PANEL:
Archie Kunz, Brooklyn (Iowa)
Vic Madsen, Audubon
Homer Schowman, Shellsburg
Fred Tilstra, Steen, Minn.
Tim Goode, ISU Rhodes Farm, Rhodes
Carl Neifert, ISU Extension (moderator)

Panel members each made a brief presentation, after which discussion was open among the 60-some persons attending this session.

Vic Madsen has a couple of hoop house units that were constructed in 1995. Fred Tilstra has seven units put up over the last four years; he uses them mainly for finishing and gestation. Tim Goode's unit at Rhodes has been up two years but has been used once for finishing/gestation. Homer Schowman has put up six units in three years for finishing. Archie Kunz has four units; he can also discuss manure values and economics with us today.

FRED: We farm in northwest Iowa with our two sons, raising 2,500 to 3,000 pigs annually. We also have a ewe flock and a cow herd. We started raising hoop buildings about four years ago. One building is used for sow gestation; we started that last fall. It's really improved the sow gestation part of our operation; the hoop house works very well for sows. Our finishing pigs are in one group in each building. Given pigs' "pecking order," you might think there's is a lot of fighting, but there's enough straw and enough for the pigs to do that they don't bother each other. They work with each other. About the building: we have energy-free fountains in them; they worked well until this last cold snap. Then we had a few of them freeze; it wasn't too bad, but it wasn't nice. I noticed that they froze when I left the door open on the south end of the building—it was a south wind that came in. When the breeze hit the fountain, that's when we had our problem.

But we have 18 feet of cement in the front of the building, in the first portion; we have 16 feet outside the building; the rest of the building is dirt. Feed efficiencies have been at 3.2 three or four years ago; it's about 3.1 now, and we had one 3.01, but our genetics have changed, so maybe that's some of the reason. Daily gain is between 155 and 165, and this is from small pigs, as low as 26 pounds. Seldom are they more than 38 pounds, and most of them average 32. They come out of a hot nursery and we put them right in these buildings. We don't care what time of the year it is—it works. Just before this cold snap I bought some pigs. I bought some PIC (Pig Improvement Co., breeding stock company) pigs because I wanted to know how they would perform in these buildings, and we lost four of them because of smothering. But we didn't manage them quite right either; perhaps with different management it would have gone differently.

Swine System Options for Iowa

Hooped Structures: Discussion
Regarding odor in these buildings: They don’t smell. You keep the manure covered, and the smell is absorbed. It’s one thing people remark about when they go through my buildings. Since four years ago, I’ve had approximately 400 people through my building. I spend a lot of time talking with people, on the telephone too, about these hooped structures. I think this is the way we’re headed in the industry. One more comment: Listening to our speakers this morning, I’m a lot more upbeat about hog production than I was four hours ago. I talk to my neighbors a lot, when we’re unloading hogs, and you often hear people saying, “Well, this is the last load of hogs I’m going to have.” But here today, we’re hearing a different message. It’s enlightening. I really think this is a good seminar and I appreciate it.

We clean our buildings out between batches, and it takes 35 big round bales in the winter to move one batch through: 180 pounds until we take them to market. It takes 25 round bales in the summer. We use a skid loader with a grappling fork on it, a manure spreader and a tractor. It takes one man one day. The buildings are 30 feet by 72 feet, and they hold 180 pigs. I’ve been toying with the idea of composting. I’d love to start it because I think it would be advantageous with this sort of housing.

Straw bedding is best for young pigs. Cornstalks and bean straw do not cut it with 25-32 pound pigs in cold weather. By April or May, almost anything will work, but cold weather demands good straw, and you should save some for this time of year. I went to Canada a few years ago to investigate these buildings. We got in our car at home, arrived in Grand Forks at night, and it was cold. The next day we arrived in Canada at noon, and it appeared to be a beautiful day. But we got out of the car and it was 25 below. I was amazed at what I saw with these buildings: a lot of wheat straw was used. The hogs were healthy and robust; it was 25 below and the hoop housing worked! It sold me on it.

