

AG FOCUS



Let's Go Together by Margaret Quaassdorff

We are already at the beginning of the new year! When I look back, it feels like 2022 took such a long time, but in a flash, it was done. It felt a little volatile. A “hurry up, and slow down” way of going. At least for the dairy programming, I felt like we were trying to get back into the swing of things, but we could not predict with certainty how programs and influencing factors were going to unfold. One step forward, two steps back. This type of stress can lead to a lot of tension on the farm too, whether working between people or working with animals. Sometimes we get irritated with things that cows do, or actions/non-actions that our coworkers and colleagues take. It's natural to have hurt feelings and frustrations when these occur.

I want to share with you something that I learned this year from a great horse trainer, which coincidentally can apply to working with cows and people, too. When working with a horse (or a cow), *occasionally* they don't move exactly where you want them to go, or follow your intentions or instructions. Sometimes this is a mistake, and sometimes it is intentional. Our instinct here may be to get frustrated, to get emotional, but if we can remember to take a step back from ourselves, take a breath, and look at the situation, we may have a chance at a better outcome ahead of us.

When working with cattle, stockmanship expert, Curt Pate, talks about moving with intention, and directing where you want to go. To paraphrase, people are trained to go behind people, and follow up. People stand and drive in lines. With cattle, when you get in behind them, the closer you are the more they turn their head. When they turn their head, their feet start to go off-course. To amend this, *work with them from the side*, to not encourage them to turn in the wrong direction. Follow the link to find out more about correct working position: <https://www.youtube.com/watch?v=4mC2OrDM1NE&t=215s>

It's important to remember that what the animal did, had really nothing to do with/to/against *you*. They did it for another reason, a reason that was personal to them. Maybe they wanted to get around you; maybe they didn't want to have to deal with you; maybe they didn't want go where you wanted them to go, or do what you wanted them to do. Remember that you can't really

control that decision, and that they have their own thoughts and ideas, too. These actions that result can set us back from where we thought we were supposed to be, what we were supposed to be doing, and what we had hoped to accomplish in a certain way. There is nothing we can do about that exact action now that it already happened. Instead of going back over it in our minds, getting angry, and having to work through the emotions of feeling upset and disappointed, we can choose to *focus on where we want to go next*. This is particularly important when working with horses as they often mirror our energy, and it can be very true with cows as well. Believe it or not, if you look hard enough, you'll see it works with us people too.

“I don't believe in waiting for a horse to do the wrong thing and then punishing him after the fact. You can't just say 'No' to a horse. You have to redirect a negative behavior with a positive one—something that works for both of you. It's as though you're saying, 'Instead of doing that, we can do this...together.'”

-Buck Brannaman, Horse Trainer

So, what do we want to do? If a decision was made, and this is where we are, what is the next step forward? How do we pivot in a direction that is good for the *both* of us? For this New Year, I wish you all the strength, grace, confidence, and compassion needed to take the next steps in the right direction for everyone on your team.



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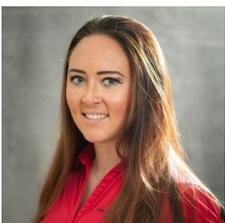
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<https://blogs.cornell.edu/nwny-dairy-livestock-field-crops/>

For more information about our program, visit us online at: <https://nwnyteam.cce.cornell.edu/>



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New York's Malting Barley Grain to Beverage Value Chain: Selected Survey Observations

by John Hanchar and Brandie Waite

Summary

- About 20 growers, maltsters, brewers, and distillers completed a survey of New York malting barley grain to beverage value chain participants.
- About 60 percent of the growers disagreed with the statement, "Growers are able to obtain seeds with the characteristics, traits, specs, etc., needed."
- About 70 percent of the maltsters disagreed with the statement, "Maltsters are able to obtain grain inputs with characteristics, traits, specs, etc., needed,"
- Only 1 respondent from the brewers and distillers group disagreed with the statement, "Brewers, distillers are able to obtain inputs with characteristics, traits, specs, etc., needed."

