

A UNIQUE APPROACH

Since 1943, Diamond V has been leading the industry in microbial-based fermentation research and technology innovation. The bioactive components in Diamond V Original products are produced using our proprietary anaerobic fermentation technology of *Saccharomyces cerevisiae*. This closely guarded fermentation process produces unique metabolites that provide beneficial health effects and cannot be replicated outside of Diamond V.

WHAT ARE THE KEY BENEFITS?

Research has shown that feeding Diamond V Original products benefits the cow and calf by supporting:

- Forage Digestibility
- Milk Production
- Cow Body Condition
- Calf Weight Gain
- Colostrum Quality
- Calf Immunity



COMMITMENT TO YOU

All Diamond V products are manufactured in a state-of-the-art food-grade facility located in the U.S.A. Our manufacturing standards meet all current Good Manufacturing Practice (GMP) guidelines to assure consistent product quality and reliability with traceability.

We stand behind our products for your peace of mind and we invite you to learn more about the benefits Diamond V products deliver.



Get the real facts, benefits and proof that Diamond V delivers at diamondv.com

If you would like more information, please contact your local Diamond V representative.

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MADE IN THE USA

BR_BF002_0413



**Productive Cows
Healthy Calves**



WHAT IS DIAMOND V ORIGINAL XPC™?

Original XPC is an all-natural fermentation-based feed additive used in all classes of ruminant diets. It is not a single compound, but rather a fermentation product composed of numerous beneficial metabolites together with beta glucans and mannans to support animal health and performance.

Fermentation Metabolites

- Proteins
- Peptides
- Antioxidants
- Phytosterols
- Organic Acids
- Nucleotides



Residual Yeast Cells and Yeast Cell Fragments

Source of:

- Mannan-Oligosaccharides (MOS)
- Beta Glucans

How does it work?

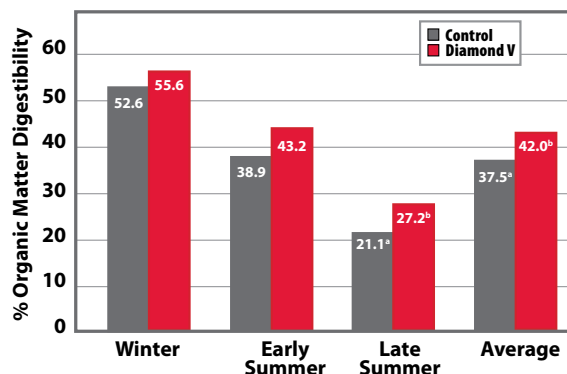
The unique metabolites in Original XPC **support robust digestive health** by balancing rumen microbiota and optimizing the rumen environment. The prebiotic-like activity helps promote a healthy balance of bacteria in the rumen and optimize rumen function. Improved rumen health translates into better performing cows and calves that are more capable of reaching their genetic potential.

RESEARCH STUDIES:

Optimize Rumen Performance

Nurturing rumen microbial populations requires only a small investment in Original XPC. As populations of rumen microbes flourish, grasses and other forages are more efficiently broken down in the rumen for higher fiber digestibility. More nutrients (energy, protein, minerals, etc.) become available for the animal's growth, production, and health.

Effect of Diamond V on Forage Digestibility



^{a,b} Treatment difference at $P < 0.05$
Kobs and Boyles, 2002.

The resulting flourishing microbial populations more fully convert feedstuffs to nutrients, and thereby, help cows produce the milk needed to support their calves' growth and health.

Effect of Diamond V on Grazing Beef Cow Performance

Item	Control	Diamond V	Difference
Milk Production, lb (kg)			
3 Year Average for 120 d milk	10.1 ^a (4.6)	13.0 ^b (5.9)	+2.9 (1.3)
Calf Weaning Weight, lb (kg)			
3 Year Average	394.0 (178.7)	407.2 (184.7)	+13.2 (6.0)

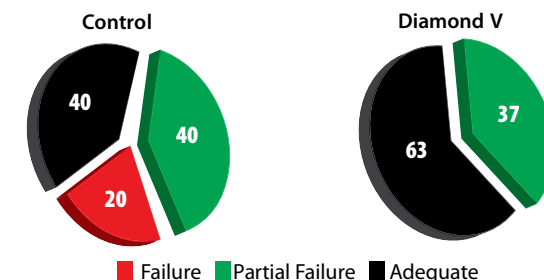
^{a,b}Treatment difference at $P < 0.01$
Kobs and Boyles, 2002.

Supports Overall Health

Calves that do not receive adequate, high-quality colostrum shortly after birth typically have lower serum immunoglobulin levels. This is often referred to as "Failure of Passive Transfer", where adequate transfer of antibodies did not occur from the cow to calf. When this occurs, calves are much more susceptible to disease challenges, including scours.

Wittum and Perino (1995) of the U.S. Meat Animal Research Center showed that among 263 crossbred beef calves studied, calves with the lowest serum immunoglobulin levels were 5.4 times more likely to die before weaning and 3.2 times more likely to suffer from disease. Thus, it is easy to see the importance of reducing the incidence of failure of passive transfer. The graph below depicts the effects of providing Original XPC 60 days prior to calving on failure of passive transfer in calves.

Effect of Diamond V on Passive Transfer of Immunoglobulins from Cows to Calves



Kinal et al., 2007.

RECOMMENDED FEEDING RATES

Original XPC should be formulated to provide 0.25 oz (7g) per head per day to all breeding beef animals and may be incorporated into:

- Mineral
- Blocks
- Tubs
- Liquid Feeds/Supplements
- Dry Feeds/Supplements