Comm., Inc. Pownal, Vermont, 1989.  
ISBN: 0-88266-534-0 (hard)  
0-88266-525-1 (soft)

### The California Quail

by A. Starker-Leopold. University of California Press, 1985.  
ISBN: 0-520-05456-3

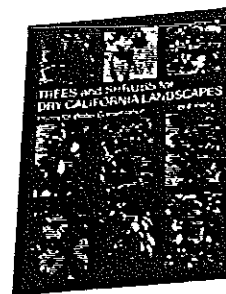


### Trees & Shrubs for Dry California Landscapes

by Bob Perry. Land Design Publishing, 1989.

This book has many color photos of plant species we recommend.

ISBN: 0-9605988-0-5 (Trade)  
0-9605988-1-3 (Text)





### Owl Nest Box Construction

There are many different methods of constructing barn owl nest boxes. Almost any closed box with a suitable hole in the front will suffice. Boxes can be installed in trees or on tall poles; they can even be placed inside barn walls, with a hole in the wall serving as the entrance.

**In Trees.** The Soil Conservation Service (SCS) has produced plans and instructions for building barn owl nest boxes in trees (Figure 1). Ideal tree species include oak and sycamore. Boxes should be hung or mounted 15 to 30 feet above ground, using six boxes per square mile. The building material can be 3/8-inch or 1/2 inch plywood, assembled with marine-grade plastic resin or exterior wood glue. The top is hinged to aid cleaning. The entrance is 12 inches tall. Boxes should be painted with drab green, black and brown to reduce human disturbance. A two-inch layer of sawdust or wood chips is placed in the bottom of the box; the shavings are replaced each year.

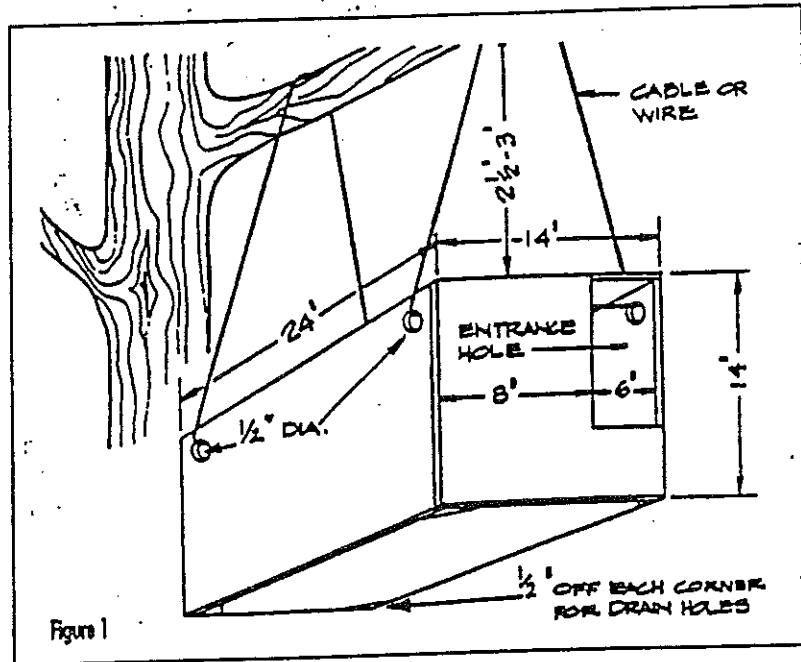


Figure 1

**On Poles.** Hilmar farmer Bill Genn has mounted nest boxes 15 to 25 feet high on utility poles. His boxes are 18 to 24 inches in each dimension with a six-inch opening. He faces the open end to the east away from the sun and prevailing wind. He also uses a double west wall with a couple of inches of space between walls and a shade over the roof to keep the nests cooler. Shavings are placed on the bottom for nesting material.

**In Barns.** Barn owls, of course, like to nest in barns. The Illinois Audubon Society recommends placing nesting boxes inside barn walls, 20 to 25 feet high, with a six-inch square entrance hole cut into the wall. (See Figure 2.) The barn wall acts as the front of the box. The top is hinged but kept securely latched. The box is nailed against the interior barn wall, and if necessary, is supported with wire or additional boards.

#### Barn Owl Nest Box

- A. Interior of barn wall
- B. Wire (or wood) support if beam is narrow
- C. Latch
- D. Entrance
- E. Cross Beam
- F. Entrance (6" x 6")

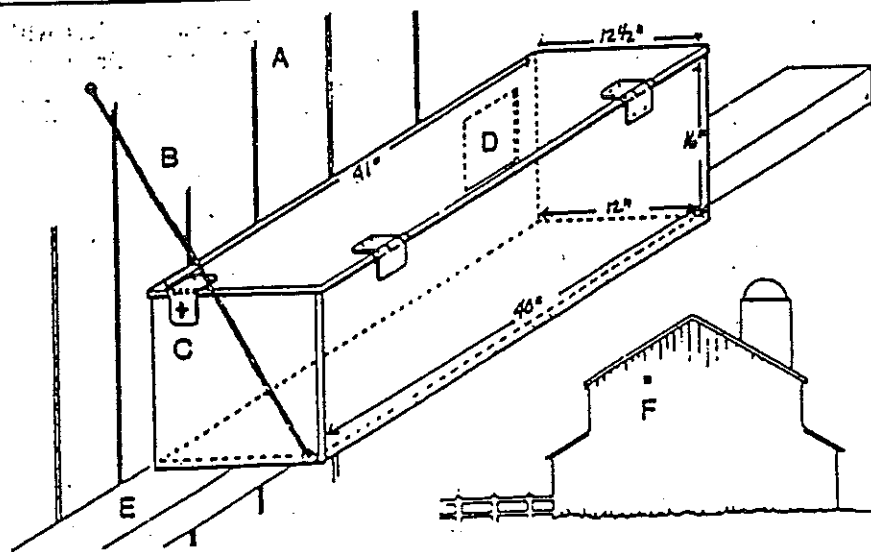


Figure 2

