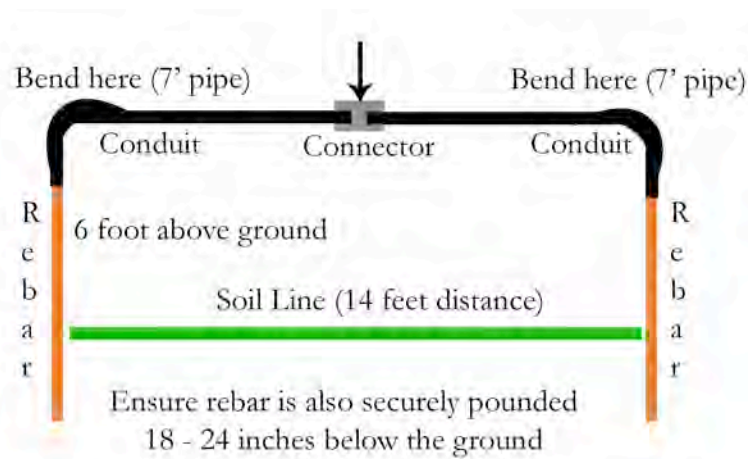


Do It Yourself Affordable Screen Houses

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A screen house is an effective tool to minimize pest from damaging crops which may result in reduced productivity, crop and financial losses. It serves as a physical barrier which puts the pest at a disadvantage. Building a screen house does not have to be costly. Construction of a screen house using home improvement store supplies may help minimize pest populations, reduce pesticide applications and increase production yields. A return on investment can be seen within a few crop cycles, depending on the crop and other external conditions.

The design of the house will ultimately be based on the dimensions of the screen, construction material and your targeted crop. Here is an example of simple screen house designs that can be built using locally available, reasonably priced materials.



EXAMPLE #1:

Materials needed to construct SCREENHOUSE WITH AN INTERNAL AREA OF 14' x 200' (2800 FT²)

- 24 foot x 200 foot screen netting
- 8 foot -1/2 inch rebar (50)
- 3/4 inch electric conduit poles (50) (cut to 7' length)
- 3/4 inch electric conduit connector (25)
- 500 foot roll of plastic coated 12 gauge electrical wire (1.5 rolls)

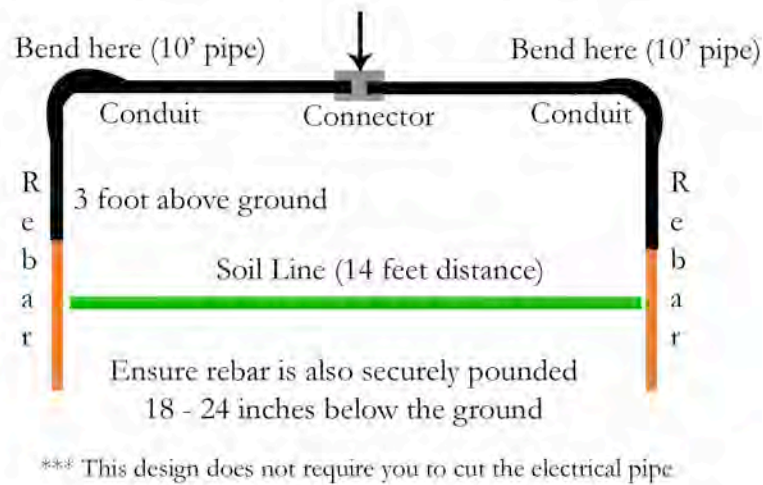
Hoops every 8 feet: 25 hoops

Estimated total for hoops: \$500

Estimated total for screen: \$800

Plastic electric wire / connectors for support: \$150

Total supplies for 14' x 200 foot screen house: \$1,450



EXAMPLE #2:

Materials needed to construct SCREENHOUSE WITH AN INTERNAL AREA OF 14' x 200' (2800 FT²)

- 24 foot x 200 foot screen netting
- 5 foot -1/2 inch rebar (50)
- 3/4 inch electric conduit poles (50)
- 3/4 inch electric conduit connector (25)
- 500 foot roll of plastic coated 12 gauge electrical wire (1.5 rolls)
- Bolts to secure electrical conduit to rebar

Hoops every 8 feet: 25 hoops

Estimated total for hoops: \$375 (less rebar needed)
 Estimated total for screen: \$800
 Plastic electric wire / connectors for support: \$150
 Total supplies for 14' x 200 foot screen house: \$1,325

