BARN AGAIN!
A GUIDE TO REHABILITATION OF OLDER FARM BUILDINGS
BARN
AGAIN!
A NATIONAL PROGRAM TO PRESERVE HISTORIC FARM BUILDINGS
A GUIDE TO BARN REHABILITATION
By Mary Humstone

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INTRODUCTION

If you’re like many farmers, chances are you have an old barn or granary sitting in your farm yard, slowly deteriorating. It nags at you. Every time you look at it, you think “One of these days I ought to do something about that old heap.” The problem is, you don’t know where to start. You wonder if it’s worth saving, or if it should be torn down. You wonder what you could use it for, and what it would cost to fix up. This guide will help you answer these questions.

This guide was developed as part of BARN AGAIN!, a national program to preserve historic farm buildings. BARN AGAIN! is sponsored by the National Trust for Historic Preservation and Successful Farming magazine, with financial support from Deere and Company and Pioneer Hi-Bred International. The information contained in this guide comes from you—the 500 individuals from across the country who shared your ideas with us through the BARN AGAIN! awards program and demonstration projects.

Why should the National Trust and Successful Farming be concerned about preserving historic buildings on our nation’s farms and ranches? Because we believe that the sturdy old barns that were built by generations before us are important, both as practical facilities for day-to-day farming, and as proud symbols of our agricultural past. These buildings are testimony to the innovation and hard work of those who came before us. With their massive wooden frames and lofty haymows, they tell the story of a farm in ways that words cannot. They are, as one farmer put it, “a part of the family.”

Of course there are practical reasons for preserving old farm buildings as well. We believe that caring for and using existing resources is a smart alternative to tearing down and building new. In the BARN AGAIN! program, we have tried to present economical solutions to preserving history, emphasizing projects that preserve as much of the original features of the old barn as possible, while providing the efficiency needed to run a successful operation.

Barns are versatile buildings. They may not look that way when you’re standing outside the barn with a $50,000 combine that won’t fit through those 10’ x 12’ doors, and even if it did, would not fit under that 8’ haymow floor. But as the examples in this book will show you, doorways can be enlarged, mows can be raised or removed, and empty old barns can once more become the center of your farm operation.

BARN AGAIN! farmers are using their old barns for everything from grain storage to machinery shops to grade-A dairies. Some have made investments of $50,000 or more to transform their old barns into state-of-the-art livestock facilities. Others have simply spent a few hundred dollars patching a roof or bracing a wall, to give themselves an inexpensive shelter for early spring calving. Still others have found their barns to be useful buildings for diversification projects, from selling Christmas trees to growing mushrooms.

On the average, the BARN AGAIN! farmers we heard from were able to save more than two dollars for every dollar they spent renovating their older farm buildings. Our 36 contest winners spent an average of $11,400 each to renovate their barns, and estimate they saved an average of $25,400 over the cost of a new building.

“Pay as you go” is a common philosophy among BARN AGAIN! farmers, many of whom disregarded lenders’ advice to borrow money for a new building. Most farmers did at least some of the work themselves. Some used local contractors to help out with specific projects, and a few hired professional barn builders to straighten foundations and walls and move beams, posts, and partitions.

BARN AGAIN! farmers have shown us that even barns that look like museum pieces can still be working parts of today’s farms. They have dispelled the myth that only farmers who “farm the old way” keep those old buildings around.
BARN AGAIN!
PROJECTS

On the next few pages you will see what some farmers have done to put their historic barns back to work. All of the barns illustrated here are over 40 years old, and all have been put to a practical use for less than what it would cost to construct a new building.

COZY PIGS
Joe and Leon Spartz
Kranzburg, South Dakota

1914 horse/dairy barn (National Register)
Date of project: 1987
New use: Hog farrowing/nursery
Size: 2,760 square feet

Work completed:
- Poured new concrete floor with gutters
- Installed scraper manure-handling system and outside lagoon
- Insulated walls and ceiling, and covered with polyethylene and fiberglass sheathing
- Installed four 20” variable-speed exhaust fans and 1’ x 1’ drop-unit intakes to draw fresh air from mow
- Rewired
- Painted exterior; patched roof
- Installed 20 steel farrowing crates in main part of barn
- Installed ten 5’ x 8’ nursery pens in leanto

Cost of project: $40,000
Estimated cost of comparable new building: $50,000
Tax credits: 20% federal income tax credit for rehabilitation of historic building—$8,000; 8-year property tax freeze—property valuation reduced by $12,000. Savings: over $18,000

Owner’s comments: “Nobody could be more pleased than Grandma Spartz, knowing that the old barn has been put to good use again.”