Background

New York's malting barley grain to beverage value chain has experienced various levels of activity -- growth, stability, decline -- among points in the value chain. Activity has varied by the state's regions. Cornell University's Malting Barley Research and Extension Group and others have developed and extended research based knowledge designed to improve results realized by value chain firms. Early in 2021, after a late December 2020 summit, a group developed and implemented a plan to survey summit attendees and others. The group designed and implemented the survey to answer three questions.

1. Where is the value chain today?
2. Where do firms want the value chain to be?
3. How do firms get the value chain to where they want it to be?

This article provides a very brief coverage of selected observations.

Methods, Data

Project members designed, tested, and conducted a web based survey (Qualtrics). The survey provided value chain participants with opportunities to provide insights regarding the above questions. Respondents could complete the survey from early 2021 through the end of the first quarter.

About 20 value chain participants provided responses. Respondents included a mix of growers, maltsters, brewers, distillers, and other goods and service providers. Analysts used Qualtrics data summary and analyses applications (Qualtrics).

Results and Discussion

Growers indicated that they were able to obtain fertilizers & lime, sprays and other inputs with the characteristics, traits, specs, etc. needed -- the exception? seeds. About 60 percent of the growers disagreed with the statement, "Growers are able to obtain seeds with the characteristics, traits, specs, etc., needed." In addition, about half of the growers disagreed with the statement, "Growers are able to obtain seeds in quantities needed for successful crop production." Regarding marketing of their production, all growers disagreed with the statement, "Growers are able to market quantities desired at desired times at economically viable prices."

About 70 percent of the maltsters disagreed with the statement, "Maltsters are able to obtain seed inputs with characteristics, traits, specs, etc., needed," while 50 percent disagreed with a similar statement for the following inputs: 1) buildings, space; and 2) capital. Regarding marketing of their production, about 20 percent of maltsters disagreed with the statement, "Maltsters are able to market quantities desired at desired times at economically viable prices."

Only 1 respondent from the brewers and distillers group disagreed with the statement, "Brewers, distillers are able to obtain inputs with characteristics, traits, specs, etc., needed." Regarding marketing of their production, no respondents disagreed with the statement, "Brewers, distillers are able to market quantities desired quantities consistently over time with acceptable inventory levels, carry over from one period to the next."

Closing Thoughts

Please note that complete findings will be reported on the team's blog, and other platforms following the December 2022 Empire State Barley & Malt Summit. Authors thank survey respondents, members of the Cornell University Malting Barley Research and Extension Group, and the summit planning group for help with survey design, implementation, analysis, reporting of findings and other aspects of the project.

References

Qualtrics. 2022. qualtrics.^{XM} (website). <<https://www.qualtrics.com/>>



Dairy 'Technology Tuesdays' Webinar Series

January 10 to February 21, 2023
12:30 PM to 1:30 PM EST

Topics and Presenters:

- **Technology for Housing and Managing Dairy Calves,** *Dr. Joao Costa (University of Kentucky)*
- **Health Monitoring and Reproductive Management,** *Dr. Julio Giordano (Cornell University)*
- **Barn Design: To Retrofit or Not to Retrofit,** *Timothy Terry (PRO-DAIRY, Cornell University)*
- **Utilizing Drones to Track Forage Inventory,** *Harrison Hobart (Alltech)*
- **Looking Ahead: Dairy Technologies of the Future,** *Dr. Jeffrey Bewley (Holstein USA)*
- **From Robots to Low - Cost Parlors: How Do You Milk a Cow? Dr. Larry Tranel (Iowa State University); Parlors, Rotaries, or Robots - What Technologies Are For Me? Dr. Nancy Charlton (DeLaval)**
- **Integrated Barn Climate Systems,** *Mark Reynolds (ASAP Interiors)*

* The specific presentation for each date is TBD.

