



Photo courtesy Journal/Star Printing Co., Lincoln, Neb.

Photo was taken when Nagel's new straw shed, made from oats straw blown on top of chicken wire netting, was partially covered.

## YOU DON'T HAVE TO OWN A THRESHING MACHINE TO BUILD ONE

# Straw Provides Low Cost Shelter For Livestock

Ever-rising construction costs and high interest rates needn't keep your livestock out in the cold. An old-time shed like this, made of straw piled on a framework of posts and chicken wire, can provide fully adequate winter shelter for very little cost.

"This shed should last at least 10 years," Nebraska farmer Adam Nagel, of Davey, told FARM SHOW. His new straw shed, built for an out-of-pocket cost of only \$10, is large enough to hold his 25 beef cows with calves. Inside measure is 25 by 24 ft., and the back, both sides and part of the front

are fully enclosed. "The cattle have just enough room to go in and come out."

Nagel bundled, tied, and threshed straw from last year's 15 acre oat crop which partially covered the shed. He finished it up this past summer with 1981-crop oats straw. He prefers oats to wheat straw. "Besides being a good insulator, it's good feed. If I ever run out of feed, I can let the cattle eat the shed."

Using a 1938 Case threshing machine, Nagel trained the straw blower spout onto the shed. He fig-

ures he used a total of about 25 tons of straw to build his "\$10 straw shelter".

"You don't necessarily have to own a threshing machine or binder to build yourself a straw shed," Nagel points out. "You could bale the straw, then chop up bales and blow them onto the shed with a silo blower or forage chopper," he suggests. He feels that corn residue, including the shucks, would work okay if it were shredded or chopped first.

"I used discarded telephone poles, chicken wire and hog-type fence that

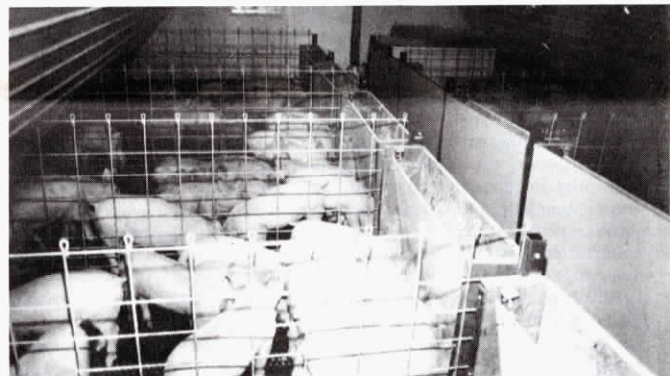
I got free. The \$10 I spent was to have the holes dug in the ground for the upright poles. It did take some labor," Nagel points out.

When finished, he erected a hog-type fence around the back, side and part of the front of the shed "to keep cattle, kids and dogs off it. You need to do that to make it last."

Now that his low-cost straw shed is finished, Nagel is ready for winter, which he predicts is going to be tough this year. "You can tell by the corn shucks. When corn has a lot of shucks, it means a cold winter."



Thompson says the A-frame design wastes less space and is ideal for solar design.



Warm air is pulled from the peak of the building down to the floor where contaminants in the air can be exhausted.

## HOLDS 16 FARROWING CRATES, 256 FEEDER PIGS OR 32 CALVES

# New Solar-Heated, A-Frame Hog House

"One of these went through an entire Minnesota winter without any supplemental heat," says Jeff Thompson, Mankato, Minn., designer-manufacturer of a new solar-heated, A-frame farrowing house-nursery. It can also be used as a calf barn.

A glass-faced solar collector stretches 10 ft. down from the peak of the roof on the south-facing side. Heat is trapped between the glass and the exterior A-frame wall. A ½ hp. pit fan pulls heat and fresh air from the collector, up to the roof peak and down into the building. It's finally pulled out of the building just above the pit.

This unusual air flow pattern is designed to prevent pit gases, and dis-

ease and dust laden air from being carried throughout the building, according to Thompson.

"I think we should be sucking all the contaminants down to the floor where they can be exhausted without contacting the pigs," Thompson explains, "rather than trying to blow the air around as in other systems."

A false ceiling and 6 in. of fiberglass insulation help hold warm air inside the building near the pigs where it's needed. A back-up gas heater is included, but usually runs only at night if at all, Thompson says. During the summer, a large exhaust fan helps pull warm, moist air out of the building.

The 7½ ft. high interior false ceil-

ing seals off the heat-robbing roof peak area while still allowing plenty of head room for working in the building.

Thompson says the A-frame design wastes less space than a conventional building. "The angled walls trim away excess airspace that would have to be heated and ventilated in other structures," he points out.

The solar hog house is 32 ft. long, 18 ft. wide and 12 ft. high at the outside peak. Thompson installs 4 by 8 ft. tie stall farrowing crates in the building. Or, he can substitute wire-fence growing pens. The building will hold two rows of 8 crates with sows and pigs, or 16 growing pens with 16, 40-lb. pigs in

each. Thompson also recommends the solar house for calves. It will hold at least 32 calves comfortably, he says.

Cost is right at \$14,000, erected on your pit. The price includes everything from the pit up, including feeders, waterers, farrowing crates, flooring and ventilation and heating systems. Thompson's also selling detailed do-it-yourself plans for \$25 per set.

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