THE DAIRY PRACTICES COUNCIL PERSPECTIVES E-NEWSLETTER

Featured Topic: Importance of Labelling and Recordkeeping from Farm to Consumer

The Dairy Practices Council is a nonprofit 501(c)3 dedicated to developing and disseminating uniform educational guidelines for proper and improved procedures in the production and processing of milk and milk products under a cooperative effort of industry, educational, and regulatory members. Interested in joining this network of food safety professionals and subject matter experts? Visit www.dairypc.org for additional information.

On Farm Perspective	**Processing/Plant Perspective**	**Laboratory Testing/Quality Control Perspective**
Regulatory Perspective	**Industry Perspective**	**Educational Perspective**

Our industry has the ability to satisfy the hungry and spark creativity and innovation. Consumption of dairy products provides nutritional value that far exceeds many other dietary categories. However, we are also part of an industry that can unfortunately place us in the spotlight for recalls due to a variety of reasons. First and foremost, we never wish to see any company in the headlines for creating unintentional illness, medical hardships or worse loss of life. So how can we as an industry mitigate these challenges and keep our products in the positive headlines and out of the trenches? By ensuring proper labeling and recordkeeping of our products from farm to consumer.

Section 4, Labeling, of the current PMO (2019) provides the requirements of how to properly label milk or milk products, apart from milk tank trucks, storage tanks and cans of raw milk from individual dairy farms. The Ordinance reveals, "All bottles, containers and packages containing milk or milk products defined in Section 1. of this Ordinance shall be labeled in accordance with the applicable requirements of the FFD&CA, the Nutrition Labeling and Education Act (NLEA) of 1990, and regulations developed thereunder, the CFR, and in addition, shall comply with applicable requirements…" such as: the name, address, or permit number of the milk plant where the milk/milk product was processed, the words "keep refrigerated after opening," the common name of the hooved mammal producing the milk aside from cattle's milk, the words "Grade A" in acceptable locations (display panel, informational panel, cap/cover), the word "reconstituted" or "recombined" if applicable, and in the case of condensed or dry milk products there are a couple additional requirements ("Distributed by" and content identifications). Overall, labeling requirements are needed for easy identification of milk and/or milk product and its origin. Misleading labels are not permitted.

Let's hear some perspectives on how these requirements translate into every day operational best practices from farm to consumer.

On-Farm Perspective

Robin Breeding, Division Manager, Dairy Farmers of America

It starts with a clean tank. Prior to pick-up, the hauler/sampler must verify and validate that the milk tank truck was appropriately cleaned and sealed. Seal numbers must be recorded on the back of the milk tank truck wash tag, or other appropriate document before they take possession. Care should be taken by the hauler/sampler to remove only those seals actually required during each pick-up and save all broken seals. If additional seals are removed, an accounting of all broken seals will need to be made at the

receiving bay. See **DPC Guideline #105, Sealing Bulk Milk Tank Trucks** for additional information.

Wide acceptance of a universal sample container is a vital link in carrying out a quality assurance program. It is essential that all containers used for universal sampling be leak proof. Milk in most farm bulk tanks must be agitated for at least five minutes to secure a representative sample. Bulk tanks over 1,000 gallons in capacity may require longer agitation, ten minutes or more**.** Insufficient agitation may be the largest single source of variation in fat and other test results. Nearly all laboratories require use of plastic vials with a snap cap. A container that will hold one ounce or more when three-fourths full is recommended.

A sample should be taken regardless, if the bulk milk haulers accepts or rejects the producer's milk. Duplicate samples should be taken at the first stop. If freezing has occurred the sample should be labelled as such. The explanation for the unusable sample should be noted on the weight slip and/or manifest and the appropriate field staff should be notified. Legible identification (labelling) of the sample container with producer number, time, temperature and date should be done with a prepared label or with a waterproof felt-tip pen. All data including date, time, temperature, weight, and signature on the load manifest and/or weight slip should be recorded and submitted to the receiving location with samples. For additional information, see **DPC Guideline #007, Sampling Milk**.

Processing/Plant Perspective

Megan Uricchio, Quality Assurance Manager, HP Hood LLC

Technological advances in the industry have without a doubt made our products safer for consumers and removed hurdles in manufacturing. The use of scan guns in manufacturing has changed the way we operate. These small simple devices can be integrated into many enterprise resource planning systems and can be critical for product accountability from the time raw material hits the dock door to the time the finished products depart on its consumer voyage. Use of scan guns on production floors can ensure correct ingredients are used. Data received by the use of scan guns will make inventory reporting captured in a few clicks of a mouse. Gone are the long days where we have to spend a Saturday in a freezer or cooler warehouse performing physical inventory counts. With a simple scan of a barcode, allergens can be stored appropriately in a warehouse bin. A scan of GTIN (Global Trade Item Number) code can provide lot traceability for every ingredient used in a production batch. A scan of a 2D data matrix can ensure correct lid and container are used in production. A scan of a UPC code can indicate what distribution routes took possession of the product.

