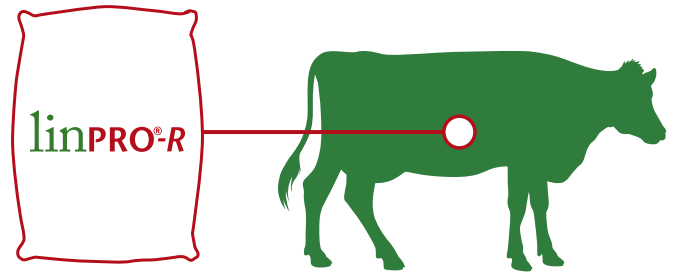


linPRO[®]-R

A ready-to-use protected fat source, rich in Omega-3's and made from land-based ingredients. With a shelf life of greater than 14 months, it supports better health, reproduction and milk production.



The Benefits of linPRO-R

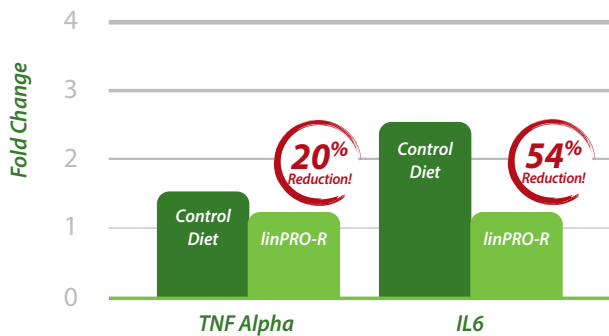
- ✓ **Supports Reproductive Success**
 - Improved Pregnancy Rates
- ✓ **Optimize production performance**
 - Improved milk yield
 - Improved feed efficiency
 - Maintenance of milk components
 - Improved milk quality (SCC)
- ✓ **Supports animal health**
 - Anti-inflammatory properties
 - Reduced incidence of clinical mastitis
 - Reduced involuntary culls
- ✓ **Economic Return on Investment**

How linPRO-R Works

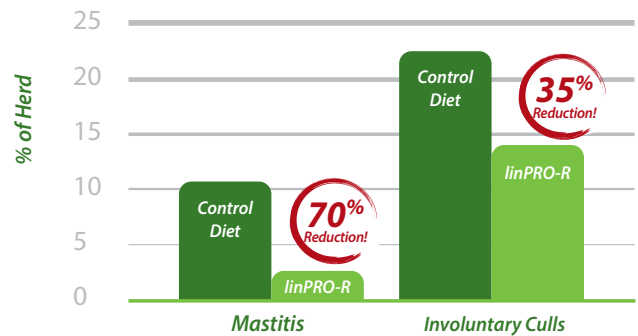
Nutritionally Better OMEGA-3 FEED

- ✓ **linPRO-R is a good source of plant-based Omega-3 fatty acids, energy and essential amino acids that support overall animal health and production.**
- ✓ **Omega-3 fatty acids support animal health and production by mitigating inflammatory responses in the animal that may lead to clinical disease such as mastitis.**

Expression of inflammatory cytokines¹
(Penn State data)



Health Events in dairy cattle²
(UC Davis data)



- ✓ **LinPRO-R supplies digestible energy and nutrients to optimize milk production.**

Milk Production and Composition (UC Davis Data³)

LinPRO-R Inclusion into DMR	Milk Yield (lbs/day)	Milk Fat Yield (lbs/day)	Milk Protein Yield (lbs/day)	Milk Lactose Yield (lbs/day)	Somatic Cell Count (x 1000)
Control (0% linPRO-R)	105	3.6	3.0	5.1	132
2.5% linPRO-R (1.5#)	110	3.7	3.1	5.4	81
5.0% linPRO-R (3.0#)	112	3.8	3.2	5.4	100

¹2017 Penn State barn trial on transition cow immune function response. <https://etda.libraries.psu.edu/catalog/13706mef5319>

