

DAIRY PIPELINE

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Department of Dairy Science

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IT'S NOT ABOUT THE CROP...IT'S ABOUT THE CROP ROTATION



40,000 pl/A



22,000 pl/A

“...increasing plant density decreased substantially the size of the ears and the number of kernels per ear...”

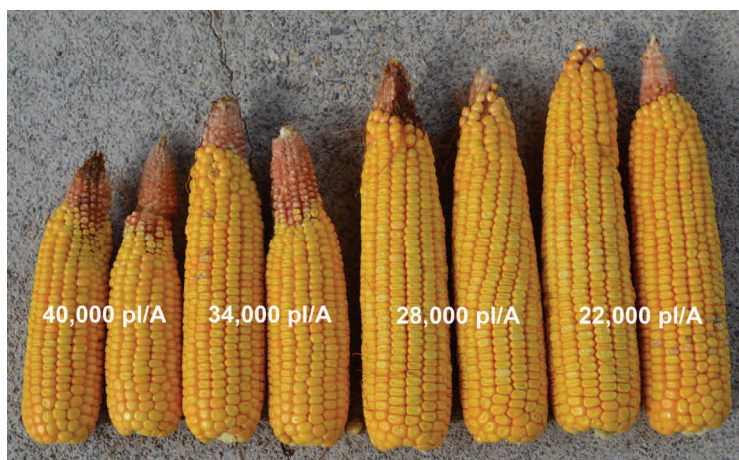
A recent on-farm study published in the *Journal of Dairy Science* showed that increasing planting density from 24,000 to 36,500 plants/acre increased dry matter yield without affecting the quality of the silage. This observation suggests that dairy farmers could have more silage of the same quality by simply increasing the number of plants in the field. However, in reality this is not as simple as it sounds.

There are two very important observations in that study. First, it rained 28.1 inches between the beginning of the fallow and harvesting. Additionally, the preceding crop was corn for grain, so there was a long fallow between crops. What these observations mean is that under very good growing conditions, increasing planting density of corn can increase dry

matter yield without affecting corn silage quality. Now, what would be the situation under a more intensive rotation with winter grasses as the preceding crop?

To address this question, during the summer of 2014 we performed an on-farm research trial in the Southern region of Virginia. Corn plots were planted in a field in which ryegrass had been harvested for silage before planting the corn. Corn plots were planted with 22,000, 28,000, 34,000, and 40,000 plants/acre in early May. In mid-August, when the corn crop was in the early dent stage, we measured dry matter yield of the plots and observed that, in this case, dry matter did not increase when corn was planted at higher densities. These partial observations suggest that increasing plant density to obtain more silage yield is not ensured with intensive rotations, such as double cropping for silage.

In regards to the quality of the silage, we still need to analyze the samples we collected from the plots. However, increasing plant density decreased substantially the size of the ears and the number of kernels per ear (see attached pictures). This suggests that starch concentration could be decreased at higher plant densities. Hopefully we will confirm this once we have the nutritional composition for the different planting densities.



40,000 pl/A

34,000 pl/A

28,000 pl/A

22,000 pl/A

—Gonzalo Ferreira
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Upcoming Activities

See [VTDairy](#) for details.

October 8, 2014

Mid-Atlantic Secure Milk Supply Project Training, VDACS office, Harrisonburg

October 17-18, 2014

VT Showcase Sale & Dairy Science Open House

October 23, 2014

Farm Succession Workshop Staunton

November 15, 2014

VA Holstein Annual Meeting Staunton

Feb. 18-20, 2015

69th Annual Virginia State Feed Association & Virginia Tech Nutritional Management "Cow College" Hotel Roanoke Roanoke, VA

Mar. 9-13, 2015

Area Dairy Conferences
--March 9 - Amelia
--March 10 - Harrisonburg
--March 11 - Culpeper
--March 12 - Rocky Mount
--March 13 - Marion

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.

For more information on Dairy Extension or to learn about current programs, visit us at [VTDairy](#) —Home of the Dairy Extension Program at: www.vtdairy.dasc.vt.edu.

R. E. James

R.E. James,
Dairy Extension Coordinator &
Extension Dairy Scientist,
Dairy Nutrition

STRATEGIES FOR EXTRA DAIRY PROFITS

Dairymen are facing favorable income relative to feed costs coincidentally as the new Margin Protection Program for dairy farms (MPP-Dairy) comes online. Now is a great time to highlight what dairymen can do with extra cash when income over feed costs (IOFC) improve. While high IOFC does not guarantee profitability, it usually means additional cash is available for use. Consider investing the extra cash in the following items IF all variable production costs have been covered.

- **Pay off debts.** This can be especially helpful on outstanding debts with higher interest rates. Paying off debts reduces the fixed costs of the farming operation, and frees up debt capacity for future investments. Paying down principal reduces interest payments.
- **Make infrastructure improvements.** If existing debt levels are not an obstacle, consider capital improvements that may have been avoided during the lean times. Focus on upgrades that have a high probability of return, or those that simply need to be done. Examples include: adding or updating fans and sprinklers for lactating or dry cows; updating worn out fences, freestalls, or feeding equipment; upgrades to milking system components; etc. Try to avoid purchases that do not address areas of immediate need, or that do not directly impact the dairy's profit center(s).
- **Consider new technology.** Now may be the best time to try sexed semen on heifers or the best cows if it has not been tried before or to maybe explore automatic calf feeders. If improving silage quality is a priority, consider new silo cover technology, a bunker silo defacer, or a harvester-mounted silage inoculant delivery system. Another consideration may be new computerized farm management or herd monitoring technology,

which can save time or improve herd management.

Prepay expenses or invest off farm. Consider prepaid feed and fertilizer expenses which have more immediate payback than depreciable assets like tractors or trucks. Off-farm tax shelters may also have greater rates of return and may be a good fit for

farm operators close to retirement. Consult a certified public accountant or financial planner for advice.

- **Invest in personal growth.** If it has been too long since you have taken a vacation and/or attended a trade

show, farm tour, or educational event, invest something in yourself or your management team. Set aside some funds to pay registration and travel expenses to see other farms and farming methods.

- **Invest in a farm transition plan.**

Agriculture statistics continually show that the U.S. farm population is aging. If a farm transition plan has been merely an idea, a time of higher margins can be a great time to invest in legal and financial counsel in developing a sound transition or estate plan.

The options are many and varied. Best of all, any dairyman can use them to meet his/her farm business and personal life goals. Also, the investments such as continuing education of management or farm transition planning are deductible, as well. Be creative, and invest in what will return the most on that investment.

—Kevin Spurlin
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