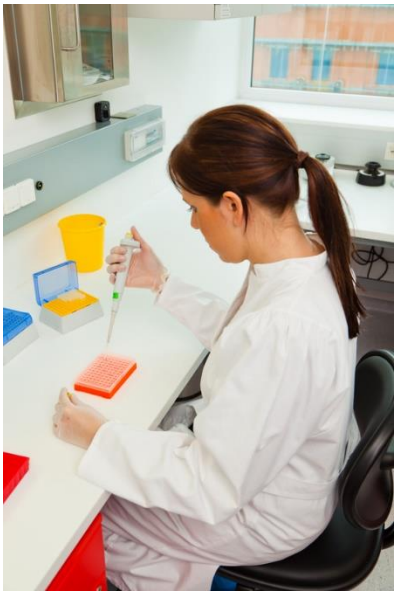
These scans are the link to accurate traceability in a crisis when time is of the utmost importance. The late Steve Jobs once said, "It's not faith in technology, it's faith in people." We can't dismiss the value of our people. People still need people to operate the technology we have in our plants and manufacturing sites. We need to leverage technology to assist our people to perform their jobs which will result in the manufacturing

of a safer product for our consumers. Consider leveraging technology in operations. The industry will benefit with stronger traceability, process control and safer products.

.Laboratory Testing/Quality Control Perspective

Carli Peskar, Dairy Scientist (Chemist) & Jessica Smith, Supervisory Dairy Scientist (Chemist)

You may have heard of it before, “farm to fork,” but what does it mean? Perhaps to many, the notion that the process is as simple as it is heard, but to laboratory personnel it means traceability. The identification of all the pieces that go into making that process, “farm to fork,” a known, safe reality.



In the past, it may not have been very easy to pinpoint the root cause of an issue with a test result, but today, with advanced technologies, the record trail is powerful. The utilization of barcode scanners and databases allow laboratory personnel to scan in the chemicals, supplies, and samples needed for a test run. The capability to track down and identify pertinent information is possible and faster with the use of modern technology practices, which helps to alleviate sources of error and lead to quicker problem solving. The communication between equipment has also improved, which allows laboratory personnel to capture data in real time, reducing human error and creating an effective workspace. In situations where advanced technology practices may not be used or needed, laboratory personnel must properly identify, label, and record the resources they need for a test run. Having competent and trained staff will result in proper labeling and recordkeeping practices and ensure the test performed is appropriate and the results achieved are representative. Failure to make a label correction or using a mislabeled sample in analysis may produce a nonrepresentative result and may negatively impact the industry. In the event a process is reperformed due to a mislabeled sample/nonrepresentative result, the laboratory’s resources and time have been spent.

Regarding testing media, the sample(s) used needs to be labeled and checked for any mislabeling or additional information that should be added. Corrections and/or additions should be made prior to using the sample for analysis and a note(s) should be added to the test run and on any other applicable record(s). The testing media needs to be correctly labeled with the agar used, with the bacteria tested for, date, time, and how the test sample was achieved. There is a lot of data that needs to be recorded for testing media. Media needs to be properly labeled with all the correct information, dealt with in the proper environment, made to the correct dilution, and records need to be kept.

Organization and attention to detail is key when it comes to proper labeling and recordkeeping. Improper labeling could lead to many issues. For example, an improperly labeled sample that is of good quality may appear to have an issue which would require a redo of an experiment resulting in wasted resources and time. Competent and trained

individuals should always be used to ensure proper labeling and recordkeeping occur. Making sure that when something needs done, it is not rushed or done incorrectly the first time helps prevent problems later. Double checking the labeling and records can help ensure that procedures are done correctly, and results are precise. This accuracy saves time and money. Standard Plate Count, (SPC), is the only PMO required bacteria test for raw milk. For additional information on testing media and procedures as well as rework refer to **DPC Guideline #060, Trouble Shooting Microbial Defect in Dairy Processing Plants** and **DPC Guideline #021, Raw Milk Quality Tests**.

Regulatory Perspective

Dr. Nicole Neeser, Director, Dairy and Meat Inspection, MN Department of Agriculture

Securing samples of the raw milk from farm bulk tanks and milk tanker locations is the critical for determination of milk composition and quality. The sampling surveillance program mandated by the Food and Drug Administration and is carried out by state regulatory agencies. All approved samplers, both regular and relief, must hold a license which is renewable according to state regulations.

