

HOW TO KEEP FORAGES CLEAN, COWS PRODUCTIVE

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Growing, harvesting, storing, and feeding out clean, uncontaminated forages translate to good milk production and healthy cattle. But providing clean feeds – and diagnosing when contaminated forage may be causing herd health issues – require diligence and a team approach, according to John Goeser, Rock River Laboratories Director of Nutritional Research, and Neal Wininger, Feed & Forage Consultant at Dairyland Labs.

They suggest several ways farmers can minimize forage crop contamination, one of which is not spreading manure on growing crops. “A lot of (detrimental) organisms are growing in manure pits that we may be spreading out onto fields. Hopefully, we’re not doing that on growing crops,” said Goeser in a recent [webinar on feed hygiene](#).

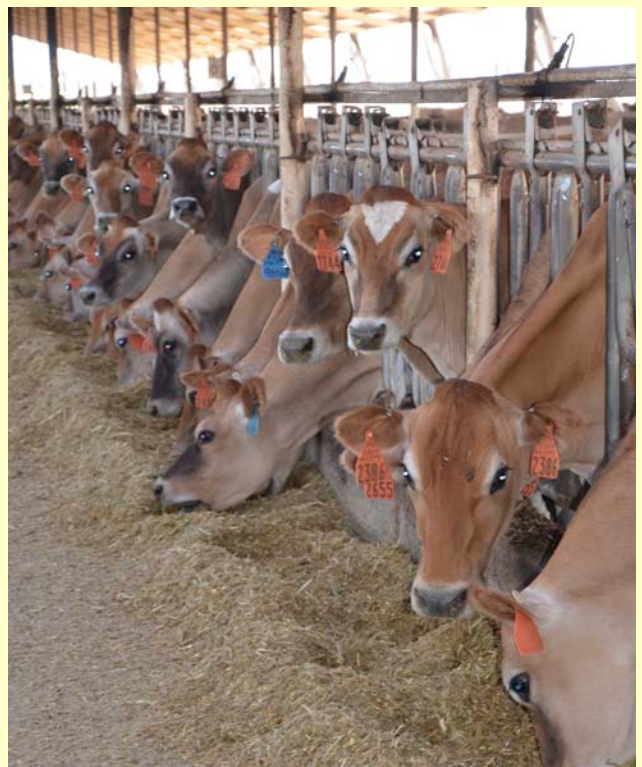
Farmers should weigh the pros and cons of certain management practices, such as irrigating crops with lagoon or grey water that may be “negatively inoculating” those crops with bacteria detrimental to cow health, Goeser pointed out.

He also suggested farmers look into recent fungicide research by University of Wisconsin plant pathologist Damon Smith. Smith suggests fungicide application at silking can reduce fungal and mycotoxin contamination in corn. “Work with your agronomist and (feed/nutrition) consultant to understand what the ideal fungicide would be for fungal and mycotoxin mitigation,” Goeser warned.

“Ultimately, we want to harvest a high-quality crop, and in the case of hay and haylage crops, anything we can do to avoid rain or rained-on forages is going to be a benefit to a clean crop,” he said.

Keeping hay crops from lodging will help farmers minimize ash content, said Wininger in a phone interview. “If hay is lodged, they have a tougher time picking it up, and there’s more chance of contamination.” Raising mower cutterbars to at least 3-4” in height and adjusting rakes and mergers so they don’t dig into the ground will lessen the amount of dirt brought in with forage.

As forage is moved from fields to storage, dirt and mud can easily follow, Wininger said. “When you have wet weather, it’s easy to overlook the potential for dragging mud up on a pile.” At times, packing tractors drive off cement and into mud to get out of the way of trucks dumping, he says. “In bunkers or piles, you can see layers of clumps of mud.” Those layers add unwanted ash to a TMR (total mixed ration) and could foster bacteria like clostridia. “You could have a variety of (feed contamination) issues right where that clump of mud might be.”



“Get the crop packed properly to eliminate oxygen quickly,” Wininger added, “and a good uniform crop length.” Those practices foster good fermentation to produce clean feed. He pointed out the importance of hiring employees who “owned their jobs.” He said a farmer-manager should make efforts to train employees to view their jobs as providing healthy feed – rather than as “just helping drive a pack tractor or drive a truck.”

Goeser stressed that the farmer-manager should be on site when forage is being harvested – “at the pack tractor or silo or bagger to be able to observe the crop as it is coming in – mostly watching for moistures or if the feed is moving out of line from a moisture standpoint.” Farmers should also make sure that feed isn’t delivered to piles or bunkers “too fast beyond the point that we can effectively pack it with the pack tractors we have on hand.”

He advocates the use of a “research-proven inoculant or preservation strategy because of the quantity and numbers of bacteria present; over the last five years we have seen greater and greater (bacterial) counts.”

Both experts stressed the potential for feed contamination from rodents and birds poking holes in plastic and eating and defecating on feed, as well as the need to scout storage structures frequently to patch holes and keep aerobic exposure to a minimum.

"It's amazing how much feed small birds can face down," Wininger added. He suggested farmers face only the amount of feed necessary for a day's feeding to keep feed exposure to a minimum. The larger the feed face, the more opportunity contaminants have to "take off," he said. Goeser also advocated pressure-washing mangers and feed alleys, plus periodic cleaning of TMR mixers to keep contamination to a minimum.

"This time of year is the time to watch some of the feeds," Wininger said, "like some of the corn silages that may have been chopped a little dry or a little overmature and didn't ferment very well initially last fall." If forage analyses show yeast levels have increased and heated up silage, as warmer weather approaches the potential for increased mold and toxin growth increases, he said.

Goeser also mentioned that last year's harvest produced corn silage with a slower increase in rumen starch digestibility, meaning more rumen bypass starch is passing through cows, causing digestive upsets and reduced feed conversion efficiency.

In his webinar, Goeser presented four main areas of concern when diagnosing whether a dairy herd's performance is being affected by feed contamination. They include: 1) mold, yeasts, mycotoxins; 2) nutritional stressors; 3) bacterial contamination; and 4) animal stressors. When dairy producers suspect feed problems, they should work with veterinarians and nutritionists, starting first with an analysis of their TMRs. To view the webinar, [click here](#).