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### COVID 19 – The Dairy Industry Needs Hope!

Dairy producers are some of the most hopeful, resourceful and resilient people we know. If television wants a true “Survivor Series” they should make the competitive environment a dairy farm and the contestants, dairy farmers. Answering questions of milk being limited in stores yet hearing news of milk being dumped does not make sense on the surface. There is an ambiguous confusion with all that is happening and answers are limiting.

This timeframe will do down in the books as one to tell the kids and grandkids; as one that changed the course of the economy and history; as one that changed society and dairy. This timeframe led to much despair and grief, and even led to the coined phrase of “social distancing.” Let’s not let the physical social distancing keep us from social closeness by other means.

### We are Open for Business!

Although most of ISU Extension and Outreach is working remotely and many of our offices might be closed, know we are still available. We have done virtual farm visits, zoom consultations and are active both on the phone and internet so feel free to call our office numbers listed on back page or email us and we will get back to you at our earliest convenience. Also, know there are many webinar type programs available to learn from as well. Please understand the articles in this newsletter are intended to be disaster preparation in nature, hopefully not needed, but just in case....

### We are Here to Help Each Other!

Sincerely,  
**Jenn Bentley and Larry Tranel**  
ISU Extension Dairy Field Specialists, NE and SE Iowa

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Newsletter edited by: Larry Tranel

### Disaster Preparedness: Be a Survivor!!!

**Our aim is not to alarm, but to prepare.** By the time this article is read, it is hoped things are looking better. But, in case our dairy situation turns even more disastrous, let’s prepare our mindsets to cope with what might come.

According to the **National Suicide Prevention Lifeline, (800-273-8255)** roughly 40% of people may experience emotional distress 6 months to a year after a disaster and will need on-going support services. Thus, even as issues get better, the emotional and economic tail might be long.

Please take care of yourself. **If concerned about a neighbor or family member, please talk to them.** Do not be afraid to question directly, “you seem pretty upset over all this, are you considering committing suicide?” David Brown, ISU Extension and Outreach Behavioral Health Specialist, says there are myths thinking that asking someone about suicide encourages it; that most suicidal people keep their plans to themselves; that those who talk about it, don’t do it; and that once someone decides to attempt suicide, there is not anything that can be done to stop it. Suicide is the most preventable kind of death and intent is often communicated the prior week. Look for clues like abnormal sleep, emotional outbursts, comments of ending this misery, unusual behavior, observed hopelessness, and actions of preparation.

Approximately 418 Iowans committed suicide in 2018. Due to COVID 19, this number is expected to rise so please be on the look out. For farmers, spring and fall is a common time for suicides, as planting and harvesting are stressful times, often coupled with tough financial conditions. Farmers might feel so tired of life that they can’t go on; or my family is better off without me; I just want out; who cares about me anyway; nobody will have to worry about me anymore.

As helpers, I encourage the **QPR** training for anyone willing to help (like CPR but for suicide prevention). **Question. Persuade. Refer. Question** directly as you feel comfortable like example given above. **Persuade** by non-judgmental listening, offering hope that suicide is not the problem or solution. **QPR** shares that most efforts to persuade will be met with agreement and relief so do not hesitate to get involved. **Refer** by offering if they will let you call or go with to get help and ask them to promise to be with someone until help is found. Get a commitment from them to get help.

Suicide is not easy to talk about, making it even more dangerous. Disasters like COVID 19 on top of an already stressed dairy industry can create grief, depression and emotional instability—things that can lead to suicide.

**Be Safe—Be For—Be There—Because—Believe—Be Alive**

**ISU Extension Dairy Team**  
**“Bringing Profits to Life”**

## ***Beyond Farm Stress—This is Grief!***

*Larry Tranel, Pastoral Psychologist and Dairy Specialist*



Farm life continues, with added stress from COVID 19 hitting pandemic proportions.

Both acute (short term) and chronic (long term) stress happens when things may not go well, as markets fall, coupled with other happenings in the course of daily

lives. After years of depressed prices, milk price recovery expectations again diminished. With producers being asked to limit production and in some cases dump milk or sell out altogether with prices speculating toward very low levels—fears might turn into reality. How are dairy farmers to cope?

Realize the community at large is being affected too. Social distancing may compound the problem by limiting needed support from others. For all experiencing it first hand as dairy producers, for those that work with them, live with or by them, or do business with them, know the stress has moved into grief for many dairy producers.

Grief is experienced when the stress is compounded with actual loss—loss of hope, loss of a way out, loss of earnings, loss of desire, even loss of life in various ways. The need for intentional, pro-active, well-being of body, mind and spirit is paramount during these times. This swooping storm in the dairy industry is a “defining moment” and the question becomes, how are each of us going to allow this “defining moment”, to define us?

Grief is a shock to our system. The acute grief of the COVID 19 situation has been added on top of the chronic stress and chronic grief of the past five years of low milk prices relative to costs for dairy producers. Both market and social grief are widespread, going well beyond the farm gate, adding depth to the grief experienced.

The concern of suicide is creeping up in dairy conversations. Suicidal thoughts are never to be taken lightly as these thoughts are often coupled with loss of hope. Loss of hope is often coupled with loss of will or desire to push on. We need to embrace the concept called “Good Grief.” The goal of “Good Grief” is to process through whatever happened to eventually return to a more meaningful life. This takes time and is not easy.

As we grieve loss, real or ambiguous, it often leads to a new reality. This reality may or may not be as good as before, but needs to be accepted as a new, but different reality. We can use “defining moments” of grief to actually help ourselves define, how this grief will define us, in our new reality. This is done by staying both intentional and pro-active as our grief unfolds.