Farrowing is easy in this rehabilitated 1914 dairy barn
LOW-COST HOGS
Tim Broer
Iowa Falls, Iowa

1940 horse/dairy barn
Dates of project: 1977-1988
New use: Hog farrowing
Size: 1,728 square feet

Work completed:
- Removed existing stalls, mangers, stanchions and bullpen
- Insulated walls and foundation
- Poured sloped concrete floor and outdoor pad
- Repaired doors and windows
- Reroofed barn
- Painted exterior
- Installed furnace; upgraded electricity
- Installed 19 farrowing stalls

Cost of project: $7,400
Estimated cost of comparable new building: $20,000
Savings: $14,750

Owner’s comments: “We did all the work ourselves, phased over 11 years, as we could afford it. Using the old barn gave us an inexpensive start in the hog business.”

HOMEMADE DAIRY
Jeff Schanbacher
Atkins, Iowa

1932 dairy barn with 1944 loafing shed
Date of project: 1984
New use: Dairy; Size: 2,400 square feet

Work completed:
- Removed rotted portion of haymow floor; replaced floor
- Cleaned loafing area and replaced with fill lime
- Straightened wall; braced
- Poured new concrete floor with gutters
- Installed 32 used lever-action stalls
- Sheeted interior walls with plywood; painted
- Repaired milkhorse
- Installed used milking equipment
- Applied new metal roof on one side
- Built 24’ x 54’ addition for maternity pen and breeding stall
- Painted exterior

Cost of project: $12,000
Estimated cost of comparable new building: $25,000 or more
Savings: $13,000

Owner’s comments: “We kept the old barn because the foundation and lumber were basically in good shape. It had a good milk room that was in excellent shape, except for needing cleaning and painting. The barn has a style that new barns don’t duplicate.”
CATTLE FEEDING
Robert and Helen Kees
Durand, Wisconsin

1914 horse/dairy barn
Dates of project: 1984-1986
New use: Feeding cattle; crop and machinery storage
Size: 1,564 square feet

Work completed:
- Removed old dairy stanchions
- Installed feeding system for 80 steers
- Installed headgate and cattle chute
- Installed gates for heifer sales and treatment
- Reinforced mow floor
- Built and installed new drive-through sliding door to upper level haymow, matching existing siding

Cost of project: less than $1,500
Estimated cost of comparable new building: $21,500
Savings: $20,000, plus no increase in property taxes and insurance

Owner’s comments: “The style of this bank barn allows easy access to two levels, making the building very useful for livestock and hay storage. We are the third generation running this farm and using this barn.”

SUPER SHOP
Harry, Steven and Keith Owen
Garden City, South Dakota

1936 horse/dairy barn
Dates of project: 1982-1983
New use: farm shop
Size: 1,750 square feet

Work completed:
- Raised haymow floor 5’
- Opened up wall between main part of barn and lean-to
- Installed 16’ × 13’ sliding door in one end
- Poured concrete floor
- Insulated walls and ceiling
- Installed fluorescent lights

Cost of project: $6,000
Estimated cost of comparable new building: $22,000
Savings: $16,000

Owner’s comments: “The money saved over building a new shop was enough to build a new machinery shed next door. We use the shop almost every day all winter for repairs, maintenance and building projects.”
MACHINERY STORAGE
Darrell Newton
Nashville, Michigan

1895 dairy/hay barn
Date of project: 1986
New use: Machinery storage
Size: 2,600 square feet

Work completed:
- Removed most of haymows
- Installed trusses, using lumber removed from mows
- Installed 14’ x 20’ sliding door in end of barn

Cost of project: $4,300
Cost of comparable new building: $12,000 or more
Savings: $7,700, plus no increase in property taxes

Owner’s comments: “A small investment put this barn back to use, increasing useable, clear-span space from 34’ x 12’ to 34’ x 62’. The barn still has one haymow with room for more than 1,700 bales. Improvements such as a new concrete floor will be made as we can afford them.”

