

Repro FAQs

Q: Why are essential fatty acids (EFAs) important?

A: EFAs, specifically Omega-3 (linolenic) and Omega-6 (linoleic) acids serve a variety of critical functions that directly influence reproduction. They have three key functions:

- **Aid in the production of specific reproductive hormones**, especially progesterone. Higher concentrations result in stronger heat signs, and improved heat detection, conception rates and pregnancy maintenance.
- **Aid in the production of prostaglandins (eicosanoids)**. These cause ovulation and a subsequent estrous cycle. In addition, they enhance visible signs of heat and increase blood flow to the ovaries to promote follicle growth.
- **Promote cell wall integrity**.

Since cows cannot produce EFAs naturally, they must be supplied through the ration. While several feed sources, like cottonseed and soybean hulls, contain EFAs, they are often altered in the rumen through biohydrogenation, making them almost useless for reproductive function. Providing a rumen bypass source of both Omega-3 and Omega-6 EFAs is critical for peak reproductive success.

Q: At what level should essential fatty acids be fed to support reproductive performance?

A: Arm & Hammer Animal Nutrition has completed extensive research focusing on fatty acids and reproduction. Trials were set up on four large, well-managed dairy herds across the United States. With over 5,000 cows and more than 14,000 breedings analyzed, the research determined just how effective essential fatty acids were at improving reproductive performance.

Cows were fed varying levels of MEGALAC®-R Omega-3 and Omega-6 Essential Fatty Acids in place of other fat sources, including regular MEGALAC® Rumen Bypass Fat, from the transition group through three cycles past the voluntary waiting period. When fed at the recommended daily level of .25 lbs. precalving, .75 lbs. postcalving and 1 lb. through three heat cycles past the voluntary waiting period, the MEGALAC-R group improved cumulative pregnancies by up to 19%.

Q: Does production level affect response to EFAs?

A: Mature cows fed at recommended levels outperformed older cows fed at lower rates. However, first lactation cows responded better than mature cows when fed at the lower, ½ lb. rate. This demonstrates that higher-producing, mature cows require more EFAs to optimize reproductive performance.

Q: Has on-farm research been completed to identify the effectiveness of EFAs?

A: Multiple on-farm trials have been completed to further confirm the effectiveness of EFAs on reproductive success. A study completed on a large commercial dairy in Arizona¹ concluded cows fed MEGALAC-R three weeks prepartum through the 60-day voluntary waiting period:

- **Resumed cyclicity** and showed more ovarian activity sooner postpartum.
- **Experienced fewer metabolic disorders postpartum**, including clinical and subclinical endometritis.
- **Improved all reproduction statistics**, including days to first service, services per conception and days open.
- **Were confirmed pregnant sooner:**
 - ◆ 70% of the treatment group were confirmed pregnant by 175 DIM.
 - ◆ Only 40% of the control group were called pregnant at this time.
- **Returned additional profits** from more pregnancies, improved uterine health and fewer metabolic disorders.

Q: What does all of this mean to my income over feed costs?

A: Whenever a ration change results in cows becoming pregnant sooner, dairy operations can see multiple benefits that will improve income over feed cost:

1. Cows are bred back earlier in lactation, which means they will spend fewer days producing low levels of milk in late lactation.
2. Lower cull rates. Poor reproductive performance is a leading cause of cows leaving the herd early.
3. Fewer replacements are needed. When cull rates are low, fewer heifers are needed to maintain cow numbers.
4. Reduced incidence of displaced abomasums, retained placentas and metritis.



MEGALAC®-R
MEGA REPRODUCTION