Upon arrival at the farm, the bulk tank thermometer should be checked to ensure the temperature is 40°F (4.5°C) or under. If not properly cooled, the producer and/or field person should be notified immediately. The bulk tank thermometer should also be checked for accuracy via an unbreakable thermometer that has been sanitized before immersion in the milk. Temperatures should be recorded.

The dipper used to take the samples should be kept in a sanitizing solution of proper strength. Samples should be labelled with date, time, truck and sampler. When sampling over-the-road tank trucks, it is advisable to take two samples from the manhole immediately after filling, one for testing at the point of shipping, the other at the point of receipt. The sample in transit should be held at 33°-40°F (1°-4.5°C) with ice water in direct contact with container and as water level should be as high as the milk in the container. Refrigeration packs in the water may be used to maintain the samples at 0.0ºC – 4.5ºC (32ºF – 40ºF). Foam or other type racks and floaters should be labelled with the date, time of collection and sampler's name. Samples must be tested within 48 hours of sampling.

See **DPC Guideline #007, Sampling Milk** for more detailed information on sampling. Also be sure to check with your state regulatory agency before implementing your sampling program on-farm or in-plant.as state requirements for training, sampling, testing, recordkeeping and licensing may differ.

Industry Perspective

Adam Brock, VP of Food Safety, Quality & Regulatory Compliance, Dairy Farmers of WI

We all know that proper labeling of dairy products and good recordkeeping are essential at the processor level, but once that products leaves your facility, how do you ensure that your end customer receives safe, high quality products? Clear, concise, accurate product labels!

At the retail level, product is received by qualified personnel at the store level and either stored in large coolers/freezers or placed directly on the shelf for sale to consumers. Code dates on labels should be observed and the oldest sold first. Rotate stock daily. Upper shelves of open retail cases are usually warmer. Therefore, rotation of products stored on upper shelves is important. Don't stock product above the air curtain or on air return ducts in a display case. Single stack all quart or larger containers. Sell-by, use by, code date, or expiration date may be interchangeable terms or mean something entirely different based on each state's regulations so be sure to check into it. Regardless, it is recommended that dairy products are not sold past the date on the package. See **DPC Guideline #016, Handling Dairy Products** for additional information.

A similar process is in place in the foodservice side of the industry, but there are a few differences. Product is still received by qualified personnel and stored in cooler or freezers, but product is often emptied into labeled containers and then stored on a "make-line" or food preparation area until needed. Any leftover product in the original packaging must be labeled with the appropriate date code/used by date in accordance with FDA Food Code regulations. In a foodservice environment, consumers will not be able to see the product label since cheese and other dairy products are often used as ingredients in other items (i.e., pizza, cheese burgers, salads, etc.). It's also important that foodservice operations have proper sanitation procedures in place to prevent microbial contamination and/or allergen cross contact from occurring during the cooking process. No one wants a bad pizza that makes them sick!

In both environments, attention to detail is needed to ensure that the customer has the information they need to ensure the receive a safe, high quality dairy product. Having correct information on all product labels and maintaining that information in a retail or foodservice operation is key to keeping customers coming back. Proper labeling saves time, money, and might even save a life.

Consumer Education Perspective

Cary Frye, Regulatory Labeling Expert & Honorary Lifetime Member

More than 50 million Americans have an allergy of some kind. You probably know one of those people or are one yourself. Food allergies are estimated to affect 4% – 6% of children and 4% of adults, according to the Centers for Disease Control and Prevention. Food allergies occur when the body's immune system reacts to certain proteins causing trigger signs and symptoms such as digestive problems, hives, swollen airways. In some people it can result in severe symptoms or even a life-threatening reaction known as anaphylaxis. There are many foods that may be food allergens but more than 90% of the food allergen incidents in the United States are caused by just eight foods which are frequently used as ingredients in other foods. These are listed in order from the most to the least common (the Top 8)[1]:

1. Peanuts
2. Tree Nuts (e.g., almonds, pecans, walnuts)
3. Crustacean Shellfish (e.g., crab, lobster, shrimp)
4. Eggs
5. Milk & Dairy Products
6. Fish (e.g., bass, flounders, cod)
7. Soy
8. Wheat

The other 10% of the food allergen incidents in the U.S. are caused by hundreds of other foods. The Top 8 comprise food allergens across all food industries. Beginning January 1, 2023, Sesame seeds will be added as a 9th food allergen in the U.S.