ARCHIE: I farm with my brother. We have four hoop buildings and other hog facilities. We have a cow-calf herd; we finish cattle, and we grow corn, beans, wheat, some oats. We’re quite diversified. We needed to expand our operation in numbers, so we looked at all kinds of facilities and decided to go this route. We’ve been very pleased with the hoop houses. I also went to Canada to investigate, and also was impressed with their cold-weather performance. On our operation, we get feeder pigs. One individual brings us a few hundred head every 21 days and a few other individuals we buy privately from. Most of the pigs go into the Biotechs at 50 pounds. The secret of the buildings, we’ve learned, it to try to keep them open and not make a warm building out of them. The day of the blizzard, we put pigs in our fourth building. They got along fine and we didn’t lose any. On a few of our buildings we have flaps on the south ends that we can raise or lower, and two of the buildings have no flaps. We’ve learned to vary bedding practices when the pigs are little and just coming in. It’s just a totally different concept than anything you’ve learned with any other building.
Ventilation is different too. Just forget anything you’ve learned before when it comes to these buildings (*laughter*).

The hardest thing to accept is the concept that pigs can live (comfortably) in these (open) structures. I’ve had a proponent of Cargill buildings call me a liar in public and insist that there’s no way you can raise pigs in a building 17 feet tall. I told him, “Come and look.”

This company (Biotech) has been making buildings for 16 years. The concept works. But it takes different management. The building is not for everyone. There are certain individuals who cannot make the buildings work. I know this; some people can break an army tank. I wish everyone in this room could make these buildings work, but it takes extra management, a different type of management. We handle our buildings basically very similarly to the way Fred does. We clean the buildings three times yearly, each time the pigs go out. We do have truck spreaders and a couple of other spreaders for our other feedlots. We have a bi-directional tractor with a grapple fork on it, and two spreaders running, so if we’re not pulling too far out, with one guy loading two spreaders we can clean a building in about 3.5 hours.

I also have put some manure figures together because I’ve heard others (not hoop structure owners) ask, “Who can afford $2,000 bedding each year for each building?” But hoops don’t take that kind of bedding. They each need about 35 round bales in the winter. We run 200 head through our buildings, which are all 72 footers. 200 head is full capacity, and there again, that takes more management. You do some cleaning on the concrete up front a little more often as pigs get bigger. We’ve elevated the concrete now, made some inner fences in the buildings to change dunging patterns, and are using freezeless waterers. We’re up on wood, and we didn’t have anything freeze, even in the last cold snap. In fact, last year, during the last week in January through the first week in February, with no pigs on it, the waterers still didn’t freeze. But we are burying a 15”, 6’ tube underneath all our waterers. In the last two buildings we didn’t even use electricity; in the ones constructed earlier, we use it just for lighting.

**TIM:** The ISU Rhodes Farm is primarily a beef operation about 30 miles from Ames. The last few years we’ve leaned toward pork more. This last year we put up a 30’ x 60’ Biotech shelter and tried to work with a computerized sow feeding system that got some publicity. We gutted that this fall and then put 150 feeder pigs in it in the middle of November. This is the first group of feeder pigs we put through it. They’re ready to go to market now, and they’ve done very well. Everything Fred and Archie have told you is right; I agree they’re right on the numbers. I could probably handle a few more pigs, maybe 160, 165, and so far I’m happy with it. If you have other questions later, let me know.

**HOMER:** I farm just west of Cedar Rapids. I have six Biotechs, which I’ve used for gestation but mostly for finishing. I’ve weaned pigs in mine; unlike Fred, I
don’t have any straw so I use cornstalks; I’ve used some paper but it’s not affordable. My operation takes 75 round bales per building per year, which gives me a little carryover or extra. I figure my bedding cost is under a dollar per head, including paying someone $6.80/hour to bale the bales and about a dollar handling charge for me to go get the bales, bring them in, and put them in the building. They key to all of this is bedding. When I bring in a new batch of pigs, I break up from 12 to 15 bales and make a nice deep nest, and then I bring in a few additional ones depending on the time of year and just let the pigs take it from there. In terms of performance, one of my big questions was how these buildings would compete with the big confinement buildings. So I called around and asked for feed efficiencies and rate of gain. I’m in partnership with a guy from Oklahoma who pasture farrows down there; we have PIC pigs; our average size pigs are 25 to 30 pounds. I have to keep good records, because I charge him for the feed. I’ve got Cargill units, old barns, one new (1990) total slat building (you couldn’t afford to build it now), and six of these Biotechs. Basically, the last group I sold out of there got a 2.82 feed efficiency out of the confinement; the very next group, out of a Biotech, was a 2.88.