ROUND BALE STORAGE
Ted and Janis King
Knoxville, Illinois

1870 cattle/hay barn
New use: Storing round hay bales and machinery; feeding cattle
Size: 6,576 square feet

Work completed:
- Rebuilt sandstone foundation
- Jacked up 48’ wall; replaced sill
- Raised 2,000 square feet of loft area 8’ to provide 16’ of clearance
- Widened sliding door to 15’
- Reinforced wooden floor
- Repaired siding and windows
- Painted exterior
- Applied new cedar shingle roof
- Rebuilt cupola and 3 dormers

Cost of project: $24,500
Estimated cost of comparable new building: $50,000
Savings: $25,500

Owner’s comments: “Renovating the barn is a way of saving a piece of history. Not only does this barn look beautiful, but it’s in use once again, with over 12,000 square feet of storage space in the barn. This year, the barn will be full of hay for the first time in 40 years.”
BARN-FULL OF FLOWERS
Alvin and Debbie Langhals
Columbus Grove, Ohio

1935 dairy barn
Date of project: 1985
New use: Gift shop
Size: 2,400 square feet

Work completed:
- Poured new concrete floor
- Insulated and refinished interior walls
- Installed lights
- Built restrooms

Cost of project: $10,000

Estimated cost of comparable new building: $60,000
Savings: $50,000

Owner’s comments: “We value country life and like being able to share it with others. Customers like the old barn; it brings back memories.”

GRAIN STORAGE
A. R. Kusel, Ltd.
Manning, Iowa

1920 livestock/hay barn
Date of project: 1986
New use: Grain and/or machinery storage
Size: 5,200 square feet

Work completed:
- Constructed and installed 20” steel truss, supported by used I-beams, to replace haymow floor;
- removed haymow floor and supporting posts
- Poured concrete floor
- Built bulkhead wall for grain
- Built and installed 16’ × 20’ sliding doors

Cost of project: $18,000
Estimated cost of comparable new building: $36,000
Tax credits: 20% rehabilitation tax credit
Savings: $21,600

Owner’s comments: “We stored 40,000 bushels of corn in fall, 1986. When our grain inventory is low, bulkhead walls can be easily moved to provide space for storing machinery, or bringing in huts for winter farrowing.”
USING YOUR OLD BARN

Everyone has his own reasons for using an old barn. For some, it is a purely practical decision based on the needs and budget of the farm operation. Others maintain and use their old barn because it has special meaning to the family, or even the community. These reasons must be weighed in considering a barn rehabilitation project. You shouldn’t have to destroy your solid old barn just because it isn’t new. But on the other hand, you probably can’t afford to preserve a building just because it’s historic.

If you are wondering whether to rehabilitate your old barn, here are some practical points you should consider:

► Older barns are ideal if you need a low-cost start in a new enterprise. For a small investment in an existing building you can get started, then improve or add on to your facility as you have the time and money to do so.

► You can save money on a rehabilitation project by doing all or most of the work yourself.

► With two or more stories, older barns offer greater square footage in a smaller space than most modern barns. Haymows provide extra storage while helping to insulate livestock below.

► Older barns are versatile—they may be used for machinery storage one year and grain storage the next. Most 100-year-old barns have seen many different uses over the years.

Every space in the old barn can be used for something.

► Federal and some state governments offer tax incentives for rehabilitation of older buildings.

► If your operation includes a retail business, your historic barn can help to attract customers who are looking for atmosphere as well as merchandise.

► Don’t forget recreation! If you’re not using your haymow, your family can make good use of it for basketball or other sports.

BARN REHABILITATION CHECKLIST

A quick check of your barn and your farm layout will help you decide if your building is structurally sound and suitable for a new use.

