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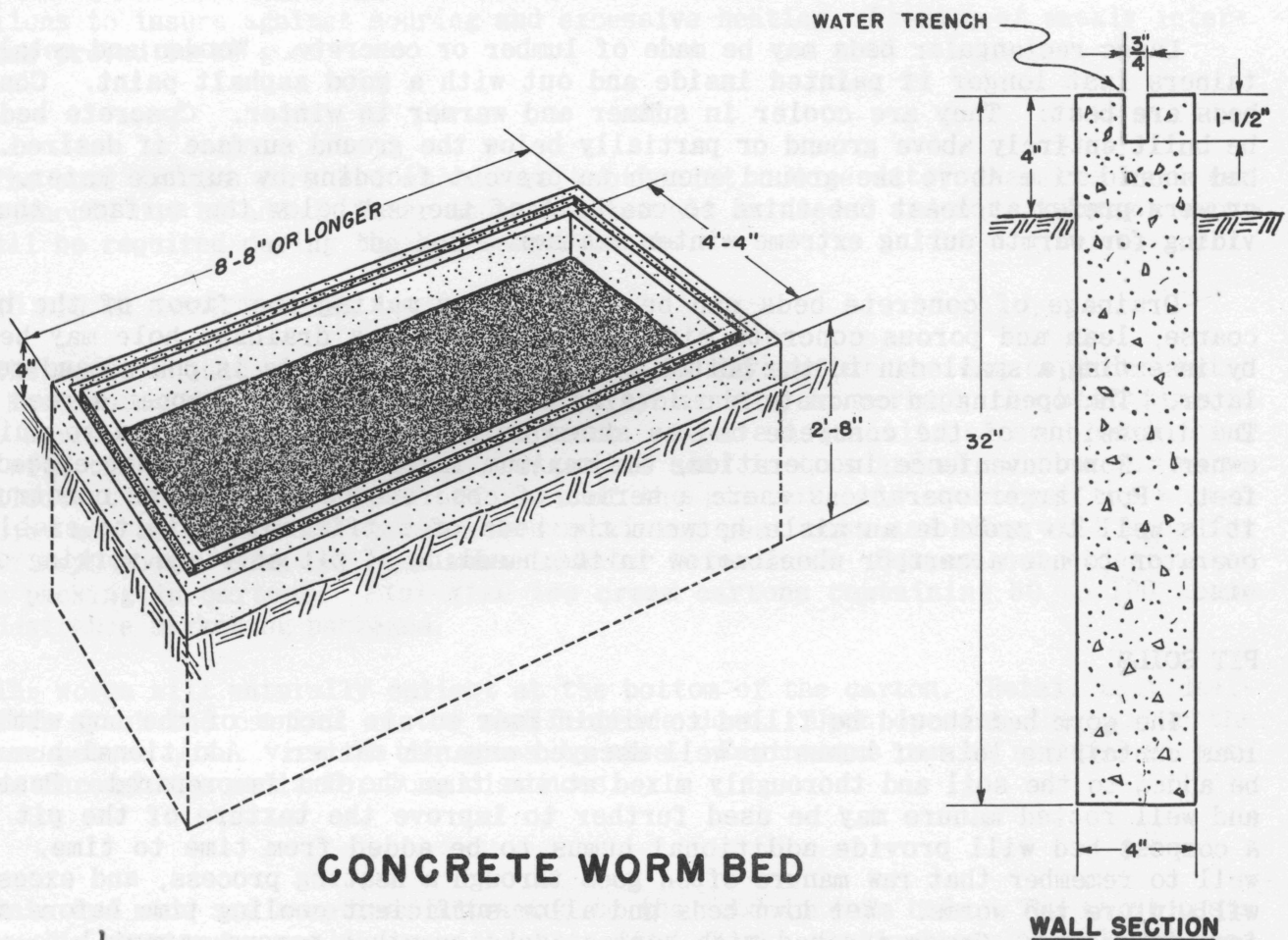
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RAISING EARTHWORMS FOR FISHBAIT

EDWIN H. COOPER, Specialist in Wildlife Conservation
The Texas A. & M. College System



An earthworm bed in the backyard will supply worms at all times of the year. The worms will always be ready, and no time will be lost when going fishing. A good supply of fishing worms fits well into the fish production program where fish are grown for home use in the farm pond. The production of earthworms for fish bait on a large scale for both the wholesale and retail trade is a very interesting and often a very profitable business. It is an easy matter to ship earthworms through the mails when properly packaged. Thousands of fish worms can be raised with little trouble and expense.

EARTHWORM BEDS

The worm bed should be located in a cool, shady place. Shade may be provided by shrubs, trees, vines or other plants such as castor beans. Many earthworm growers prefer permanent sheds to properly protect the beds from the sun and rain throughout the year.

Worm beds may range in size from an ordinary wash tub to beds of larger dimensions, depending on the number of worms needed. A tub two feet in diameter and twelve to fifteen inches deep should produce from 3,000 to 5,000 fishworms annually. Two such tubs would permit the use of worms from one while the other is left undisturbed. Earthworms do better when not disturbed too often. Oil drums cut in half serve the purpose very well. Provide for drainage by cutting a two inch hole in the bottom of the tub and cover the opening with a patch of fine copper screen wire which can be sealed down easily with hot coal tar. Tub beds may be kept in the garage or they may be buried in the ground to within about four inches of the top. This will prevent excess surface water from flooding the worm bed. Too much water will cause a waterlogged condition harmful to the worms.