INSTRUCTIONS

- Locate an area suitable for the non-permanent screen house structure. The structure can be expected to last anywhere from 4-5 years depending on the environmental conditions.
- Properly prepare the land (level, till, grade, etc.) where the screen house will go as the structure may impede subsequent large equipment use.
- Measure out an area, allowing for overhang of the screen material. Align rebar in a straight line.
- Rebar should be pounded into the soil to a depth of 18-24 inches while allowing the height to be no higher than 6 feet in order to obtain the 14 foot width.
 - Design #1: Cut rebar in 8 foot lengths

- Design #2: Cut rebar in 5 foot lengths
- Measure a width of 14 feet and install a second rebar horizontal to the adjacent bar.
- Bent the ¾ inch electrical conduit to the desired angle and join the two conduits at the center with a connector.
 - Design @1: Conduit should be cut in 7 foot lengths and bent about a foot in from the ends of the pipe. The bend will hold the conduit in place on top of the rebar.
 - Design #2: To minimize cutting the conduit pipe, a 10' conduit can be used. The location of the bend will need to be adjusted. Utilize the conduit in place of the rebar to provide height to the house. The bend should be made such that the height of the house is no higher than 6'. This designs save \$\$ on rebar and minimized the need to cut the conduit pipes. Once you establish the eight of the house, secure the conduit in place by drilling a bolt into the pipe and rebar.
- Ensure the width of the 2 electrical conduit connected does not exceed the height of 6 feet or width of 14 feet to allow overhang of the 24' screen.
 - The house can be adjusted to be taller or wider. Adjustments to the house dimensions need to be re-calculated based on these changes.
- Secure the rebar and electrical conduits together with the connector and reinforce the poles with the plastic coated electrical wire for added support.
- To minimize tears in screen, avoid constant contact of rough metal surfaces with the screen as the house moves with the wind.
- If trellis crops are planned, installation of support post may be installed before the screen goes over the unit.
- Drape the screen over the hoops made out of conduit and rebar.
- Secure the screen down with soil, weed mat clips or greenhouse wiggle wire at the base of the house.
- Ends can be secured down using left over pipes or soil to prevent pest from entering the unit.
- Doors can also be constructed on the ends to allow for easy access.

STEP BY STEP APPROACH



Cut pipes to your dimensions.



Establish a straight line and align your pipes accordingly.



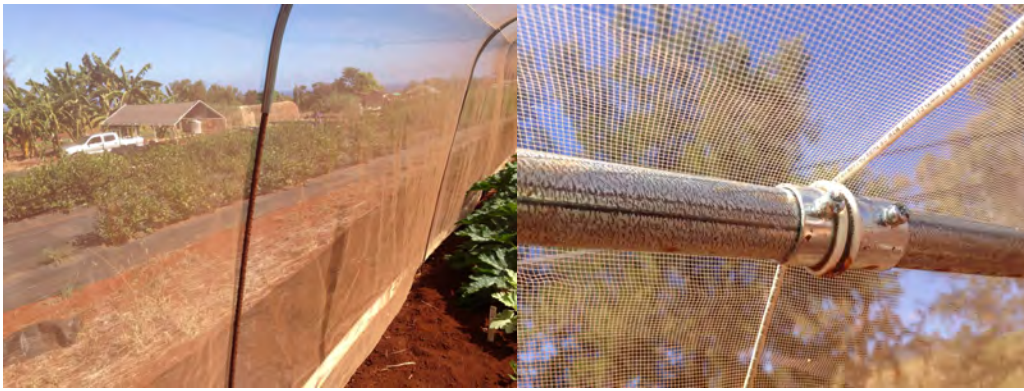
Bend pipes to your desired angle. The layout and bend of the angle will be largely based on the size of your screen, field, and crop type.



Install rebar as a base and attach conduit on top to the desired height.



Secure pipes together with a plastic coated 12 gauge wire



To minimize tears in screen, avoid constant contact of rough metal surfaces with the screen as the house moves with the wind.



Install your screen over and secure the sides with soil or greenhouse wiggle wire to minimize pest invasion.



Plant, harvest and enjoy. This system will not keep 100% of the pest out. However, it will help minimize pest invasion which may reduce pesticide use and extend your harvest period.

There is no right or wrong way to make a screen house. Adjust the unit's height, length and width to your preference. Ultimately, the layout of the screen house will accommodate the dimensions of the screen and your targeted crop. Custom screens can be purchased from local and mainland vendors.

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