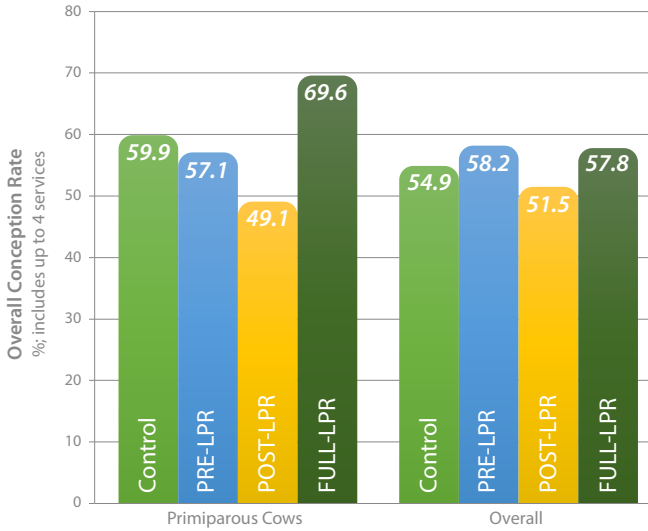
²2017 on-farm trial done in collaboration with the University of California, Davis

³2017 on-farm trial done in collaboration with the University of California, Davis



How linPRO-R Works *(continued)*

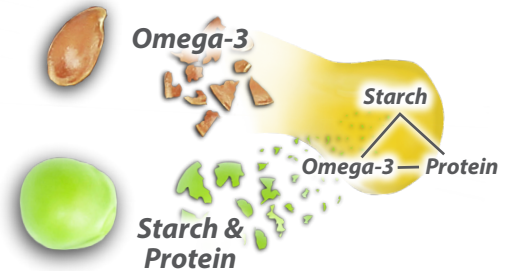
- ✔ **Omega-3 fatty acids and lignans support folliculogenesis prior to breeding and improve the uterine environment helping optimize reproductive performance in high producing dairy herds.**



"PRE-LPR" is "LinPRO-R 3 weeks pre-calving"
 "Post-LPR" is "LinPRO-R 3 weeks post-calving"
 "FULL-LPR" is "LinPRO-R full transition period"

Manufactured with Purpose

- ✔ **O&T Farms' dry extrusion process improves the nutritional value of flaxseed by stabilizing the oils and improving the digestibility of nutrients.**
- The whole flaxseed is extruded simultaneously with natural absorbent starch protein ingredient.



- The formation of a protein-fat matrix provides protection of the polyunsaturated Omega-3 fatty acids from biohydrogenation within the rumen while also improving the RUP value of the feed.

- ✔ **The result is a stable, digestible source of dietary Omega-3 fatty acids and amino acids.**

- ✔ **linPRO-R provides economic benefits to producers through improved production efficiencies, reduced reproductive costs, reduced treatment costs, and increased revenue from voluntary culling.**

≥ 1:2

COST : BENEFIT

Based on average industry costs of production and feeding during the transition period

\$\$\$\$\$: \$\$\$\$\$\$\$\$\$\$\$\$

Why It Matters

- ✔ **Supporting the immunological and physiological needs of dairy cattle will naturally lead to improved production efficiencies.**
- ✔ **linPRO-R provides an easy to use and economically beneficial solution that provides the nutrients dairy cattle need for better health, improved reproductive performance and optimal milk production performance.**

Based on the extensive university and commercial research, feeding linPRO-R at a rate of 2.5% DM 3 weeks pre- and 3 weeks postpartum is the most effective strategy for achieving optimal reproductive performance and peak milk production.

Research Summary List

- Ott, T. Fetter, M. 2017. Influence of Dietary Inclusion of linPRO-R on Immune Function in Post-partum Holstein Dairy Cattle. Unpublished Oleet Processing Project Number OT15_2.
- Ott, T. and Gambonini, F. 2019. Influence of Dietary Inclusion of linPRO-R on Immune Function in Post-partum Holstein Dairy Cattle. Unpublished Oleet Processing Project Number OT16_9.

- Robinson, P., Swanepoel, N. 2017. Commercial trial: Influence of dietary inclusion of linPRO-R on animal health, performance and conception rates in early-lactating dairy cattle, and the subsequent economic impact. Unpublished. Oleet Processing Project Number OT16_13.
- Robinson, P., Swanepoel, N. 2018. Influence of dietary inclusion of linPRO-R on animal health, performance and conception rates in mid- late lactating dairy cattle, and the subsequent economic impact Unpublished. Oleet Processing Project Number OT17_11.