Use the following checklist to evaluate the structural soundness and overall suitability of your barn:

☐ Framing: Are posts, beams, sills, rafters, and joists solid and free of rot?

☐ Foundation: Check for cracks, settling and shifting out of place. Check for loose or missing mortar.

“The barn is straight, strong, roomy, and well located.”
PLANNING YOUR PROJECT

The most important part of a rehabilitation project takes place before the first board is nailed. Good planning will save you time, money and lots of unpleasant surprises later on.

What needs to be done?

First, sketch out a floor plan for your project, and make a list of all the work needed to get your barn back in shape and back to work. Include everything you eventually want to do to your barn, even if some projects seem impractical right now. Be sure to include work needed to comply with building code and insurance requirements. Check off what needs to be done right away, and what can be put off until later. Basic weatherproofing and structural work, such as fixing a leaking roof or repairing a collapsed foundation should be done first, followed by whatever is needed to put the building to work (such as new concrete floor and farrowing pens, or raised loft and new doorway). Some work such as replacing battens or broken glass can wait until the building has begun paying for itself.

- Roof: Check roof covering and flashing for damage. On the inside, look for water stains and rot on sheathing and beams.
- Exterior walls: Eyeball the length of the barn at eave level to check walls for straightness. If foundation has shifted, walls may have sagged or pulled out. Make a note of any places where siding or battens are broken or missing, and need to be replaced.
- Interior: Check condition of existing floors. Make sure floors slope to a drain or gutter.
- Location: Is your barn conveniently located with good access to and from other buildings and the farmyard, and access to water and electricity? Is there room to add on if you want to expand your operation in the future?
- Size: Is your barn big enough for its intended use? Is there adequate ceiling clearance and space between interior posts or will you have to alter these to make it work? Is there room to install the equipment you will need?
- Doorways: Will doorways need to be enlarged or moved?
- Environment: Is your barn airtight and insulated? Can heating and ventilation systems be installed if necessary?
- Utilities: What is the condition of the plumbing and wiring? Will it need to be updated? Can feeding, watering and manure handling systems be installed if necessary?

If after checking these points you conclude that your barn is in relatively good structural condition, and its size, shape and location are right, you will be well on your way to a successful project. Even if your barn has a structural problem, don't give up. These problems can be fixed but you will need to decide if saving the barn is worth the cost.
Getting advice

Talk over your project with neighbors, building contractors and your local county extension agent. Contact your State Historic Preservation Office (SHPO) for help with preservation questions. If your project is complex, you might want to have an architect or engineer draw up some plans.

Seek advice from many sources, but make your own decisions. Many farmers who completed successful BARN AGAIN! projects reported that the "experts" had advised them to tear their buildings down. Professionals differ on their approach to older buildings. Some see many possibilities, while others dismiss all old buildings as outdated and useless.

Who will do the work?

Once you have completed your plans, decide what work you can do yourself. Many farmers are handy carpenters, but don’t like to bother with wiring or concrete work. Don’t plan to tackle structural problems yourself unless you have the know-how and equipment to do the job safely.

Ask contractors to give you bids on the remaining work. If you don’t have a contractor you know and have worked with before, be sure to get several bids and compare. You may be amazed at the differences! Ask for references and call them. Find out if the contractor has a reputation for keeping costs down and finishing projects on time. Ask if he has worked on old buildings before. If possible, check examples of his work.

You may have to go outside your local area to find someone to do specialized work. References for contractors who specialize in working on older buildings can be provided by your State Historic Preservation Office or local historical society.

Someone who is familiar with the construction of older buildings and likes working on them will probably do the best job for you.

What will it cost?

Prepare a cost estimate for your project. For the work you are doing yourself, or equipment you plan to install, make a list of materials needed and price them. Look for bargains in used equipment and lumber. Get bids from contractors on the remaining work. Most older buildings contain a few surprises, so be prepared to revise your estimate as you get into the project.

If you’re deciding whether to use an old building or construct a new one, be sure in estimating the cost of a new building that you include costs of removing the old building, sitework, and financing costs if applicable.

Plans and specifications, such as for this hog barn conversion, are helpful in communicating with contractors and lenders.
Structural Work

Masons rebuild sandstone foundation of a 48' x 96' barn.

