

A-frame Chicken Coop: DIY Plans

1. Overview & Introduction

This document provides a complete guide to building a sturdy, portable 4'x8' A-frame chicken coop, suitable for 3-4 standard-sized hens. This design prioritizes predator security, durability, and ease of use as a chicken tractor.

Finished Dimensions:

- **Length:** 8 feet
- **Width:** 4 feet
- **Height:** Approx. 4 feet

Features:

- Enclosed roosting/sleeping area
- Open-air, predator-proof run
- Exterior-access nesting box for easy egg collection
- Portability for rotational grazing

2. Materials & Tools List

Materials:

- **Lumber:**
 - 8x: 2"x4"x8' framing lumber
 - 2x: 4'x8' sheets of 1/2" exterior-grade plywood or OSB
- **Hardware:**
 - 1x: 25' roll of 1/2" galvanized hardware cloth (4' width)
 - 1x: Box of 2.5" exterior-grade deck screws
 - 1x: Box of 1.25" exterior-grade deck screws
 - 1x: Box of heavy-duty galvanized staples (for staple gun)
 - 50x: 1" screws with 1/2" fender washers (for reinforcing hardware cloth)
 - 2x: Heavy-duty galvanized gate hinges
 - 1x: Heavy-duty galvanized handle
 - 2x: Two-step predator-proof latches (e.g., hook-and-eye + carabiner)
- **Roofing:**
 - 2x: 2'x8' Corrugated metal or polycarbonate roofing panels
 - 1x: Box of roofing screws with rubber washers

Tools:

- Tape Measure & Pencil
- Speed Square
- Circular Saw or Miter Saw
- Power Drill/Driver with bits
- Heavy-duty Staple Gun
- Wire/Tin Snips (for cutting hardware cloth)
- Work Gloves & Safety Glasses
- Clamps

3. Cut List

From 2x4" Lumber:

- **(A) Base Frames:** 4x @ 8' (Do not cut)
- **(B) Angled Sides:** 8x @ 4' 6" (Both ends cut at a 30-degree angle, parallel to each other)
- **(C) Cross Braces:** 4x @ 45" (Ends cut flat)
- **(D) Roosting Bars:** 2x @ 45" (Ends cut flat)

From 1/2" Plywood:

- **(E) Back Wall:** 1x Triangle (4' base, approx. 3' 5" height at 60-degree angles)
- **(F) Interior Wall/Door:** 1x Triangle (Same as back wall, with a door cut out)
- **(G) Coop Floor:** 1x @ 45" x 3'
- **(H) Nesting Box Walls/Lid:** Cut to fit (Typically 12"x12" pieces)

4. Step-by-Step Assembly Instructions

Step 1: Build the A-frames

- Take two of the angled side pieces **(B)** and join them at the top to form a triangle peak. Secure with 2.5" deck screws.
- Attach one cross brace **(C)** about 12 inches up from the bottom ends of the triangle. This completes one A-frame.
- Repeat to build the second A-frame.

Step 2: Assemble the Main Structure

- Place the two A-frames 8 feet apart.
- Attach the four base frame boards **(A)** to the bottom of the A-frames, two on each side. Your main structure is now standing.

Step 3: Frame the Enclosed Area

- At one end of the coop, install the plywood floor **(G)** on top of the cross brace.
- Install the triangular back wall **(E)**.
- Install the interior wall **(F)** three feet in from the back wall, creating the enclosed coop space.
- Install the two roosting bars **(D)** inside the enclosed area, about 18 inches off the floor.

Step 4: Attach Siding and Roofing

- Cut plywood to fit the sides of the enclosed coop area and attach it.
- Install the roofing panels, ensuring they overlap at the ridge to prevent leaks. Use roofing screws with rubber washers.

Step 5: Build and Attach the Nesting Box

- Build a 12"x12"x12" box from plywood scraps **(H)**.
- Cut an opening in the side of the enclosed coop area and attach the nesting box.
- Create a hinged, slanted lid for the top of the nesting box to keep it dry and allow for easy egg collection.

Step 6: Secure with Hardware Cloth

- Carefully wrap the entire open-run portion of the coop with 1/2" hardware cloth.
- Staple it every 2 inches to the frame.
- **Crucial Step:** Reinforce the hardware cloth by adding screws with fender washers every 8-10 inches along the entire frame. This is your primary defense against predators.

Step 7: Install Doors and Latches

- Use the plywood cutout from the interior wall **(F)** as your main door. Attach it with hinges and a secure, two-step latch.
- Add any other access doors needed, ensuring they are all secured with predator-proof latches.

Congratulations, your A-frame chicken coop is complete!