

Evaluation Tool

For Enteric Methane Mitigation

How the Tool Helps

This tool was developed to assist dairy farmers, their trusted advisors and other stakeholders in the dairy value chain in asking the right questions to evaluate the use of feed additives based on safety, efficacy and their benefits and trade-offs.



How to Use the Tool

Follow these steps to fill out questions on the backside of this sheet regarding safety, efficacy and potential trade-offs and benefits:

1. Answer the questions to the best of your ability and write the corresponding score in the point section.
2. Once you have answered the questions, tally up the total points.
3. Reference the legend in each section to determine if the feed additive meets your required standards for usage.

Tool Results

Gain a deeper understanding of the perceived barriers, benefits and trade-offs that will help the U.S. dairy value chain work together to advance, adopt and bring to market feed additive solutions to reduce enteric methane for the benefit of environmental, economic and social sustainability for farmers and consumers.

Will a feed additive work for you?

For more information, contact Juan Tricarico at:
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Evaluation Tool

Feed Additive: _____

Type of Animal: Lactating Dairy Cow or Heifer (*circle one*)

Dose (*units*) / Frequency: _____

Animal and food safety are not negotiable. Feed additive safety is established on the basis of its composition and intended use. Safe handling is important to supplement manufacturers, farmers and milk processors.

Safety	Points
1. Has FDA reviewed and approved the safety of the intended feeding directions for this feed additive? • Yes = 3 pts (<i>go to question 3</i>) • No = 0 pts (<i>go to question 2</i>)	
2. Has the manufacturer reached a GRAS conclusion for the intended feeding directions for this feed additive? • Yes, a GRAS notification was submitted to FDA = 2 pts • Yes, independent GRAS status conclusion not submitted to FDA = 1 pt • No (<i>minimum requirement on safety not met</i>) = 0 pts	
3. Does the feed additive label provide/include instructions for: • Safe handling = 1 pt • Storage conditions = 1 pt • Cautions and/or warnings for use = 1 pt	
Total Points (0-6)	

Legend
5-6 points = High confidence in the safety for this use of the feed additive.
4 points = Moderate confidence in the safety for this use of the feed additive (<i>consult your veterinarian</i>).
1-3 points = Limited confidence in the safety for this use of the feed additive (<i>consult your veterinarian</i>).
0 points = Minimum requirement on safety not met.

Confidence in mitigation efficacy depends on the collective body of evidence. All study types play a role in establishing mitigation efficacy and the dose-response relationship.

Efficacy	Points
1. Is there publicly available evidence supporting the stated enteric methane reduction amount of the intended feeding directions for this feed additive? • Yes = 1 pt • No (<i>minimum requirement on mitigation efficacy not met</i>) = 0 pts	
2. What level of evidence is available for supporting the stated enteric methane reduction amount of the intended feeding directions for this feed additive? (<i>assign point credit for all that apply</i>) • Meta-analysis = 1 pt • Randomized controlled trials (RCT) = 1 pt • In-vitro laboratory studies = 1 pt • Commercial field trials = 1 pt	
Total Points (0-5)	

Legend
5 points = High confidence in the estimate of enteric methane mitigation from this use of the feed additive.
3-4 points = Moderate confidence in the estimate of enteric methane mitigation from this use of the feed additive.
1-2 points = Limited confidence in the estimate of enteric methane mitigation from this use of the feed additive.
0 points = Minimum requirement on mitigation efficacy not met.

Positive return on investment (ROI) is an economic priority for dairy farms. Ideally, the use of a feed additive would not have undesirable impacts on milk production and composition, milk flavor and aroma attributes or reproductive health.

Trade-offs and Benefits	Points
State the impact on the following when the additive is administered according to its feeding directions:	
Milk volume • Not tested = 0 pts / • Decrease = 0 pts / • Maintain = 1 pt / • Increase = 1 pt	
Milk composition • Not tested = 0 pts / • Decrease = 0 pts / • Maintain = 1 pt / • Increase = 1 pt	
Milk flavor and aroma • Not tested = 0 pts / • Off-flavor or Aroma = 0 pts / • No Change = 1 pt	
Reproductive health • Not tested = 0 pts / • Decrease = 0 pts / • Maintain = 1 pt / • Increase = 1 pt	
Total Points (0-4)	

Legend
4 points = High confidence that this use of the feed additive provides benefits and/or acceptable trade-offs.
2-3 points = Moderate confidence that this use of the feed additive provides benefits and/or acceptable trade-offs (<i>consult your veterinarian and/or nutritionist</i>).
1 point = Limited confidence that this use of the feed additive provides benefits and/or acceptable trade-offs (<i>consult your veterinarian and/or nutritionist</i>).
0 points = Unknown trade-offs and benefits.