Because of food allergies, consumers rely on accurate ingredient labeling on finished products to avoid foods or certain ingredients that they are allergic to. If not properly labelled, customers' lives could be at risk. Mislabeled product may involve printing or proof-reading mistakes, packaging supplier mistakes, and/or changes in formulations without changes in packaging. Due to the potential harm a mislabeled allergen in a food could present to an allergic consumers, FDA treats undeclared allergens in foods as a Class I recall that requires firms to provide public notification to immediately alert consumers. In addition, FDA has the authority seize or remove violative product from the marketplace.

The current PMO (2019) Item15p "Protection from Contamination" requires milk plant operations that handle nondairy food allergens shall have a written food allergen control plan to protect milk and/or milk products from food allergen cross-contact, including during storage and use, and to ensure proper declaration of food allergens on product labeling. Human food by-products held for distribution as animal food without additional manufacturing or

[1] Reference: Food Allergen Labeling and Consumer Protection Act of 2004.

processing by the milk plant shall be accurately identified, labeled by the common or usual name, and held under conditions that will protect against contamination.

The creation of a Food Allergen Awareness Program to identify risks and the development of a Food Allergen Control Plan will help reduce the likelihood of mistakes in your facility that could be detrimental to your customers and your business. See **DPC Guideline #080, Food Allergen Awareness in Dairy Plant Operations** for additional information on how to control allergens.

Final Thoughts

Keith Hay, President of The Dairy Practices Council

As you've been reading, labeling and recordkeeping play an important role in maintaining the security, safety and quality of dairy products. Many steps, taken by numerous dedicated people are required each day to keep dairy products safe for consumers to enjoy. For over 52 years, The Dairy Practices Council, a 501(c)3 nonprofit, has been dedicated to developing and disseminating uniform educational guidelines for proper and improved procedures for the production and processing of milk and milk products.

The Dairy Practices Council is comprised of a broad network of food safety experts with different perspectives (on-farm, processing, lab/QC, regulatory, industry and education). Our 53rd Annual DPC Conference is coming up November 1-4th at the Hilton MSP Airport in Bloomington, MN. This is a great opportunity for you to meet us in-person to learn dairy food safety best practices and expand your network of dairy expertise through participation in technical sessions, task force sessions, vendor visits, pre-conference educational tour, and/or workshops.

Pre-meeting educational workshops on Automated Milking Systems, Environmental Monitoring and Preventative Maintenance Best Practices for Pumps, Valves, Gaskets and Heat Exchangers will be held November 1st. November 2nd an educational tour of the Fetrow Dairy Education Center will be held in the morning followed by the official opening of the conference at 1:00 p.m. CST. This year's Keynote speaker, Bill Marler, an accomplished attorney and expert from Food Safety News, will share his unique perspectives on dairy food safety. Mark Your Calendars and Join Us! **Click Here To Register. Be sure to register before September 28th to take advantage of Early Bird Registration Discounts and Click Here For Hotel Reservation to take advantage of our Discounted Hotel Room Rate of $149/night+tax.** Contact evp@dairypc.org or call 419-890-5147 if you have questions about the conference or have interest in being a sponsor.

Visit www.dairypc.org for additional information about the organization, membership, or to purchase the Guidelines recommended in this article.

What Does DPC Membership Mean To You

Bebe Zabilansky, Past DPC President, Bruns Bro, Process Equipment

I was a young dairy professional when I first attended the DPC meetings in the middle 1980's. We were having the meetings in a somewhat remote location Ellenville, NY. I referred to it as being sequestered with likeminded dairy individuals as we listened to speakers and worked on guidelines. The networking and the knowledge gained through conversations and collaborations was astonishing.

Our industry is multi-faceted with a blend of professionals from universities, state and federal regulatory agencies, plant production, quality personnel, field staff, farming folks, and suppliers. DPC involvement provides the opportunity to improve yourself and others. My career has varied from working as a Quality Assurance Manager, to Production Manager, and then onto a sales career working with maintenance to stock the parts needed to keep plants running. The broad scope of DPC has helped prepare me to be successful as my work responsibilities changed.

Everyone has something to learn and contribute to this group. Seasoned veterans along with the newbies like myself at that time come together for discussions and collaboration for the process of writing and reviewing guidelines for the betterment of our industry. The friendships and contacts developed at DPC meetings have been indispensable to me as my career and responsibilities have grown and broadened. Thus, I became a more valued asset to my employer by my involvement. Hope you'll take the time to get involved and be a part of it too!

Upcoming Events

NY State Association for Food Protection 2022, September 21-22nd Register Here

Innovation Center for U.S. Dairy, Dairy Plant Food Safety and Supplier Management Workshops-Sept. 2022 Register Here

53rd Annual DPC Conference-Hilton MSP Airport

3800 American Blvd E, Bloomington, MN 55425

November 1-4, 2022

www.dairypc.org/dpc-conferences