

RSG GUARDIAN

Soil-derived microbes and metabolites naturally break down the proteins, salts, and other materials found in urine and fecal matter that cause unpleasant odors such as ammonia.

By competitive exclusion, RSG Guardian reduces the pathogen load.

Use in stalls, kennels, show-barns, aviaries or anywhere animals are housed.

What is Competitive Exclusion?

This category is based upon the principal of limiting the available space for pathogenic bacteria to settle because the space is already taken up by beneficial bacteria. This results in less incidence of illness from Salmonella, E. coli, etc.

Competitive exclusion is also attributed with the reduction of morbidity and mortality among other detrimental health factors in Poultry production systems.

- ✓ IMPROVE THE ANIMALS' ENVIRONMENT
- ✓ BREAK DOWN SOLIDS
- ✓ CONTROL ODORS



ACTIVE INGREDIENTS

LIQUID FERMENTATION PRODUCTS OF:

| | |
|-----------------------------------|----------------------------------|
| <i>Arthrobacter globiformis</i> | <i>Enterococcus faecalis</i> |
| <i>Bacillus amyloliquefaciens</i> | <i>Pseudomonas fluorescens</i> |
| <i>Bacillus licheniformis</i> | <i>Pseudomonas putida</i> |
| <i>Bacillus pumilus</i> | <i>Streptomyces griseoflavus</i> |
| <i>Bacillus subtilis</i> | |

Minimum 10 million CFU/ml

THE SCIENCE BEHIND **RSG** **GUARDIAN**



USE THE POWER OF NATURE TO SAFELY
AND QUICKLY IMPROVE CONDITIONS IN
AREAS WHERE LIVESTOCK IS HELD.

| MICROBIAL SPECIES | PROFILE IN THE SOIL ENVIRONMENT | MODE OF ACTION |
|----------------------------------|---|---|
| <i>Anthrobacter globiformis</i> | Persists in the soil environment | Biodegrades diverse types of pollutants. |
| <i>Bacillus species</i> | Resistant to environmental stress; persists for decades | Secretes metabolites that prevent pathogen infection. |
| <i>Pseudomonas species</i> | Adapts to environmental stress | Produces metabolites that act as antibiotics; competes aggressively with other microorganisms. |
| <i>Streptomyces griseoflavus</i> | Persists in the soil environment | Actively produces antibiotics; excellent agents for controlling various fungal & bacterial pathogens. |
| <i>Enterococcus faecalis</i> | Resistant to environmental stress | Produces antimicrobial compounds; acts as probiotic to prevent diarrhea & improve animal health. |

RSG Guardian contains a proprietary blend of several *Bacillus* species. *Bacillus* species are gram positive bacteria, form endospores in the environment, and are resistant to radiation, desiccation, high temperatures, chemical disinfectants, and nutrient stress. This provides a competitive advantage over many gram-negative non-endospore forming bacteria, sensitive to environmental stress, such as: *Escherichia coli*, *Fusobacterium necrophorum*, and *Dichelobacter nodosus*.