

Frank's Note

When it comes time to make decisions about your hog operation, such as remodeling a barn or replacing equipment, each situation is unique. Determining what is right for your family, facilities, pigs, employees and business is specific to you alone.

It's important not to overlook that the building and equipment represent the working mechanisms of your hog operation. Keeping things running smoothly is key to pig productivity and well-being as well as the caretaker's satisfaction.

Certainly, the quality of the building and equipment materials, manufacturing and maintenance influence longevity, but even with the most diligent efforts, wear and tear eventually surface. Depending on the condition and need, retrofitting can be tackled all at once or accomplished over time.

The good news is that the *Farmweld* team can work with current swine barn plans or help draw up original designs to meet your long-term needs. Our experts have decades of experience remodeling hog barns and revamping layouts to meet pig-flow changes. Over the years, *Farmweld* has helped producers switch barn use between production phases such as changing farrowing barns to finishing facilities or finishers to nurseries.

When it's time to replace equipment or remodel a barn, it's also an opportunity to make upgrades, add new technology and plan for future changes in labor or pig size and density. In the end, you can improve a facility's overall functionality as well as improve pig and worker safety.

Whether you have a remodeling project, have equipment questions or need help evaluating the current state of your facilities, don't hesitate to call us at 1-800-EAT-PORK (328-7675) or visit www.farmweld.com.



Frank Brummer
President
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Remodeling: Is it right for you?

Structural soundness dictates a hog barn's remodeling potential, but there is much to consider.



Perhaps you have a hog barn in need of upgrades, or you're thinking about changing its function or are looking to purchase a building and want to evaluate its renovation prospects. It can be overwhelming, but there are ways to break it into manageable pieces.

Everyone starts with the building, but there are some more personal decisions to tackle first. "The process has to address your end goal," says Dustin Compart, lending specialist, Compeer Financial. Is raising pigs a long-term or short-term plan? Will you eventually want to increase production? Is the building part of your family's system or are you considering growing pigs on contract? Would it be better to build a new facility?

Personal financial considerations might include capital versus operational investments, labor versus infrastructure or short-term versus long-term return on investment.

"Don't get in a hurry," says Jay Harmon, agricultural engineer

at Iowa State University. "Talk to producers who've remodeled similar buildings; talk to vendors. It never hurts to go to school on other people's experiences. Think through all the potential problems as well as the costs and benefits."

Depending on where you're located, remodeling an existing facility may be your best or only option to remain in the hog business due to permitting restrictions. For young farmers looking to get into pork production, purchasing a building to remodel may be more cost-effective.

"You might be able to secure a contract-for-deed or a lease-to-own arrangement," Compart says.



Dustin Compart, lending specialist,
Compeer Financial

"Depending on the situation, you may be able to put less money down, and it could help the current owner from a tax-strategy standpoint."

He has seen more activity with these types of arrangements in recent years as some farmers who built facilities in the late 1990s and early 2000s may have different goals today.

"If you plan to grow pigs on contract, you need to communicate clearly and often with the grower partner to ensure that the facility you're purchasing or remodeling meets their specs," Compart says. This includes site location, pen size and capacity, feeders, ventilation and gating. "They also can give you recommendations based on others' experiences," he adds.

Build or buy comparisons

When comparing whether to build or to buy and remodel, Compart suggests researching the cost of a new facility. Determine how much you're willing to put down and the financing terms. Look at the principle and interest, your operating costs and your net income per pig space.

Then work through the same process for a purchase/retrofit site. Consider the purchase price, remodeling costs and your financing needs. Calculate the principle and interest per space minus the operating costs, which presents your net income per pig space.

"Then you can analyze apples to apples," Compart adds. "But also ask yourself whether the facility can operate effectively for the next 15 to 20 years."

A new building helps build equity, but a remodeled facility offers a quicker chance of generating cash flow. Compart points out there are some federal financing programs that can be easier to apply to an existing site than a new site. In either case, bring



Jay Harmon, agricultural engineer,
Iowa State University

the lender into the process early to help determine if it's a good business decision for you and your operation.

It's not about building age

Hog barns don't carry an expiration date; longevity depends more on the quality of materials, construction and maintenance. "There are 30-year-old buildings in good shape and 20-year-old buildings in bad shape," Harmon says. "Overall, facility quality has improved over the years."

His rule has been if remodeling exceeds 50 percent of the cost of a new barn, then you may want to rethink the project. "But I'm not sure if that still holds true," Harmon notes, "due to permitting, neighbor issues and the like." Keep in mind that with any remodel, surprises will surface during the project.

"Material pricing is very fluid today, due to all the trade issues," says Brian Blumhagen, New Modern Concepts in Iowa Falls, Iowa. Estimates for a new, turnkey, 2,400-head, wean-to-finish barn, depending on the ventilation system, is \$280 to \$290 per pig space, with another \$20 to \$40 for extra costs such as the land, gravel, excavation, well drilling and surveying.

Harmon warns that remodeling is not the place to cut costs; you don't want to build in problems. An odd doorway or step may seem minor at the time, but it can create hassles later. "You want a quality building that you're going to enjoy working in," Harmon adds. "That's also important for staff retention and pig productivity."