When I went to my bank to finance these buildings, I put a spreadsheet together to amortize these buildings over 7 years. I found several price ranges, from $150 to $165 per head for a total slat building with double curtains. I don’t think you can build one easily when you figure all your costs to $150 a head. I was going to be able to build my Biotechs for about $60/head, including all earthwork, plumbing, new feeders, new waterers, cement, sand, sidewalls (all bought, nothing I had on hand), labor, etc., and at that price you figure it’s $150 or lower per pig. I didn’t figure any utilities in the confinement building, just amortized costs, paying back principal and interest, no depreciation cost. I figured I had to beat the performance in the Biotechs in feed efficiency by 5/10ths to 6/10ths of a pound. So in other words, if I’m getting a 3 feed efficiency in my Biotechs, I have to get a 2.5 to a 2.4 in my confinement building to tie! My experience with my building is that I’m never more than 2/10th of a pound off. There’s no way I can afford to own the building I built in 1990 compared to these Biotechs. My rate of gain is usually better in Biotechs, and death loss is always lower; they just make more money, and I’m excited about this particular system.

I bring in 250 head at a time because I’m hauling them 600 miles and they’re small pigs. At 120 pounds I’ll pull the small 50 out and put them somewhere else. The two times I’ve weaned in them, I weaned 210. In the first four Biotechs I ran through before I went into partnership, my feed efficiency averaged 2.9. That was going from an average of 23-pound pigs up to a 243-pound pig. Death loss was 1.06%, including one group that was weaned into it. My feed efficiency ranged from a low of 2.78 to a high of 2.97 in that group.

I don’t know how many of you have been blessed with PRRS (Porcine Reproductive and Respiratory Syndrome), but I was hit with that in 1994, which threw everything off. Basically feed efficiency went to 3.2, but the correlation

Swine System Options for Iowa

Hooped Structures: Discussion
between the grower building and the Biotechs was the same. This year, in one Biotech, I got 2.96 compared to 2.82 in the grower building and 2.88 in another Biotech, 3.03 in another. I have a Cargill unit also, and I'd like to just take my bulldozer and put it in a pile and leave it, because once you've run these Biotechs. . . . I agree (with the morning speakers) that if you include the time you spend hauling liquid manure versus the time you spend bedding and hauling this dry manure, the labor is about a wash. I haven't done time trials, but that's my gut feeling. Another nice thing about these buildings is that in the summertime if you don't have a place to haul your manure you can stockpile it or compost it.

ARCHIE: As far as handling the pigs, I've got six (Biotechs) in a row, stairstepped down a hillside, one driveway, and a sorting/weighing facility so I can run the pigs out of the buildings and sort them. One pen takes 20-30 minutes to weigh and mark. It's nice because I've finally got a load-out facility. We look forward to selling hogs now instead of dreading it. So if anyone is thinking about building Biotechs, it's not a bad idea. It's a lot easier on you and the pigs.

VIC: We get PIC feeder pigs out of a central farrowing unit and finish them in our two structures plus some other converted barns. (Showed some slides of construction.) We built this on a 95-degree day last summer with the neighbors' help. The good thing is the community part, but the bad thing is that you don't want to be the first one to go sit in the shade. I would recommend not to use a power take-off/tractor post hole digger if you can get a skid loader. That way you can put a little down pressure on the auger so the auger won't jump around. We had to reshape a lot of the holes, and the thing that makes setting posts in 95-degree weather (bearable) is a better post hole digger.

