

# BUILD A BETTER HEIFER



## THE CRITICAL FIRST 21 DAYS

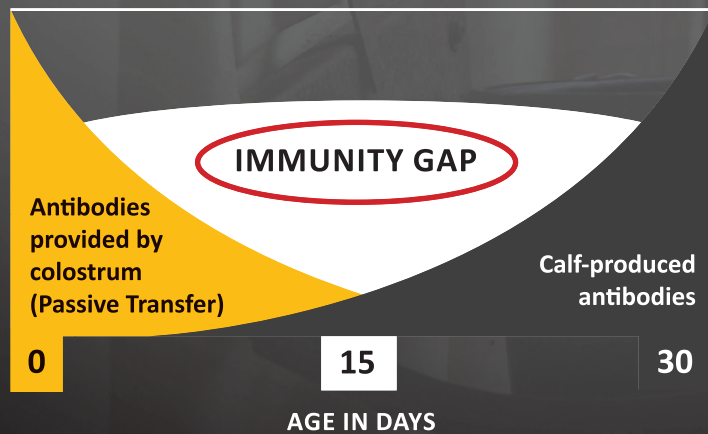
### What are the CHALLENGES during the first 3 weeks of a calf's life?

A calf must rely on antibodies provided from colostrum replacer or maternal colostrum until its own immune system is developed at 1-2 months of age. With half-life of colostrum antibodies approximately 16 days and a calf's immune system not fully developed yet, the calf is vulnerable during this time to pathogens that cause digestive and respiratory disease. Therefore, the greatest incidence of illnesses and the highest mortality risk exists in the first 21 days of life.

### What is the SOLUTION?

Providing a calf with globulin proteins from multiple sources, functional proteins, and beneficial microflora which support immune development and optimize gastro-intestinal mucosal development. Globulin proteins also protect the calf from disease causing pathogens. Protecting calves from health challenges during this time not only has short-term benefits, but also enhances the lifetime productive and reproductive performance of your herd replacements.

**FIRST 21** is a unique combination of bioactive feed ingredients designed specifically to assist in bridging this critical immunity gap. Available as a complete milk replacer or as a nutritional supplement to be added to pasteurized waste milk or milk replacer.



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## THE CRITICAL FIRST 21 DAYS

### BENEFITS OF FEEDING IgGS BEYOND DAY 1

Research indicates the following results when feeding colostrum or colostrum replacer after day one<sup>1</sup>:

- Improved digestive system development*
- Increased immunity*
- Lower disease incidence*
- Improved growth*
- Fewer antibiotic treatment*

### BENEFITS OF FEEDING PLASMA

Research data compiled from a total of 32 peer-reviewed published journal articles indicates the following results when feeding plasma:

- Increased ADG*
- Reduction in Scours*
- Promotes starter intake*
- Fewer antibiotic treatment*

### BENEFITS OF EGG YOLK ANTIBODIES (IGY)

Donor laying hens are immunized for major calf diseases and shed the antibodies in their eggs making a wholesome and natural antibody source. It contains essential nutrients for a diet and it is extremely rich in immunoglobulins. Immunoglobulins from eggs yolks have a molecular strength that results in strong binding capacity to pathogens.



### BENEFITS OF DIRECT FED MICROBIALS

Research results indicate the following benefits when feeding direct-fed microbials:

- Improved gut health by establishing microbial populations which crowd out pathogens*
- Reduction in scours*
- Improved feed utilization*



## FIRST 21

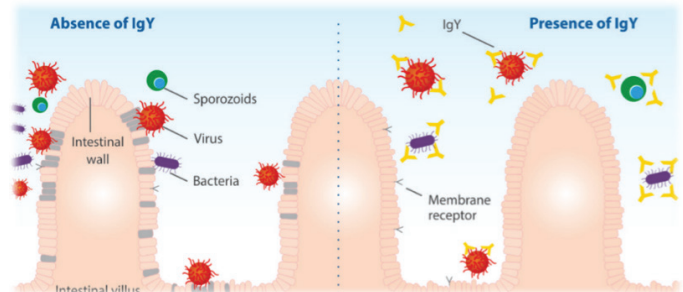
A nutritional supplement added to pasteurized waste milk or milk replacer. Feed to pre-weaned calves continuously, twice a day for 2 to 3 weeks.

### FIRST 21-C

Complete Milk Replacer, 24-20 APL DFM  
50 lb. Bag

### FIRST 21-S

Supplement to be added to pasteurized waste milk or milk replacer  
20 lb. Pail



1. IgY occupies attachment sites on pathogens
2. IgY binds bacteria and viruses in the gut
3. Blocked pathogens cannot bind to epithelium
4. Tagged pathogens are 'cleared' for excretion

<sup>1</sup> Mike Van Amburgh and Fernando Soberon - Presented at Calf Discover Conference, 2012, Itasca, IL  
<sup>2</sup> EW Nutrition Literature, Des Moines, IA  
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