



# Food Safety Bites

By the MBAA Food Safety Committee

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## SPENT GRAIN

Spent grain is one of the great constants in the brewing industry. Every brewhouse must deal with this by-product, from 3-bbl nano systems to 950-bbl mash tuns. Traditionally, breweries have avoided sending it to landfills as trash by finding other applications, notably in agriculture. The most common use is as livestock feed, which is where food safety considerations come into play. In the United States, the Food Safety Modernization Act (FSMA) is the relevant body of food safety law for beer, documented in 21 CFR Part 117. Alcoholic beverages are exempt from the Hazard Analysis and Preventive Controls component (Subpart C), but Current Good Manufacturing Practices (cGMP) as listed in Subpart B will always apply. The general provisions of cGMP are applicable to food safety in every regulatory jurisdiction and should be viewed as Best Practice industry wide.

### What You Need To Do

Spent grain is a by-product of brewing, but when destined for use as animal feed it will still need to be stored in sanitary containers, whether they are re-purposed trash bins or dedicated vessels.

The expectations for spent grain containers and conveyance (augers, piping, etc.) are:

- The design, construction, and materials must be smooth, durable, and easily cleanable.
- Materials are cleaned as needed (this may be thorough rinsing with potable water, but scrubbing or CIP cycles should be used when needed);
- Containers must be clearly labeled or differentiated to identify them for spent grain use to avoid misuse (color-coding is an option).

Spent grain containers need to be inspected regularly to remove any trash or contaminating debris, especially if they are not covered or sealed. When shipped, some form of documentation should accompany the containers that identifies them as spent grain for use as animal feed.

In addition to the regulatory expectations, there is a partner relationship between the brewery and the farmer/rancher. It is good practice to check in with farmers about the use of novel or unusual ingredients before it reaches their livestock. While novel adjuncts or spices may be approved for use in beer, that does not necessarily mean that a farmer wants those fed to their livestock. This is equally applicable when brewers add spent yeast, trub, or hops to their spent grain: there may be cases when a batch of spent materials will need to be stored and disposed of separately. Spent grain not suitable for animal feed also needs to be clearly identified to prevent confusion and accidental shipment to a farmer.