

# Nesting Structures For Canada Geese

Habitat Extension Bulletin

No. 6

Artificial nesting structures are readily accepted by Canada geese and are effective for increasing nesting success if located in suitable habitat. These structures generally supplement a scarcity of natural nest sites such as muskrat houses, bulrush and cattail mats, hummocks, pastures, or islands. The required nesting habitat of Canada geese in Wyoming is relatively permanent wetland complexes such as marshes, stockponds, or reservoirs that hold at least one foot of water through the summer. These breeding areas must be adjacent to upland feeding sites such as cultivated grainfields or natural grass and forb pastures.

Artificial nesting structures mimic natural nesting sites by providing a clear unobstructed view and by insuring protection from predation and flooding that destroy nests, nestlings, and eggs. The proper design, placement, installation, and maintenance of nesting structures will make the difference between their success or failure. However, when erected in suitable nesting habitat using the following guidelines, artificial nesting structures can often increase goose nesting activities on your wetland.

## Design

Construction of nest structures is relatively inexpensive and the materials

required are easily accessible. Because Canada geese adapt to a variety of elevated nesting structures, the basic designs may be modified using materials you already have on hand. In this brochure are described the types that have been used successfully in Wyoming to attract nesting Canada geese and prevent climbing predators and flooding from destroying nests.

## Wooden platform

This structure is composed of a three by four foot wooden platform that is supported by four treated wooden posts approximately seven feet tall.

The posts are driven two to three feet into the marsh bottom and are cross-braced with boards to insure stability and bound with barbed wire to discourage rubbing by cattle. Bands of tin or other pliable metal that are two feet in height are wrapped around and nailed to the posts approximately three feet from the ground to exclude climbing predators. Platforms with wooden posts will often stand for over 20 years. Where access to wooden posts is difficult or wooden posts are not available, steel poles with wire cross-bracing may substitute for wooden posts, but these structures may remain upright for only five years and therefore will require increased maintenance.

For nesting material, two bales of straw or wood chips are placed on the structure and secured with wire. The bales provide an insulated, workable nesting surface that is resistant to erosion. Baled straw should last about five years before decay from moisture and weather conditions prevents its usefulness. Baled chips will not deteriorate as rapidly but are easily scattered if the baling wire breaks.

## Split drum platforms

Split drum platforms are constructed by cutting a 55-gallon barrel in half length-



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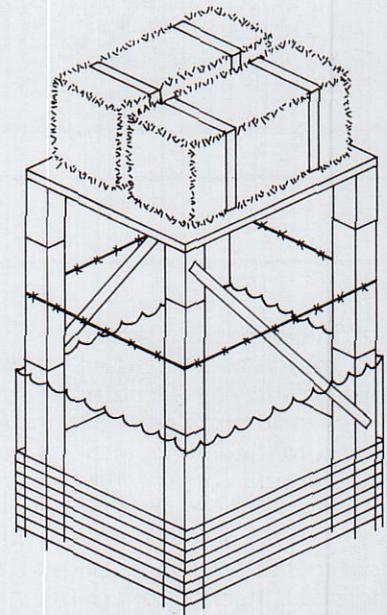


wise. The halves are then bolted or welded side by side after the inner side of each drum is cut down approximately nine inches. This platform is then bolted to four metal fence posts in shallow water, or four, seven-foot steel poles in deeper water. Cross-bracing with barbed wire will add support and inhibit damage by livestock. This type of nesting structure is easily transported and assembled in the field. Wood chips or straw is placed in the drums for nesting material, but must remain within five inches of the rim to allow departure of goslings after hatching. To prevent the retention of moisture, holes should be drilled in the bottom and sides of the drums.

#### *Tub structures*

These structures are made from number three galvanized wash tubs mounted on top of seven-to-eight-foot telephone poles or treated wooden posts that are driven two to three feet into the marsh. Holes should be drilled in the bottom and sides of the tub to promote drainage. Bracing between the tub and pole will stabilize the structure. To exclude climbing predators, a two-foot band of tin or other pliable metal should be nailed to the post approximately three feet from the ground. The nesting material may consist of wood chips or straw but must be kept within five inches of the tub rim so that goslings can depart after hatching.