Registration: This program is available at no cost, thanks to the generous support of our industry sponsors. Preregistration is required. **Registration for all dates:**

<https://tinyurl.com/DairyTechTuesdays>



Dates:

January 10, 2023

January 17, 2023

January 24, 2023

January 31, 2023

February 7, 2023

February 14, 2023

February 21, 2023

* The specific presentation for each date will be released shortly.

For more information:

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Maintaining Stored Grain Quality over the Winter by Mike Stanyard

The lack of rainfall in WNY resulted in much lower yields than the record harvest we experienced last year. There were some quality issues which makes proper care and storage over the winter even more important. As of November 1, New York grain corn production is forecast at 80.3 million bushels, down 17% from 2021. Corn yields are expected to average 156.0 bushels per acre, 11 bushels below the 2021 average. Area harvested for grain is forecast at 515 thousand acres, down 65 thousand acres from last year. Soybean production is forecast at 17.6 million bushels, up 4% from last year. Based on November 1 conditions, yields are expected to average 51.0 bushels per acre, down 2 bushels from last year. Area for harvest is forecast at 345 thousand acres, up 25 thousand acres from last year (USDA's National Agricultural Statistics Service (NASS), New York Field Office 11/9/22).

Grain storage is an important step in protecting your investment and lots of money can be lost in reduced quality when it's time to deliver. I have talked about the importance of chemical and cultural control of insect pests prior to harvest in the past but temperature and aeration are also a crucial pest management tool. Dry grain should be cooled to less than 60 degrees as soon as possible after harvest, and between 20 - 30 degrees for winter storage. Temperature benchmarks for stored grain:

80°F: The ideal temperature for insect and mold growth.
70°F: Insect reproduction begins to decrease.
50°F: Insects become dormant below this temperature.
40°F: Mold growth prohibited below this temperature.
20-30°F: Grain should be cooled to this range for winter storage.

The University of Minnesota has an excellent site on **Managing Stored Grain with Aeration**. Some of their recommendations are summarized below and the webpage can be found at <https://extension.umn.edu/corn-harvest/managing-stored-grain-aeration>.

Stored grain should be cooled by aeration whenever the grain temperature exceeds the average outdoor temperature by 10 to 15 degrees. Expect storage time to approximately double with each 10-degree reduction in temperature. Grain should be cooled to about 25 degrees as outdoor temperatures get colder. Check the condition of stored grain about every two weeks while grain is cooling, then about monthly after grain has cooled for winter storage.

When the fans are off during the winter holding period, they should be covered (with canvas or plywood) to pre-

vent the grain near the ducts from getting too cold during severe winter weather. Large temperature differences result in condensation in the cold grain. Spoiled grain over the aeration ducts or perforated floor is a common problem caused by not covering the fan during extended off periods. Also look for melting snow on the roof of the bin as a telltale sign of temperature problems.

Accumulation of fine particles, weed seeds, and other foreign material interferes with airflow. Such accumulations are prime locations for increased mold and insect activity, which result in localized heating and grain deterioration. Normally, these fines collect in the center of the bin as the grain flows toward the walls.

Several good management practices can reduce the storage risks incurred through accumulation of foreign material. Screening the grain reduces the amount of foreign material and greatly improves long-term storability. Spreaders are used to uniformly distribute fines throughout the bin and helps provide more uniform airflow during aeration.

A common practice in bins equipped with center unloading hoppers is to unload some grain from the center "core" to remove some accumulated fines. Fill the bin so it is peaked and unload some of the grain (300 to 1,000 bu, depending on bin size). This removes some of the accumulation and increases airflow in the center if enough grain is unloaded to allow the center core to fill with clean grain.

Another great resource is from the University of Nebraska, <https://cropwatch.unl.edu/grain-storage-management>. It is a thorough summary of articles written by other Universities on all topics related to grain storage management. Check it out!



Economics of Grazing Cover Crops

By Nancy Glazier

Cover crop grazing in the Canadian province of Ontario has been steadily gaining ground. During our annual Cornell Ag In-service James Byrne, Beef Cattle Specialist for the Ontario Ministry of Agriculture, Food and Rural Affairs ‘zoomed in’ to provide an overview on the topic with a closer look at the economics.

