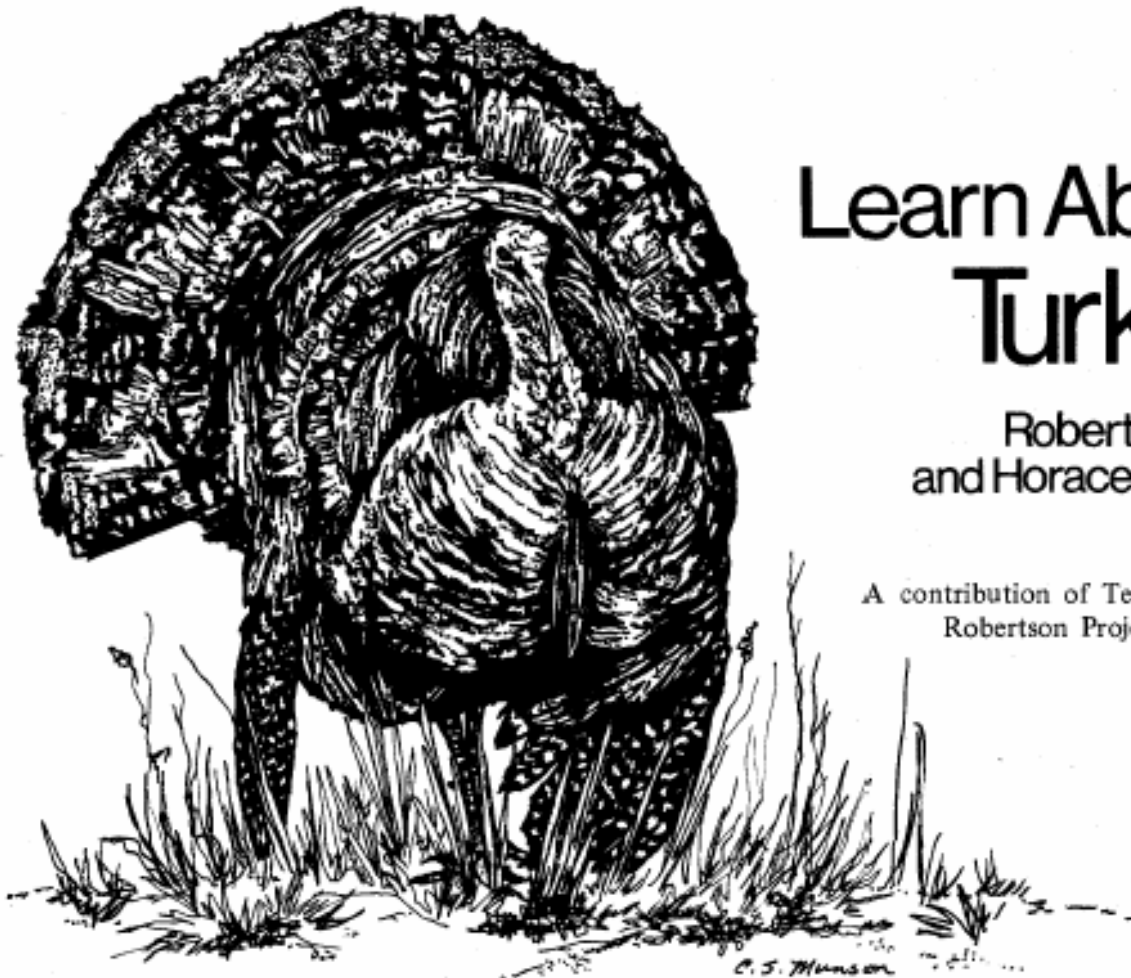


APPENDIX AA



Learn About Turkey

Robert L. Cook
and Horace G. Gore

A contribution of Texas Pittman-
Robertson Project FW-14-C.

Turkey were almost exterminated in Texas by late in the 19th century. However, the first step was taken to protect these game birds in 1897 when trapping was outlawed for five months of the year. In 1903, a bag limit of 25 turkey per day throughout a five-month season was initiated. These liberal restrictions failed to help the turkey in most of its range, since there were few game wardens to enforce the laws.