Mindset tactics that cause us to think more positive or follow better eating, breathing and exercise behaviors are helpful. Thus, it is important that we own our mental

health, own our emotional response, own our hope in the future in order to end up with the best “new reality” possible. Pro-active people tend to be more resilient to stress and grief.



We need to remember that each of our lives are bigger and more valuable than any singular defining moment. We cannot change things that have happened or are happening to us but we can learn intentional, pro-active,

“good grief” responses to build stamina to survive what we might think is not possible.

It is human nature to hold on to the bad moments in life and let them define one’s future. Yes, these past years in agriculture and dairy have been tough. Acknowledge it, but meditate and focus on the good moments of life and let the love, peace and joy of those moments define who one is and give one a better base of hope for the future.

When we feel like we’ve lost in our life’s hopes and dreams, yes, let’s grieve our losses in healthy ways. Life is always challenging and the more we realize that it is working through life’s difficulties that helps us grow as persons, then it might change our attitudes more positively. This positive mindset can also help one process through the grief of it all. The sun will come up in the future after all this is said and done. Let’s let the sun shine on the new reality after we pass through this dark night being experienced by so many.

Again, let “Good Grief” help us survive what we might think is not possible.

*Article edited by Jenn Bentley and Fred Hall, Dairy Field Specialists and David Brown, Behavioral Health Specialist, Iowa State University Extension and Outreach*

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**Iowa Concern**, offered by ISU Extension and Outreach, provides confidential access to stress counselors and an attorney for legal education, as well as information and referral services for a wide variety of topics. With a toll-free phone number, live chat capabilities and a website, Iowa Concern services are available 24 hours a day, seven days per week at no charge.

To reach Iowa Concern, call **800-447-1985**; language interpretation services are available. Or, visit the website: <https://www.extension.iastate.edu/iowaconcern/>, to live chat with a stress counselor one-on-one in a secure environment. Or email an expert regarding legal, finance, stress, or crisis and disaster issues.

**Finding Answers Now.** As Iowans deal with disruptions to their families and communities, this website at <https://www.extension.iastate.edu/humansciences/disaster-recovery> provides information to help you cope with concerns about stress and relationships, personal finance, and nutrition and wellness.

## Bottom Line is to Stay Pro-active and Smile ☺☺☺☺ by Larry Tranel, Psy.D.



Research shows that pro-active people tend to handle stress better and are more resilient in overcoming difficulty. Re-active and passive people are more influenced by a “victim-mentality” or “everything is beyond my control.” In our COVID 19 environment, we may feel like victims and that all is out of our control, and in so many respects, it

may be. How can we stay pro-active and not lose hope, at least in the things we still have control over? No matter how bad life gets, we still have much freedom and thus control of our attitudes, our responses our actions-even amidst challenging times.

So, no matter how tough, try to find things to smile about even if we have to force ourselves to smile. Research shows that even simulated smiles (putting a pencil between teeth) increase our serotonin levels or happiness index. With all the anxiety creating news, take some deep breaths every hour and relax. Take time to stretch and exercise (7 minutes of heart pumping movement daily). Take time to bask in fond memories of farm and family (trading the stress for something more pleasant). Take time to extend yourself to others. And, take time to talk to family and friends using technology available.

Now, more than ever, take the time to be aware of how others are coping as it is easy to wallow in our own stress and grief, not realizing our problems might pale in comparison to our neighbors or others near or far from us. Life itself is pretty relative, learning about self through others, realizing we might have it a lot better than we thought.

Our dairy team’s farm stress resources can be found at: <https://www.extension.iastate.edu/dairyteam/familyfarm-stress>

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### Iowa Concern Hotline 800-447-1985 is available for:

Stress – available 24 hours/day and 7 days per week  
Crisis – Free and Confidential  
Legal Education – Dial 711 or TTY/TTD;  
Financial Concerns -- [iowaconcern@iastate.edu](mailto:iowaconcern@iastate.edu)

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**211** is a free, comprehensive information and referral line linking Iowa residents to health and human service programs, community services, disaster services and governmental programs. This service is collaborating with the Iowa Department of Public Health to provide confidential assistance, stress counseling, education and referral services related to COVID-19 concerns.

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ISU offers the following website for disaster recovery resources due to COVID 19  
<https://www.extension.iastate.edu/disasterrecovery/covid-19>

## Options for On-Farm Use of Non-Marketable Milk by Brian Dougherty, Ag Engineering Field Specialist, NE Iowa



Supply chain and demand disruptions due to the recent COVID-19 pandemic have led to a situation requiring on-farm milk disposal in several states. If this situation arises on your farm, there are options for on-farm use of this milk.

### Milk as a crop nutrient source

A good use of excess milk is as a nutrient source for crops. Raw milk has significant value as a nutrient source (Table 1). These nutrients can complement or replace manure or fertilizer normally applied to cropland.

**Table 1. Average nutrient characteristics of raw milk\*.**

<b>Nitrogen</b>	46 lbs/1000 gal
<b>Phosphate (P<sub>2</sub>O<sub>5</sub>)</b>	26 lbs/1000 gal
<b>Potash (K<sub>2</sub>O)</b>	17 lbs/1000 gal
<b>Sulfur</b>	2 lbs/1000 gal

\*Nutrients should be considered 100% plant available.