So the first thing is setting the posts. We've got a neighbor with a tree-trimming business, so he brought his boom truck over. That's cheating, but . . . (laughter). But people use wagons with boards over the top to make scaffolding; there are many different ways. The second board down in the tie-down board, which is the strength of the whole thing, because that's what you put your ropes around. Put your best lumber on that second board down. You pull the tarp over into the wind. We had four people on the ropes, pulling the tarp over. I was amazed at how easy it was. Here's one thing that's important: tie the far side before you start pulling it over. (laughter) Once it gets about halfway over, it comes pretty fast and snaps down. A few people have pulled them over and suddenly had them at their feet.

We just raised the concrete the height of the forms, so the concrete is only five inches above the dirt, and it should be ten inches. Put some fill sand in and get the concrete higher. Otherwise, with gravity, when pigs reach market weight, it will push some of that manure pack onto your cement slab. People have asked how we got along in the cold weather. On the night it was 25 below, I checked and the hogs were fine. But another time, when it wasn't so cold, I forgot to check and get it opened up fast enough, and it got too hot. The pigs got irritable and fought, and
I lost a couple. It’s important to run these buildings cold. Pigs will stand cold weather better than hot if they’re not used to hot weather.

QUESTIONS AND DISCUSSION

Are you finding that you can come through the front when it’s frozen to reload bales?
When pigs are first coming in, we bed our buildings by putting 50-55 pounders in there out of the hot nursery year-round. We initially bed the building with four, maybe five bales of cornstalks shaken out on the ground. Then we place 10-14 big bales inside the building. They’ll last from 6-8 weeks, depending on time of year, before you need to add more bedding. In winter, it will take 2 bales a week per building with 200 head, and if the pigs aren’t real big you may need four bales over two weeks. But it depends so much on weather. If it’s raining and humidity is high, it’ll take more bedding.

But do you have it so you can go from the front and the back both?
We have alleyways in front of ours. That makes an easy one-man system. We place a few bales in a fenced-off alleyway. Then we open the gateway, the pigs come out, and we place the bales in the building and chase the pigs back in. You only do this five or six times during the latter part of their stay and by that time they’re ready to come out of the building, so we sort them out there. We mark the ones we want and the others readily go back in because they think there’s fresh bedding in there. You can sort any number of pigs out there in 10-15 minutes.

So you need to allow a spot so you can come through the front?
That’s the way we do it. Some people bed through the back.

(another producer) We have two Osborne feeders that hold 90 pigs a piece, and I run 180 in our buildings, 30’ x 72’. So they’re to the side, I’ve got two waterers to the side, and I run everything through the front door.

Is it important to get a little bit of slope on that concrete?
Yes—for the waterers. Two inches toward the outside.

(another producer) I sloped mine outside too. Two winters ago I went out, and my whole alleyway was filled with ice. What had happened was that the pressure switch that runs that setup was out of whack and was putting too much pressure in the valves so the waterers couldn’t hold it. So I was glad it was sloping out. I’ve never had that happen before. But things like that can happen.

I bring mine in from the south also, but I have one four-hole waterer in the middle, because I thought I might want to split it down the middle and feed 100 on each side. If I had it to do over again, I’d offset that waterer by about two feet so I
could have more room to get my uniloader through with the bales. Now in Canada, they stack the bales on the east side and feed on the north side. (Another producer who visited Canada said all the hoops he saw were oriented east-west.)

**In the heat of the summer, are you having problems with pigs piling around just that one waterer?**

I’d never had a sprinkler in my hoop structure until last summer. I tried using yard sprinklers intermittently, but I’d forget to turn them off, and pretty soon it was a sloppy mess, and then the building will stink. So I used these little Meterman sprinklers, the ones that are used in farrowing houses, except they’re 360-degree sprinklers, and I put four down the middle in each building, covering the whole building with a fine rain mist, and I hooked all six of my buildings up to the control unit, which takes care of timing and temperature, and for about $35 a building it was all set and I didn’t have to worry about it. This way, pigs are cooler in the hoop structures than in the confinement buildings. It doesn’t get sloppy, they get just enough water to keep them cool, and it doesn’t use as much water.