Many of the farmers who have implemented the practice grow vegetables or field crops, utilize cover crops and own cattle. Some of their reasons for grazing the crops:

- Provides feed that would otherwise have to be purchased or saved elsewhere
- A beef cow grazing a cover crop for 8 weeks saves feeding 2,100 lbs of hay
- Extending the grazing season reduces labor cost, bedding costs; leads to healthier animals
- Cover crops can put good inexpensive gains on young cattle.
- Higher feed value of cover crops vs hay reduces grain requirement – cheaper source of feed
- Increases output per acre – income from sale of crops and income from grazing animals

Research has shown that of plants grazed, 70-90% of the nutrients are returned to the soil in manure (urine and feces). When strip-grazed, the nutrient placement is a bit more uniform. This also better utilizes the available biomass with less trampling.

James acknowledged for cover crop grazing to gain traction there must be a net benefit. Net benefit is the potential revenue return or cost saving over and above the cost of growing and grazing a cover crop. To determine the net benefit, convert costs to dollars per acre to cost in dollars per animal per day. It requires knowledge of the grazing potential of the cover crop in number of grazing days available. Grazing potential is the combination of yield and the number of animals that can be fed over a set period. For example, 5 beef cows on one acre

for 30 days vs 3 beef cows on 1 acre for 30 days. Also, to increase yield, if costs increase significantly, the benefit of increased yield may be lost due to the higher cost.

For New York, I think snow cover is less of an issue than wet ground. The Ontario farmers indicated management is key. They graze for short periods then move cattle off. Be aware of bloat risks, but if the cows are turned out hungry, they graze more heavily. They then get moved off the fields to reduce the risks of mud, erosion, and compaction.

James reiterated the importance of good fence, water, and minerals while grazing. They are also working to partner up livestock farmers with crop farmers. When there is an arrangement what may benefit the crop farmer may not be as beneficial to the livestock farmer.

The ministry is working to catch the research up to the practice. They are looking to document all the benefits that many farmers have realized in Ontario.

James shared with us a quote from a farmer he has worked with, *“At the end of the day cover crops have to make sense within the whole farm system, from the cost of seed to timely fall planting and spring management. If it doesn’t make sense, it won’t work.”* – Mike Buis



Feeder cattle grazing oats cover crop is a cheap way to add gain. Photo by Mike Baker

Meeting Title	2023 Pesticide Training and Recertification Series
Date	Wednesdays, February 1, 8, 15, 22, 2023; Exam Wednesday, March 1, 2023
Time	7:00 pm – 9:30 pm; Exam: 6:00 pm – 10:00 pm
Location	Cornell Cooperative Extension-Ontario County, 480 North Main Street, Canandaigua, NY 14424
Cost	\$230.00 for certification which includes the training manuals and all 4 classes. Does not include the \$100.00 exam fee. Recertification is \$40.00/person/class.
Contact Info for Registration	Cornell Cooperative Extension-Ontario County, 585-394-3977 x 427 or x 436 or email nea8@cornell.edu or rw43@cornell.edu Registration form is available on the website www.cceontario.org
Brief Description of Meeting	Anyone interested in obtaining a pesticide certification and meets the DEC (Department of Environmental Conservation) experience / education requirements OR current applicators seeking pesticide recertification credits should attend. 2.5 recertification core credits will be available for each class.



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Saturday, January 21, 2023

8:00 AM Registration, Trade Show Opens, Breakfast
Huron & Ontario

Conference Session - Grand Ballroom

8:45 AM Welcome, Ted Card, NYBPA President

9:00 AM Ron Lemenager, Purdue University
"Financial Sustainability & Technology's Role in It"

9:45 AM Dr. Garrett Preedy, Chr-Hansen
"Rising Input Costs- Time to Pinch Your Pennies"

10:45 AM Coffee Break in Trade Show - *Sponsored by Merck*

11:00 AM Jan Kirshenbaum, NY FarmNet
"You take care of the cows; who takes care of you?"