In 1919, the legislature created a bag limit of three bearded gobblers per season. Increased protection by conservation-minded landowners and additional game wardens in the 1920s helped turkey populations to begin a steady increase. Also, since that time, the Texas Parks and Wildlife Department has trapped over 10,000 turkey and restocked them to suitable habitat throughout the state in an effort to restore the wild turkey to its historic range.

There are presently two varieties of wild turkey common to Texas. The Eastern turkey, *Meleagris gallopavo silvestris*, is found in the forests and dense thickets of East Texas and is rarely seen because of its wariness and scarcity. The Rio Grande turkey, *Meleagris gallopavo intermedia*, is found in most of South, Central and North Texas. The Merriam's turkey, *Melagris gallopavo merriami*, once roamed the mountains of West Texas, but were extirpated by 1907.

Attempts to restock this turkey have not been successful.

In general, the Eastern turkey is darker and larger than the more common Rio Grande variety. A mature Rio Grande gobbler averages 16 to 18 pounds, while the Eastern bird averages 19 to 21 pounds.

Biologists of the Parks and Wildlife Department are trying to save Texas' Eastern turkey and restore it to its former range. The few remaining birds are carefully protected by game wardens and landowners, and efforts to restock suitable areas with wild-trapped birds are made each year. Efforts are also being made to develop a hybrid turkey which could be satisfactorily established in portions of East Texas.

Following are some of the most often asked questions about wild turkey in Texas.

How long do wild turkey live?

Turkey live an average of two to three years; however, upon reaching maturity their life expectancy increases substantially. Most mortality occurs in poults (young-of-the-year) and yearlings. A few birds have been known to live as long as 10 years.

Where did the wild turkey come from?

Wild turkey are native to America and probably evolved from pheasantlike ancestors. American Indians ate turkey and

used the feathers to adorn themselves and their weapons. Cortez, the Spanish explorer, found the Aztecs and other Indians in Mexico in possession of domesticated wild turkey in 1519. The explorer Vasco de Gama introduced the wild turkey into Europe.

What do turkey eat?

Turkey are primarily vegetarians, although they eat many insects, snails and other invertebrates. Major food items during the spring and summer are green grasses and forbs (weeds), buds, flowers, seeds and insects. In the fall and winter, turkey take fruits, most such as pecans and acorns and green forage such as Texas winter grass, oats or wheat, depending upon availability.

How many eggs does a hen usually lay?

Ten or 11 eggs make up the average clutch laid by each hen, and it takes her about two weeks to lay them. Most eggs are fertile and will hatch upon completion of the 28-day incubation period if not destroyed or unduly disturbed.

Do most of the eggs hatch or does something happen to them before the incubation period is complete?

Overall nesting success in turkey is similar to that of most ground-nesting birds. About one-third of all eggs laid will eventually hatch. Weather is the main factor limiting Rio Grande turkey nesting success. If there is insufficient ground moisture, the eggs will get too hot and dry during incubation and the embryo will die. Studies indicate that almost one-half of all turkey nests are destroyed by predators. If weather conditions are good, however, a reasonably good turkey hatch can be expected in spite of predators and other limiting factors.

How long do the hen and young stay on the nest?

The hen and newly hatched poults stay on the nest about one full day. Poults begin to roost in trees at about two weeks of age, but can fly well for short distances at 10 days. During this critical period, predators account for many poult losses. Although a hen may have hatched nine or 10 poults, only two or three may be left at the summer's end.

Can a bearded turkey hen raise young?

Yes. They (about 15 percent of all Rio Grande hens in Texas have visible beards) are as productive as hens without beards. Beards appear on older hens and increase in size and thickness with age.

Why are some wild turkey gray or even white?

Gray or white turkey in the wild are usually genetic color aberrancies compared to the well known "black sheep." They are not domestic turkey gone wild or descendants of domestic turkey. White or gray turkey are often wilder than turkey of normal coloration.

