

# Fighting FUD in new crop corn silage

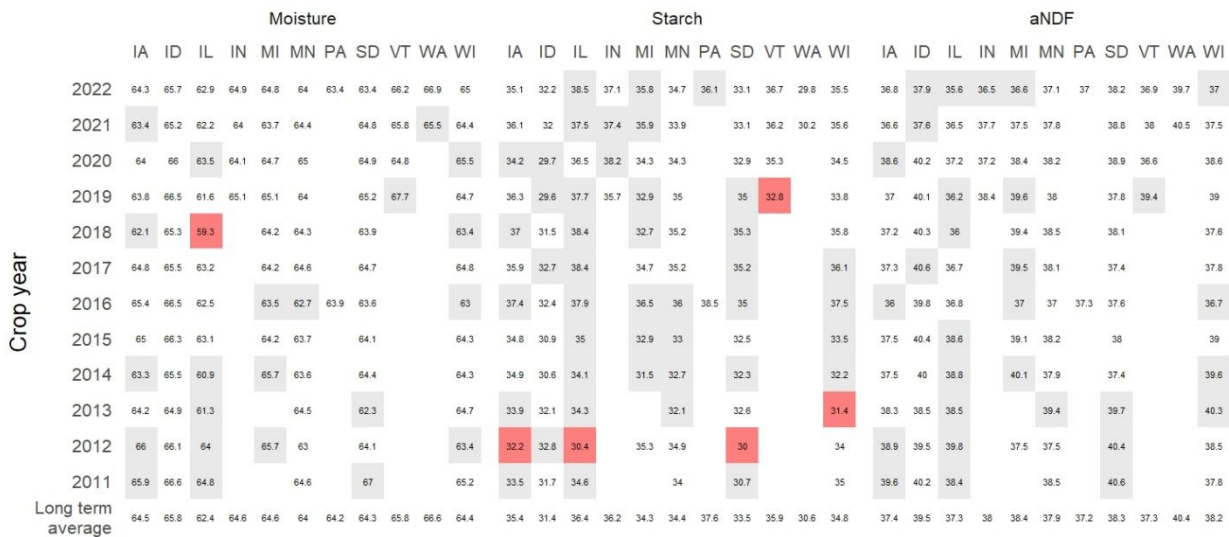


Each year's growing conditions bring their own stresses on crops. Currently, there are large pockets of the U.S. dairy market with moisture conditions from completely normal to extreme drought. This entire range of conditions can be found just within the state of Wisconsin, raising concerns about the variability within this year's corn silage crop. Judging by the phone calls and emails we receive at Dairyland Labs, August and September are the months of peak fear, uncertainty, and doubt (FUD) in the folks tasked with feeding the next crop of corn silage to dairy cows.

First, here's a few FUD fighting reference points that suggest, across a wide enough geography, this year won't be *that* much different from any other:

- 1) The average quality of corn silage within a state rarely deviates from the long-term average. Over the past 10 years, 65% of crop years had average values of moisture, starch, and NDF within 1 pt of each state's long-term average. Only 2 % of all crop years had their average values move more than 3 points from the state's long-term average (minimum 500 samples).

Corn silage quality by state and crop year  
(average value per nutrient)



Distance from long term average  <1  1-3  >3

Data source: Dairyland Laboratories Inc.

- 2) Even in the worst years, most corn silage samples have low levels of mycotoxins. Using the most conservative thresholds across FDA guidance levels and Penn State Extension recommendations for dairy cattle, every year a strong majority of the samples tested were below all the thresholds for aflatoxin, vomitoxin, zearalenone, and T2/HT2. Among all the state and crop year combinations with more than 20 samples, the vast majority (122/170) had more than 95% of samples test below the [tolerance thresholds](#) for dairy.