12:00 - 2:00 PM Lunch, Trade Show, Membership Meeting
 & AWARDS

2:00 PM Roundtable Discussion with American Angus, Hereford,
 Simmental & Red Angus Associations

3:00 PM Samantha Werth, Senior Director Sustainability, NCBA
*"Building Resiliency Through the Limbs of
 Sustainability - Why Beef Is Critical"*

3:45 PM Coffee Break in Trade Show - *Sponsored by Merck*
 Last call for Silent Auction

4:00 PM Ethan Lane, Vice President of Government Affairs, NCBA
"DC Updates & Discussion-What's on the Radar for NY"

5:30PM Trade Show Ends; Silent Auction Items Collected

5:30 - 7:00 PM

Cocktail Hour

Hors d'oeuvres & Cash Bar
Champlain Room

7:00 PM Safe travels home or rooms reserved for the night

**Additional Meetings Scheduled
 Saturday, January 21, 2023**

9:15AM - 5:00PM NY Junior BPA Annual Meeting & Activities
**Meeting followed by breeds educational event & presentations
 - Adams Basin*

11:00AM - NY Hereford Breeder's Assn Meeting - Bushnell's Basin

2:30PM - NY Red Angus Assn Meeting - Bushnell's Basin

3:00PM - NY Angus Assn Meeting - Bushnell's Basin

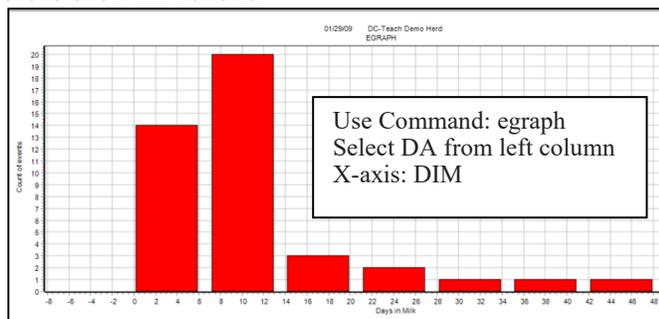
Displaced Abomasa - Focus on the Why

 by Kaitlyn Lutz

Over my years working as a dairy vet, January became the dreaded month. It wasn't just the bitter cold of being outside with bare arms, but the spike in DA surgeries that were bound to flood the clinic. I used to blame it on frozen feed, until a colleague in Florida told me that they see the same trend. Last time I checked, feed doesn't freeze that far south. Thinking about your dairy- do you see more DAs over the winter months? The goal of this article is to help those of you struggling with an increase in DAs to home in on some management factors to investigate. The real question is, whenever you see a spike in DAs on your dairy, regardless of season, what is your response?

First, what category of DA are you seeing on your farm? You can't fix what you can't define. When we talk about LDAs it helps to classify them into either primary or secondary. Primary DAs usually occur around 30 DIM when cows are reaching peak lactation, but before they reach peak dry matter intake. Secondary DAs occur earlier in lactation, usually < 14 DIM, and are associated with another fresh cow disease that has led to poor dry matter intake. With vast improvements in nutrition over the years, primary DAs are less common. If you're not sure what category most DAs on your farm fall into, it's important to figure that out as the preventative measures to fix the problem will be different.

Example 1: Jersey Girls Dairy has 7% LDAs, 90% of which occur between 5-20 DIM. When the manager looked into his DC305 data, he found that almost all of the early lactation LDAs had a prior health event and treatment event before their LDA event.



Graph of DA count by DIM over one year period at Jersey Girls Dairy, showing the majority of DAs occurring in the first two weeks of lactation.

Jersey Girls Dairy is dealing with mostly LDAs secondary to other health events that cause them to reduce dry matter intake.