The preferred method for this is to dump milk directly into liquid manure storages and blend it before field application. Milk solids may plug valves, tanks, pipes, hoses and other equipment so avoid these if possible when transferring milk to the pit. Milk should never be disposed of through septic systems as this can plug the drain field and cause the system to fail. Manure/milk blends should be sampled and analyzed before field application to estimate the nutrient content and ensure that the proper agronomic rate is applied.

If blending is not an option and milk must be directly land-applied, milk should be injected or incorporated to minimize odor and runoff potential. Milk will have a very strong odor as it decomposes and will attract flies, so apply to fields farthest from neighbors if possible and notify them of the situation.

Extreme caution is needed to ensure that milk does not enter water bodies. **Milk has a biochemical oxygen demand about five times greater than dairy slurry.** If nutrients from milk enter surface or ground water degradation of water quality will occur. Fish kills can be expected if milk runoff enters surface waters. Follow best practices and use appropriate separation distances to prevent discharges to water. Avoid:

- Steep slopes prone to runoff
- Very sandy or shallow soils
- High groundwater levels
- Areas where sufficient nutrients have already been applied

Iowa producers should notify their regional [DNR office](#) before disposing of milk into manure storages and ask for guidance before applying milk to cropland. An emergency permit may be required for direct land application. Keep records of the volumes of milk sent to storage or applied to land. More agronomic information can be found [here](#) and in the following article.

## **Crop Considerations When Land Applying Milk** by Brian Lang, Agronomy Field Specialist



Adapted from: *Considerations When Land Spreading Milk or Manure/Milk Mixtures* by Carrie Laboski, Jamie Patton and Kevin Shelley, University of Wisconsin Nutrient and Pest Management program

### **Corn grain or silage and sorghum-sudan forages:**

If you can, prioritize milk applications crops that have high nitrogen (N) fertilizer requirements. For corn, consider preplant and early season sidedress applications to help limit odor issues. If possible, soil incorporation is recommended to reduce odor and potential runoff with rainfall events. Applications are not encouraged on sandy soils. Milk applied at 4,300 gallons/acre would provide about 200 lb N/acre.

Applying milk over the top of plants should be avoided if possible. However, milk could be applied in a multi-cut forage system like sorghum-sudan. Just take care to apply as soon after harvest as possible and use an appropriate rate to meet N recommendations for each growth period, usually about 60 lb N/ac (1,300 gallons of milk /acre). It is unknown if the presence of milk solids on foliage at grazing or harvest will alter forage palatability, ensiling, and/or quality. Following the end of season harvest of corn silage or sorghum-sudan, milk could be applied and soil incorporated followed by a fall cover crop planting of small grain, brassica, or mixed species.

### **Legumes including soybeans, alfalfa and clovers:**

Legume crops will preferentially use available soil N over fixing their own N, thus the N in a milk application will be readily used by the legumes while reducing N fixation. To keep the risk of N leaching low, the application rate should not exceed crop removal of N or 200 lbs N/acre, whichever is less. Approximate crop removal of N for 2, 3 or 4 ton/ac alfalfa is 100, 150 or 200 lb N/acre, respectively (2,200, 3,250 or 4300 gallons of milk/acre, respectively).

Alfalfa and clover can be top-dressed with milk, but applications should occur as soon after harvest as possible to minimize crop damage and milk interception by plant biomass. Milk additions to soybeans may stimulate lush vegetative growth, potentially contributing to lodging and/or increase risk of infection by the white mold pathogen. Because legumes do not need additional N, milk applications to legumes will not fully utilize milk's economic value as a fertilizer.

### **Small grains as spring or winter cereals as grain or cover crops:**

Preplant applications of milk to spring or fall planted small grains provides an opportunity for soil incorporation of milk to reduce potential runoff and odor

issues. Milk application rates should meet but not exceed crop N needs. High N applications to small grains can increase lodging. Recommended N application rates for wheat are based on N:grain price ratio, soil group, and previous crop and typically range from 55-85 lb N/acre (1,200-1,800 gallons/acre).

For barley, rye, oats and triticale, 1,000 gallons/acre of milk should supply crop N needs. Increased vegetative growth resulting from excess nutrient applications can create conditions that promote increased disease incidence. Milk applications over the top of growing crops such as an early spring application to winter wheat or winter rye should be limited. Milk solids left on plant materials will slowly degrade and may increase the potential for nutrient runoff with rainfall events and increase production of odors.

### **Pasture and grass hay:**

Apply milk shortly after grazing or harvest to increase the potential for milk to reach the soil. Milk solids left on plant materials can increase the potential for offsite movement of nutrients and organics with rainfall events. Milk additions should be timed to maximize the number of days between application and grazing or harvest. Milk that remains on foliage will slowly degrade, causing foul odors that may deter animal consumption.

It is unknown if the presence of milk solids on foliage at grazing or harvest will alter forage palatability, ensiling, and/or quality. The N applied in milk will reduce N fixation and overall competitiveness of legumes resulting in greater competitiveness of grasses and weeds. Prioritize applications to grass pastures or older grass-legume pastures being considered for future renovation. The total amount of N as milk or fertilizer applied to grass pastures should be split into two or three applications with the last application in August.

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## ***Free QPR Suicide Prevention Training***

In response to so much stress and uncertainty, Iowa State University Extension and Outreach will be offering seven online "Question. Persuade. Refer." programs said David Brown, behavioral health specialist with Iowa State University Extension and Outreach. QPR is a suicide prevention program that teaches participants three steps to help save a life from suicide.