What is the most important limiting factor on Rio Grande turkey?

Weather, especially dry weather in Texas. Droughts lasting several months may cause reductions of up to 50 percent in wild turkey flocks. During dry weather, turkey are weakened by poor forage conditions and are more susceptible to disease, parasites and predators. Most turkey eggs will not hatch in hot, dry weather and the few poults that do hatch must soon have moisture to survive. Sufficient rainfall during the late spring and early summer months is essential to good turkey production and survival.

Wouldn't a good predator control program increase turkey numbers?

Not necessarily. Wild turkey have survived and reproduced for thousands of years in spite of the presence of every known predator in North America. With good weather and range conditions, turkey have little trouble contending with pressure from predators. In addition, it is expensive and difficult to effectively reduce predator populations.

Why do we hunt turkey?

Turkey provide thousands of hours of recreation for sportsmen as well as a delicious addition to the menu. Legal hunting pressure has never been a limiting factor on turkey in Texas since less than 10 percent of the entire population is harvested by hunters annually. Turkey can withstand an annual harvest of at least 20 percent of the population. If these birds are not taken by sportsmen during the hunting season, they will eventually die and be wasted.

Shouldn't we protect hens?

To properly harvest turkey and maintain sex ratios, it is absolutely necessary to harvest both hens and gobblers. Ranchers wouldn't sell only the male offspring from their livestock herds. The same principle applies to turkey since surpluses occur in both sexes. Continual harvest of one sex will create an imbalance in the sex ratio. In addition, turkey hens are difficult to distinguish from young gobblers, and the average hunter finds it almost impossible to distinguish a bearded hen from a gobbler. As in the case with most game birds (waterfowl, quail, dove), it is practical to allow and encourage the harvest of both sexes. A reasonable either-sex harvest will not hinder turkey production.

Why hunt gobblers in the spring mating season?

Although the spring gobbler season is relatively new to most Texans, it is traditional in most southern states and is probably the most practical of all hunting seasons, since it is held after the hens have been bred and are laying or incubating eggs. Hunting game animals during their breeding season is a common and established principle to big game hunters. Because of his gobbling and strutting activities, the male turkey is easier to distinguish this time of year. Hunters can also use calls to lure gobblers within range.

Hens need to be bred only once each spring to fertilize their entire clutch of eggs and each dominant gobbler usually mates with about ten hens. Since sexes are born in equal numbers, it is easy to see how a surplus of gobblers can occur under this arrangement. After the hens are bred and no longer need the gobbler for mating, most of the gobblers could be harvested. Bag limit during the spring season in Texas is one gobbler per hunter; therefore, there is no danger of reducing the productivity of the flocks by harvesting gobblers each spring.

Should I try to restock turkey on my place?

Restocking is one of the most important factors in our turkey management program in Texas, but restocking efforts should not be made in areas that are no longer suitable for the birds. Extensive land clearing practices have eliminated thousands of acres of good turkey habitat, and continuous overgrazing by domestic livestock has rendered additional thousands of acres worthless to the wild turkey. Successful restocking attempts have been made by the Texas Parks and Wildlife Department with turkey trapped from the wild. The

trapped birds are immediately released into approved restocking areas and carefully protected for at least five years following their release. Wild turkey have the ability to survive and reproduce when relocated under such conditions. In most cases, releases of pen-raised or semidomesticated turkey into the wild have been unsuccessful and quite expensive. Releasing pen-raised birds into the wild may also invite serious disease and parasite problems unless done under carefully regulated conditions such as programs carried out by the Parks and Wildlife Department.

There are several factors which should be considered before turkeys are restocked in an area. First, why aren't turkeys there now? Is there sufficient vegetation to provide cover and food? Good turkey range should have ample numbers of mature trees as well as brush and shrubs to provide food (pecans, acorns, berries, seeds) as well as cover and roosting areas. Assuming the range provides all the natural essentials, the area must also be protected from illegal hunting such as roost shooting at night. *No one should be allowed to hunt, camp or otherwise disturb turkey within one-quarter mile of a roost site.* Finally, turkey require a large annual range, often moving eight to 10 miles from winter roost sites to summer nesting areas. Food, cover and protection must, therefore, be provided over an area of several thousand acres. If an area can provide all these essentials and is within the required rainfall belt, then serious consideration might be given the possibility of restocking turkey.

