

DAIRY PIPELINE

Volume 39, No. 2 March 2018



Apps for Busy Dairy Farmers

—Laura Siegle, ANR Extension Agent, Amelia County; laurab08@vt.edu

“...we often access our phones more than our desktops, so apps can fit seamlessly into the host of technologies we use to our advantage in agriculture.”

In the early days of smartphone technology, anything we could do on a phone could also be done on a computer. Now, we often access our phones more than our desktops, so apps can fit seamlessly into the host of technologies we use to our advantage in agriculture. Here are some useful apps I have stumbled across that can have a place in the dairy world.

For fast information, check out the Merck Vet Manual app or Veterinary Handbook for Cattle, Sheep and Goats app instead of using your browser for research.

For herd health management, consider the DHI Plus app, which works in conjunction with your computer hosting your DHI Plus database. Using the app, you can view herd reports and animal information on your mobile device. In fact, many other parlor and herd record software systems have companion apps for mobile access, alerting you to problems sooner; dealers can provide details.

Somatic cell count apps give you results right in the parlor, and some Virginia producers already use them. The DeLaval ICC app offers this capability in conjunction with disposable cassettes that hold milk samples during the test process and a cell counter device that attaches to iPhones. You can send test reports to your email.

Some apps can fill niche needs. DeLaval has a Liner Life Calculator (plug in some basic information to find out when you should change them next); for market and pricing news, check out Daily Dairy Report. You might also like BCS Cowdion or BCS Tracker for measuring and flagging body condition. For your crops, we have the University of Arkansas Manure Valuator to estimate the inorganic fertilizer replacement value of manure. For crop weeds, get ID

Weeds from University of Missouri, Weed ID from BASF, or Weed ID by Monstanto; use PlantNet to get automatic identification from photos you snap. For pesticides, Clemson's Mix My Sprayer and Calibrate My Sprayer apps are just a couple of the many spray calculation tools.

There is a whole host of apps designed for efficient teamwork and employee communication for businesses, and dairies can use them too. Slack could be helpful if you have a large team or several consultants who need to be involved in farm management and ongoing projects from a distance. A family management app like Cozi could be useful for integrating farm and home calendars since dairies often juggle both—add events, due dates, or meetings to shared calendars, send reminder notifications, or create shared to-do lists. To keep things simple, try One List, an app that enables you to create a to-do list, color-code priorities, and manage tasks—not a bad idea if you like keeping things written down and want to quickly visualize a strategy for efficiently tackling payroll, herd checks, employee training, and crop chores, or whatever else is pressing.

Apps can be useful on the farm and can connect you with your family and employees more efficiently. If you live in the middle of a no-signal data desert, though, that is another problem for another time!

Disclaimer: This list is not exhaustive and might exclude some great farm apps that are already popular; these are simply some recent finds. Furthermore, some apps may require purchase or in-app purchase to access certain features. Commercial products are named in this publication for informational purposes only. Virginia Cooperative Extension does not endorse these products and does not intend discrimination against other products which also may be suitable.



Upcoming Events

See [VTDairy](#) for details.

March 3, 2018

State Dairy Bowl Contest

March 13, 2018

Manure Management Workshop, Montezuma Hall

March 14, 2018

Augusta County DHIA Banquet, Verona

March 21, 2018

Weaning to Breeding Heifer Raising Workshop, Cool Lawn Farm

March 24, 2018

Little All-American

March 29, 2018

Making and Using Baleage to Reduce Feeding Cost Roanoke-Hollins Stockyard

April 5, 2018

SCC and Pi On-Farm Training, Franklin County

April 7, 2018

VA Spring Holstein Show

May 14, 2018

Hokie Cow Classic

May 19, 2018

District Dairy Judging Workout

May 26, 2018

Food Science Workshop, Weyers Cave

If you are a person with a disability and require any auxiliary aids, services or other accommodations for any Extension event, please discuss your accommodation needs with the Extension staff at your local Extension office at least 1 week prior to the event.