The first step in rehabilitating your older barn is to get the structural system—the foundation, walls and roof—in good shape, and to take care of any problems that have caused structural damage. Most damage is caused by water, so be sure that water drains away from your barn, and doesn’t penetrate through the roof or walls.

Working on foundations and barn frames can be dangerous, especially if you aren’t sure of what you are doing, or don’t have the proper tools to carry out the job. Consult a professional if you have any doubts about repairing your barn’s structural problems.

Foundations

Many older barns have some foundation damage. Settling, shifting out of line, or even crumbling of stonework are common effects of water damage. While a crumbling foundation may scare you away from using your old barn, chances are it can be repaired.

Foundations can be straightened using anchor rods to pull the wall back into place. Buttressing a foundation wall on the inside with a poured concrete or concrete-block wall will prevent further buckling. In cases of extreme damage, the barn frame can be jacked up and supported, then the foundation rebuilt underneath it.

If mortar has crumbled away from your stone foundation, it should be replaced before moisture gets in and causes further damage. Use a soft mortar mix which is high in lime. Mortar which contains a high percentage of Portland cement will be too rigid and will crack softer material around it such as sandstone. If stones need to be replaced, try to match the original as closely as possible. Check nearby quarries or nearby abandoned foundations for matching stone.

When you have repaired your foundation, be sure to eliminate the cause of the damage. Make sure gutters are working properly and, if necessary, grade the area around your barn to channel water away from the foundation.

Framing

Rotted support members (posts, beams, studs, rafters, etc.) can be replaced by carefully jacking up the barn until the weight is removed from the rotted piece, then replacing it. Portions of posts or beams that are rotted can be cut off and new lumber spliced on, using a simple lap joint.

If a wall has sagged downward, chances are the sill supporting it has rotted. The wall can be jacked up and secured with temporary supports while the sill is replaced.

Barn walls that have pushed outward can be jacked back into place, or pulled together with cables and tumbuckles. It is safest to do the job a little at a time, starting at one end of the barn and working your way down the wall, then back again. When the barn walls are plumb, brace them with collar ties.
THE OUTSIDE

Rehabilitating a barn does not have to involve extensive and expensive changes such as a new roof or metal siding. Generally, few exterior changes will be required in converting your older barn for a new use. Try to keep changes to a minimum to save money, preserve the historic features of your barn, and help your project qualify for rehabilitation tax credits (see Page 15). Whenever possible, repair rather than replace.

Roofs

A leak-free roof is the best way to protect your barn and keep it working for you for many years. Before you decide you need a new roof, get up there and check it out. It may be that you can patch the holes or replace damaged areas without replacing the whole roof. One farmer reported he saved several thousand dollars by determining that he could patch his wood shingle roof instead of covering it with steel roofing. He spent $50 on shingles and did the work himself.

If your roof does need to be replaced, several options are possible. If your barn is over 50 years old, its original roofing has probably been replaced or covered over at least once. Ideally, you should strip the roof down to the sheathing, replace any rotted boards, and start over again. You can apply wood, asphalt or metal roofing over an existing roof, but don’t overload your rafters with more than three layers, and don’t cover over an existing roof if shingles, sheathing or rafters are rotted.

Choosing a roofing material is a matter of personal preference, cost and needs. Cedar shingles are attractive and long lasting, but they’re expensive and time-consuming to apply. Asphalt or composition shingles are less expensive and come in a variety of colors, but they won’t last as long.

Many farmers opt to cover a deteriorated wood or composition shingle roof with steel or galvanized metal roofing, which is relatively long lasting and easy to apply. Metal roofing is available in a large selection of colors, and in various grades and thicknesses. Price and durability depend on the grade chosen.

When choosing a roofing material, consider the following factors:
► Slope of roof (different materials have different minimum slopes).
► Durability, and resistance to hail and fire.
► Cost of materials and labor.
► Compatibility with the rest of the building and adjacent buildings.
► Similarity to original roofing materials.