Let's review the risk factors associated with the physiology of a DA:

1. **Slowed motility of the abomasum.** The abomasal wall needs to contract to move ingested food along. **Hypocalcemia**, or milk fever, either clinical or subclinical, results in this poor muscle function. Low potassium also has similar effects, but it is rare to find low potassium

alone if you are using a TMR on your dairy. **Ketosis** also is a big risk factor here. High circulating levels of ketones actually decrease feed intake, and this leads to poor stomach motility.

2. Now that we have slowed motility, the next risk factor is **gas production and distension**. If you're feeding a **high concentrate and low effective fiber diet**, your herd will have higher risk for DA. High concentrate diets lead to higher volatile fatty acid production, spill over of ruminal contents into the abomasum, and continued fermentation of feed therefore in the abomasum. Queue gas build up.
3. **Deep abdomen.** Cows have more physical space after calving and the abomasum has more room to dance! The key here is to **maintain dry matter intake and rumen fill** as best as we can.

Since dry matter intake can decrease as much as 35% within the weeks prior to calving, how can we keep rumen fill and intakes where they need to be? Two of the most common things I see overlooked are stocking density effects and feed push-ups. Remember that dry cows and fresh cows should optimally have 30" of bunk space for normal eating behavior. Rick Grant of the Miner Institute has found between 8-10lb increase in milk yield with increased feed availability and push-ups. Cows begin showing a big increase in motivation to eat after 3 hours- so don't let your bunk go empty or pushed up longer than that!

If you think dry matter intakes could be improved on your dairy, I'd encourage you to work with your veterinarian, nutritionist or extension specialist to help you troubleshoot. If you have Spanish speaking employees, please show them the webinar entitled "Soluciones para optimizar el consumo de materia seca en vacas lecheras en transición" or "solutions to optimize dry matter intakes in transition dairy cows" which is available to Dairy Cattle Welfare Council members here: <https://www.dcw council.org/webinar-series>. Membership to the DCWC is \$50 per year and grants you access to all their webinar recordings.

In the example of Jersey Girl Dairy above, the manager can look at the data in DairyComp to see if most of the DAs were preceded by an infectious event like mastitis or metritis or a stressor like a pen move. Of course, this only works if health events are being recorded!

To wrap things up, if you don't know your herd's current DA rate, look at the data. The last National Animal Health Monitoring Data in 2017 reported an average of 3.5% DA in dairy herds. Some excellent conventional herds report < 1% annually. Set your herd's "alarm level" and work with your data and your herd's management team to dig deeper and find the underlying cause of DAs if you are seeing a spike. Did I mention, DAs cost between \$500-\$700 per case?



Single-Strip Spatial Evaluation Approach

Conducting on-farm research is the most reliable way to answer questions like “Can I reduce nitrogen side-dress rates?”, “Should I add sulfur?”, or “Does planting green impact the corn crop that follows?”. On-farm research can help a farmer improve overall production efficiency, farm profitability, and environmental stewardship. In the past, on-farm research required randomized trials with at least *four* replications (randomized complete block designs, see [Agronomy Fact Sheet #68](#)). This approach takes up space and can slow down field work during busy times on the farm. Here we introduce a new approach, the Single-Strip Spatial Evaluation Approach (SSEA), that takes away a major barrier to implementing on-farm research and provides more reliable results.

Why SSEA?

Because yield monitors take readings every second as a harvester goes through a field, they generate dense spatial data, allowing for targeted evaluations and improved statistical analysis. The SSEA uses yield monitor data to answer research questions using a single treatment strip per field (Figure 1).

How Does SSEA Work?

There are six steps to be followed when conducting on-farm research using the SSEA.

Step 1: Equipment requirement

Use of the SSEA requires harvesting with a yield monitor system to collect yield and moisture data every second during harvest. Reliable data are essential, so farms that conduct on-farm research using SSEA will need to ensure yield monitor systems are well-calibrated ([Agronomy Fact Sheets #104, #105](#)).

Step 2: Define the study question

A study question in the SSEA consists of a comparison of two treatments, typically a “business as usual” approach versus a management change such as a different application rate, change in tillage method, change in timing, method of application, or materials.

