

# IN-FIELD HARVEST — ADJUSTMENTS —

By Tammy Weaver  
DuPont Pioneer Dairy Specialist

With proper management practices, producers can help ensure their corn silage provides a solid foundation for effective dairy nutrition. Two key considerations that can affect the quality of silage are kernel processing and chop length.

Most experts agree that aggressive kernel damage creates higher starch in corn silage, but there has been much debate over the ideal level of kernel processing at harvest. Field testing during harvest enables producers to make timely and cost-effective adjustments.

## Easy field test

A producer can use a 32-ounce cup to collect one sample each hour, spread out the silage and remove any whole and half kernels from the sample. If the number of whole and half kernels is more than 2 to 3 kernels, the producer is advised to discuss kernel processing adjustments with his or her chopper operator. If the producer does not make appropriate adjustments, unprocessed kernels will not be digested in the rumen or intestines, leading to a loss of energy.

Determining effective corn-silage chop length can also be complicated, because several factors affect chop length, including:

- The need for physically effective fiber (peNDF) levels in the ration
- The type of storage structure
- Silage compaction capabilities
- Unloading methods — silo unloaders, bunker facers, etc.

Shorter chop can improve the rate of digestion by rumen bacteria or intestinal enzymes, because the shorter length tends to improve compaction in the storage structure and increases the surface area of fiber or kernels. Longer chop length increases the peNDF of the feed, but excessive length can cause feed sorting. Understanding the primary importance of particle length in the final ration, the producer should work with the harvesting crew and a nutritionist to decide on the proper compromise between short and longer chop lengths.

For additional information about silage management best practices, contact your local Pioneer sales representative or visit [Pioneer.com/SilageZone](http://Pioneer.com/SilageZone).

The foregoing is provided for informational purposes only. Please consult with your nutritionist or veterinarian for suggestions specific to your operation.  
© 2015 PHIL DUJPPF015043\_VB\_083115\_DHM

dry cows and heifers – and a water station if dry rations need moisture. A two-screw mini TMR mixer mixes the feed, which is delivered to cows on an electrified rail in the barn's center feed alley.

Finke lists essential management practices as keys to success:

- Ensure the TMR is accurate to support good cow traffic and production.
- Receive training to operate systems, up to the point of being a technician able to perform your own maintenance.
- Observe and inspect robotics daily.
- To improve robotic milker performance, make sure cows are clean, with routine udder singeing.

Technology isn't a replacement for cow management, but affords him the opportunity to observe cows a lot more.

"You have to like cows, or it doesn't matter what system you put in," he said.

Although reluctant to discuss finances, Finke said total investment is about \$7,000 per cow. As an early adopter of some of the more advanced technologies, some companies were eager to work with him.

Finke thinks the investment is worth it in terms of quality of life, and improved animal health, more lactations per cow, fewer replacement heifers needed, and the highest production he's ever experienced, he said. Finke also reduced labor costs by \$30,000 annually, he said.

Investment in technology is also critical to a dairy's sustainability – both as a family business, and as an industry, he said.

"There's nothing worse than seeing dairy farmers who have younger generations get out of the business," he said. "I've had three people within 10 miles of me fold up and quit in the past three-four months, and everyone had a succeeding generation that could have taken over. Most of the people I know who quit don't want the back-breaking labor. My hope is by incorporating these technologies, it will keep the younger generation interested in cows."

[finkefarms@gmail.com](mailto:finkefarms@gmail.com)

## Ashwood Dairy, Amsterdam, N.Y.

With growing and fluctuating cow numbers, Ashwood Dairy, Amsterdam, N.Y., turned to technology to provide employee flexibility while enhancing herd management, John Balbian said. Current technologies include Medria HeatPhonem FeedPhone, Vel'Phone and San'Phone, and a Forster-Technik automatic calf feeder.

First and foremost, Ashwood Dairy was looking for an improved heat detection program, while also seeking rumination information. They wanted something easy to use and, with Internet quality challenges, Balbian needed communication accessible via cellular telephone – with the ability to receive regularly scheduled reports and alerts.

Within a year, pregnancy rates improved 2%; services per conception dropped from 2.3 to 2 with increased use of sexed semen; and days open dropped by eight days.

One other area where management benefits were achieved surrounded calving.



Vaginal boluses are inserted when cows are moved from far-off to close-up pens (see Page 46). In addition to making day-to-day operations easier, management decisions are more transparent and objective, Balbian said. He considers the technology cost-neutral based on labor savings and reduced inputs. For example, collection of fresh cow data, including daily temperatures and rumination, eliminated the need for drenching all fresh cows, enabling them to focus on cows needing extra attention.

[JBalbian@grober.com](mailto:JBalbian@grober.com).

John Balbian with wife, Sara, and children, Nolan, 6, Ian, 5, and Reid, 2.