The Kerr Center Chicken Tractor 1.0

*Description and Parts List*

by Cortney Loyd
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Chicken tractors are secure and movable structures that allow chickens access to sunlight and fresh air, while allowing them to forage and scratch the ground for food. Chicken tractors are mobile and are moved regularly to allow the birds access to fresh forage. They are one of several humane and healthy alternatives to growing poultry in conventional confinement buildings. Small chicken tractors (like Kerr Center’s) appear to be especially popular in urban and suburban settings to produce home-grown eggs. They are sometimes rotated over vegetable garden beds where the birds can till the soil and devour insect pests.

There are many different designs for chicken tractors; partial and complete kits, and DIY plans for some of them can be found on the Web. At Kerr Center, we (Andy Makovy, Mary Penick, and Cortney Loyd) designed and built our own from scratch. This paper describes our chicken tractor and includes information for anyone wanting to duplicate what we’ve done.

Photo #1 below provides a side view of Kerr Center’s chicken tractor and illustrates some key elements. Sheltered nesting boxes are raised 20” above the ground to allow the entire area occupied by the unit to be grazed.
The base of tractor is 60” wide and 80” long. It stands 55” tall at the front, 72” tall at the rear, and 76 ¼” at the peak of the sloped roof. The base runners are 4”x4”x10’ timbers. Welded wire is used to seal the unit against predators and to keep the birds confined.

Photo #2 shows the inside of the shelter with nesting boxes on the left. These boxes are built about 12” above the floor of the shelter. A pophole leads to the ramp on the right. Nesting boxes are 11 ½” wide.

They can be easily accessed from the rear of the unit by raising the door flap shown in photo #3 below. This allows for easy egg gathering and cleaning.
Photo #4 below shows this door flap in the closed position. Entry to the grazed area is through one large hinged door located forward of the shelter. This is used daily to provide supplementary feed, water, and for general access.

![Photo 4]

A ramp descends from the middle front of the shelter, extending almost to the ground, as shown in photo #5. This picture was captured when only the small pophole was open.

![Photo 5]
This small pophole is imbedded in a wider hinged door (shown in Photo #6) which, when opened, allows greater airflow to the nesting boxes in hot weather.

The shelter has two side 15” X 10” windows for cross-ventilation. The windows feature both flaps, which can be lowered in inclement weather, and welded wire for security. The roof of the shelter is sloped to the rear to shed rain. A narrow gap exists between the roof and the top of the shelter for added ventilation. A durable shade cloth covers the remainder of the top, which is also enclosed in welded wire for security (see photo #7 below).

Kerr Center’s chicken tractor is constructed much stronger and heavier than many of the commercial kits currently available. One reason is the very strong winds common to our location in Oklahoma; another is the threat from large dogs—probably our worst predator.
Because the chicken tractor is so heavy, we move it using a Kawasaki Mule—an off-road utility vehicle (photo 8). As shown below, a cable attached to eyebolts on the runners is half-twisted and looped over the ball hitch for pulling.

We estimate that it cost us approximately $290.00 to construct the Kerr Center chicken tractor. It will cost less to duplicate if recycled lumber and hardware are used. A parts list follows.
Parts List for the Kerr Center Chicken Tractor

25 pieces 2”x 4”x 8’ lumber
4 sheets ¾” plywood
2 pieces 2”x 6”x 10’ lumber
2 pieces 4”x 4”x 10’ lumber
2 sheet corrugated roofing (or equivalent)
1 roll 48” x 100’ 14 Gauge welded wire
2 large eyebolts
8 medium eye screws

4 large strap hinges
9 medium hinges
7 medium latches
4 drawer-style handles
Outdoor wood screws
Medium nails
Shade Cloth (60” width)
8 plastic zip-ties
Small roll nylon cord
Plans for Chicken Tractor

Base of tractor:

runners: 2 4"x4"s (each 10' long)