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Second, two practices can take the FUD out of new crop corn silage:

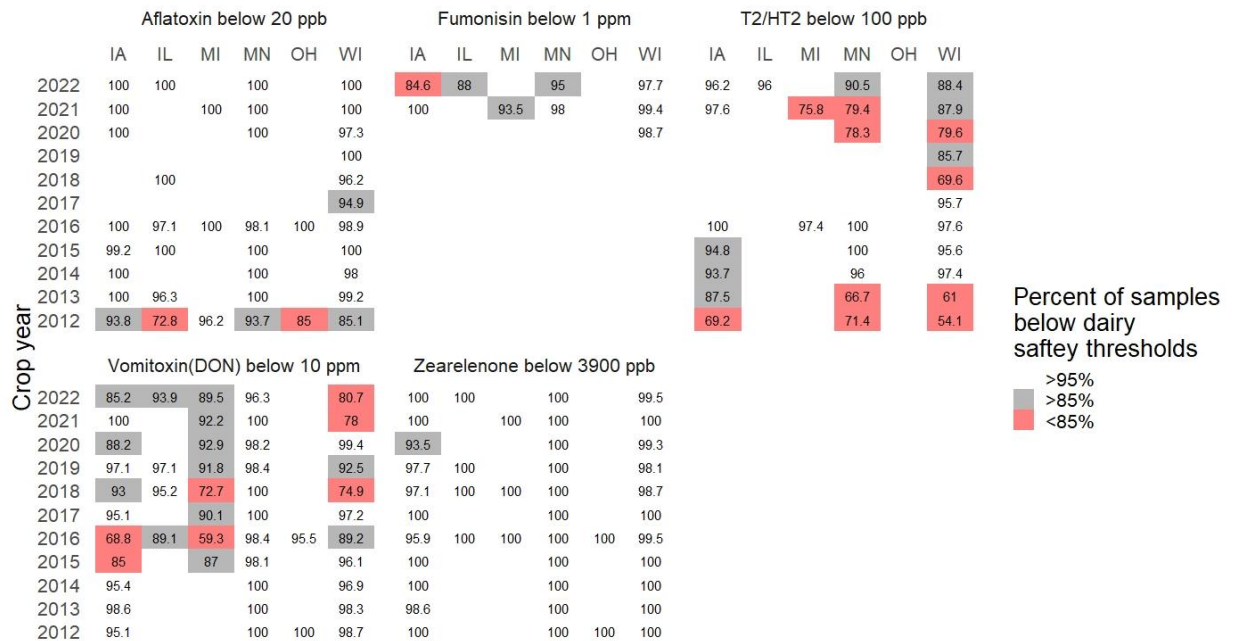
- 1) Average multiple samples before making formulation changes. With such a wide range of drought conditions, even in small geographies, some corn silage piles will be highly variable.

The dairy industry formulates using average nutrient profiles for each ingredient. The accuracy of that average is determined by variability of ingredient and the number of samples used to calculate the average. Once it's in storage, there's not much we can do about the variability of the ingredient, but we do have control over the number of samples we take.

Regardless of the size of a pile or the variability within it, averaging 4 samples will cut the error of your formulation spec in half. Additional sampling has diminishing returns, so don't get carried away. Cutting the error in half again requires 16 samples, and then 64, and so on.

Check out Dairyland's [Lot Management](#) tools to make the task of replicate sampling and multi sample formulation specs easy.

## A decade of mycotoxin testing in corn silage (Minimum 20 samples)



Data source: Dairyland Laboratories Inc.

- 2) Use manure samples before and after a crop change to know “what the cows say” about new crop digestibility. Interpretation of multiple time point NDFDs and IVSDs can be confusing, and they are confounded by variables outside of a lab report like particle size and passage rates. Running fecal starch or apparent digestibility analyses before and after a new crop change can give you direct feedback about the digestibility that cows are experiencing.

In short, uncertainty about new crop quality is a given each year, but most years aren't as unique as they are hyped up to be. Fear and doubt don't need to be a part of the experience with the application of a couple simple strategies.

