



BENELAC[®] YC FACTS

- Formulated without carrier for greater concentration of yeast cells, enzymes, peptides, nucleotides and secreted growth factors.
- Improves rumen stability and efficiency.
- Significantly lower cost than other yeast cultures on the market.

► Product Description:

Benelac YC is a 100% *Saccharomyces cerevisiae* yeast culture. The yeast cells and media on which the yeast is grown are harvested and dried directly, *without the addition of any carrier*. This means that all of the intrinsic and secreted growth factors, enzymes, peptides, nucleotides, and other factors are present at much higher levels than in other yeast cultures.

► Modes of Action:

Yeast culture is widely recognized and documented as having rumen modifying effects. Though the exact mechanisms have never been fully explained, it is presumed that the nucleotides and amino acids provide readily available nutrient sources for rumen microbes.

This is generally observed as an increase in ruminal microbial efficiency, conversion of feed nutrients into microbial protein, and increase in the number of lactic acid utilizing bacteria. Other factors (growth factors and enzymes) may have stimulatory effects on the rumen microbes. The sum of this activity is a more stable rumen, with higher pH and more nutrients available for the cow to meet her requirements for health and production.

► Research:

Recent research shows that Benelac YC can be an effective feed supplement to aid in improving rumen health, yield of milk and solids as well as overall profitability of dairy herds. In Figure 1, Benelac YC improved microbial biomass production by nearly 13% over the positive controls. In this same rumen fermenter study, VFA production was also about 22% higher than both the positive and negative controls ($P < 0.05$). In this same rumen fermenter study, VFA production was also about 22% higher than both the positive and negative controls ($P < 0.05$). Figures 2 and 3 show milk production and feed efficiency improvements. With a significantly lower cost than many yeast cultures on the market, Benelac YC can be a cost-effective alternative for improving your herds' bottom line.

Figure 1. Microbial Biomass Production

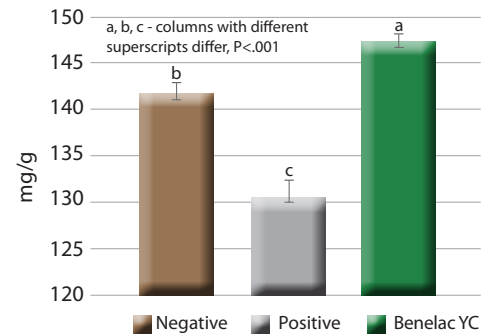


Figure 2. Milk Production, ECM and FCM

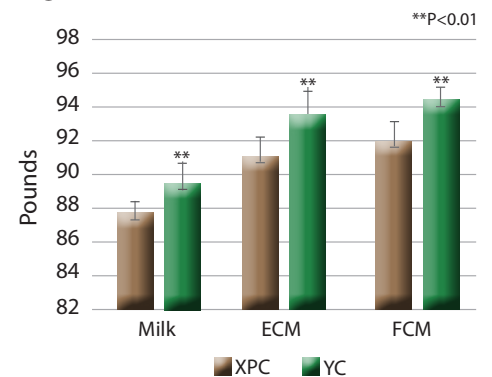
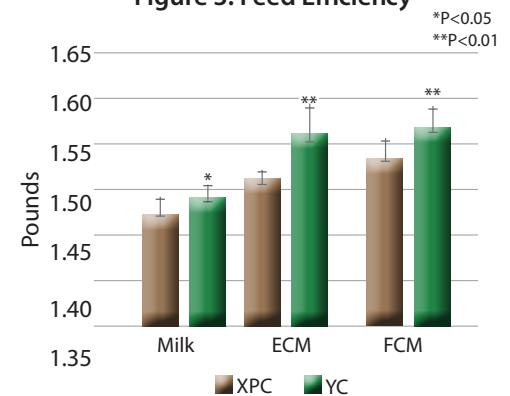
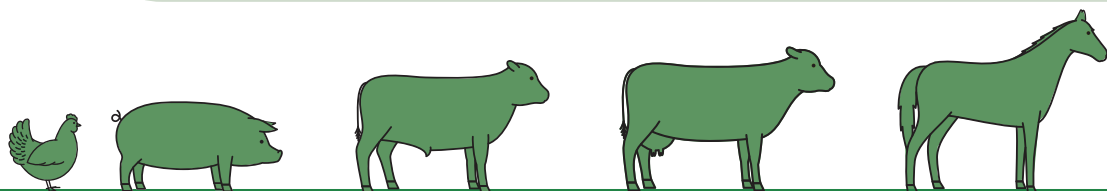


