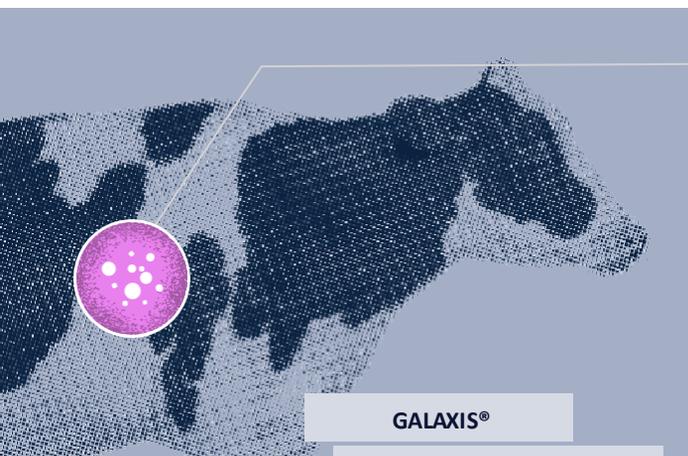


GALAXIS FOUNDATION: Technical Bulletin



Galaxis Foundation is comprised of microorganisms originally isolated from the rumen of dairy cattle and developed to support rumen fermentation and cow performance. The effects of these rumen-native microbes have been evaluated in multiple independent academic trials conducted across leading dairy research institutions in the United States.



GALAXIS®
Live, rumen-native microbes



***Pichia kudriavzevii* (DY21)**

Deploys enzymes that support fiber degradation and fermentation efficiency.



***Clostridium beijerinckii* (DY20)**

Ferments carbohydrates to volatile fatty acids that support rumen energy metabolism.

Performance responses observed in peer-reviewed research

Results summarized from four independent, controlled academic trials evaluating Galaxis™ Foundation microbial supplementation in dairy cows (n = 164).

	Control	Galaxis	Improvement	Trt	Trt*Time
Milk Yield (lbs)	81.41 ± 1.25	82.79 ± 1.24	+1.38 lbs.	0.47	0.51
ECM (lbs)	81.38 ± 1.3	83.8 ± 1.3	+2.42 lbs.	0.13	0.02
Dry Matter Intake (lbs)	51.62 ± 0.63	51.6 ± 0.65	-0.02 lbs.	0.56	0.95
Feed Efficiency	1.61 ± 0.02	1.66 ± 0.02	+0.05 pts.	0.32	0.24
Fat (%)	3.52 ± 0.06	3.59 ± 0.06	+0.07 pts.	0.96	0.78
Protein (%)	3.02 ± 0.02	3.03 ± 0.02	+0.01 pts.	0.48	0.80



Dr. Jose Santos
Marinho, M. Nehme, et al. "Dietary supplementation of rumen native microbes improves lactation performance and feed efficiency in dairy cows." *Journal of Dairy Science* 107.10 (2024): 7918-7931.



Dr. Jim Drackley
Dickerson, A. M., et al. "Feeding native rumen microbial supplements increases energy-corrected milk production and feed efficiency by Holstein cows." *JDS communications* 3.4 (2022): 239-244.



Dr. Lance Baumgard
Goetz, B. M., et al. "Effects of dietary microbial feed supplement on production efficacy in lactating dairy cows." *JDS communications* 2.3 (2021): 118-122.



Dr. Alfonso Lago
Valdecabres, Ainhoa, et al. "Effects of rumen-native microbial feed supplementation on milk yield, composition, and feed efficiency in lactating dairy cows." *Journal of Animal Science* 100.10 (2022): skac275.

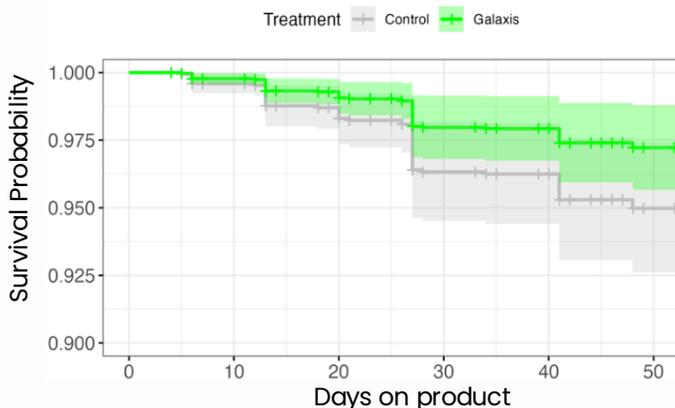


GALAXIS FOUNDATION: COMMERCIAL VALIDATION

Section 1. Effects on culling risk and survivability

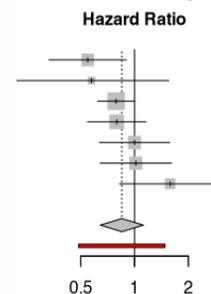
Cull rates were measured across commercial trials tracking individual cows through their lactation. The survival chart (right) shows results from Galaxis Trial 7, comparing the proportion of cows culled (sold or died) in the treatment vs. control groups.

A Random-Effects meta-analysis of 7 independent commercial trials found that cull risk was numerically lower in Galaxis-fed cows across trials (hazard ratio <1).



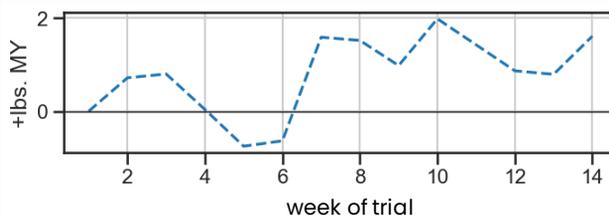
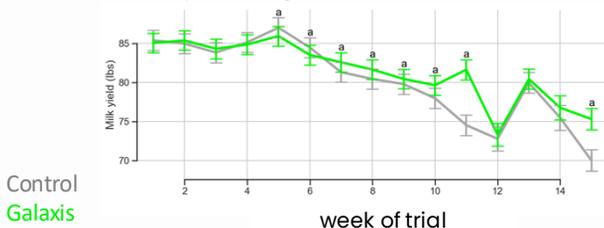
Event Code	Weeks on product	State	Breed	Culling reduction	Avg group size
Galaxis Trial 5	8	CA	Holstein	45%	1900
Galaxis Trial 7	8	CO	Holstein	43%	750
Galaxis Trial 6	14	CA	Holstein	21%	1250
Galaxis Trial 2	12	CA	Holstein	20%	900
Galaxis Trial 4	14	CA	Holstein	0%	1500
Galaxis Trial 3	14	CA	Holstein	-2%	1500
Galaxis Trial 1	22	CA	Holstein	-58%	215
13 weeks				15%	
				(p = 0.1903)	

Hazard ratio <1 indicates reduced culling risk.



Section 2. Production Performance

7 independent commercial trial sites across 9,108 cows (4,213 Galaxis vs. 4,895 Control)
Data analyzed using mixed-effects models accounting for trial site, lactation, starting DIM, and week of trial



	Control	Galaxis	Improvement	Trt	Trt*Time
Milk yield (lbs)	81.08 ± 0.68	82.34 ± 0.67	+1.26 lbs	0.24	<0.01
Energy Corrected Milk (lbs)	99.26 ± 3.6	101.48 ± 3.58	+ 2.22 lbs	<0.01	<0.01
Fat %	3.8 ± 0.02	3.82 ± 0.02	+ 0.02 pts	<0.01	<0.01