*(another producer)* We had two buildings situated where the ventilation wasn’t as good, so we put a high-dollar system in ours: some anhydrous line with nozzles with a high-tech garden hose *(laughter)*. This cost about $50 for everything. With the waterers that we’re using, in extremely hot weather—one day it was 100 degrees with no wind—all the pigs had water, and they were completely laid out. It provided more of a fog.

**What about the north-south versus the east-west orientation?**

*(Most advised north-south.)* Some in Canada face east-west; it should depend on prevailing winds.

**Do you want to expose them to the south? And what do you do about tails?**

I’ve got a group now with tails. And there haven’t been problems.

*(other producers)* Tails have always been clipped on the pigs we get, but these pigs are pretty happy. They play with the straw. They don’t bite very much; they occupy themselves. In a Canada Biotech trial they had zero percent tail biting, and they had 2.6 percent in their total confinement building, which is a 16 head/pen, partially slatted building.

Regarding windbreaks: It’s important to have some air coming in either opening. A north windbreak doesn’t hurt when it’s blowing 40 mph. But their shape is a little like an airplane wing. As the air rises from the heat, it gets pushed into a narrower surface so it speeds up. Twelve or 15 feet in the air, it’s moving pretty fast. Down on the floor, where it’s wider, it’s pretty still. The arch compresses that air and makes it squirt out both ends.
(another producer) We didn’t set our first two buildings level as far as the roof line. With all ventilation being natural, what we ran into during extreme heat, with that slope to the south, was that it naturally, without much wind, wants to push all that air to the north end of the building. If you have a slight north breeze, it wants to block it and hold it in the building. So make sure you set your buildings level; it’s critical.

Back to watering: Do you put your waterers on a cement pad, or are they just flush with that 16-inch floor?
(Answers varied.) Four inches up; two to four; flat. But it would be nicer to have them raised. We poured the first three buildings on a four-inch pad, and we asked ourselves why we were doing it. We used to so that the waterers wouldn’t rust out. But now we use all plastic waterers, so I don’t know why we do it that way!

It’s not that big a deal.

I wanted mine flat because I knew I would have small pigs in there, and I wanted them to be able to get in and get water from them.

What about dividing the building in half? Are your buildings all one big building?
Mine are all one big pen. My brother-in-law owns two buildings and because of his farrowing schedule and the size of the groups he runs, he has both split down the middle.

Do you see advantages one way or the other?
It’s easier to handle bales and manage the buildings with one big pen. He gets along fine, but I prefer one open pen. One disadvantage to my system is that unless you get large groups of pigs, it’s difficult to split-sex feed. So I’d like to get groups of 400 to 500 at a time so I could split the building and split-sex feed. But the buildings are very adaptable.

(another producer) We’ve got one each way. The first one we split because the feed man suggested it (laughter).

Split which way?
Lengthwise. But that wall is really a pain at cleaning time. I talked to other producers, and I think it might take a little more bedding because you don’t get quite as good a dunging pattern. In the future, I’d recommend that people put up two barns if they want to split sex, even if they only run them 80% full, because I think you’re money ahead.

(Others agreed.) If I had to split the buildings, I’d quit. If you don’t have too many pigs, build a shorter building and put more up. They’re not that expensive.
Do you have a square footage guideline?
I think 30' x 72' is about right for 180 pigs. (Another producer says 200 pigs, and has even gone up to 240.) Some buildings are 30' x 84', or 35' x 90', but they’re too big, and it’s hard to maintain good air quality and get the heat out of them, partly because they have more pigs in them.

(Homer) All the pork efficiencies I gave you earlier were on 200 head or more in 30' x 72' buildings.

Some other companies are making wider and longer ones, but 30' x 72' is the standard.

At what weight do you market your pigs?
We market at 230 to 250 pounds. (Another producer agrees: “at least we did until corn got high priced.”)

How much space should there be in between the buildings?
(Archie) Ten feet in between; some of mine are 8 feet, but I’m staiestepped down a hillside. I want all the water running away from my south side, so I have to make sure I’ve got a little “bowl” going north. With perfectly flat, sandy soil, you can put them as close together as you like.

You want to walk between them, at least to tighten the ropes. (Others claimed you don’t need to do that.) The Canadians don’t.