Figure 3. Feed Efficiency



You know the benefits of yeast, now see how Benelac YC can improve profitability in your herds. **Visit naturalbiologics.com today.**





**natural
biologics®**
solutions by nature

BENELAC® YC



► **Product Description:**

Benelac YC is an all-natural *Saccharomyces cerevisiae* yeast culture. It is an excellent source of amino acids, nucleotides, enzymes, MOS and beta glucan which can be used in all animal diets. The active compounds have well-established benefits for animal health and productivity.

► **Ingredient Composition:**

Saccharomyces cerevisiae yeast culture

► **Purpose:** Benelac YC is to be used as a supplement to complete diets for all classes of livestock, poultry, swine and companion animals.

► **Feeding Directions:**

To be included in complete diets according to the general guidelines at right, or as recommended by a qualified nutritionist.

Typical Analysis: See chart at right.

Density: 31 - 34 lb/cu Ft

Appearance: Light brown, free-flowing powder

Packaging: 55.1 lb (25 kg) bags or 2000 lb totes

Shelf Life: Two years from date of manufacture when stored in a cool, dry place in the original package.

Precautions: Use only as directed. Avoid inhalation of dust.

► **Suggested Feeding Directions:**

To be included in complete diets for lactating dairy cattle at 7g/head/day or as recommended by a qualified nutritionist.

Cattle

Dairy 7 g/hd/day
Beef 4 g/hd/day

Swine

Starters 1.25 kg/MT
Grow/Finish 1.25 kg/MT
Gest./Lact. 0.63 kg/MT

Poultry

All phases 0.5-0.75 kg/MT

Horses

Foals 2 g/hd/day
All others 7 g/hd/day

| Guaranteed Analysis: | | |
|----------------------|---------------|-----|
| Crude Protein | not less than | 35% |
| Moisture Max | not more than | 12% |

| Typical Analysis: | | |
|-------------------|---------------|-------|
| Crude Protein | not less than | 41.0% |
| Moisture | not more than | 8.0% |
| Ash | not more than | 4.0% |
| Fat | not more than | 5.0% |
| Crude Fiber | not more than | 7.0% |

Microbiological Analysis

| | |
|---------------------------|---------|
| Total Plate Count (CFU/g) | <15,000 |
| Total Coliforms (MPN/g) | <10 |
| Fecal Coliforms (MPN/g) | Absent |
| Yeast (CFU/g) | <100 |
| Mold (CFU/g) | <100 |
| Salmonella (CFU/25g) | Absent |
| E. coli (CFU/25g) | Absent |

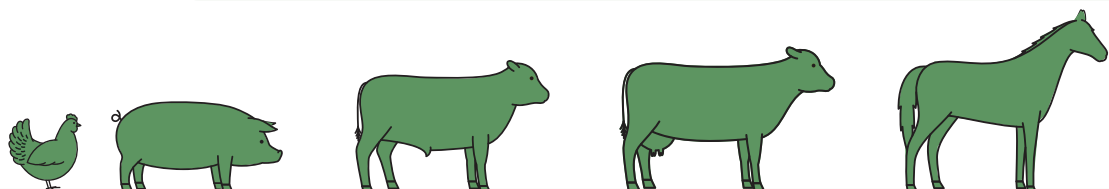
Amino Acids:

| | |
|---------------|-------|
| Aspartic Acid | 2.65% |
| Glutamic Acid | 5.67% |
| Alanine | 2.44% |
| Arginine | 1.49% |
| Cystine | 0.47% |
| Phenylalanine | 2.09% |
| Glycine | 1.36% |
| Histidine | 1.06% |
| Isoleucine | 0.54% |
| Leucine | 2.88% |
| Lysine | 2.30% |
| Methionine | 0.50% |
| Proline | 2.75% |
| Serine | 2.35% |
| Tyrosine | 1.13% |
| Threonine | 1.34% |
| Tryptophan | 2.19% |
| Valine | 1.79% |

Benelac YC, your cost-effective yeast option.

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