*Wooden platform structure*



nest diameter. Cutting the tire bead not only provides space for nesting but prevents the eggs from slipping under the tire and being lost to incubation. However, a portion of the bead should be left intact so that nesting material may be wedged under the tire lip. A tire with no bead permits wind to scatter the nesting material. The tire should be filled with coarse nesting

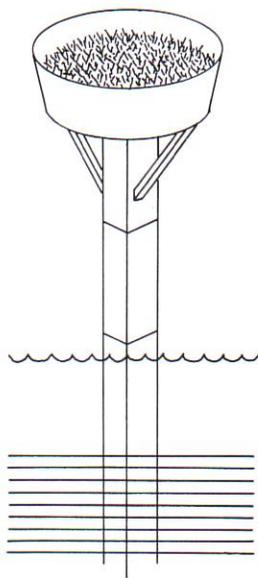


#### *Missile structures*

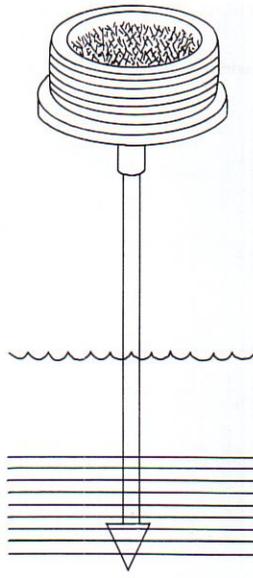
For missile structures, a tire is rested upon a platform that is attached to a nine-foot pole or post. Many options exist for constructing the platform which provides both support and insulation. These include a medium-sized telephone wire spool, a three- by three-foot wooden platform, or a three- by three-foot sheet of one-eighth inch boiler plate covered by a sheet of one-half inch styrofoam or wood. Drainage holes must be punched in the platform. The bead of the tire should be cut to allow at least a 24-inch

material such as straw or wood chips. Sedges, cattails, or hay may also be used for bedding but will deteriorate more rapidly and require more frequent maintenance.

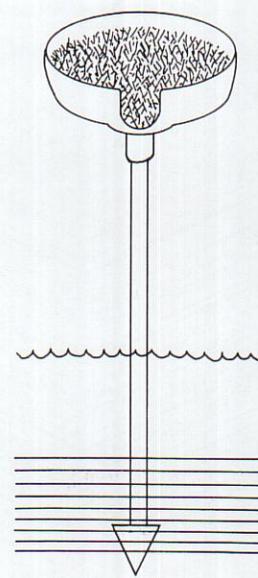
The platform of the missile structure is secured to a sleeve of two and one-half inch pipe. The platform is then placed over a two inch pipe driven two feet into the soil so the platform stands seven to eight feet above the ground. Boiler plate wedges that are welded to the pipe at its base will provide additional support.



*Tub Structure*



*Missile Structure*



*Commercial Structure*

### *Haybale and Haystack Structures*

Nesting structures may also be constructed of enclosed bales or a single large bale. For the first method, hay or straw bales are stacked to four or five feet within four steel fence posts that are enclosed by wire mesh and braced with barbed wire. Additional bales have to be added yearly as the bottom bales decay. Alternatively, during the winter a single large round bale of straw may be set on end over a frozen marsh with a water depth of one to two feet. The bale should be bound with additional twine, wire, or wire mesh for support. After the ice melts, at least half of the bale should extend above the water level.

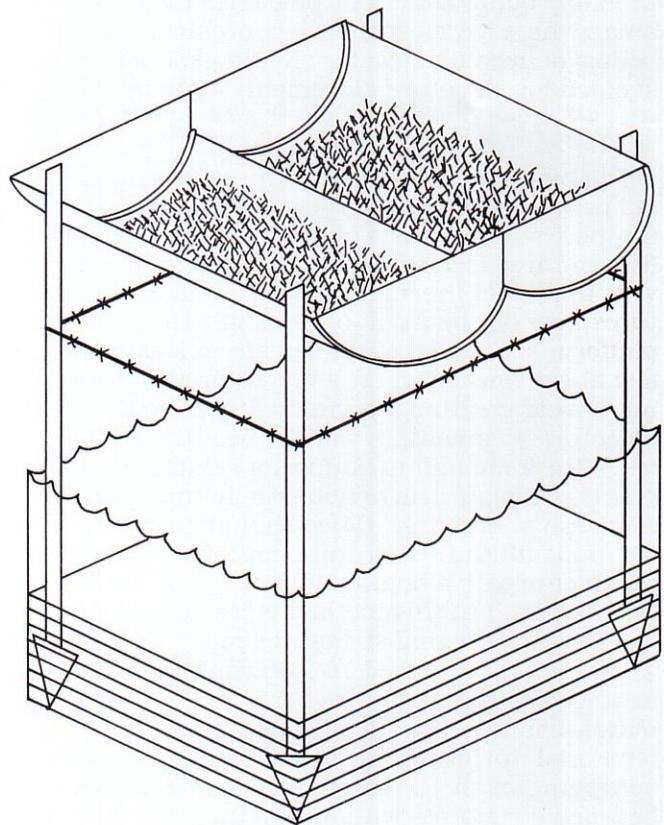
### *Commercial Structures*

Preconstructed nesting tubs for geese may be purchased and mounted on a nine-foot support pipe, thus resembling the previously discussed missile or tub structures. The fiberglass tubs are approximately 32 inches in diameter and ten inches deep, have a gosling escape opening, and cost 40-50 dollars excluding mounting components and support pipe.