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<thead>
<tr>
<th>Side view</th>
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<td>10' 4&quot;x4&quot;</td>
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<table>
<thead>
<tr>
<th>5'7&quot; 2&quot;x4&quot; (rear)</th>
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<tr>
<td>5' 2&quot;x4&quot; (front)</td>
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<table>
<thead>
<tr>
<th>Top view</th>
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<td>10' 4&quot;x4&quot;</td>
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| Place 2x4's between runners |

Shelter:

<table>
<thead>
<tr>
<th>Place 4 2&quot;x4&quot;s for corners of shelter</th>
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<tbody>
<tr>
<td>2 rear 2&quot;x4&quot;s (6'1&quot; tall)</td>
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<tr>
<td>2 front 2&quot;x4&quot;s (6'4&quot; tall)</td>
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<tr>
<td>So roof will slant toward rear to shed rain</td>
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<table>
<thead>
<tr>
<th>Place 2&quot;x4&quot; braces between standing 2&quot;x4&quot;s</th>
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<td>(17'2&quot; above 4&quot;x4&quot; runners)</td>
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56 3/4" long
place 2"x4" braces between standing 2"x4"/s (57" above 1/2"x4" runners)

Cut plywood (3/4" thick, non-treated) for floor of shelter (cut to fit on top of lower set of braces - about 60" x 35 1/2"

Notch floor at corners where it meets braces

Back of shelter:

Cut 3/4" thick plywood (48" x 60 3/4"

Screw top of plywood to top brace at rear of tractor

Saw through middle of plywood for egg-collecting flap
front of shelter:

cut 3/4" thick plywood (48" x 60 3/4")
screw top of plywood to top brace on front side of tractor

cut out piece of plywood for small door

open entire flap and tie open for warmer weather or open small door and tie open for colder weather

sides of shelter:

cut 3/4" thick plywood (34" x 48") - two pieces

attach to each side of tractor

cut out piece of plywood for window - tie open in warmer weather
roof of shelter:

cut piece of corrugated tin for roof
cut to fit so each side overhangs by 2-3"

place on top of standing 2x4"s - there will a
gap between roof and plywood on sides

nesting boxes:

place 2"x4" brace between rear
standing posts 12" above floor
of shelter

repeat at front of shelter -
place 2"x4" brace between
front standing posts 12"
above floor
cut 3/4" thick plywood (56 3/4" x 13 1/2") for floor of nesting boxes

cut 3/4" thick plywood (56 3/4" x 8 3/4") for front of nesting boxes

place floor of nesting boxes on top of braces between standing posts

place front of nesting boxes so it overlaps front 2"x4" brace between standing posts and rise 4" above floor of nesting boxes

cut 4 pieces 2"x4" (13" long) and place on floor of nesting box to create 5 equally-sized nesting spaces
Grazing area:

- Place 5 2"x4" standing posts (54" tall) inside base runners.
- Place 2"x4" braces (60" long) between middle standing 2"x4"s top & bottom.
- Place pieces of 2"x6" outside of standing posts and attach to shelter.

shelter
rear
front
door:

use pieces of 2"x4" to construct door frame

use pieces of 3/4" thick plywood (~2"x4") to attach door corners & strengthen frame

place door here

ramp:

cut 3/4" thick plywood (12½" x 57") for base of ramp

cut pieces of 3/4" thick plywood (12½"x1") & attach to ramp spaced ~6" apart for footholds

place ramp going from small shelter door to ground resting on middle 2"x4" brace
Finishing touches

- Drill holes through side of 4"x4" runners & place eye bolts
- Attach cable or rope (10' long) to pull tractor

Place 14 gauge welded wire on sides, door, front, back, top, over windows, and in gap between shelter and roof.

Place shade cloth or tarp over grazing area for shade and protection from weather.
Cortney Loyd is originally from Wister, Oklahoma. She graduated from Eastern Oklahoma State College with an Associate in Animal Science. She received a Bachelor in Animal Science Production from Oklahoma State University in December 2009.

Cortney is an intern at Kerr Center in 2010. She has a great interest in the meat goat industry, which she has personally been part of since 2002. At the center, she is working with the meat goat and the pastured poultry projects.

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