"Just as people trained in CPR and the Heimlich maneuver help save thousands of lives each year, people trained in QPR learn how to recognize the warning signs of a suicide crisis and how to question, persuade and refer someone to help," Brown explained. Each on-line program will last for one hour. Those dates and times are as follows:

- Tuesday, April 28 at 12 p.m.
- Wednesday, April 29 at 10 a.m.
- Tuesday, May 5 at 12 p.m.
- Wednesday, May 6 at 10 a.m.

- Tuesday, May 12 at 12 p.m.
- Wednesday, May 13 at 10 a.m.
- Tuesday, May 19 at 12 p.m.
- Wednesday, May 20 at 10 a.m.

Agribusiness professionals, agriculture lenders and bankers, veterinarians, vet techs, commodity group members and producers can register at no cost for any of these programs. To register, go to <https://www.extension.iastate.edu/humansciences/QPR>. Unique URL Zoom links will be sent to registered participants prior to each program. For more information, feel free to contact David Brown at [dnbrown@iastate.edu](mailto:dnbrown@iastate.edu).

## ***Finding a Home for Non-Saleable Milk***

*By Jenn Bentley, Dairy Field Specialist, NE Iowa*



Farms experiencing low milk prices coupled with recommendations from milk cooperatives to reduce milk production can leave a financial burden on what to do with excess milk. Feeding whole milk in place of milk replacer could be a positive financial and nutritional alternative to finding a home for non-saleable milk. Follow these guidelines to maximize whole milk's nutrient potential as another option to meet growth goals of calves to double their birthweight by 56 days of age.

### **Consider Pasteurization Prior to Feeding –**

Like the sale of milk to humans, feeding unpasteurized milk to calves could potentially spread disease. Johne's disease, Mycoplasma, BLV, BVD, Staph aureus, Listeria, Campylobacter, E. Coli, Pasteurella have the potential to be spread from cow to calf through the consumption of unpasteurized milk. Proper pasteurization equipment, time and temperature are needed to reduce disease transfer. Visit with your veterinarian or nutritionist to design a protocol for your farm. Review [Pasteurized Waste Milk Management Considerations](#) for proper steps to pasteurizing milk.

### **Start and Finish with High Quality Milk –**

Start with the highest quality milk possible, if it is impossible to avoid using milk from the hospital pen or higher somatic cell count cows, then more emphasis to pasteurize should be considered. Once milk has been collected from the milking system, quick action should be taken to pasteurize, cool, store, or feed, to reduce bacteria load. As milk reaches room temperature and higher, bacteria double every 20 minutes. The use of preservation products like citric acid or propionic acid may help reduce bacterial growth to extend milk usage. Pay close attention to cleanliness of handling and storage equipment, as it can be a source of recontamination of high-quality milk. Take samples regularly to test the bacteria levels in milk, alerting you to any potential problems.

### **Feed to Meet the Needs of the Calf –**

While this is the time to maximize the nutritional needs of the calf, the transition to whole milk should happen gradually to reduce digestive upset. While calves can consume onwards of 12 quarts of milk per day, this can happen over the course of 1-2 weeks. It is also important to take into consideration how milk is fed on individual farms to how much calves can consume; some feed twice a day, while others feed three times a day, mob feed, or automate feeding. Whole milk is very comparable to feeding a high-quality milk replacer with a 28% fat and 25% protein. If using milk from the bulk tank, the nutrient content will not vary much from day to day, although consider seasonal changes. However, caution is needed when hospital pen/fresh cow milk is being used. This milk is highly variable in nutrient content and often harder to balance consistently unless nutrient content is known.

It is important to consider whole milk on a dry matter basis when feeding. Whole milk is 87% water and 13% dry matter. If feeding a gallon of milk, this equation could be used: 1 gallon of milk weighs 8.6 pounds x 13% dry matter equals 1.11 pounds of dry matter. (Cassie Yost, Penn State Extension Dairy Educator)

However, to provide adequate nutrition, calves should be fed at least 5-6 quarts per day to reach a dry matter intake of 1.6 lbs., using 12.5% solids content of whole milk. (for use with large breed calves, small breed requires approximately 25% less). When factoring in weather elements, health and growth rate goals, more dry matter intake may be needed.

### **Remember Water, Starter, and Weaning –**

While whole milk is 87% water, it does not meet the needs of what is required for the rumen to develop. Provide fresh, clean water daily and within 3 days of life to increase starter intake and stimulate rumen development. Decreasing the amount of milk fed over a 1-2-week period will help increase starter intake prior to weaning, reducing stress and limiting a growth slump of the calf. An average weaning age is 6-8 weeks but



should be based on growth and consumption, targeting 56 days to double birthweight. If target growth rates are not being met, review current management program or extend milk feeding period. Review [Leave No Calf Behind](#)

[Factsheet](#) for calf growth benchmarks and feeding.

These are guidelines when considering the utilization of feeding whole milk to calves. This may look different on each farm, making it important for individual farms to visit with their consultants in this decision-making process for the financial and productive benefit of the calf and overall farm.



## **Five Steps to Formulate Workforce Contingency Plans in the COVID-19**

**Setting** by Melissa O'Rourke,  
Farm and Business Management  
Specialist, 563-382-2949

As the coronavirus spreads to rural America, farms as well as other agricultural and rural employers must establish labor supply contingency plans.