Siding

While barns are constructed of many different materials, including stone, brick and logs, most barns are finished in wood siding. Traditional barn siding may be clapboard, board and batten, or drop-siding. The siding may be installed vertically or horizontally, and boards may fit tightly or there may be air space between them.

Wood siding is very durable, and provided it hasn’t taken too much of a beating from livestock or the elements, it can usually be repaired. Don’t conclude that you must cover your barn with new siding just because some boards are weathered, broken or missing. If you are handy with a hammer and saw, you can probably repair your siding for a relatively low cost. Broken boards and battens can be replaced. Loose boards can be renailed, and cracks filled before painting.

Many farmers cover their barns with corrugated metal or steel siding to cut down on maintenance needs or to give the building a “remodeled” appearance. Several factors should be weighed before making this decision, including cost, durability, appearance and preservation of the barn’s original features.

If your existing siding is in very bad shape and has many gaps, and you need an airtight building, new synthetic siding might be your best solution.

Even a badly damaged wall can be made to look like new by replacing broken boards and repainting.

Pressure-treated baseboards protect heavily used areas. Owner received a 10% tax credit on this project.
A good quality paint job can last you 10 years or more.

On the other hand, if your barn walls just need repair and repainting, new siding is an unnecessary added expense.

Compare costs of the alternatives. According to the Preservation Assistance Division of the National Park Service, a normal application of aluminum or vinyl siding is likely to cost from two to three times as much as a quality paint job on wood siding. Most synthetic finishes can be expected to last about 15 years. Once painted, synthetic siding will require repainting at least as often as wood. Synthetic siding is also vulnerable to damage from livestock and weather, and once damaged is more difficult to repair than wood.

A common misconception is that application of synthetic siding will help to insulate a building. According to the Federal Trade Commission, synthetic siding has little or no insulation value.

If you do decide to cover your barn with new siding, don’t make the common mistake of covering up problems. They will just get worse, and be harder to treat. Be sure that moisture cannot get behind the siding, as the siding forms an exterior vapor barrier that will trap moisture and eventually rot the wood underneath. Choose a style and color that matches the original siding as closely as possible.

Painting

Painting is one of the best excuses for tearing down an old wooden barn. Painting a barn is a big job, requiring skill, hard work and lots of paint. But thanks to modern technology, a good paint job on wooden siding can last 10 years or more.

The beauty and durability of a paint job depends on the preparation of the surface, the quality of the paint and how well the paint is applied. If you are hiring a contractor to paint your barn, check references and examples of his work, and be sure you have control over what paint is used. Paint quality varies, and a cheap paint will not last.

If you are doing the work yourself, you can rent a power washer and paint sprayer to make the job go faster. Loose, flaking paint can be removed by careful, low-pressure washing, followed by hand scraping. After surface preparation, apply a coat of primer followed by at least one coat of high quality exterior paint.

Windows and Doors

Broken windows and doors detract from the usefulness and appearance of an older barn. Since many of these openings are not needed for modern operations, it is tempting just to cover them over with sheeting. If you are interested in preserving your barn’s historic appearance, however, you should consider repairing them instead. If you need to permanently close and insulate the window openings, install a sheet of black-painted plywood behind the glass. This will save the appearance of the window, and look much better than insulation stuffed against the glass.

You may want to keep openings operable to light the inside of your barn or provide for cross-ventilation on warm days. If so, you can construct removable insulated panels or storm windows to fit inside or outside the existing windows.
CREATING MORE SPACE

Many older barns are not used simply because there’s not enough clearance on the main floor to move in large equipment or store large amounts of grain, hay or seed. In most older barns, this situation can be improved quite easily by removing the hay mow floor and supporting structure and bracing the roof and walls with trusses or cables. Often material that is removed can be reused, making this a relatively inexpensive operation.

In planning this type of project, remember that the hay mow floor serves a structural as well as utilitarian purpose in the barn. It holds the sides of the barn together and in some cases also supports the roof system. Before removing anything, be sure you understand how the mow floor fits into the structural system of the barn, and what points need to be supported and braced when you remove the floor. If you are not confident that you understand and can work on the structural system of your barn, bring in a professional.

