FEED ADDITIVES

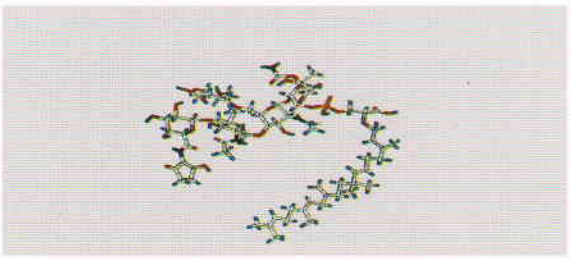
Flavomycin®

(Flavophospholipol 4%, 8%)

INTRODUCTION

Flavomycin® contains Flavophospholipol, the active ingredient, which maintains the natural balance of the bacterial flora of the digestive tract and facilitates the absorption of nutrients from feed. It is not a therapeutic agent and is not absorbed from the intestine. Recommended as a feed additive in poultry, aqua, cattle, pigs and rabbits for performance improvement and better utilization of nutrient in the feed.

ATTAIN BETTER BIO-AVAILABILITY OF NUTRIENTS IN FEED THROUGH IDEAL MICROFLORA MANAGEMENT WITH **Flavomycin®**.



European Pharmacopoeia Quality

HUVEPHARMA®
We add performance to your business

MODE OF ACTION

Flavomycin® intervenes in the biosynthesis of murein, the structural substance of the bacterial cell wall, resulting in the bursting of the bacterial cell. Animal cells have no comparable structure in their cell wall which would be vulnerable. This results in the extraordinary high efficacy and tolerability of Flavomycin® in all animals as compared to other products.

Flavomycin® ACTS IN THREE WAYS...

- Helps in the growth of competing bacteria and increases the availability of energy and protein.
- Maintains the thickness of the intestinal wall and thus increases the absorption of nutrients.
- Ensures a balanced microflora in the intenstine and stabilizes the natural defense system.

WEIGHT GAIN AND FEED CONVERSION

Since its registration, many trials in scientific institutes and on farms have confirmed the efficacy of Flavomycin® and there is no evidence that the improvement in animal performance has decreased over the years.

The performance effects of Flavomycin® in these trials cam be summarized as follows:

- Daily weight gain is improved by 3 to 10%
- Feed efficiency is improved by 3 to 6%

The magnitude of the benefits depends on the species and level of production.

LITTER QUALITY

Flavomycin® improves litter quality. Dry litter has beneficial effect on birds' health as well as results in cleaner birds (helps in less down-grading in processing), cleaner eggs and improved hatchability. These multiple benefits have a direct positive effect on food safety and farm productivity.

Netrotic Enteritis Lession Scores & Mortality

Treatment	Day 21 Lesion Score	Day 27 Lesion Score	Total N.E. Mortality (%)
Control	0.7[a]	0.7[a]	37%[a]
Flavomycin®	0.6[a]	0.3[b]	24%[b]

Means within a column with different letters are significantly different (P<0.05)

ABSORPTION OF NUTRIENTS

It is proven that Flavomycin® leads to reduction in thickness of intestinal wall due to a significant reduction of pathogenic organisms that cause intestinal lesions. Therefore, the form & size of microvilli stay at the optimal level, facilitating the absorption of nutrients, especially micro-nutrients & pigments. In addition to this, Flavomycin® also supports birds in stress conditions.

Effects of Flavomycin® and Bacitracin on the cell wall synthesis

	Concentration of active substance (µg/ml)	Inhibition %
Bacitracin	100	20
Bacitracin	10	0
Flavomycin®	1.0	100
Flavomycin®	0.1	100