Do turkey need supplemental feed?

Supplemental feeding of any wild animal is recommended only during extended periods of stress such as prolonged drought or severe winter weather. However, in order to sustain wildlife during these critical periods, the animals must know where the supplemental feed is located and be accustomed to taking it. Therefore, feed should be provided well in advance of any anticipated critical periods. Often supplemental feed is provided just before and during hunting seasons in order to "bait" turkey to a specific site to be harvested by eager hunters. It is essential that such a feeding program be continued into January and February if turkey are going to benefit from it. Turkey prefer natural food and will not take significant quantities of artificial feed unless they really need it. In most cases, it is preferable to improve or extend the turkey's natural habitat and food supply.

Although extended periods of severe weather may justify supplemental feeding in some instances, feeding programs are expensive. Feeding areas should be kept clean and the grain must not become contaminated by the birds' droppings. For this reason, feeders should be moved short distances from time to time. The feeding area should be near trees and thick brush to provide immediate escape cover from predators.

Food plots are preferable to feeding stations for turkey and other wildlife. These plots need not be large in size; two to 10 acres will provide large quantities of forage for turkey and other wildlife if it is not grazed by domestic livestock. Turkey readily eat oats, wheat, clover, vetch or rye.

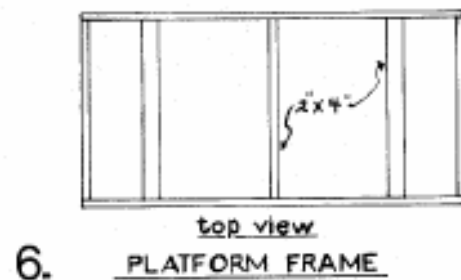
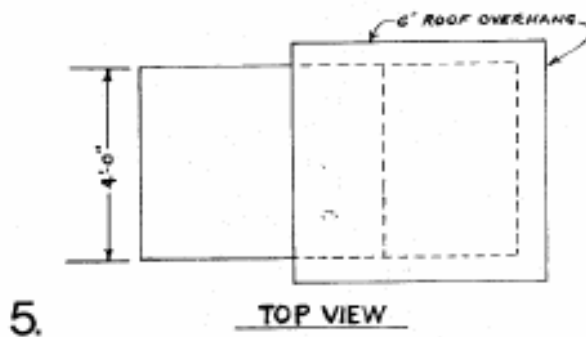
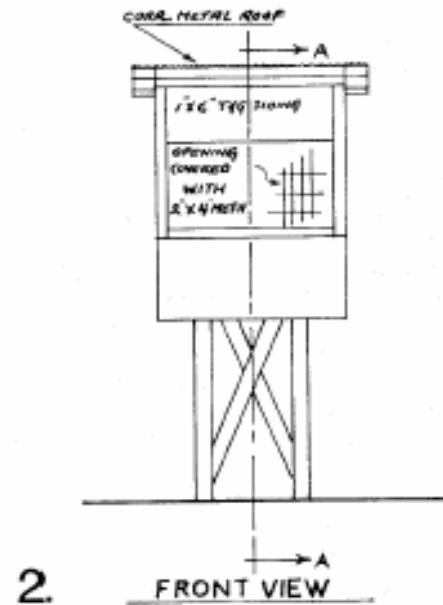
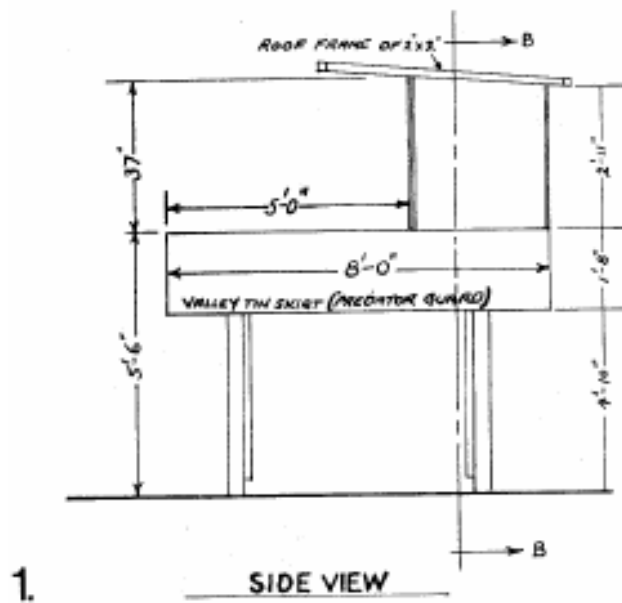
Biologists in Texas and other states have worked years to obtain answers to some of the many questions which arise concerning the restoration and management of the wild turkey. Our society continues to demand more fields for food