Hulless barley for dairy rations: Research update from Virginia Tech

—Gonzalo Ferreira, Extension Dairy Scientist, Management, gconf@vt.edu

Cereal grains, such as corn and barley, are included as an energy source in rations for lactating dairy cows. Cereal grains contain high concentrations of starch, a component that is almost completely and uniformly digested in the gastrointestinal tract when processed adequately. Among cereal grains, differences exist for ruminal starch disappearance rate. For instance, starch degradability in the rumen is greater for barley than for corn grains. As the ruminal starch fermentation rate of barley grains is greater than for corn grains, the National Research Council (NRC, 2001) established that the fiber requirements for dairy cows should be increased when feeding diets containing barley grains.

Hulless barley differs from traditional hulled barley in that the loose husk covering the caryopsis is removed during combine threshing and cleaning of the grain. Interest in growing hulless barley in the Commonwealth of Virginia has increased for several reasons. From the perspective of the cash crop farmers, growing hulless barley instead of wheat allows small grain crops to be harvested 2 to 3 weeks earlier. This early harvest allows earlier planting of soybeans, therefore ensuring better growing conditions for the second crop. From the perspective of a dairy farmer, increasing interest has been observed for feeding hulless barley as an alternative to corn to high-producing dairy cows.

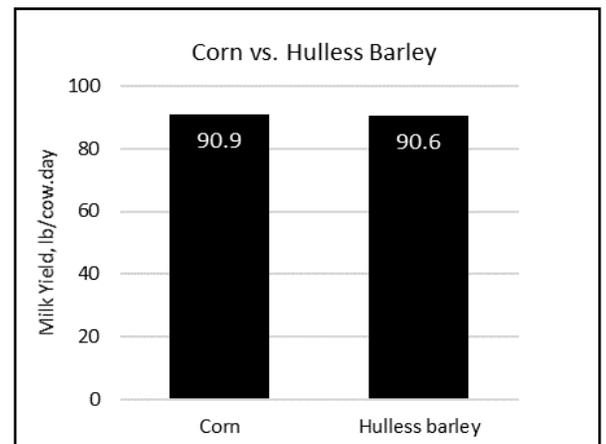
Our research team performed two trials at Kentland Farm feeding hulless barley to high-producing dairy cows. In the first study, we compared the production performance and the nutrient utilization of high-producing dairy cows when fed diets containing corn or hulless grains as energy sources. Overall,

expectations, we observed that feeding hulless barley did not decrease milk fat concentration.

In the second study, we evaluated the production performance and nutrient utilization of high-producing dairy cows when feeding hulled or hulless barley grains with different forage-to-concentrate ratios. Barley grains were ground and incorporated into concentrate pellets, which were further incorporated into a ration containing corn silage and alfalfa hay. Cows fed hulled or hull-less barley-based diets with different forage-to-concentrate ratios resulted in similar lactation performances. As milk fatty acid composition was minimally affected by the diets, we concluded that a substantial or dramatic milk fat depression should not be expected when feeding diets containing 30% barley, or less, as the grain source.



“Interest in growing hulless barley in the Commonwealth of Virginia has increased for several reasons.”



In summary, the most important conclusion from our studies was that high-producing cows consuming hulless barley-based diets can perform as well as cows consuming corn-based diets. The second important conclusion was that milk fat depression should not be necessarily expected when feeding hulless barley to high-producing dairy cows.

For more information on Dairy Extension or to learn about current programs, visit us at VT Dairy—Home of the Dairy Extension Program on the web at: www.vtdairy.dasc.vt.edu.

Christina Petersson-Wolfe, Ph.D.
Dairy Extension Coordinator & Extension Dairy Scientist,
Milk Quality & Milking Management

cows consuming diets with hulless barley grain performed as well as cows consuming diets with corn grain. In addition, and contrary to our