MICROFLORA MANAGEMENT

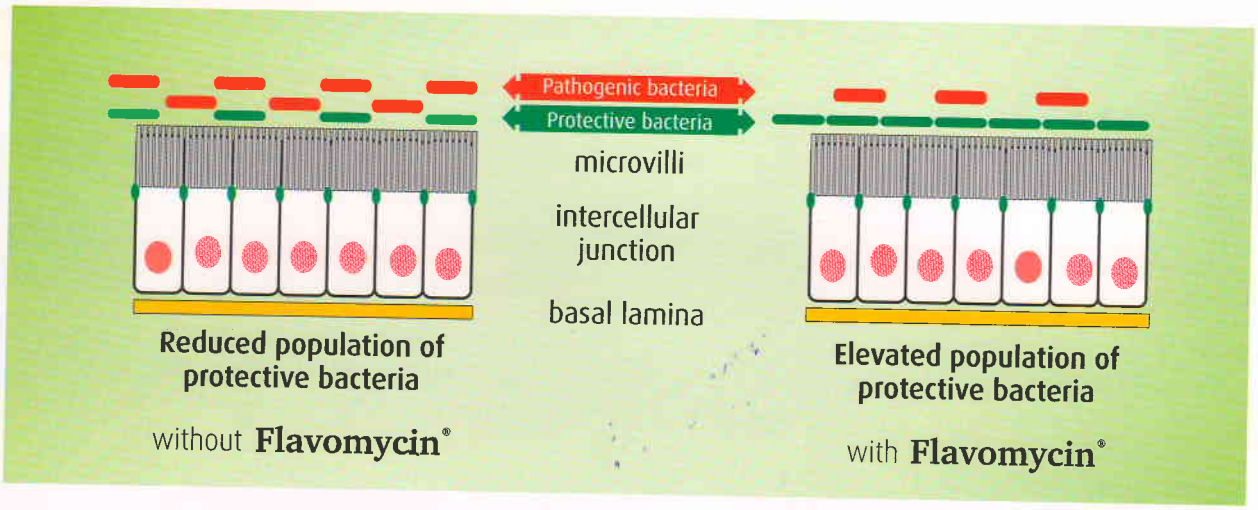
Spectrum of Activity				
Protective Organisms	Flavomycin®	Virginiamycin	Bacitracin	Lincomycin
Lactobacillus	Spares	Kills	Kills	Kills
Strep. faecium	Spares	Kills	Spares	Spares
Bifidobacterium	Spares	Kills	Kills	Kills

THE SPARING EFFECT

The "sparing effect" of Flavomycin® on Lactic Acid Producing Bacteria (LAPB) is maximum. Therefore, Flavomycin® creates gut environment that is very helpful to probiotic bacteria which other antibiotics are not able to do.

COMPETITIVE EXCLUSION

LAPB inhibit pathogenic bacteria like *Salmonella spp., C. perfringens, E. coli, S. auresus* by competitive exclusion, which inhibit the natural intestinal microflora and caused dysentery, necrotic enteritis and other intestinal infections.



INCREASED LACTIC ACID PRODUCTION

Flavomycin® favours colonisation of LAPB leading to maximum Lactic Acid production and a low (acid) pH of 4-5 in the gut. Pathogenic bacteria favour a pH of 6-7.

Antibiotic Suppression of Lactic Acid Production (m.mol/L) in Small Intestine		
Treatment	Initial Conc.	% Conc. after 5 hrs.
Control	40.11[a]	100%
Flavomycin® (2 ppm)	36.16[a]	90.9%
Lincomycin (4 ppm)	22.16[b]	55.2%
Bacitracin (50 ppm)	8.16[c]	20.4%
Virginiamycin (15 ppm)	6.36[c]	15.9%

Means within a column with different letters are significantly different (P<0.05)

Flavomycin®

Antimicrobial growth promoters are added to the feed of agricultural livestock to increase nutritional efficiency. Flavomycin® is a unique product that combines efficacy and food safety benefits.

THE BENEFITS

- Increased weight gain in broilers.
- Higher egg yield in layers / breeders.
- Improves performance of of probiotics.
- No withdrawal period.
- Best results of bio-availability of nutrient in feed.
- Lower mortality due to competitive exclusion of pathogens.
- Reduction in water content of droppings.
- Reduction in *Salmonella* shedding.

Weight Gain 0 to 49 days (gms) in commercial broilers			
Treatment	Male	Female	Average
Control	2,553[a]	2,265[a]	2,409[a]
Flavomycin®	2,676[b]	2,379[b]	2,528[b]
Virginiamycin	2,622[b]	2,316[b]	2,469[b]
Bacitracin	2,601[b]	2,295[b]	2,448[b]

Means within a column with different letters are significantly different (P < 0.05).

THE UNIQUE FEATURES

- Minimizes resistance development among pathogenic bacteria.
- Excellent effect against necrotic enteritis.
- Compatible with all feed additives / medicines.
- Does not get affected during pelletisation of the feed.

PACKAGING

Flavomycin® is available in 25 kg bag.

USAGE

Flavomycin® should be thoroughly mixed in the finished feed of Broilers / Layers / Breeders at the below mentioned rate:

- Flavomycin® 40: Use 100-150 gm per metric ton of finished feed (4-6 ppm of active substance Flavophospholipol)
- Flavomycin® 80: Use 50-75 gm per metric ton of finished feed (4-6 ppm of active substance Flavophospholipol)

Flavomycin® should be given continuously in the feed for better results. It can also be used at 10 ppm level as week a month program in adult birds.

OR AS RECOMMENDED BY THE VETERINARIAN.

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