Step 3: Select field and strip location

The SSEA is most useful for farms that already have yield stability zone maps (Figure 1). In such maps, each field has up to four colors: green for zones that are consistently (across years) yielding higher than the whole farm average yield, red for zones that are consistently low yielding (below farm average), and blue and yellow for zones that are highly variable in yield over the years but on average higher (blue) or lower (yellow) than the whole farm average. For more information on yield stability zone maps, see [Agronomy Fact Sheet #123](#).

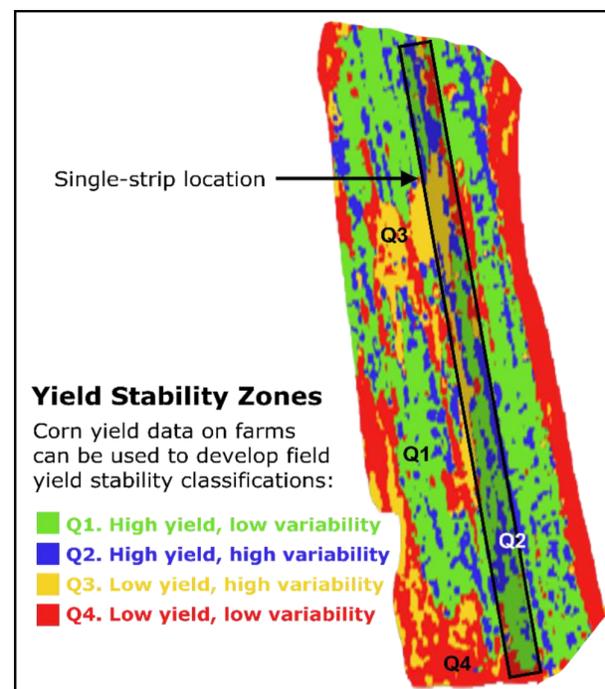


Figure 1: When a farm has yield stability zones (requires three years of yield data or more), the single-strip spatial evaluation approach (SSEA) can target specific zones by placing single-strip treatment covering a specific set of zones (mostly green and blue in this example).

Field selection will be determined by the research question. For example, if a farmer wants to know if more N is needed for higher-yielding areas, fields with green yield stability zones should be selected.

The SSEA *can* be used without zone maps, but conclusions can only be drawn for the area where the strip was placed and the control strips surrounding it (not per zone). If a farm has less than three years of yield monitor data for a row crop (corn silage, corn grain, soybeans, small grains), it is recommended to continue to collect yield data so that yield stability maps can be generated in future years and research findings can be extrapolated to other fields.

Step 4: Implement the strip

Trial implementation requires putting in a single strip of an alternative treatment across a field in the direction of harvest (longer=better). The strip width must be at least two and no more than four chopper or combine widths and have adequate space for equally wide control strips on both sides (*do not place the strip at the field edge*). All other crop management practices (pest control, seed bed preparation, fertility management, etc.) should be applied uniformly across the entire field including the strip area. Mark both the name of the field and the strip location in the field (GPS coordinates for each of the four corners). The GPS locations will be essential for evaluating yield data and drawing conclusions.

Step 5: Data collection

Ensure the yield monitor is well-calibrated, flow and moisture sensors are working properly, and data are cleaned post-harvest. Harvest the field as if the trial were not in it (do not stop or adjust for harvesting of the strips) to ensure data quality. If additional information (e.g. corn stalk nitrate test, forage quality, or soil samples) is helpful to answer zone-based research questions, make sure to sample (and geo-reference) both within and left and right of the actual strip location within a zone.

Step 6: Statistical analyses

Yield data within the strip and both sides directly surrounding it are used to evaluate if the treatment impacted yield that year using a spatial regression model. Yield responses are evaluated per zone. The statistical model determines if the treatment impacted yield. Table 1 represents our level of confidence in the estimated average yield response. This allows a farmer to compare which zones achieved the yield response needed to cover the cost of treatment and where the management change was less likely to pay off.