If you want to keep your hayloft but need more clearance, you can raise the mow floor to the desired height. Another alternative is to remove only part of the loft, so that you have floor-to-ceiling space in part of your barn, and two levels of storage in the rest.

Bigger doors

When you raise or remove your hayloft floor, you may also have to enlarge an existing door or install a completely new door to allow easy access to your shop or storage area.

Several types of doors are available. Keep in mind that a 20’ x 20’ door will totally alter the appearance of your barn unless you design it to blend with the existing walls. If possible, put your new door on an inconspicuous side of the barn. The best solution is to construct a sliding door of the same material as the existing siding. When the door is closed, it will blend in with existing walls. Overhead and folding doors can also be installed, but these will make a more drastic change in the exterior appearance of your barn.

CUSTOMIZING THE INSIDE

Most older barns can be easily brought up to code and outfitted with the same equipment and systems that you would expect to have in a brand new facility. New concrete floors can be poured with built-in gutters if desired. Walls and ceilings can be insulated and, if needed, covered with a moisture-proof and easy-to-clean fiberglass paneling. New plumbing, wiring, heating and ventilation systems, automated feeding, watering and manure handling systems, and modern crates, pens and stalls can be installed.

Wooden floors that will be subject to heavy loads may have to be reinforced. If you have doubts about the structural stability of your floors, a structural engineer can tell you where to add bracing or additional flooring.
MAINTAINING YOUR OLD BUILDING

Maintenance is the key to keeping your old barn working for you. A small investment now and then to patch a hole in the roof or paint a wall can save you thousands of dollars in major repairs or even a new building later on.

The barn inspection outlined on page 8 should be performed yearly. Pay particular attention to these important areas:

- Drainage: Observe your barn during a heavy rain. Make sure gutters are working properly, and that water drains away from the barn. If necessary, grade the area around the barn to ensure proper runoff. This will protect your foundation and sills from water damage.
- Roof: Inspect your roof from the outside, paying special attention to flashing and valleys. Also check inside the barn for signs of leaks. If you discover a leak, repair it immediately before your sheathing and framing are damaged. If your roof has become too worn, replace it as soon as possible. Delaying could result in costly structural damage.
- Masonry: Check stone walls periodically for loose or missing mortar, and repair as necessary. Also replace stones that have crumbled before structural damage results.
- Painting: Wooden siding, doors and windows should be kept painted to seal out moisture. Before painting, prepare the surfaces by removing peeling paint and sealing cracks. Choose a high

quality paint guaranteed for at least 10 years.
- Stabilization: If your barn is in bad shape and you can’t afford to fix it up right away, at least keep it weathertight by temporarily covering roof leaks and openings with tarpaper or heavy plastic.

HISTORIC PRESERVATION

"Our barn is a masterpiece of hand craftsmanship. Walking into the haymow is like stepping back into another century. It is awe-inspiring, and must be preserved."—Curtis Pilgrim.

As the testimony of this farmer demonstrates, the "barn that grandfather built" is more than just another farm building. It may contain a mow-full of memories for you and others who came before you. It may be an architectural landmark in your community. It’s a symbol of your heritage, and a source of pride.

Old barns are also sources of information about architectural styles, engineering techniques, and farming practices of times past. You can learn a lot about the history of your own farm by studying your barn—when it was built, who built it, what innovations or ethnic traditions were incorporated into the design, what changes were made through the years to accommodate changes in farm products or advances in agricultural technology.

As you plan your barn rehabilitation project, think of what is historically important in your barn. What features contain information about the past? Try to save as much of the barn’s history as you can, so that the barn will mean as much to future generations as it does to you.

National Register

The National Register of Historic Places is the official listing of buildings, sites and objects significant in American history and culture. To be eligible for listing on the Register, agricultural buildings generally must be at least 50 years old, and must be “significant” for their association with important persons or events in local or agricultural history, or as examples of a particular architectural
style or construction technique.

Listing on the Register is primarily an honorific designation, and carries no restrictions on what property owners can do with their buildings. You can alter and even tear down a National Register building without consulting anyone. Listing on the Register does not require you to open up your property to the public.