How are these buildings for gestation?
Great. I’ve used them. We feed inside on the slab. For gestating sows, maybe 55 or 60 sows can be put in, and maybe 100 gilts. I AI’ed (used artificial insemination on) all my sows in the barn.

What about cleaning?
There’s less manure with sows. (General agreement was that cleaning was needed every six months.) What I like about it is that it’s so much nicer on the sows’ legs.

I’ve seen people put a concrete pad lengthwise in the building for gestation, with three pens sitting crosswise.

I’m going to put up gestation barn 90’ x 35’, and divide it lengthwise.

What about feeding?
(Tim) If you could get computerized feeding going, then this system would be ideal. We put the Rhodes farm computerized system together in our farm shop.
with help from ISU ag engineers on the electronics. There were some manufacturers who were interested in pushing it further. It did work. It needed a lot of refinement.

I understand that some researchers at Kansas State ran some experiments in a Biotech shelter split down the middle with a computer like the Osborne type computer feeders on each side, and they’re having very good results.

Yes. It’s just a matter of costs. Feeding is always a problem in large groups of sows.

(Neifert) I’m recommending to producers to put two feeders in these buildings. People say it can’t be done, but I’m seeing very good results for a couple of reasons. With two feeders, feed is more quickly available and pigs can eat and get in and out faster because they have more space around the feeder. Do you feel that two feeders are adequate when using these round feeders?

(Archie) I have two Osbornes in some of mine, and two Prairie Pride (a plastic feeder) and I really like them. I have two in each building and I can feed 250 pigs up to 120 pounds sometimes. My rate of gain is very similar to Fred’s: 1.67, 1.63, 1.6 (that’s in Biotechs). The grower building, compared to my confinement building, was 1.53. In two of our buildings we’ve got long wooden feeders. The only set for which we ever kept track of everything we did was one where I botched everything in terms of handling! We sold them in January, we were keeping the building too tight, it was too wet. I was having to bed every third day, I was doing everything wrong, but we put 203 head in, we took 203 head out, and they had a 1.78 average daily gain on a 3.01 conversion. We’ve got the big Olson feeders in a couple of the other buildings, similar to the Osbornes, and they can be hard to get pigs started on; the pigs take a good week to learn to run the feeder. You have to go down to the barn and agitate 5 or 6 times a day. What we’re finding is that with that type of a feeder in the cold months, with little pigs coming in for the first few weeks, they take more feeder space. That’s because when it’s cold, they’re either all sleeping or all wanting to eat at the same time. Consequently, we put in more feeders on the concrete during the first month in cold weather. When it’s warm, it’s more of a continuous flow.

(another producer) That’s one reason I like Prairie Pride (and no, I don’t sell them). With them, a 15-pound pig can get feed, and there’s no adjusting. The Osborne is a great feeder, a great improvement over the old style feeder, but they take more management, and you have to turn them more. I did a test with one building that had an Osborne on one side and a Prairie Pride on the other. It looked like they ate more out of the Prairie Pride. In terms of feed efficiencies, I can’t tell the differences between buildings; I can’t say that it’s a feeder difference.

(another producer) I’ve been using Osbornes and Moormans; you have to have three Moormans in a building to make it comfortable. I’ve been looking at the big
(another producer) I've got four I'll sell you!

Do any of you use any kind of bulk feeding system?
I know of a fellow in Illinois who sends all his feed pneumatically, and his are hooked up to bulk, straight from the grinding shed.

How much do you leave open on the north end at the top of the arch?
Two feet, maybe 18 inches. I have the south side all the way open.

In really cold weather with small pigs, you might want to shut that up overnight, although I don’t have any way of shutting.

I have flaps on the south end of two of our buildings; on the last two we built, we don’t have any flaps. We did square off 8 feet square on each corner to prevent any whipping around, and then we used a sheet of plywood across the gate to block the south wind when the pigs are first coming in. But basically, it’s wide open. What you’re doing on the south end should reflect what you’re doing on the north end. All of our north ends are open a minimum of two feet. On one building, we’ve even got the flap adjusted so we can lower it another three feet, so we’ll basically have a 5’ x 20’ opening on the north end through a lot of the winter months if the pigs are over 200 pounds.