Table 1: Example of results of a single-strip spatial evaluation approach (SSEA) in a field with four yield stability zones (Q1, Q2, Q3, Q4). The table shows how confident we are that a specific yield response was obtained.

Confidence table for treatment yield response

Yield response (tons/acre)		Q1 (%)	Q2 (%)	Q3 (%)	Q4 (%)
Loss	≤ -1.00	0	0	0	0
	≤ -0.75	0	0	0	0
	≤ -0.50	0	0	0	0
	≤ -0.25	1	1	0	0
Benefit	≥ 0	97	95	100	100
	≥ 0.25	90	85	100	100
	≥ 0.50	76	65	99	100
	≥ 0.75	55	40	95	98
	≥ 1.00	33	19	87	92
	≥ 1.25	15	6	71	79
	≥ 1.50	5	2	49	59
	≥ 1.75	1	0	27	36
≥ 2.00	0	0	12	17	

■ High
 ■ Somewhat
 ■ Neutral
 ■ Low
 ■ Not confident

New York On-Farm Research Partnership

A farmer who shares yield and SSEA data with the New York On-Farm Research Partnership, will receive a report that show impact of the treatment per zone as illustrated in Table 1. Sharing of data aids in development of science-based guidance. Individual farm data or reports will be held strictly [confidential](#).

Additional Resources

- Nutrient Management Spear Program Agronomy Fact Sheet Series: nmsp.cals.cornell.edu/index.html.
- New York On-Farm Research Partnership: nmsp.cals.cornell.edu/NYOnFarmResearchPartnership/.

Disclaimer

This fact sheet reflects the current (and past) authors' best effort to interpret a complex body of scientific research, and to translate this into practical management options. Following the guidance provided in this fact sheet does not assure compliance with any applicable law, rule, regulation or standard, or the achievement of particular discharge levels from agricultural land.

For more information

Cornell University
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Nutrient Management Spear Program
<http://nmsp.cals.cornell.edu>

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>> UPCOMING EVENTS <<



Corn Congress - January 5, 2023 at the Quality Inn & Suites, Batavia, NY. Visit the NWNy Team's website for more information - <https://nwnyteam.cce.cornell.edu/>.

Corn Congress - January 6, 2023 at the Quality Inn, Waterloo, NY. Visit the NWNy Team's website for information - <https://nwnyteam.cce.cornell.edu/>.

Technology Tuesdays - Every Tuesday from January 10 - February 21, 2023. CCE Regional Teams and Pro-Dairy will host a series of webinars relating to technology adoption and utilization in the dairy industry. See page 6 for details.

NY Beef Producers' Winter Conference & Annual Meeting - January 20 & 21, 2023. Doubletree by Hilton, 6301 State Route 298 East Syracuse, NY. See page 10 for details.

February 2023

NY Certified Organic Meeting - February 14, 2023 at Jordan Hall, Geneva, NY. For more information contact Bryan Brown at byran.brown@cornell.edu

Save the Date: Soybean & Small Grains Congress - February 15, 2023 at the Quality Inn & Suites, Batavia, NY. More Details Coming Soon, visit the NWNy Team's website for information - <https://nwnyteam.cce.cornell.edu/>.

Save the Date: Soybean & Small Grains Congress - February 16, 2023 at the Quality Inn, Waterloo, NY. More Details Coming Soon, visit the NWNy Team's website for information - <https://nwnyteam.cce.cornell.edu/>.

NY Pork Producers Annual Meeting - February 18, 2023 at the Quality Inn, 2468 NYS Route 414, Waterloo, NY. Topic: Small Scale Production. For more information contact Krista Jaskier at info@newyorkpork.org or 716-697-3031

WNY Hay and Forage Workshop - February 25, 2023 at Pioneer High School, County Line Rd, Yorkshire, NY. For more information contact Lynn Bliven at lao3@cornell.edu or 585-268-7644 ext. 18

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