Rural businesses across the country have a wide range of labor needs. Such businesses may include farms, ag product and service providers, and other rural retail businesses. On many farms, all labor is performed by family members, while others have limited non-family employees, perhaps on a seasonal basis during planting and harvest operations. Livestock farm operations - including dairy, beef, swine, goats, sheep, poultry or other specialty livestock - tend to have more significant year-round labor requirements. Animals must be fed, watered, and otherwise cared-for whether or not those responsible for these duties become sick or must be quarantined. All farms and rural businesses must formulate or review labor contingency plans.

### **STEP ONE: Protect the current workforce**

Helpful resources exist with recommendations on employee protection to limit the spread of coronavirus on the workplace. Key advice includes:

1. **Social distancing:** Prevent coronavirus spread by maintaining a minimum six-foot distance between and among workers whenever possible. Direct workers to maintain social distancing when away from the farm by avoiding contact with others beyond their immediate household. The United States Centers for Disease Control and Prevention (CDC) provides information on [social distancing and how it works](#).
2. **Handwashing, sanitizers and sanitation:** Now more than ever, biosecurity on the farm is of the utmost importance. Direct workers to wash hands frequently with soap and hot water, especially after touching high contact surfaces where the virus may live for extended hours or days. The CDC provides resources, instructions and videos on [correct handwashing procedures](#). Provide hand sanitizers for use when hand washing is not immediately available. Regularly sanitize surfaces that are touched by others. The CDC provides a [fact sheet on handwashing and hand sanitizer](#), describing proper use of each.
3. **Personal Protective Equipment (PPE):** To the extent possible, provide appropriate PPEs which may include masks, disposable gloves or face shields. Garments may be appropriate in

some environments. The CDC now encourages the use of [cloth masks](#), and provides instructions on how to make and use such masks.

4. **Direct sick employees to stay home:** Educate current employees that if they have symptoms (such as fever, cough, or shortness of breath) they should notify a supervisor and stay home. The [CDC provides guidelines](#) for sick employees who should not return to work until they have met appropriate criteria in consultation with healthcare providers. Similarly, workers who feel well but have a sick household member with COVID-19 should notify their supervisor.

### **STEP TWO: Prepare the current workforce - cross-training and SOPs**

Cross-training and job rotation is always a good policy under what may now be described as “normal” conditions. This strategy applies even where the entire workforce is family-based – and in fact, may be even more essential in that situation. As COVID-19 moves into rural America, it is vital that workers are cross-trained and comprehend the essential duties of all positions on the farm.

An integral part of cross-training is the existence of well-written and accessible standard operating procedure documents (SOPs) which provide straightforward, step-by-step descriptions of necessary tasks, including supplies and tools required. We can learn from many dairy operations which tend to have a history of maintaining SOPs as a beneficial tool on the farm. When writing or revising SOPs, assume that an individual who is entirely unfamiliar with these tasks may need to read and follow the guidelines, and use language that is easy to understand – leave the technical jargon for another time.

These written SOPs should be easily available to anyone who may possibly need the documents for guidance. Physically post this essential information in key locations around the farm or ag business. Maintain reference materials in well-marked three-ring binders. While SOPs may be stored on electronic media, they are most accessible in printed formats.

Consider supplementing written SOPs with video tools. In these days of easy access to technology, even the amateur can capture video of everyday jobs on the farm which illustrate how the tasks should be completed. Short videos can be helpful to demonstrate and explain the steps, and clarify questions which may arise from a written SOP. By way of illustration, see a short video on [formulation of SOPs on the farm](#). These videos can be uploaded to an online site, or stored on a portable storage device (flash drive) accessible to all who may need them.

### **STEP THREE: Design or update the workforce contingency plans**

Whatever the regular workforce consists of on the farm, now is the time to assume that Plan A may collapse in the event of COVID-19 impacts. Devise Plan B as the back-up plan to fill labor needs; and be ready with a Plan C on deck as well. Note that many dairy operations already have a labor contingency plan - and such plans are models for other farms and ag businesses. Dairy producers know that the herd must be milked regularly, and these producers anticipate situations which may impact the availability of the workforce. Most dairies have fill-in workers who provide substitute labor on weekends or an as-needed basis, so those workers are already trained.

All farms (livestock, crop, specialty) and other agricultural businesses should have similar plans in the COVID-19 environment. Plans already in existence should be reviewed and updated. Now is the time to bring in the substitute workers for skill refreshment, and to make those individuals aware that they are part of the organization's contingency labor plan. Review and communicate the plans for contacting workers who need to come in to relieve and substitute for the regular workforce.

### **STEP FOUR: Recruit and train new contingency workers**

Agricultural employers have long faced a worker shortage, consistently confronting a challenge to locate farm workers. In the COVID-19 environment, farms and rural businesses may have access to labor that is not usually available. College and high school students are likely at home due to the pandemic, and available for part-time or occasional employment.

As summer approaches, some of these same students may be unable to access traditional summer employment opportunities, and could be available for work on the farm. Many individuals across the country have been laid off from their usual occupations and are now available for employment in the ag sector.

Guidance for applicant recruitment is found in the Ag Decision Maker article, [Get the Right Start in Hiring Employees](#) (AgDM File C1-70). Remember, the best source for finding new employees is current employees. Current, successful employees know the work environment and the type of skills necessary.

Therefore, they are apt to refer and recommend persons who they believe would likewise succeed in a similar position. Current employees have personal knowledge of individuals available for employment due to recent changes in their circumstances. Social media tools and networking may aid in identifying available workers. Depending on the needs of the farm or other ag business, local online job boards and state

employment sites should be utilized to post employer needs. [Iowa Workforce Development](#) can be found at [www.iowaWorks.gov](http://www.iowaWorks.gov).

