HOARD'S DAIRYMAN
FEEDING FUNDAMENTALS

by John Goeser

Agronomic decisions influence feed cleanliness

STEPPING up one's exercise effort has long been recognized to contribute toward improved physical and mental health. I commonly share exercise accomplishments and encouraging messages with buddies where our shared goals are relentless forward progress and to keep moving as we age.

Exercise improves one's health through direct and indirect ways. For example, the positive feeling after exercise impacts my mental outlook for the day. This is not a direct impact, such as improving my cardiovascular health. Rather, an improved state of mind indirectly negates immune system suppression associated with stress. I think of growing healthy forage in a similar fashion.

Efforts to improve plant health during the growing season will elicit long-term forage quality effects. Healthier plants are better equipped to fend off disease or insect issues. The healthier field will then become clean forage, which indirectly contributes toward a healthier and more productive herd.

Building upon last month's Feeding Fundamentals column, we'll delve further into agronomic advice for healthy plants as we head into this year's growing season. In putting this month's column together, I consulted with agronomist Todd Schaumberg. I'll quote Schaumberg's top five crop protection tips in descending order and summarize his commentary to help your dairy strive for healthier fields and cleaner forage this year.

Tip #5: Stop bugging me

Sound insect control contributes to disease control. This is an indirect relationship such as described above. Insect damage reduces yield, but insect feeding also results in wounds and entry points for disease-causing organisms. Schaumberg advises growers to employ a scouting program, spraying for insects when the pressure eclipses thresholds.

For fields with greater insect pressure, using Bt corn traits can be helpful. For example, recent Michigan State University research demonstrated that ear-feeding insect protection traits reduced insect feeding and ear rot infections by 70% to 75%. For locations with greatest insect pressure, this eventually lowered mycotoxin accumulations in corn silage.

Tip #4: Use the Goldilocks principle on soil fertility

Corn for silage prefers a "just right" amount of nutrients — not too much and not too little. Excessive or inadequate fertility can promote diseases.

A corn plant experiencing nutrient deficiency will be weak and more susceptible to diseases. On the other hand, excessive fertility levels can also contribute to disease problems. For example, corn grown for silage with excess nitrogen but inadequate soil potassium levels will result in greater potential for stalk rot and hygiene issues in corn silage.

Tip #3: Pursue crop rotation

Rotating crops year to year will reduce disease buildup on your fields. A diverse crop rotation can be hard to achieve on a dairy farm that has historically grown corn and alfalfa, but planting some acres to alternative forages or small grains is a great way to diversify your crop rotation and keep corn silage disease free.

Tip #2: Scout it out using Integrated Pest Management (IPM)

Scouting for disease throughout the season to track disease presence and severity in your fields is key to IPM. In conjunction with scouting, new disease forecasting technology has been helpful. For example, the Tarspotter app by the University of Wisconsin-Madison's Damon Smith can help identify disease risk.

If scouting identifies disease or the conditions are conducive for disease, a fungicide should be used to reduce severity and impact. A solid disease IPM protocol for corn silage doesn't start and stop at the field — it should also include your nutritionist. Feed mycotoxin levels should be communicated with your agronomist.

Tip #1: Draft players with hybrid disease resistance in mind

Seed selection is the number one tip. The greatest impact in disease management occurs in the offseason.

Modern corn hybrids have incredible genetic resistance bred into the seed, though there is a spread to disease resistance in seed genetics. Some hybrids offer disease "tolerance," permitting corn to maintain yield even when the plant is diseased.

For grain corn growers, this is okay. However, to maintain high-quality silage, we do not want any disease present. Thus, we need to select hybrids for resistance, not tolerance. This resistance not only protects your current year's corn silage yield and quality, but it also helps prevent disease buildup over time in your fields.

Combine these tips to promote healthy crops and limit feed hygiene issues during feedout. Include your veterinarian, nutritionist, and agronomist on your feed hygiene team, because clean silage results from a whole-farm management program.

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