But you’re behind a windbreak, right?
It’s not enough to break the wind, it just disturbs the natural air flow.

What about the last couple of blizzards, in terms of snow coming in?
No problem. What people don’t realize is that the wind coming at the sides of the building actually pressurizes the building and doesn’t let the wind blow the snow in the ends. I was in the building right during the worst blizzard (in fact we had a group of pigs come in that morning), and we had to move snow to get the pigs in and then again to get the trailer out. But I just went from building to building all day, standing and watching, and we got just a few flakes coming in the north end. In contrast, we’ve got a nice metal cattle showbarn at my Dad’s place. It had just a tiny crack, and snow coming in on the north corner built a six-foot drift. But the only people I’ve heard who had problems also had other structures or buildings close to the Biotechs, and that may have disrupted the natural air flow.

I think that’s why we should have 8 to 10 feet between buildings.

A man from Pennsylvania told about getting 30” of really wet snow. The building supported it all right, but he was trying to knock the snow off the tarp with a 2x4. I suggested he pad the board.
How about high winds? Any damage from that?
We just got pigs in a newly built hoop recently. We clocked 80 mph winds but it held up fine. Still, you worry.

Has anyone tried bedding with sand instead of straw or organic material?
People in Illinois or Missouri have.

It seems that any organic material in the summer, with urine added to it, is going to become a heat source.

My pigs don’t look like show pigs in the summer; they’re dirty, because they’re lying all around the building. Sand might be good if you can afford it.

But what would you do with it?
Stockpile it.

A guy in Kansas used green sawdust. During cold weather, the pigs spread out all over it because it was warm. But it can allow intestinal bacteria to grow. Kiln-dried sawdust isn’t a problem.

How much do you save by putting the building up yourself?
I don’t know of anyone who’s contracted to put one up. We had one put up for $1,300 (for labor)—just the structure, not including feeders or cement.

$0.60 a square foot is what that comes out to.

I thought it was well worth it.

If you’ve got a chain saw and a sledge hammer, you can almost put one up.

How many different manufacturers are there?
Seven.

When storing this bedding for reloading in the spring, and you’re using cornstalks, are you finding the deterioration of that so great that you need another building for every, say, four you put up just to store the bedding?
I put an 8 x 8 building up, for hay and bedding both.

We’ve got bedding in a hoop for storage, but it was just because it worked well.

Has anyone used concrete walls instead of ribbed walls? Would concrete be colder than wood?
To reinforce it that way would be cost-prohibitive, and I don’t see any advantage.
to it. (*general agreement on this*)

My landlord who’s a welder built forms, and we set those forms, laid lime down, got them level, bolted the hoops to the concrete walls, and that way we can move the shed wherever. But my concern is that building will be colder in winter.

**How are you stabilizing your walls?**

Just like highway dividers—it cost $4,000 by the time we got the walls and the materials.

If you use a standard T wall, it’s $13/linear foot.

You can’t afford to buy them—my landlord made the form and we poured them.

I’ve got an existing bunker silo that we recently decided not to use for what it’s intended for. It’s 54' x150'. I may use if for corn storage in the fall. **Could that be useful?**

If you built a center wall.

I’m not going to do that.

It would have to be custom built; it’s pretty wide.

It can be done.

**Back to the concrete slab. It sounds like all of you wish yours were higher than there are. What height is best?**

Mine is 6” off the ground and I don’t want it any higher. For cleaning, I just ram right in there and pick up a load and bring it out. (*Another has an 18” slab.*)

It depends on soil. If they’ve been there a while, there can be a lot of dropoff. In that case, you clean from the back.

We run a two-foot ramp, which also helps the animals get up and down here.

**I have a question about ileitis, or other scour-type diseases. Are they easier or harder to manage in hoop structures?**

Once I quit the source, and cleaned the building, I had no more problem.

It’s hereditary from one group to the next.

**How about concreting out the whole floor?**

NO, NO, NO. Also, these roofs, unlike steel buildings, will not drip. They’ll frost up a little on the top, but then it will come down the sides.