Whether it's your own facility or a purchasing opportunity, the key is to get a second opinion. It costs \$1,000 or so to hire a professional to help objectively assess the project.

Inspect the building and site

Depending on how much needs to be done and how critical, remodeling can be tackled as one major event or smaller pieces over time.

For the inspection, you'll need a high-intensity flashlight; ladders; a hammer, screwdriver and knife to check material integrity; and paint to mark areas needing attention. The structure's soundness and stability will guide the final decision. Here are some priority inspection points.

Attic: Inspect transition areas where cold and hot air mixes — soffits, ridge vents and right above the insulation line. This is where condensation causes corrosion. "You have to get in and walk the attic," Blumhagen says. Look for rust, rot and insulation thickness. Also, if you see a lot of missed nails or screws, the original job fell short and the structural rating isn't as planned, he notes.

Ridge-truss plates: Look for surface corrosion. Hit rusted areas with a hammer to see if there's much disintegration. Blumhagen sees barns built in the 1990s with trusses that are starting to fail. He notes that a G-60 galvanization rating was common back then. "The higher the G-rating the higher the zinc and the more corrosion resistant," he says. "To put it in perspective, much of the industry has moved to G-90 or higher."

There are mixed reviews on how easy it is to fix or replace a truss plate. It depends on how many and how bad they are.

Ceilings: If there's a lot of surface rust, the insulation will eventually get heavy enough to pop it off. You

can replace it with aluminum, which requires removing the steel and reinsulating, because steel next to aluminum causes corrosion. Another option is to install a plastic ceiling, which can be placed over steel.

Manure pit and slats: Never enter the pit. Instead, for about \$500, hire a professional to inspect the pit and the underside of slats.

Beam pockets hold up the slats and are a common failure. "Sometimes the slat walked out or concrete sluffed off and the beam collapses," Blumhagen says. "Beams, columns and beam pockets are the bigger failures because when you lose those, you lose multiple slats."

Slats with worn, sharp edges need to be replaced. For slats with cracks or exposed rebar, it's just a matter of time before corrosion will cause them to fail. "If you look at the slat surface and see problems, the underside will be worse," Harmon says.

Curtains: Fix the holes or replace the curtain, but the bigger issue is



Brian Blumhagen,
New Modern Concepts

the overall adjustment. Blumhagen advises cycling the curtain all the way down and up to see if it's working evenly end to end.

Gating: Look for wear and rust. "The strongest attachment point is the wall, so if you have a loose wall bracket, it puts a lot of stress on the posts and baseplates," Blumhagen says.

Now may be time to upgrade to swing gates. "It's not a big price increase and it offers a lot of flexibility when loading, sorting and treating pigs," he adds.

Feeders and feedlines: Check for corrosion and function, but more important is having the right feed space and capacity for today's pigs. "The whole industry suffers from a feed-outage problem," Blumhagen says.

So, it may be time to replace feeders to increase capacity; also, feeder materials and design have improved. Feed-line motors and switches wear out, but the coils and feed lines seem to hold up for a long time.

Inlets, fans and controllers: Inlets get out of adjustment; ensure they close uniformly. Controllers and/or fans may no longer perform well and need upgrading. Newer versions are more energy efficient and worth evaluating for replacement, Harmon notes.

Utility areas: Check gas lines for corrosion. Also, check that electrical conduits are secured to walls, there are no frayed wires and for outlets that need to be replaced. Consider LED lighting, as it not only offers a cost savings but also improves overall lighting for a more pleasant work environment. Review the plumbing, water pressure and capacity.

Perimeter tile drainage: This is too often overlooked and should include tile, sump pumps and ground observation tubes. You don't want to see a lot of standing water; drier is better.

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Options. Drop-pinned gates are standard, though flip-latch gates are also available. Swinging-gate designs prevent pigs from getting gates open.

Check for rodent entry and damage to the building because it means the insulation will need to be renewed.

The site matters: Evaluate road access, distance from town and neighbors, prevailing winds, future growth prospects or limitations and Internet availability.

Other considerations

Get quotes, sort through your priorities, and be aware of how much life remains in the facility's non-renovated parts and what may need to be replaced in the future.

Think about the pigs that will go into the barn 10 years from now, the size and strength needed for equipment and the building itself. You might want to consider wider alleys. Do you need more square footage? "A lot of buildings that used 7.5 square feet per pig fall short today," Harmon says. You will need to reconcile the barn layout and pig flow.

Take biosecurity into consideration: Are materials durable and easy to clean? Can you add a shower to accommodate men and women, and place it so that it honors the barn's clean/dirty line? Consider how to

handle supply-entry protocols.

Does the load-out chute accommodate the size of pigs you're raising? You may need separate options for weaned pigs and market hogs.

Don't overlook worker safety; consider adding exit signs and alarm systems.

"You don't necessarily need to build a Cadillac," Compant says. "But it's going to be a long-term asset, so make sure the facility is structurally sound, that you know how to operate it and that it will work well for your family's system or your grower partner." **F**

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