



## After a Flood: Salvaging Flood-damaged Buildings

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Buildings that have been exposed to flood waters need to be evaluated for the extent of damage and the amount of cleanup and repairs necessary to restore them to a useable condition.

The first thing to do with a building that has survived a flood is to check its structural strength. If the building has been moved, shifted, or twisted, it may not be safe to enter. Check the foundation, sill, plate, roof supports, and walls for damage. If there is extensive damage to the building, it probably will be less expensive to tear it down and start again with a new building as compared to attempting to repair the damaged structure. A “rule of thumb” is that if it costs over 60% to repair and restore, then it is usually best to build new.

After the water subsides, get the building dried out as much as possible. This can include the use of a sump pump, mops, fans, and/or natural ventilation.

After wood dries, inspect laminated woods, such as plywood, that have been immersed in water to be sure laminations are still firmly bonded together. Check existing nails to ascertain if they are still firmly driven.

If the building was insulated, the wet insulation must be dried or removed. Quite often, flood water will leave absorbent material with a foul odor that is difficult to remove. This would be reason to remove and discard the wet insulation. When checking the insulation, expect it to be wet

above the high-water level because of the wicking action of the material.

If the interior wall sheathing is sheetrock, it will need to be replaced. Usually, the interior sheathing in the out-buildings will be wood, which can be removed, dried, and reused. After the sheathing and insulation is removed, inspect the wall studs, sills, and plates for structural damage. Damaged components will need to be repaired or replaced.

Inspect wiring and plumbing for damage from the flood’s pressure. Electrical outlets, switches, sockets, and fuse boxes need to be dried out and cleaned thoroughly to prevent the electrical current from arcing to the moisture and starting a fire.

Do not turn on the power to a flooded structure until the structure has been inspected and determined safe by a qualified person.

After the buildings have dried sufficiently, renovation can begin. All floors probably will be covered with layers of silt and mud. This will need to be removed. Wood floors that have absorbed a lot of the water could be buckled. Do not repair them until they are fully dried. It may be possible to pull some of the flooring back into place with nails. Planing and sanding will be necessary to remove humps in the floor. This may not get the floor into condition to look good uncovered, but it will be smooth enough to serve as a base for a new covering.

Insulation will need to be replaced in the walls. Cover with a 4 mil or 6 mil polyethylene vapor barrier on the interior side of the building, then install interior sheetrock or sheathing.

## **OTHER FARMSTEAD CONSIDERATIONS**

### **Electrical equipment**

Disconnect from the power source and completely disassemble and clean before using. Do not run electric motors until they are clean, dry, free-running, and judged safe by a qualified person. This means that air conditioners, furnaces, appliances, feed augers, fans, and other equipment may not be approved for use for several days.

Alternatives may therefore be necessary to get a flood-damaged farmstead back into operation. This could involve moving dairy cows to a neighbor's milking unit, utilizing natural ventilation instead of mechanical, and feeding by hand, for example. Animals housed in mechanically ventilated buildings may need to be moved to prevent acute exposure to hazardous gases.

### **Equipment from the livestock building**

Thoroughly clean milking equipment, grain augers, ventilation fans, and other items that were immersed in the flood waters to remove grit or other contaminants.

### **Water system**

If a well is used for the water supply, test the water to determine if it is safe for human or livestock consumption. Usually, a well that has been contaminated by flood waters can be cleaned and sanitized. If a rural water system is being used, check for breaks or leaks in the supply and dis-

tribution pipes. It also would be good to flush all your water lines after the flood.

### **Fuel- and chemical-storage areas**

If these supplies are spilled or have water damage, special measures may be needed for proper and safe cleanup and disposal. Your county Extension office has information on the methods necessary for safe cleanup.

### **Farm shop**

Clean, dry, and lightly oil all metal tools to prevent rusting. Power tools will need individual cleaning and drying before they are used. Belts, nails, screws, and so forth will need to be dried to prevent rusting.

### **Grain in storage facilities**

Check to determine if grain became wet. This could be difficult, as the moisture would be at the lower levels of the storage bin. If it appears the water level was above the bin floor, remove the grain from the bin before mold and spoilage occurs. It might be possible to dry the grain and restore it, use it for livestock feed, or market it.

### **Forages**

Silage, large round bales, and hay stacks will spoil unless they are fed soon after the flooding. If the packaged hay is opened and spread to dry, it may be possible to repackage and store it.

## **REMEMBER . . .**

Cleaning up after a flood presents many new problems that flood victims must meet and correct. Try to remain calm. Survey the farmstead, evaluate the amount and location of the damage, and then prioritize the necessary cleanup. Your county Extension office can help you.



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