crops; more livestock to provide meat and other products; more lakes for recreational activities; and more land for homes, schools, factories and roads. These demands may spell eventual doom for the wild turkey unless large tracts of land are preserved as wildlife habitat. Continuing research will hopefully provide the management techniques which will ensure the survival of the wild turkey in Texas.

For those landowners and sportsmen who may be interested in feeding turkeys on their land or leases, we have included diagrammatical sketches of two feeders which have proven successful in many areas of Texas. October through March is the critical time for keeping feed available to turkey. Best feeds are milo or corn chops. Landowners who wish to feed both deer and turkey from the same feeder should consider using an elevated barrel-type automatic feeder and a mixture of whole corn and milo.

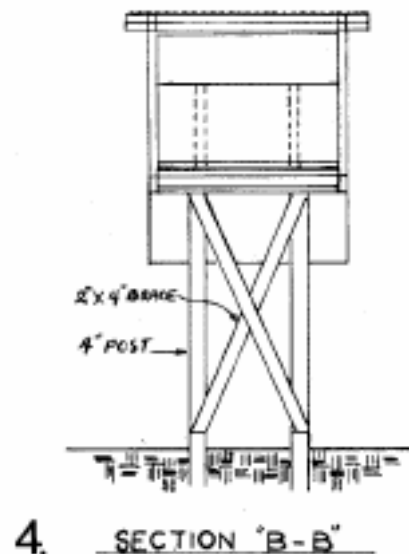
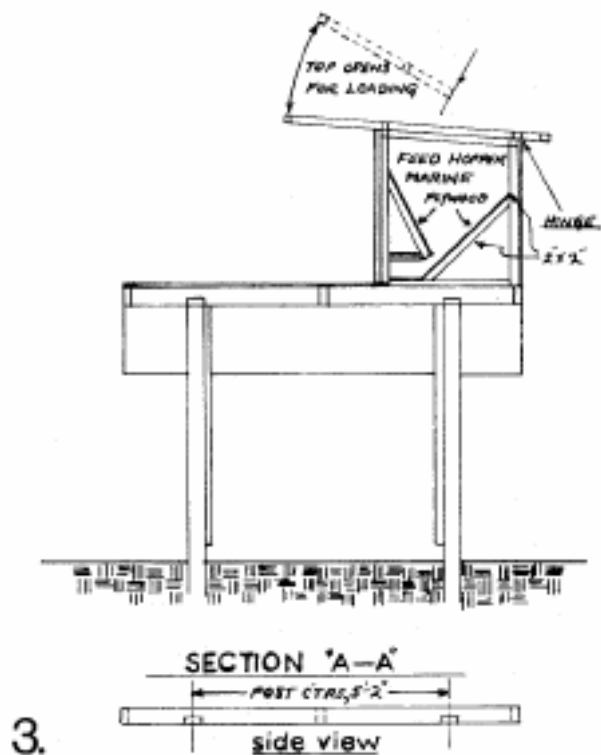


Turkey Feeder 500 pound capacity



General Notes

1. Platform Covering & Exterior of Hopper of 1" x 6" T&G
2. "Weldwire" Mesh Used Over Feed Opening
3. Top of Hopper Secured By Hook & Eye at Each Side.
4. T&G Siding on Hopper Installed With Tongue Edge Up.
5. Posts Set in From Edge Of Platform To Deny Access to Predators.



