

IOWA STATE UNIVERSITY

Extension and Outreach

CROP NOTES for April 10, 2020 – Current Predictions Even Colder for Next Week

Iowa State University Extension Information for Northeast Iowa

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Past issues of Crop Notes are posted at:

<http://www.extension.iastate.edu/winneshiek/page/crop-notes-brian-lang>

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A BIT COLDER NEXT WEEK THAN EARLIER PREDICTIONS

Latest NWS Predictions Suggest Mon-Wed with 18-20 Degree Lows

National Weather Service predictions for next week Mon-Wed are colder than earlier predictions. We may now have 3 consecutive nightly lows in the high teens to 20 F. This adds concern to already emerged new seedings of alfalfa, and for winter small grains that got off to a good start this spring. Also, while overwintered alfalfa stands will still survive this, topgrowth will likely be significantly frost damaged such that recovery time will set back first crop harvest. **See the information that was provided in the April 9 Crop Notes for tips on crop tolerances and scouting assessments after the frost.**

In the next 9 days in northeast Iowa, from April 10 (Friday night) to April 18 (Saturday night), climatologists predict nighttime lows for most of those days to be below freezing. Of particular concern is Monday-Wednesday.

Location	Predicted nightly low air temperatures (F)								
	Fri Apr 10	Sat	Sun	Mon	Tue	Wed	Thur	Fri	Sat Apr 18
Decorah (Hwy 9)	36	36	27	20	19	20	28	29	39
West Union (Hwy 18)	35	36	26	19	18	19	28	28	38
Strawberry Pt (Hwy 3)	36	38	27	20	19	20	28	28	37
Manchester (Hwy 20)	37	40	27	23	22	23	29	29	38
Cedar Rapids (Hwy 30)	39	44	28	25	25	25	31	33	42

LAND SPREADING MILK “Dumping Milk”

Some dairies are being asked to dump milk due to the decrease in demand from COVID-19. If that is to occur, what is the fertilizer value and management concerns?

Fact Sheet on Landspreading Milk – Considerations When Landspreading Milk or Manure/milk Mixtures

The University of Wisconsin just posted a Fact Sheet – “Considerations when landspreading milk or manure/milk mixtures”. See the attached pdf. It explains fertilizer content and availability. Milk is a nutrient dense product with approximately 46, 26, 17 and 2 lbs. per 1,000 gallons of N, P₂O₅, K₂O and Sulfur (S), respectively. Compared to average dairy liquid manure, milk has roughly 6 times more N, 9 times more P₂O₅, 1.5 times more K, and 2 times more S. Milk is also a serious pollutant to water systems. It is about 5 times more toxic than a manure slurry in causing a fish kill. Application management (buffer distances, slope, etc.) is crucial. Please review the Fact Sheet.

DNR Regulations

The regulations mentioned in the University of Wisconsin Fact Sheet include Wisconsin DNR regulations. Currently, the Iowa DNR is in the process of writing regulations for Iowa. Interim Iowa DNR regulatory guidance is as follows:

- The DNR staff are aware that Iowa dairies are being asked to dump milk due to the decrease in demand from COVID-19. Our team is working on official guidance for producers in this situation. We realize that many dairies are being given little or no prior notice. For now, these are our recommendations:
- We prefer that the milk be added to the facility's manure storage if possible. No prior approval is needed to do this, but we would appreciate a notification.
- If the milk needs to be directly land applied we are developing an emergency land application permit process. It's a one page application that will be reviewed/approved by DNR Field Office staff with a short turnaround. The permit offers some protection if a discharge were to occur as part of the land application process. Submittal of the permit request prior to direct land application is important even if the producer hasn't received a response from DNR on the application for the emergency permit yet.

- **At this point, please contact your regional DNR Field Office staff to assist you.** Further updates from Iowa DNR will follow. Field office contacts:
<https://www.iowadnr.gov/fieldoffice>

Handling Tips

Field fertilizer tips:

- While all of the N in milk is considered available for the crop season, the initial N release from milk protein could be on the slow side with cold springtime conditions. Depending on how much N you would be using from milk vs. additional manure or commercial fertilizer, you may want to include some commercial N as a starter fertilizer for corn production.
- Similar to the N situation above, if most of your intended fertilizer P would be from a milk application and your soil test is in the low range, some commercial P as a starter may be helpful for corn production.

Manure structures/equipment: If dumping milk into a manure structure, the high fat content can coat mechanical systems could cause problems. Here's some tips to avoid those problems:

- Add milk directly to the manure storage structure, not through the other systems in the chain of collection and transfer, and not through separators, other processing systems, or any other place where it would go through a recycle system. The fat will coat mechanical systems and clog them up.
- **Odor will occur and remain for some time. Same for field application. It could be beneficial to give the neighbors a heads-up as to what you are doing and why.**
- Milk has a lot of easily degradable materials that can increase gas production (carbon dioxide and methane), plus it has a relatively high sulfur content so hydrogen sulfide levels could be higher. So be sure to follow recommended manure gas safety procedures as always.
- Anaerobic digestors. Add milk slowly to allow for microbial communities to adjust and to assess impacts to biogas and methane. Studies show increase in biogas production with increase milk additions until a threshold is reached and production is reduced. If using volatile solids, keep volatile solids under a 50:50 ratio.

If you have questions regarding manure structures/systems/equipment, please contact our northeast ISU Extension Ag Engineer Brian Dougherty at 563-583-6496 Ext. 125, or email: brian1@iastate.edu

EVENTS

Breeding Management Webinar Series

All webinars run from Noon to 1:00 PM. The following dates and topics will be presented:

- April 14, Nutrition's Role in Reproduction
- April 16, Using Reproductive Technology to Move Up the Breeding Season
- April 21, Focusing on Bull Power
- April 23, Heterosis: Capturing the Benefit

Find more information about the FREE webinars and registration at:

<http://www.iowabeefcenter.org/BreedingManagementSeries.html>

Dairy Calf and Heifer Association (DCHA) Annual Conference

Previously scheduled for April 7-9 in Madison, WI is rescheduled for April 8-9 in a virtual format.

DCHA Annual Conference registrants received a full conference registration refund for the in-person event.

To register for the DCHA virtual conference, go

to: <https://calfandheifer.org/events//details/dcha-2020-virtual-conference-11>

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