### **STEP FIVE: Prepare to function with a reduced workforce**

Be ready for the possibility that the farm or ag business may be unable to recruit and train replacement workers. Anticipate this scenario by prioritizing the most essential tasks and critical workers. Determine which tasks have the highest priority for maintaining the current schedule and frequency. Identify other tasks that could be considered for a reduced schedule.

Formulate guidance for the situation where an owner, manager or other key leader becomes ill or needs to self-quarantine. Prepare mid-level workers to assume temporary management responsibilities, and identify tools that may be used for remote communication. Guidelines should be written, widely-shared and posted in key locations.

### **RESOURCES**

[ISU Extension and Outreach AgDM Farm Employment Resources](#)

[ISU Center for Agricultural Law and Taxation \(CALT\) - COVID-19 Resources](#)

[Frequently-Asked Questions for Iowa Employers and Employees](#)

[Interim Guidance for Businesses and Employers to Plan and Respond to Coronavirus Disease 2019 \(COVID-19\)](#)

[National Milk Producers Federation - Recommended Protocols for Dairy Farms When an Employee Tests Positive for COVID-19](#)

[Standard Operating Procedures - A Writing Guide \(Penn State Extension\)](#)

[Standard Operating Procedures - how to write them on the farm \(UMass Amherst Extension\)](#), a short video on how to write SOPs on the farm

Ohio State University - Questions for Farms with Employees, [English](#) or [Spanish](#)

### **Fact Sheet on Precautions for on-Farm Deliveries during COVID 19 pandemic:**

<https://farms.extension.wisc.edu/covid-19-im-having-seed-feed-chemicals-and-other-products-delivered-what-precautions-should-i-take/>



### ***Dairy Goat Producers on the Rise...***

As dairy goat milk production continues to increase in Iowa, where more than 10% of our dairy producers milk dairy goats, we aim to increase dairy goat educational programming. Iowa ranks third in the nation for number of goat producers. Know that our dairy specialists are prepared to assist dairy goat producers much in the same way we assist other dairy producers with production, facility and financial management. Please feel free to call us.

# Producing Less Milk- A Not Often Considered Concept By Producers

by Fred Hall, Dairy Field Specialist, NW Iowa



Over the past two months, dairy producers have seen clouds on the horizon, but nobody could have predicted the storm we are now facing. COVID-19 changed everything.

Increased cow numbers and production per cow signaled lower milk prices for the future, but the disruption caused by COVID-19 bottle-necked the pipeline and sent prices over the cliff. Processors saw buyers walk away from contracts, storage fill, employees fall sick or not show up due to fears of catching the virus; they finally had to slow down the flow of raw milk coming into their plants. Letters went out to producers calling for production reductions from seven to 20 percent.

Producers are left asking how to reduce pounds they ship without destroying their “factories”. Producer options are limited. Early dry offs, expedited culling, feeding milk to calves and cows and the least palatable- dumping milk. Especially, when grocers are often limiting customers to a few gallons of milk and shelves are often empty.

Producers cull every month, but markets and harvest facilities are having their COVID-19 issues. The fastest way to reduce milk production would be to step up cull rates. Unfortunately, many processors will be unable to handle the flow. Several major meatpacking facilities in the United States and Canada are idled, while others are running below capacity.

Preliminary USDA data show that last week’s slaughter (2<sup>nd</sup> week April, 2020) volumes for cattle from feedlots fell 16.6 percent below prior-year levels. Daily volumes suggest that slaughter of fed cattle will drop an additional 10.5 percent from last week. Dairy producers choose when to send cows to slaughter and packers will prioritize finished cattle from feedlots over dairy cull cows.



Early dry off can be an immediate option, but caution is required. Besides the struggle of taking productive cows to zero, once they are dry, special care must be to control their dry matter intake to prevent excessive weight gains during the extended dry period.

Feeding calves and cows milk can utilize some milk, but there are restrictions to the amount they can be fed. For milking cow rations Matt Akins from UW-Madison has some limitations to use:

**Disease transfer** - Unpasteurized milk is a concern for spreading Johne’s disease, Mycoplasma, bovine leukosis (BLV), Staph aureus and other diseases. If possible, pasteurization is encouraged to reduce disease transfer. Pasteurizer capacity is likely limited so prioritize pasteurized milk to young calves/heifers. Pasteurization of milk using batch pasteurization is 145°F for 30 minutes with agitation.

**Moisture content** – High water content (85-88% water) limits the amount fed in a total mixed rations (TMR). Usage in TMR is similar to using water to reduce dry matter content (10-15% of TMR as fed).

**Milk storage and handling** – Limited ability to store milk for longer than 1 day restricts possible usage. Pumps/hoses will be needed to add to the TMR. Farms likely would need to dispose of a portion of milk via the manure lagoon or direct land application as it is likely not possible to feed all the milk each day.

**Diet spoilage/odors/flies** – Unpasteurized milk added to the TMR may cause unpleasant odors due to microbial growth, especially in warm weather. Monitoring of feed intake and the TMR for heating and smell is needed. Consider adding a TMR preservative to control microbial growth and spoilage. Flies will also become an issue when adding milk to a TMR, with a feed-through insect regulator useful to control fly populations. Feed-bunk and equipment cleanliness is critical to minimize fly populations feeding on milk residues.

Several questions have come in on just reducing total herd production by limiting nutrition. First, all rations should be reviewed to balance for the most pounds of solids. Then look at the lower half of the herd and see if there are less expensive feed ingredients and adjust feeding levels. The high producing group has a priority to reach their highest peak in total solids per day and get bred back. This situation will not last for ever and when things get back to the new normal producers will still have to have cows freshening, milking well and breeding back. Flattening the production peak is a risky option for producers in the long run.