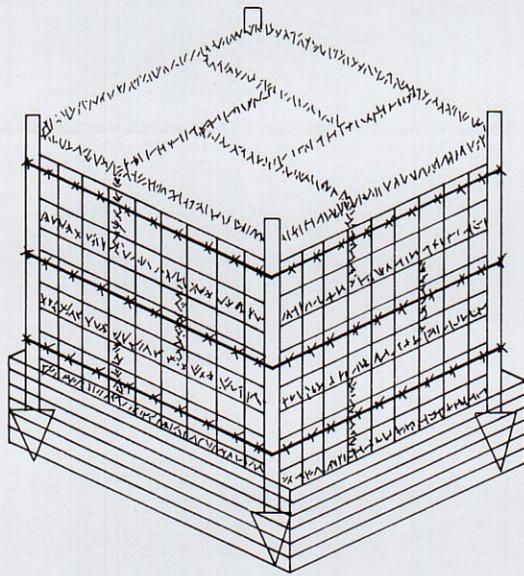
### **Placement**

During the nesting season, Canada geese require shallow water for brood rearing and meadows or grain croplands for feeding. In addition, loafing or resting sites such as open shores, mud bars, logs, or stumps should be available nearby. Therefore, placement of artificial nesting structures relatively close to water and foraging areas is necessary for their success. Structures placed in marginal habitat will be ignored by geese. They should be located in areas free from

human disturbance during the spring. Leeward shorelines and shallow (one to two feet) water with nearby emergent vegetation offer the best habitat for placement of nesting structures.



*Split drum structure*



Haybale Structure

If placed along a shore, peninsula, or island, they should be located where bank erosion will be minimal. Nesting structures in shallow water should be 50 to 300 feet from the shore and in areas not subject to high winds, wave action, or shifting ice. Single pole nesting structures are probably better than four pole structures in areas where ice movement is a problem. Large bodies of deep open water should generally be avoided for structure placement.

#### Installation

The best time to erect structures is during the fall or winter when water levels are lowest. Support poles or posts should be driven solidly (two to three feet) into the marsh bottom to prevent tipping of the structure as unstable structures may not be used for nesting. The nesting platform should generally remain at least three feet above normal water levels to prevent flooding. Avoid creating a permanent trail to the structure so predators will not be attracted. If ice is thick enough to support a vehicle, equipment and materials may be easily transported to marsh shorelines. Holes should be cut in the ice to install the structural supports. During the summer or fall, a boat may be used for structure installation, but this method is less practical.

A series of nesting structures may be erected. They should be spaced 70-100 yards apart or arranged as one structure per acre in open marsh habitat. Because Canada geese are territorial during the nesting season, topography or vegetation should interrupt the line of sight between structures without limiting the visibility in close proximity to the nest.

#### Maintenance

All nest structures require periodic maintenance and should be checked annually during late winter or early spring before the geese return for nesting. Travel by foot or vehicle over ice to the structure will reduce maintenance time. Deteriorated nesting material should be removed and replenished with fresh straw or wood chips. If the structure is unstable, support poles and pipes should be driven farther into the marsh bottom and reinforced with additional cross bracing or guy wires, or the structure should be moved to more firm ground.

#### Summary

This bulletin has described a variety of artificial nesting structures for Canada geese in Wyoming that have proven effective if located in suitable habitat. Nesting structures may not be used during the first nesting season; they are available because geese must become acquainted with the structure. However, after a few years of familiarization, geese may nest on the structure, and the same pair or their offspring may return year after year. We emphasize that all habitat components must be maintained to attract nesting Canada geese. By properly constructing nesting structures, locating them in habitat which fulfills their requirements for survival, and conscientiously maintaining them, the landowner can strategically design his property to increase nesting activity by geese.

Further information on the design, placement, and maintenance of nesting structures for geese may be found in the 1980 publication *Wildlife Management Techniques Manual* edited by Sanford D. Schemnitz for The Wildlife Society or the 1986 publication *Homemade Nest Sites for Giant Canada Geese* by Terry A. Messmer, Michael A. Johnson, and Forrest B. Lee, Cooperative Extension Service, North Dakota State University, Fargo, North Dakota. The habitat requirements of Canada geese are further described in the Wyoming Game and Fish Department habitat extension bulletin number 3, "Habitat needs and developments for geese." Among the companies offering nesting tubs are: Hanson Manufacturing, Inc., 120 Putnam St., Turtle Lake, ND 58575; Pleasure Products Manufacturing Co., 2421 16th Ave. South, Moorhead, MN 56560; and Raven Industries Inc., Box 1007, Sioux Falls, SD 57117.

*Written by Richard Greer through the Wyoming Cooperative Fishery and Wildlife Research Unit.*

*This publication is one in a series of habitat extension bulletins produced by the Wyoming Game and Fish Department. Call 1-800-842-1934 for additional information or assistance.*

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