'SHROOM SAFETY: Floor It! Accelerate Mushroom Farm Sustainability

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Mushroom farms have one of the smallest environmental footprints in agriculture. However, there is one often-overlooked choice that could help you advance your facility's sustainability practices even further: flooring choice.

Porous, rough-textured floor surfaces such as concrete—common among some mushroom farm growing rooms and especially packing rooms—absorb moisture and may allow fertilizers and fungicides to leach into the surrounding soil and groundwater. They may also harbor unwanted organisms such as nematodes, virus diseases, apothecia (mummy cups), competitor molds, bacteria, fungal pathogens, and crop-damaging pests such as cecid flies.

Advances in flooring technology have made it possible for seamless, non-porous resinous flooring systems that offer several hygienic advantages over other materials, including:

- Enabling complete washdowns
- Eliminating standing water and bacteria-harboring points

- Providing lasting resistance to disinfecting procedures such as chemical use, high-temperature steam, and cookouts
- Promoting worker safety with slip resistance
- Allowing easy spot repair in case of damage, with odor-free and fast-curing fillers
- Accommodating high traffic with lasting durability

System Breakdowns

What can mushroom growers do to improve the sanitary condition of their facilities' floors? The first step is to replace concrete, grouted flooring surfaces (such as brick and dairy tile), as well as carpet and other kinds of soft surfaces—which are difficult to disinfect—with seamless resinous systems that stand up to rigorous industry cleaning regimens. And for proper drainage in washdown areas, cover bases at wall-to-floor transitions help eliminate standing water, giving pathogens no place to multiply.

Also, monitor the condition of your facilities' floors regularly. Look for signs of fading, cracking, or spot damage that may indicate your flooring system needs to be changed or that your disinfecting procedures are too harsh.

Despite best intentions, over time, coatings eventually deteriorate, presenting possible contamination concerns. Deterioration may be gradual due to age, or accelerated from chemical exposure, frequent wash downs, general wear and tear, and other factors. However, there is a way to enhance your focus on food safety while addressing compliance concerns: identify areas where your floor coatings are deficient, implement preventive control plans, and commit to making proactive repairs.

To effectively identify and address your coating systems' condition and problem areas, perform periodic site evaluations prior to official Food and Drug Administration and third-party audits. Trained professionals can provide significant value by not only properly assessing facility-wide coating uses and possible deficiencies, but also recommend the optimal coatings to use in specific environments and applications. Flooring industry professionals can also help develop repair specifications for those areas, so repairs can be completed before or after compliance audits.

Preventative Control Measures

1. DECISION MAKING & PLANNING

A good plan empowers the facilities department to make the right choices long term. Cost is always a consideration for every project and sometimes lifecycle cost is often overlooked and a quick "Band-Aid fix" often wins. Choosing the right coating system along with the proper surface preparation, however, saves time and labor costs down the road.

2. HAZARD ANALYSIS & CONTROLS

Trained facility evaluators can look for physical hazards associated with potential falls on damaged or slick floors and recommend flooring systems that can help provide a seamless solution to reduce ponding water and slip/fall hazards with proper skid resistance.

3. SANITARY FACILITIES & CONTROLS

Drain repairs, proper slope, and cove base application are important to address in flooring installation. These seamless systems stand up to aggressive cleaning chemicals used in farming and food handling facilities. They also help mitigate cross-contact allergens from being trapped in wall and floor crevices during wash down procedures and processing.

4. EQUIPMENT PRESERVATION

A flooring industry expert can evaluate the proper coatings to keep your equipment, structural steel, and other assets free from corrosion while maintaining a cleanable surface.

5. WAREHOUSE & DISTRIBUTION

A proper evaluation will address the right coatings and flooring options for dust reduction, cleanability and striping options for rodent identification. In addition, aged, insulated metal panels (IMP) found commonly in cold storage and processing areas should be addressed to prevent contamination if the factory finish begins to flake off; seams in these panel systems, which often harbor bacteria, will also be assessed.

Surfaces such as walls, ceilings, equipment and floors, could potentially harbor harmful bacteria and pathogens such as Listeria. Failure to keep a food facility clean is a major cause of vermin infestations. The sanitizers and cleaners used to abate bacteria and pathogens can wreak havoc on your assets.

For a free facility site evaluation, including areas that Food Safety Modernization Act focuses on, contact Michael (443-801-8776) or Sharon (717-360-2565).