Getting Started with Hoop Structures  
(Session 1A)

PRODUCER PANEL: Dave Deyoe, Nevada; Al Hoefling, Marcus; and Fred Tilstra, Steen, Minnesota  
MODERATOR: Denise Schwab, former ISU Extension livestock specialist, East Central Area  
RECORDER: Joe Sellers, ISU Extension livestock specialist, Southeast Area

Dave Deyoe needed finishing space, and first considered hoop buildings he saw at an Iowa State Fair exhibit. He put in his first building in August 1994, and added another in 1995. He now has producer custom finishing pigs in three other buildings.

Among the advantages, hoop buildings:
- are inexpensive;
- are easy to start, and can be put up with your own labor;
- have many advantages over other outdoor systems;
- are definitely cheaper than confinement systems;
- require only one utility, the waterer;
- provide flexibility;
- produce less odor, and
- require little new equipment.

Among the disadvantages, hoop buildings:
- are more labor intensive;
- have higher bedding cost that negates some utility savings;
- result in lower feed efficiency compared to newer confinement;
- may have rodent and bird problems that are difficult to control;
- produce manure with inconsistent nutrient content, and
- require equipment that can handle dry manure.

Al Hoefling built three hoop buildings in November 1996 and the following summer. Last summer, he built three additional hoops. Their main advantage over a conventional confinement is the lower cost of building the facility (see his comparison costs below). He chose hoop buildings to limit his debt exposure. He has decided to finish in his own buildings rather than hire someone else to custom-finish.

Management is critical. Operators must manage the bedding. It takes him eight hours to clean out buildings and put manure in the compost pile. This is not the easiest way to raise pigs.

Cost comparison of hoops and concrete confinement

<table>
<thead>
<tr>
<th>Concrete confinement</th>
<th>Hoops</th>
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<tbody>
<tr>
<td>Size of operation</td>
<td>1,800 head</td>
</tr>
<tr>
<td>1,890 head</td>
<td>1,800 head</td>
</tr>
<tr>
<td>Initial cost</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>$133,600</td>
</tr>
<tr>
<td>$324,000</td>
<td></td>
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<tr>
<td>Per head</td>
<td>$70.69*</td>
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<tr>
<td>$180</td>
<td></td>
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<tr>
<td>Annual debt</td>
<td>$26,000</td>
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<tr>
<td>$61,183</td>
<td></td>
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<tr>
<td>Annual cost</td>
<td>$13.76/pig space</td>
</tr>
<tr>
<td>$33.99/pig space</td>
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</tbody>
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*Per head cost would be $84 if the cost of operator labor is taken into account.

1999 Swine System Options Conference
Fred Tilstra has 12 hoop buildings. He first saw them at the Iowa Pork Congress in Des Moines and built his first hoop in 1991. He uses hoops for his swine operation, as well as a 600-ewe lamb flock, and for bale storage. He prefers hoops that are 30 ft. wide.

Normally, he has finished 300 pigs/year in hoops. He also uses hoops for gestation and feeds in crates. At present, he is cutting back on the number of sows in his operation.

QUESTIONS:
How do you handle bedding?
**Hoefling** tub grinds initial bedding in the buildings, and hires all big baling of bedding. Current bedding costs are $.68/cwt of pork marketed.

**Deyoe** composes bedding and just puts it in a pile and leaves it there longer. He does not turn it but follows advice from Tom Richard (agricultural and biosystems engineering, Iowa State University).

What about farrowing in hoops?
None of the panelists farrow in hoops, but are interested in the idea. They believe added heat will be needed.

What about odor?
The speakers said odor should not be a concern if the hoops are managed properly.

What about cleaning?
**Deyoe** tries to clean between each group. **Hoefling** and **Tilstra** do not always clean between groups, but when it seems to be needed. There may be an advantage to leave the manure pack for heat in cold weather.

Any problems?
All panelists have experienced dunging pattern problems in warm weather, when the concrete pad becomes particularly wet and messy. No panelist had worked with open ridge hoops, but producers in audience shared good results.

SUMMARY:
**Deyoe**: The main advantages of hoop buildings are their flexibility and economy. He built his first hoop without seeing one in use, and felt he was not risking too much.

**Hoefling**: Originally he thought the hoops were just a stepping stone to buy time until he could invest in finishing structure. Now he said he is sure this is how he wants to raise pigs. On bad weather days he does question this system. The hoops have been a learning experience for him; operators need to manage the system and watch the pigs.

**Tilstra**: Hoops require animal husbandry, not mechanics. You must walk the pens, get the pigs up and observe them. He said he would not be in the pig business if he had to invest in double-curtain finishing buildings.