## Dairy Supply Disruption *by Larry Tranel*

Our most common question over the past weeks is why are customers limited purchasing milk in the store when news reporting that producers are dumping milk. Not an easy problem to answer but we have supply and we have demand, and the process was being disrupted in the middle. Bottlenecks of planning, sourcing, making, delivering and returning product. Fluid milk and cheese have different processes and equipment and it cannot change overnight. Markets and contracts were lost, supply overstocked, customer pressure increased and all affecting the markets both short term and long term.

The system is only as strong as the weakest link. With overproduction estimated around 10%, food service and ingredient purchases slowed down, and trucking was

being pulled in many directions to deliver necessary dairy and other materials. Many truckers were asked to do more with less, with additional time requirements for social distancing and sanitation.

Then, remember the panic buying as news of COVID hit the United States. Consumers stocked up, and food/dairy sales increased dramatically. Then, restaurants closed, schools closed, and the increase in raw milk supply started to back up. Milk is on approximately 95% of all shopping lists, so many retailers decided to limit so all get some. Retailers are still recovering from initial panic buy.

Processors cannot change equipment and packaging overnight as a big difference in delivery for food service bulk buying versus individual retail outlets. Formulations between the two might change.



Processor capacity needed to adapt to changes in production lines and work force. Associated industries like cold storage, ingredient suppliers, chemical and feed suppliers, packaging suppliers, and many others had changes to be made as well. Add all this up, from this bottleneck to the next, cause a serious dairy supply disruption. This dairy supply disruption pushed back all the way back to the dairy farms, putting pressure to slow down milk production.

It will take time to continue addressing bottlenecks to reduce retail limits but it seems to be improving. Urgent efforts to using food banks to help move product is also assisting. Hopefully, much of this disruption may be cured in the short run, but it seems prudent to plan appropriately in case this disruption due to COVID continues in the longer term.

Landspreading of milk and feeding milk in dairy rations among other resources for farmers are available at: <https://www.extension.iastate.edu/disasterrecovery/covid-19-farmers>

## Remember to Spell Out DAIRY GIRL in Your Daily Life!

*by Jenn Bentley*

Dairy farming has been a challenge to say the least in the last 5 years. Dairy women are increasingly playing more and more roles on the farm, from managing the day to day dairy herd management activities, to fieldwork, to managing the books, coupled with traditional roles including the kids, household, and community.



Then comes the COVID-19 pandemic and another layer of worry and stress is added to all those things mentioned above and then some. New or additional

roles have suddenly been put on our plate; practice social distancing, plan out daily schoolwork, make a meal plan to limit trips to the store, wear a mask to run errands and feeling like everything we touch is contaminated, teach family to hop on a ZOOM call to "see" them and make sure they are okay, check in on neighbors... the list could go on.

Many are stressed about all of this and rightfully so, our world has been flipped upside down. But what if... we took this opportunity to realize how grateful we are to have some unexpected opportunities with those that we are spending a little bit more time with these days.

School may be cancelled for the year, but have you and your family found more ways to practice empathy, build family connections, get more creative in entertainment, read a book, or write a letter to someone you love?

Have you noticed how great it feels to be working side by side with possible future generations of your farm? Have you taken the time to enjoy the simple things, like watching the birds, or seeing green amidst small snow flurries? Are you finding the good in everyday and sharing those moments with others?

Families may learn how to cook together, stretching a dollar, and finding old family recipes and sharing the story behind the recipe, where in a restaurant this would have been lost. Does the space in your house look different because you are finding out what you really need, instead of what you think you want, minimalism at its best. Your laundry may not be folded exactly how you wanted it, but there's a lesson hidden beneath that pile of dirty clothes.

Oh what stories our families will share 25 years from now, they will truly have known what it was like to benefit from a slower paced life and learn the real lesson of what life is all about. Remember, if you are staying home to save lives, you ARE being productive.

If you find yourself having a hard time remembering your purpose, go back to the DAIRYGIRL acronym to realign your thoughts back to a positive mindset.

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## The DAIRY GIRL Acronym

Deep Breathe  
Active Goals and Exercise  
Implement Change  
Remember your TEAM  
whY? What's your WHY?

Gratitude  
Increase Happiness  
Restore-mind, body, soul  
Learn everyday

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# Preemergence Herbicide

## Application Timings: Pros & Cons

*Dr. Bob Hartzler is a professor of agronomy and an extension weed specialist.; Meaghan Anderson is a field agronomist in central Iowa and an Extension field specialist at Iowa State University Extension and Outreach; Prashant Jha is an Associate Professor and Extension Weed Specialist with the Department of Agronomy at ISU*

In the rush of spring fieldwork, crop planting often takes priority over application of preemergence herbicides when time is crunched. Because of the availability of effective postemergence products this approach has been effective for many farmers. But as multiple resistant weeds have become more prevalent, more attention is needed to maximize the efficacy of preemergence herbicides.

While most agronomists would prefer preemergence herbicide being applied immediately after planting, several strategies are available. Regardless of strategy, it is imperative to get a preemergence herbicide on every acre. This article will provide a brief overview of the pros and cons of different application strategies.

### Early preplant: Applications made more than 7 to 10 days prior to planting)

#### Pros

- Applications typically completed before summer annual weeds begin to germinate, thus increasing the likelihood of timely activation by rainfall.
- May provide a weed-free seedbed at planting. In no-till systems, include a burndown product to control emerged winter annual and other weeds.
- Application completed before planting, spreading workload.

