



Phosphorus Indexing Fact Sheet

What is the Idaho Dairymen's Association and who do they represent?

- The Idaho Dairymen's Association was established in 1924 and represents all Idaho dairy producers. The Association is governed by a board of nine directors, elected by the membership, all of whom are dairy producers
- The industry is requesting changes that were thoroughly discussed in multiple board meetings, beginning in 2016. At our May 2017 board meeting, the IDA board voted unanimously to change the Idaho dairy industry's basis for Nutrient Management Plan's (NMP's) from a Phosphorous Threshold Standard to the Idaho Phosphorus Indexing Standard.
- As board members, like your responsibility as legislators, they based their decision on what was best for the Idaho dairy industry, not what was best for their individual operations.

Why do dairymen want the Phosphorus Index?

- Phosphorus indexing allows flexibility. Each field is different and assessed on an individual basis, which allows producers to focus management strategies on fields with the highest risk of phosphorus loss. Also, dairymen can decide which BMP's to implement or whether changes in management that impact the risk of phosphorus loss are practical to accomplish.
- Phosphorus Indexing is scientifically defensible, counter to an arbitrary number that treats all fields equally regardless of their potential to lose phosphorus to the environment. If our standard is scientifically defensible, it enhance a producer's ability to be legally defensible in a litigation case.
- We have dairymen already requesting to update their NMP's to the new indexing standards and are eager to utilize it

Will Changing to Phosphorus Indexing Increase Cost to Dairymen?

- ISDA no longer provides NMP's to producers, which was a free service through the department. This decision was independent of these requested rule changes. However, ISDA is developing a website to replace the old Idaho One Plan nutrient management

planning software, which could be utilized by producers if they choose to develop their own NMP.

- There are multiple private individuals and companies who provide nutrient management planning services to producers. It will be their prerogative to maintain or change their current pricing practices if the Phosphorus Indexing Rule is approved.
- IDA Consulting, which is solely owned by the membership of IDA, does not plan to change their pricing structure for development of NMP's.
- With the potential for an increase in cost being a concern during the Negotiated Rule making process, Farm Bureau and Milk Producer of Idaho requested that the rule have a 5 year implementation time frame, which is part of the rule. This gives the industry additional time to assess what, if any, increase in cost the new rule has created, what those increases were contributed to and identify avenues to reduce those costs.

What educational efforts did IDA utilize to bring awareness to the dairy producers and other organizations, state agencies and federal agencies that might be interested in the Rule Change?

- Information on Phosphorus Indexing and phosphorus management has been the focus of 3 Idaho Dairy Focus, IDA's newsletter, articles over the past 18 months. The Idaho Dairy Focus is distributed electronically and sent to all members by postal service.
- Phosphorus management and phosphorus indexing was the main topic of IDA's 2017 District meetings. Phosphorus indexing was the main topic of Dr. April Leytem's presentation and was introduced as a potential new nutrient management standard to the membership at those meetings
- Over the course of the summer and fall of 2017, there have been multiple meetings across the state with dairy producers. Phosphorus indexing is also the main focus of IDA's 2018 District meetings, of which the Magic Valley & Treasure Valley meetings have already taken place.
- The Authors of the Idaho Phosphorus Indexing Nutrient Management Standard, Dr. David Bjorneberg, Dr. April Leytem, Dr. David Tarkalson, along with Dr. Stephanie Kulesza, Environmental Programs Director for IDA Consulting and IDA staff made no fewer than 11 detailed Phosphorus Indexing presentations to at least 13 state organizations, state associations, and state and federal agencies who ultimately supported this effort.

Why do we care about Phosphorus?

- Phosphorus is a nutrient required for crop production. However, excess phosphorus that leaves agricultural fields contributes to freshwater systems over enriched in nutrients. Those available nutrients increase plant and algae growth in waterways, such as the Snake River.

What are the current rules surrounding phosphorus for the dairy industry?

- Idaho's Rules Governing Dairy Byproducts state that if soil tests exceed the phosphorus threshold outlined within the 1999 NRCS Conservation Practice Standard 590, "the producer shall only apply nutrients at the appropriate phosphorus crop uptake rate." This threshold is currently set at 40 ppm in the first foot of soil.
- Since the implementation of the 1999 590 standard, the NRCS Standard has been updated three (3) times. Each adjustment would have changed the Idaho Nutrient Management Standard if the state chose to adopt the new Federal NRCS guidelines and incorporated them into rules.

Is Phosphorus Indexing new?

- Phosphorus Indexing is not a new concept. In fact, the first Phosphorus Index was created in the Chesapeake Bay Watershed over 20 years ago.
- Eight of the top ten dairy states utilize Phosphorus Indexing in their Nutrient Management Standards.
- While Phosphorus Indexing is widely used, each state or region has an index catered to their soil and climatic conditions. Idaho is no exception. While soil test phosphorus is a component of the index, several other soil factors are used to determine a relative risk of phosphorus loss to the environment. This allows producers to focus management changes in areas of highest risk, which provides a lot of flexibility while adequately protecting the environment.

What is a Phosphorus Index?

- There are seven key factors within the Phosphorus Index focusing on phosphorus sources/management and transport: soil test phosphorus, application rate, application timing and method, soil erodibility, soil surface runoff index, leaching potential, and distance to surface water. These factors are scored for each individual field and the result is a Phosphorus Index Risk Rating.

- There are four risk rating categories that a field can receive: Low, Medium, High, and Very High.
- When fields fall into the Low category, Nitrogen based management is allowed. When fields fall into the Medium and High categories, application rates are limited to either reduce or maintain the current levels of phosphorus in the soil. When fields fall into the Very High category, there is typically a high risk of transport coupled with a high amount of phosphorus in the soil and no application is allowed.
- While this might seem harsh, there are some areas where the risk is too great to allow further application without some sort of mitigating practice. This is where Best Management Practices can provide relief.
- There are several BMP's that reduce phosphorus loss in agricultural fields. Eleven practices were added to the index and provide a reduction in the risk rating score when implemented on that individual field. This allows application in areas that are more susceptible to phosphorus loss while mitigating any potential impact on the environment. The magnitude of the reduction was determined by reviewing scientific literature and using a reasonable estimate for actual reduction in phosphorus loss.

Who developed the Idaho Phosphorus Site Index?

- This was a collaborative effort between researchers at the USDA ARS in Kimberly and several of the nutrient management planners in the state. Drs. April Leytem, Dave Bjorneberg, and David Tarkalson from the USDA ARS authored the guidance document outlining the phosphorus index.