



Forage Management

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Spring 2020 – Contingency Planning

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We face unprecedented uncertainty in preparing for the 2020 field season. While spring is an exciting time, it is also a time that strains available resources; equipment, labor, hours in a day. This year, the potential for health issues and the resulting impacts on labor availability could further stress these already limited resources.

Certainly, making plans to fill unexpected labor needs is a good starting point, but it may be worth thinking about additional contingency plans. This could include some of the same strategies that have been utilized when dealing with narrow windows to achieve tasks related to weather, as we have experienced in recent wet springs.

Safety First

A typical spring season comes with many stresses. Exposure to dangerous situations can increase the mental pressure, and your risk of injury. Follow safe practices around equipment to make the most of your work time. The most important goal this spring is to send all family members and employees home to their families SAFE ... EVERYDAY!

- Allow for proper rest time
- Avoid distractions from electronic devices
- Do not take shortcuts
- Keep up on equipment maintenance

Planning and Team Work

(Excerpt from: Resources for Dealing with Spring Weather Delays)

With your condensed time window (or limited resources) for key field activities this spring, the solution to accomplishing everything on time might come from a different way of thinking. Consider the 5,000-foot view of the land that you and your neighbors work and think of the inventory of people and equipment potentially available to apply manure, fit fields, plant, harvest, haul, pack bunk, etc. for the collective land-base.

Are there opportunities to share equipment and time even where you haven't done so before? Can you bring in equipment or a custom operator to take care of one activity while you focus on another? Does it make sense to use the four-row planter when a six-row is sitting idle a mile away? Can you bring in extra help for milking? Do you have any retired neighbors who could lend a hand with field work?



Consider gathering with your neighbors (*remotely*) to strategize and to make sure that the most efficient equipment is fully utilized this year. Remember: you and your neighbors are in the same boat, so you might as well paddle together!

If you currently utilize custom operators, now is a good time to set up a time to meet (*remotely*) with them and make sure you are on the same page to get tasks accomplished in the time-frame needed.

Make sure that your expectations and goals are clearly defined. They will also be under stress to fit their work into a condensed period and meet their customers' expectations, so defining expectations and pre-planning how to most efficiently get the work accomplished when the custom operator arrives can go a long way to increase the chances for success.

Consider all safety practices related to social distancing and sanitation with all farm team members and consider extra cautionary steps with new employees or custom labor.

Cornell Agricultural Workforce Development COVID-19

Equipment & Labor Sharing: Practice Caution

As referenced above; equipment and labor sharing and custom field services are viable strategies to meet the demands of a crop season, particularly when resources are limited, whether that be a limited weather window, limited labor availability or other stressors.

There is an entirely new consideration with this strategy in the face of COVID-19. While we may think about field operations and spending the day in a tractor or truck as a natural form of social distancing, we really need to be cognizant of people sharing equipment. Whenever the equipment operator changes, the same recommendations for sanitizing surfaces in your barn or house should be taken. Think about the hours you spend in the tractor and all the surfaces you touch or breathe on. Try to keep a sanitizing solution in each piece of equipment. CDC: Cleaning and Disinfection for Households

To Disinfect:

Most common EPA-registered household disinfectants will work. Use disinfectants appropriate for the surface. Options include:

Dilute your household bleach

- To make a bleach solution, mix:
 - o 5 tablespoons (1/3rd cup) bleach per gallon of water OR -
 - o 4 teaspoons bleach per quart of water
- Follow manufacturer's instructions for application and proper ventilation. Check to ensure the product is not past its expiration date. Never mix household bleach with ammonia or any other cleanser. Unexpired household bleach will be effective against coronaviruses when properly diluted.

Alcohol Solutions

- Ensure solution has at least 70% alcohol
- Other common EPA-registered household disinfectants
- Products with EPA-approved emerging viral pathogens claims are expected to be effective against COVID-19 based on data for harder to kill viruses. Follow the manufacturer's instructions for all cleaning and disinfection products (e.g., concentration, application method and contact time, etc.).

Source: CDC: Clean and Disinfect

Forages in Dairy Diets

As the full impact of the current pandemic is still unknown, and access to a healthy workforce will vary by farm and geographic area, it is important to think about the risk to assuring adequate forages to meet your herd's needs. As with a year challenged by bad weather, it is helpful to consider both your current diets, and the forage inventory necessary to sustain them, as well as how diets could be modified in the event that forage inventories are compromised by current disruptions.

- Measure current inventories
 - o Both total quantity and quantity by quality appropriate for different animal groups.
- Quantity of corn silage and hay crop in your ration
 - o Which poses a greater risk if quantities are short?
- Field Operations: Now versus Later
 - There are a number of unknowns regarding what will happen over the coming months but if resources are available now it may be worth considering efforts to secure needed forages earlier rather than later in the event that resources are further limited later.
 - Cover crops
 - Cover crops present an opportunity for high quality forage and their early harvest date presents an opportunity to secure forage sooner.
 - It is also recognized that the timing of their harvest further stresses resources at a busy time of year. This should be taken into consideration when making your plan.
 - Hay Crop
 - There is always an emphasis on proper timing of first cutting and for good reason, it represents a significant percentage of total hay yields and the quality can be very high.
 - Multiple cuttings the need for multiple harvests present multiple opportunities to capture high quality forage; however with the unknowns going into this season, the availability of a full harvest crew for multiple timely cuttings may be at risk.
 - Take each opportunity that presents itself to capture high quality forage, see Dynamic Harvest Schedules.
 - o Corn Silage
 - The corn crop is always important to dairies that utilize it in their rations and with the popularity of high corn silage diets it may take on an even greater place in your overall forage needs. Consider these needs in conjunction with the points above regarding hay crops as you prioritize field operations.

Tillage

It is well-proven that crops can be grown very successfully with reduced and no-till practices and reducing the number of tillage passes is not only good for soil health but also saves significant amounts of labor and equipment resources.

There are, however, some cautions to be taken when converting from conventional tillage to reduced or no-till practices. Soil can indeed become addicted to tillage and stopping tillage cold turkey on a field that has been tilled for several years (i.e. a fourth year corn field) can have negative impacts on crop performance.

Considerations for transitioning away from tillage:

- Year of rotation
 - o Sod is essentially no-till and provides a good transition point to no-till corn
 - o Soybean stubble also offers good seedbed for no-till
- Planter Setup
 - A properly set up planter can successfully place seed into a diverse set of soil conditions but setup is key. For tips on no-till planting see Penn State article: Planter Performance in No-till.

Corn Planting

As with any other year there are some key considerations to establish a successful corn crop.

- Confirm that your planter is properly adjusted for soil conditions
 - o Get off the tractor and check seed placement, especially as soil conditions change
- Increasing planter speed beyond what the planter is designed for is tempting when time is tight but will always come back to haunt you
- Timely planting is important but earlier is not always better
 - "Corn planted in late May under dry soil conditions will consistently out yield corn planted in late April under *wet soil conditions*." Bill Cox, Cornell Professor Emeritus
 - o *Yield:* A University of Wisconsin studied showed that 95 percent of maximum yield can still be achieved through late May
 - After late May yield declined by 0.26 tons/acre/day (35 percent DM)
 - o Forage Quality: the same study showed that forage quality declines were much more severe after mid-May