This type of feeder is being used on several wildlife management areas and on private ranches. The inset legs and valley tin around the platform practically eliminates the tremendous waste that usually accompanies the use of turkey feeders by ever-hungry raccoons.

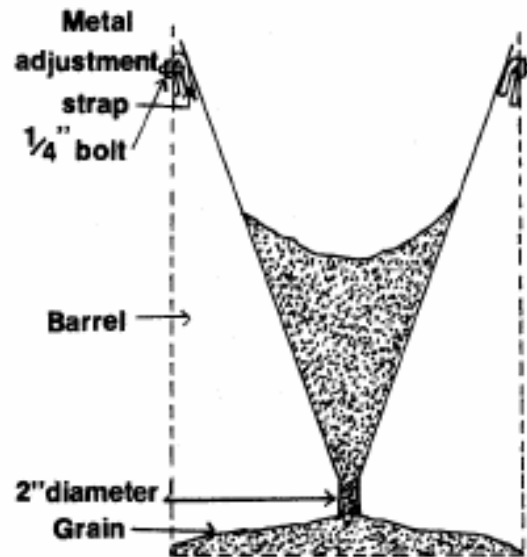
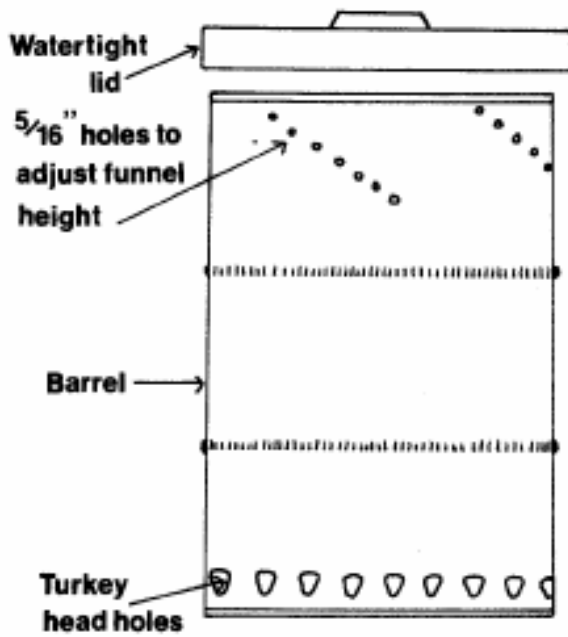
Care should be taken not to place the feeder directly under a tree or the raccoons will soon learn to climb the tree and drop down on the feeder. While it takes a little longer for turkeys to learn to utilize this type of feeder, the savings are well worthwhile. Turkey will normally accept this feeder more readily if a few pounds of grain such as milo are scattered on the ground around the feeder at weekly intervals until turkey locate the feed in the hopper.

The materials to build this feeder cost approximately \$50.00 and if the wood is treated it will last for many years.

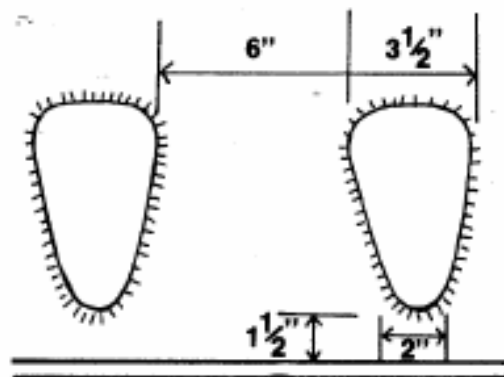
TURKEY FEEDER

Feeder
(55 gallon)

