

What's more exciting than another time point? Another toxin!

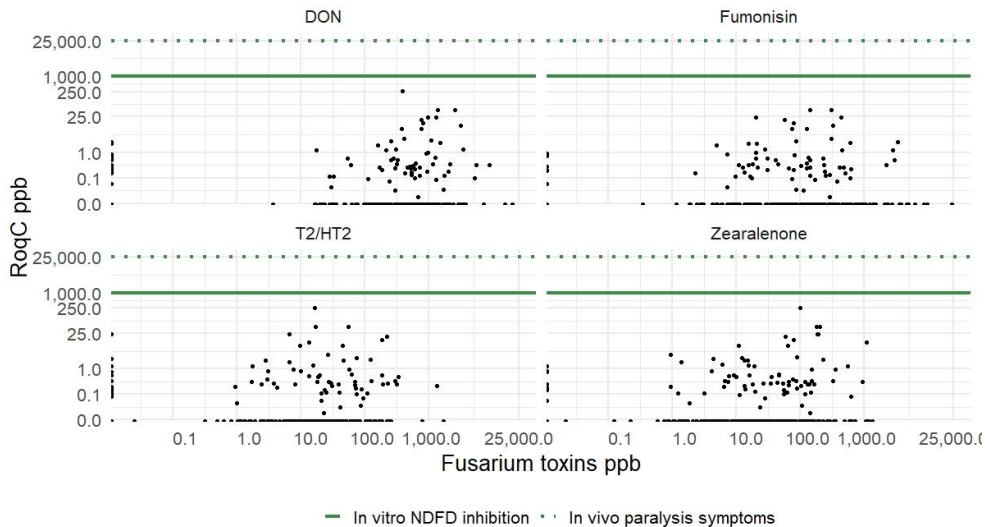
Mycotoxin awareness marketing can be nauseating, and interpreting test results can be nebulous, but hear us out on this one. Roquefortine C (**RoqC**):

- inhibits VFA and gas production in vitro (Gallo et al., 2015)
- reduces NDF digestibility by up to 50% in vitro (A. Gotlieb, unpublished observations)
- produces reversible paralysis symptoms in vivo at 25 ppm (Hägglom, 1990)
- is not detoxified well by rumen microbes; about 50% remains in rumen fluid after 48 hours (Gallo et al., 2015)
- grows post-harvest, even in silages that have undergone good fermentation and pH as low as 4.0 (A. Gotlieb, unpublished observations)
- its parent fungus is present in ~90% of silage samples (Auerbach et al., 1998, Storm et al., 2010)

Since we are using LC-MS/MS for all mycotoxin analyses, adding Roq C to the mycotoxin packages costs you...nothing. We've already added it to all Dairyland mycotoxin packages. In fact, before adding it to the published packages, we tested for it in 300 consecutive samples submitted for mycotoxin analysis. The results were surprising:

- ~25% of samples (79) were positive for RoqC, with most (58%) coming from corn-based ingredients
- 100% of samples positive for RoqC, were also positive for at least one *Fusarium* mycotoxin (DON, Fumonisin, HT-2, T2, or Zearalenone).
- o This **does not** mean that RoqC is caused by *Fusarium* molds. In fact, it is caused by *Penicillium roqueforti* and only 30% of samples containing *Fusarium* mycotoxins also contained RoqC.
- o It **does** suggest that *P. roqueforti* could be caused by a secondary infection following *Fusarium* ear rot.

RoqC is common when fusarium toxins are present
300 samples by LC-MS/MS with stable isotopes



Data Source: Dairyland Laboratories Inc.

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