DIRECT FED MICROBIAL (DFM)

Micro-encapsulation | Time-released | Bovine host-specific

Last Updated | May 2010

www.performanceprobiotics.com | 1800 118 872

Benefits the whole digestive tract.

- Convenient — Direct Fed Microbials, yeast culture and enzymes, all in one package
- All natural ‘host specific’ bovine bacteria
- Eliminates harmful bacteria in the cows’ rumen
- A balanced rumen pH for more efficient feed utilization and increased fiber digestion
- Keeps cow’s rumen at optimum efficiency and balance
- Better feed utilization for increases in weight and milk production
- Consistently higher body condition scores
- Improves fertility and cleaner fertility tracts
- Helps maintain appetite during adverse conditions
- Easy to use powder or pellets for everyday use
- All-in-one product at a very affordable price.

Contains a source of live (viable) naturally occurring microorganisms and alpha amylase which can hydrolyze starch; hemicellulase which can break down hemicellulose and beta glucanase which can hydrolyze B-glucans, a type of non-starch polysaccharide.

GUARANTEED DFM ANALYSIS ............................................... 660’000’000 CFUs per gram
(Lactobacillus acidophilus, Bifidobacterium thermophilum, Bifidobacterium longum, Enterococcus faecium, Bacillus subtilis)

DFM ENZYME ANALYSIS

<table>
<thead>
<tr>
<th>Enzyme</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alpha Amylase</td>
<td>105,468 mg of starch hydrolyzed/minute/oz 132,000 **BAU/kg</td>
</tr>
<tr>
<td>Hemicellulase</td>
<td>281 mg of hemicellulose broken down/minute/oz 8,800 **HCU/kg</td>
</tr>
<tr>
<td>Beta-Glucanase</td>
<td>140 mg of B-glucans (a type of non-starch polysaccharide) hydrolyzed/minute/oz 9000 **BGU/kg</td>
</tr>
</tbody>
</table>

Guaranteed enzymatic activity is based on in vitro studies using a 1:1 mixture of corn and soybeans.

ABBREVIATIONS FOR ENZYME UNITS:
BAU = Bacterial amylase unit | HCU = Hemicellulase unit | BGU = Beta Glucanase unit

YEAST DESCRIPTION

Saccharomyces cerevisiae

DIRECTIONS FOR USE

DAIRY CALVES Daily supplementation in the feed ration.
Microbial Gel Ration 5cc/calf/day on the first or second day of life, at weaning and during periods of illness.
DFM 15-20g/calf/day in daily solids ration.

DAIRY SHOW COWS Daily supplementation in the feed while pre-conditioning show cattle. Daily supplementation throughout the feeding period may be beneficial in certain instances such as adverse environmental conditions, stressful situations or breeding programs.
Ration 20g–50g per head daily / as per nutritional advice

DAIRY CATTLE Daily supplementation in the feed during the close-up dry period, early lactation and lactation period. Daily supplementation throughout the feeding period may be beneficial in certain instances such as adverse environmental conditions, stressful situations or breeding programs.
Ration 20-50g per head daily / as per nutritional advice

BEEF CATTLE Daily supplementation in the feed ration.
Induction ration 30-50g per head daily
Main ration 20-30g per head daily

STORAGE RECOMMENDATIONS
Store PERFORMANCE® DFM Bovine Direct Fed Microbials in a cool dry location.
## MODE OF ACTION FOR DFM COMPONENTS

The following table illustrates the Mode of Action for the individual components of Performance Direct Fed Microbials (DFM’s).

<table>
<thead>
<tr>
<th>MECHANISM</th>
<th>L. acidophilus</th>
<th>B. bifidum / B. longum</th>
<th>B. bifidum / B. thermophilum</th>
<th>E. faecium</th>
<th>B. subtilis</th>
<th>S. cerevisiae</th>
<th>Alpha-amylase</th>
<th>Hemicellulase</th>
<th>Lecgulcanase</th>
<th>BENEFITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Production of antibacterial compounds</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>Inhibits the growth of pathogenic bacteria</td>
</tr>
<tr>
<td>Competition with undesirables for space and/or nutrients</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>Inhibits the growth of pathogenic bacteria, and prevents attachment to intestinal wall</td>
</tr>
<tr>
<td>Production of nutrients such as amino acids and vitamins, which stimulate growth and reproduction of other microorganisms</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
<td>✓</td>
<td>Stimulates the growth and reproduction of beneficial micro-organisms, improving feed digestion and energy available to the cow</td>
</tr>
<tr>
<td>Production and/or stimulation of enzymes</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>Stimulates the growth and reproduction of beneficial micro-organisms, improving feed digestion and energy available to the cow</td>
</tr>
<tr>
<td>Breakdown and/or detoxification of undesirable compounds</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>Inhibits the growth of pathogenic bacteria, and helps remove undesirable compounds from the gut of the cow</td>
</tr>
<tr>
<td>Stimulation of the immune system</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>Increases immune activity and reduces the incidence of illness and metabolic disorders</td>
</tr>
</tbody>
</table>