National Register listing does hold some advantages, including tax credits (see below). About 20 states offer additional incentives such as property tax freezes for rehabilitation of Register-listed buildings.

A 20% investment tax credit is available for certified rehabilitation of National Register buildings. A 10% tax credit is available for non-listed buildings built before 1936. To qualify for the tax credit, a building must be used for income-producing purposes. This excludes your house, but includes most farm outbuildings.

Rehabilitation costs must be greater than $5,000 or the adjusted cost basis of the building, and at least 75% of the existing internal structural framework must be retained. If you are planning to apply for the 20% tax credit, discuss your project in advance with your State Historic Preservation Office. Tax credit applications are reviewed by the SHPO and the National Park Service for compliance with the Secretary of the Interior's "Standards for Rehabilitation." A fee is charged for the National Park Service review.

FOR FURTHER INFORMATION

ORGANIZATIONS AND AGENCIES

Local organizations

Your local historic preservation commission, city or county preservation office, or local historical society are good sources of information about local history. They may be able to help you research the history of your farmstead, and can inform you of any local programs available to help preserve historic buildings.

Extension sources

Contact the Cooperative Extension Service for information about farm building needs, and for assistance with specific building projects and plans. County agents and/or extension agricultural engineers at land grant universities may be able to provide on-site advice.

State Historic Preservation Office

In every state, the state historic preservation office (SHPO) carries out a program of survey of historic resources, preservation planning, technical assistance, review of nominations to the National Register, and review of applications for the 20% rehabilitation tax credit.

Contact your SHPO to find out if your property is eligible for listing on the National Register of Historic Places, how to apply for the rehabilitation tax credit, and to find out if your state has other preservation incentives such as grants, low-interest loans or property tax freezes for rehabilitation of historic buildings. SHPO staff provide general information about preservation techniques, and may even be able to give on-site advice. Some SHPOs have lists of rehabilitation contractors, craftsmen and architects, and consultants who prepare National Register nominations and tax credit applications. For the address of your state historic preservation office, contact the National Conference of State Historic Preservation Officers, Suite 342, Hall of the States, 444 N. Capitol St., N.W., Washington, D.C. 20001-1512. Phone: 202-624-5465
The National Trust for Historic Preservation is a nonprofit corporation chartered by Congress to encourage the preservation and rehabilitation of historic sites. Through a network of six regional offices, the Trust provides advice and financial aid to nonprofit private and public organizations.

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910 16th St., Suite 1100
Denver, CO 80202
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One Sutter St., Suite 707
San Francisco, CA 94104
(415) 956-0610
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Hawaii, Idaho, Micronesia, Nevada,
Oregon, Utah, Washington)

PUBLICATIONS

**BARN AGAIN! Program, National Trust for Historic Preservation, 910 16th St., Suite 1100, Denver, CO 80202.** Publications include:

- Barn Aid #1: Barn Foundations
- Barn Aid #2: New Spaces for Old Places
- Barn Aid #3: Barn Exteriors and Painting
- Barn Aid #4: Barn Roofs
- Using Old Farm Buildings
- A Guide to Tax-Advantaged Rehabilitation
- (Publications catalog available)

**National Park Service, Preservation Briefs Series.** Order from Superintendent of Documents, P.O. Box 371954, Pittsburgh, PA 15250-7954. Publications include:

- Preservation Briefs 2: Repointing Mortar Joints in Historic Brick Buildings
- Preservation Briefs 8: Aluminum and Vinyl Siding on Historic Buildings
- Preservation Briefs 10: Exterior Paint Problems on Historic Woodwork
- Preservation Briefs 20: The Preservation of Historic Barns
- (Publications catalog available)


**Midwest Plan Service, Iowa State University, Ames, IA 50011.** Publications and plans for farm buildings including:

- Small Farms - Livestock Buildings and Equipment
- Movable Grain Storage Walls
- Farm and Home Concrete
- (Publications catalog available)

**BARN AGAIN!: Celebrating the Restoration of Historic Farm Buildings,** hour-long video produced by Nebraska Educational Television. Order from GPN, P.O. Box 80669, Lincoln, NE 68501.


(Tips on preserving wooden buildings.)