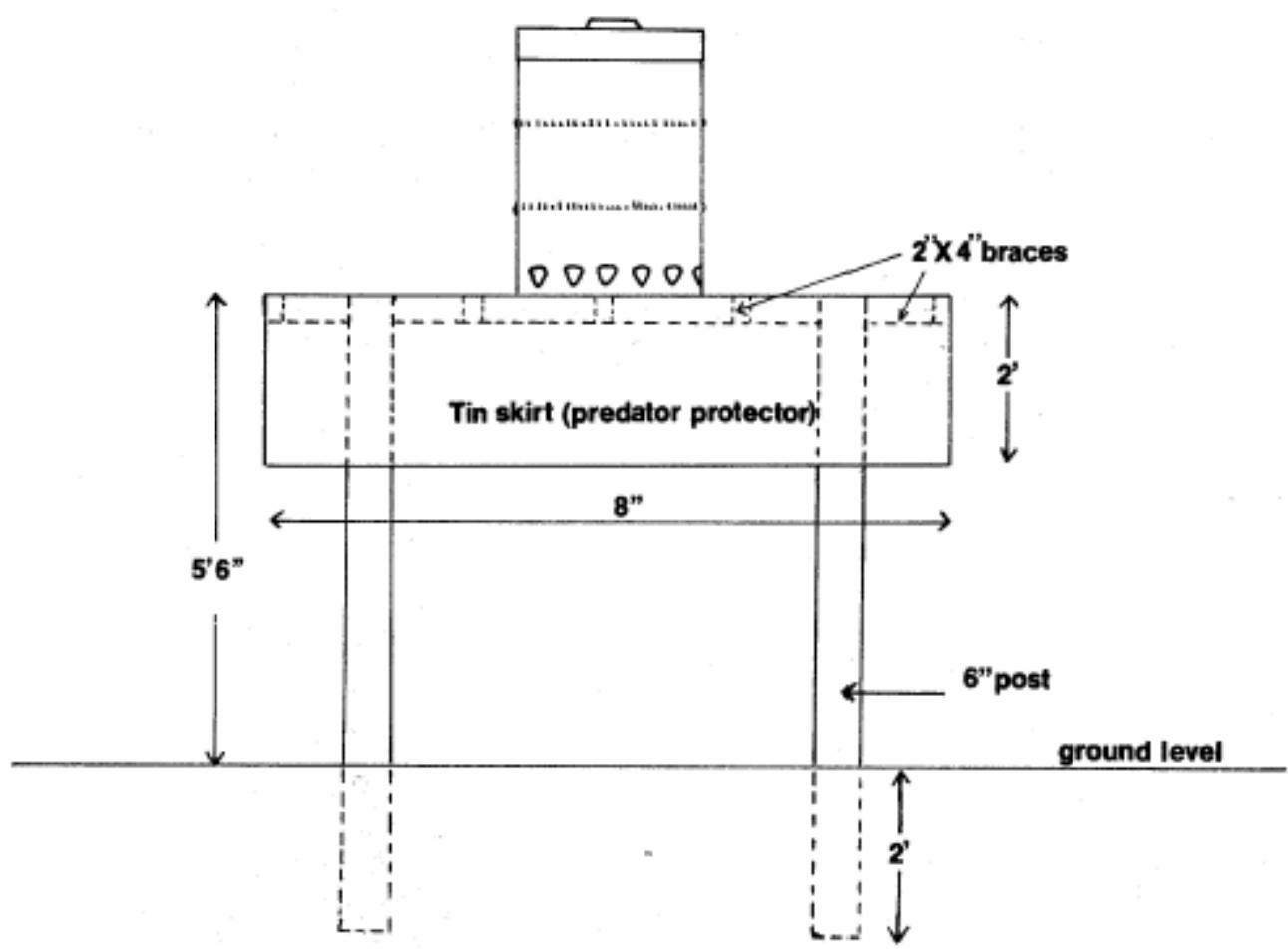
Inside View



Turkey Head Holes



TURKEY FEEDER PLATFORM



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