#### Cons

- Residual activity into the growing season is shorter than when product is applied near planting. Use of layered residual (including a residual with postemergence application) approach reduces this risk.
- Final seedbed preparation tillage may 'dilute' the herbicide within the soil profile if tool is run too deep, and may result in uneven distribution of the herbicide.
- Planter units may move herbicide out of the crop row, allowing weed escapes
- If planting is delayed, much of the value of the herbicide may be lost.

### Preplant/Preemergence: Applications made within a week of planting.

#### Pros

- Product applied near time that summer annuals initiate emergence.
- Residual control extended later into growing season than early preplant applications.

#### Cons

- If rain doesn't occur within a week of planting, early-emerging weeds may escape control due to lack of herbicide activation.
- Planter units may move herbicide out of the crop row if applied preplant, allowing weed escapes.

### Delayed preemergence: Applications made more than a week after planting.

#### Pros

- May spread workload.
- Residual control is extended later into growing season.

#### Cons

- Herbicide options may be reduced if crop has emerged before application.
- Summer annual weeds likely will have emerged at application, requiring additional postemergence product to control these weeds.
- Rainfall is needed within a few days of the application to activate product.
- Application delays can result in early-season competition between crops and weeds, and may allow weeds may exceed optimum size for postemergence control.

Preemergence herbicides are the foundation of herbicide-based weed management systems, and effective use of these products is essential to protect crop yields and reduce selection pressure for herbicide resistant weeds. In a perfect world, applying preemergence herbicides immediately after planting would provide the greatest likelihood of maximum performance, but equipment and labor availability limit many farms from using this approach.

Herbicide resistant weeds have limited our ability to 'rescue' fields with postemergence treatments when weather delays preemergence applications following planting. Thus, consider how you can ensure that all acres are protected with appropriate preemergence herbicide applications when prolonged wet periods or other factors interfere with field operations.

<https://fyi.extension.wisc.edu/farmstress/brain-science>

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## Dairy Cattle Welfare During Tough Times



We often stress the importance of cattle welfare during heat or other types of stress. Dairy cattle might also suffer during this COVID crisis on farms where milk might have to be dumped, cull cows might not have a market, or a host of other issues that could creep up with any sort of extended financial or other suffrage on dairy farms during this difficult time. If cattle welfare becomes an issue on your farm, please contact us or Dr. Jan Shearer at [jks@iastate.edu](mailto:jks@iastate.edu)

## Farm Your Life to the Fullest

by Dr. Larry Tranel, Pastoral Psychologist and Dairy Specialist



Even though life on the farm has many stresses and strains, there are so many pleasures for those who live the farm life. When the price of milk increases, or whatever one sells off the farm, farmers smile as it gives more hope to their future as being profitable for their desires of raising a family on the farm.

But, whether prices increase or not, let's not lose our hope as it gives us strength when others might encourage us to give up. Hope in the future enhances investment in our future that can increase quality of life.

When we hear "get bigger or get out" let's not quit believing in ourselves as we hold our happiness in our own hands. Adjustments might need to be made, but if our farm dreams are in our desired destiny, let's hold onto them, seek outside help where necessary, write goals on paper, decipher if realistic, and make a plan to achieve your dreams. If not realistic, then acknowledge that before it breaks the pocketbook and move on, even if holding onto a piece of the desire as a hobby.

Be pro-active, whether holding on or letting go. Proactive people—the people with a plan and an "I can do" attitude tend to be much more resilient and more successful than those who are reactive and passive thinking there is not much else one can do to make life's situations better.

As said in previous article, so often people hold on to the bad moments in life and let them define their future and these past years in agriculture have been tough. Again, how do we meditate and focus on the good moments of life and let the love, peace and joy of those moments define both who you are and give you a base of hope for the future. Let's not let fear of failure make us run away from the things we love on the farm because love of people and the things we like to do often are sources of greatest joy. And science shows working outdoors with the plants and animals in nature is a healthy thing, especially when enjoyed as a family.

When we feel like we've lost in our life's hopes and dreams, yes, let's grieve our losses in healthy ways but in time be resolved to return to meaningful life. Life is difficult and the more we realize that it is working through life's difficulties that teaches us and helps us grow as persons, then it might change our attitudes more positively. For example, same situation happens to three people. The first sees and says, "Boy, do I have a problem that I need to avoid." The second person sees and says, "Mmmm...here is a challenge I need to work around." The third person sees and says, "this could be quite the test to seize a new opportunity, or reality in life." Same situation, different people, with mindsets that will cause them dampened spirits, increased resiliency or open to a new lease on life.

We all know people all along the scale of seeing situations as problems, challenges or opportunities. Sadly many live life with the "problem" attitude. The problem is not that there are problems, the problem is expecting otherwise and thinking having a problem is a problem. That is precisely the problem! The more we realize that life is often a series of problems and having problems is more the norm, it helps us better realize that having a problem is not a problem—so realize problems can be challenges to help us grow and opportunities for us to improve.



Many of us live in difficult situations on the farm, not to be diminished by anyone else. Many don't understand what we go through trying to raise a family on the farm. No matter how difficult to

overcome real problems and "problem" attitudes, first and foremost, let's not lose hope as hope is a golden key to the future, needed to unlock the handle of love to better open the door of dreams, so we can see through the windows of success.

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**“When difficult to focus—Write things down”**



## **Inside This Issue:**

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