Large rectangular beds may be made of lumber or concrete. Wooden and metal containers last longer if painted inside and out with a good asphalt paint. Concrete beds are best. They are cooler in summer and warmer in winter. Concrete beds may be built entirely above ground or partially below the ground surface if desired. The bed should rise above the ground enough to prevent flooding by surface water. Some growers prefer at least one-third to one-half of the bed below the surface, thus providing for warmth during extreme winter weather.

Drainage of concrete beds can be provided by making the floor of the bed of coarse, lean and porous concrete mixture. Otherwise, a drainage hole may be made by inserting a small can in the bottom at the time the concrete is poured and removed later. The opening in concrete should also be covered with fine copper screen wire. The dimensions of the concrete bed as shown on page 1 may be modified to suit the owner. For convenience in operation, the maximum inside width should not exceed four feet. For larger operations where a series of concrete beds are to be constructed, it is well to provide an aisle between the beds of sufficient width to enable the operator to use a cart or wheelbarrow in the handling of pit soil and working otherwise.

PIT SOILS

The worm bed should be filled to within four to six inches of the top with fine loam containing lots of humus or well decayed organic matter. Additional humus may be added to the soil and thoroughly mixed at the time the bed is prepared. Peat moss and well rotted manure may be used further to improve the texture of the pit soil. A compost bed will provide additional humus to be added from time to time. It is well to remember that raw manure often goes through a heating process, and excess heat will injure the worms. Wet down beds and allow sufficient cooling time before stocking with worms. Cover the bed with burlap sacks or other porous material to assist in holding moisture. Cottonseed hulls, peanut hulls and lawn clippings are sometimes used for this purpose. Where the beds are not protected by a shed, board covers should also be provided.

FISHWORMS TO USE

The "English redworms" or "red wigglers" appear to be the best and most popular earthworms to use. They are very active, most prolific and reproduce throughout the year. This is the type of earthworm preferred by most fishermen. Fifty to one hundred worms will be sufficient to start a small bed. Worms for stocking beds may be had from a near-by neighbor or they may be purchased from bait dealers or commercial

growers. Consult your county agricultural agent as to sources where stock worms may be obtained.

FEED FOR EARTHWORMS

Earthworms will use a variety of foods, and they also feed on the soil from which they digest organic matter, both animal and vegetable. The leaves of celery, cabbage, lettuce, turnips and other vegetables are readily taken as food when small amounts are worked into the top soil.

A mixture of one part discarded kitchen fat to two or three parts of corn meal makes an excellent ration. Another good ration: one part of cottonseed meal; one part laying mash, two parts alfalfa meal. Broiler chick mash or regular laying mash may be used alone. Apply light applications of ration mixture to top soil, work in lightly with ice pick or other pointed instrument and wet down with small amount of water. Frequent and light applications of food mixtures are best. Avoid heavy applications to insure against souring and excessive heating. Feeding at weekly intervals has proved to be good.

WATER

The soil in the worm bed should be kept moist. More water than the soil can absorb should not be added. Water beds at intervals as needed and more frequent watering will be required during the hot summer months.

TIME TO DIG OR HARVEST WORMS

The worms should reach maturity in 60 to 90 days after the egg capsules hatch out. Earthworms feed more at night and early morning is perhaps the best time to remove worms while they are near the surface. Remove a quantity of soil containing worms with the use of pointed forks. Place this soil in tubs and allow time for worms to collect at the bottom. Pour off most of the pit soil and count out the worms. The worms may be packed in containers containing peat moss and they will keep for days if kept cool. Soak the peat moss in water beforehand. Squeeze out excess water before packing in cartons. Pint-size ice cream cartons containing 50 to 100 worms make desirable marketing packages.

The worms will naturally collect at the bottom of the carton. Retail bait dealers often stack the cartons on the shelf upside down. Upon opening the carton the customer gets a quick view of the worms in mass. Earthworms can be shipped in containers through the mails for long distances.

PESTS

Rats and mice are sometimes attracted to the food in worm beds. The worst pests are usually ants and a small, grayish white mite. Light applications of sulphur dust applied to the top of the soil will help in controlling ants and mites without injury to the worms. Ants can be prevented from entering concrete beds by providing a water groove in the center of the concrete curb. Keep the groove filled with water and no ants will cross it. Dusting the surface of the ground around the bed with insect powders will also assist in controlling ants. Never use insect powders containing DDT directly on the pit soil. Barnyard manure from lots where cattle have been sprayed with DDT spray should never be used in worm beds.

CLEANING OUT BEDS

The pit soil should be removed at least once each year and the bed filled with new soil. Late fall is a good time for earthworm bed house cleaning - at the end of the summer fishing season and before the worms bed down for winter. The pit soil together with the few remaining worms in it should be added to the flower beds or garden.

*The original manuscript for this leaflet was
prepared by R. E. Callender, former Extension
specialist in wildlife conservation.*

TEXAS AGRICULTURAL EXTENSION SERVICE

J. E. HUTCHISON, DIRECTOR, COLLEGE STATION, TEXAS