Prognostication means "to predict according to present trends or signs." What forage trends can you foresee impacting your operation in the future and how will you prepare to take advantage? Consider these forage trends:

**Corn silage in dairy rations continues to increase**

This is a long-term trend that’s two decades in the making and doesn’t appear to be at a plateau yet. Corn silage is a top choice for dry matter yields and digestible energy per acre. Corn grain yield per acre has been on a grand march upward for more than 80 years, thanks to agronomic research, breeding and biotech trait development.

Corn silage is obviously a forage crop providing critical fiber, but it also has concentrate value, bringing a large amount of grain into rations at the high levels fed on many dairies today. In general, two-thirds of the digestible energy in corn silage comes from starch (grain), with much of the rest from digestible fiber.

Look for this trend toward increasing corn silage to continue, especially as expansion herds need to harvest increasing amounts of digestible dry matter from what is often a limited land base.

Continuing innovations in corn silage processing and inoculant products for fermentation efficiency to maintain or improve feeding value will help drive this trend.

**BMR corn for silage is on the moo-ve**

BMR corn has been around for decades but, for too long, available BMR hybrids lacked agronomic suitability and competitive starch output per acre versus the best non-BMR hybrids. A few points of increased fiber digestibility is a differentiator – but not if valuable starch yield can’t be maintained.

Now the tide is turning in favor of advanced BMR hybrids that pack a lot more starch with agronomic strength to provide more consistent total dry matter yield. When starch yield, agronomic suitability and technology trait package line up with non-BMR hybrids, BMR deserves the nod with its inherently better fiber digestibility.

Look for this trend toward more seed company BMR hybrid development to hit its stride with more suitable BMR hybrid choices for your corn silage production.

**Improving pasture management for better production efficiency**

Reported pasture values have increased dramatically over the past two decades. This was driven by increasing feed costs and strongly influenced by regional droughts during 2011 through 2013, particularly in Southern Plains areas.

While good pasture management has a payoff for both beef and dairy, it cuts a wide swath across the beef industry. "Cost of production is the largest differentiating factor in comparisons of individual cow-calf producer profitability at a given price level," says Lee Schulz, Iowa State University Extension livestock economist. Pasture management for productivity is a strong factor, along with hay yield and feeding less expensive home-grown hay and corn silage.

Schulz notes that the U.S. now has the smallest beef cow herd since 1962. But herd expansion is underway as calf prices provide an incentive for producers to rebuild their herds. The current climate in row-crop pricing could lead to increased pasture and forage production overall and will be needed as the U.S. beef herd rebuilds. But good pasture infrastructure requires investment in water, shelter and fencing that can be slow to build back. Cash rents for pasture increased more than 400 percent nationally since 1996, so there is incentive to get the most out of pasture.

There’s an interesting twist in Schultz’s evaluation: “We might be underwhelmed by the degree of herd expansion that occurs due to increased efficiency of beef production over prior
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decades. Certainly, good pasture management and home-grown forages are a key factor toward achieving that increased efficiency and the profitability associated with it.

*Smart* technology integration into forage decision-making and equipment functionality

The long-term trend in larger farm equipment helps you cover more acres faster, feed more cows more quickly, handle more manure and chop more silage on your farm in a day than you used to chop all season 30 years ago.

Despite all that, the most impactful trend in forage management could be the current innovations in data handling and on-the-go decision-making. Let’s consider just two examples. You can invest in bale monitoring equipment that characterizes forage quality on a bale-by-bale basis, then track individual bales for separation into quality groupings for more efficient feeding.

Also, forage harvesters equipped with near-infrared spectroscopy (NIRS) that measure silage quality and moisture on the go allow a savvy operator to make cutting-height adjustments to dial in more consistent forage quality parameters, such as corn silage starch levels.

Smartphone apps are becoming available to help measure, track and predict forage quality and yield parameters as an input to cropping and feed management decision-making. This same technology can interact with equipment functionality, even from a remote location. In-field weather stations and localized remote sensing can be used to predict evapotranspiration, maturity onset and standing hay protein content. All these are in development along with a growing list of possibilities.

While there is no substitute for being in the field and at the bunker, the new emerging class of smart technologies, including their equipment interface potential, are becoming more time-saving and impactful. Expect increasing smart forage innovations to bridge the gap from field data information gathering all the way to feeding of forages. It already impacts equipment design and functionality and can impact your forage management decision-making, too.

Will alfalfa remain the queen of forages?

Alfalfa acres trended down over the past 15 years. Two national policies contributed to the decline. Government crop insurance programs weren’t very friendly toward alfalfa, and implementation of the Renewable Fuels Standard created under the Energy Policy Act of 2005 led to nearly a decade of elevated grain prices that swayed some alfalfa hay producers toward grain crops.

National average alfalfa yields stagnated as row crops took over some of the more productive land that was previously planted to alfalfa. Other factors include Western water cutbacks from years of drought or inadequate irrigation water. As soil salinity increases, alfalfa fares better than most competing crops. Alfalfa is one of the few crops that can recover from summer growth cessation under extreme drought.

Reduced-lignin biotech alfalfa seed comes to market in modest volume for 2016. It brings the hope of a turning point in short cutting schedules for dairy-quality hay and haylage production. Getting to the full yield promise of this biotech trait will require ongoing variety development, but the forage quality advantage will be unmistakable from the outset. Expect this technology to build in yield performance and usage over the next several years.

More recently, the USDA’s Risk Management Agency is taking an earnest look at revamping crop insurance for alfalfa. Feed grain prices have capitulated from the highs of the past decade. There is investment for genetic improvement in alfalfa, including through biotech methods. Alfalfa’s crown could be in for a bit of polishing.

Baler-mounted equipment can measure and record forage quality, then label each bale with an RFID chip that identifies each bale’s forage quality parameters. Bales can be sorted and stored in groups based on forage quality for more efficient feeding among animal groups.

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