Take stock of barn design to eliminate common hazards

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and can be patched if damaged. To reduce the maintenance of a clay, clay-sand, or stone dust floor, some pros recommend installing a hard plastic grid covered with the flooring material.

A special kind of soft asphalt (often called stable mix) is porous, allows for drainage, and is more durable than clay. Brick, if not too hard or too smooth, also provides for drainage and traction and, if necessary, can be picked up and re-laid. Representing the ultimate in custom design are systems that evacuate urine from stalls into a common drain under the brick flooring.

Straw, a traditional bedding for many years, carries spores that can irritate some horses' respiratory systems. Specific types of kiln-dried wood shavings are frequently used as an alternative for horses who experience problems with straw. Shredded newspapers can also improve conditions for horses suffering from chronic respiratory problems.

◆ The best way to supply a horse with hay and water? That, also, is open to debate. A hay rack can cause injury itself. Or, when the horse reaches to eat the hay, dust particles and pieces of hay can fall into his eyes or make their way into his lungs. Although serving hay on the floor won't cause bodily injury, it does encourage recycling of parasites. Deciding how to feed hay is a tough call, involving personal preference. Warning: old-fashioned hay mangers are a proven menace. Playing around in a stall, many horses have caught a leg, or a foot, in them.

Stall doors of 2 x 2-inch steel mesh maximize air movement. Note the smooth rounded edges on the heavy mesh and block wall beneath it. These stall doors are anchored top and bottom, so that dangerous openings are not created when horses lean against them or push against them with their noses.

There are two ways to provide water: the old-fashioned method—in buckets—or automatic water dispensers. If maintained in working order, and properly prepared for the winter, automatic dispensers can provide a constant supply of fresh water. They are also a great-labor saving device. Keeping buckets clean and refilling them with fresh water several times a day will produce the same results.

◆ Barn fire is always in the back of a horseman's mind—and rightly so. To reduce the possibility of this ultimate horror happening to you, begin by removing all combustibles from the stable. Store hay in a separate building. If that's not possible, be sure that hay kept in the barn is in a fire-rated enclosure. Make sure the electrical system, and all electrical appliances, are designed to avoid combustion of accumulated dust and other materials. No matter how safe a barn appears to be, it's always prudent to install an effective fire alarm system and plan an emergency evacuation route.

◆ Last, but definitely not least, give careful attention to ventilation. Poor ventilation can lead to all kinds of health problems. Yet a common tendency is to under-ventilate barns, especially in winter, when some people mistakenly assume their horses need to feel cozy and warm.

Ventilation controls temperature, dust and perhaps most importantly, humidity. The best way to reduce humidity is to keep large volumes of air flowing slowly and constantly through the barn. If the barn has a center row of stalls, the roof above those stalls could project higher than that of the outside rows, and include windows that allow for the flow of air.

Some modern horse barns have been built with a sophisticated ventilation system designed to hinder the spread of germs from one horse to another. Air enters through baffled vents installed at the bottom of a stall, just above the level of the bedding. The vents are baffled so that hot and cold breezes entering the stall can be controlled. The heat from the horse's body helps to create an upward thrust that forces the air to move up through roof vents. (The stalls do not have ceilings.)

For any stable, especially those located where the temperatures can soar, height of the building and roof venting are important considerations. Since warm air tends to collect under a roof, vents in the roof or high in the wall or open ridge ventilation will keep the air moving out.

Consider building your barn in a location that will take advantage of the natural wind patterns. Exhaust fans can be used as a substitute for nature.

If the decision were theirs to make, most horses would probably not choose to live in a barn at all. A strong case could be made that many of them would be happier—and healthier—staying outdoors. Which means that people, who have created barns for their own convenience, have an added responsibility to ensure that the indoor environment will cause as little health risk as possible. ❧

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Ventilation and skylighting in roof of barn above (shown exterior and interior) is known as "continuous ridge." Air flows through louvered vents visible at edge of skylight. Barns left and below have elevated roofs, allowing air to flow under the ridge of the main roof. Ventilation slots can be seen under awning-type windows in the barn below.