How much ammonia is too much?

Producers will be able to smell ammonia levels in their facilities at 20 ppm, and 50 ppm of ammonia will cause burning to the eyes. Ammonia levels of 25 ppm have been shown to depress growth and reduce feed conversion in broilers (Miles et al, 2004). Other problems, including airsacculitis, viral infections and condemnations have been linked to ammonia levels of 25 ppm. Dr. Barker from North Carolina State University states, that recent studies have also indicated that ammonia increases susceptibility to Newcastle disease and decreases feed intake and egg production.

Why will Mistral control ammonia in my facility?

Mistral will absorb the moisture to reduce the development of bacteria, molds and other fungi which are a major cause of disease. Mistral can absorb uric acid before ammonia gas is even produced. In addition, any ammonia gas that is present will also be absorbed. High ammonia levels are the leading cause of respiratory problems in poultry.

Mistral will improve the sanitation of the facility leading to less stress on the bird’s immune system. The application of Mistral will reduce ammonia levels while maintaining profits.

COMPOSITION

- Seaweed concentrates
- Vegetable absorbents
- Mineral absorbents
- Alginates
- Essential oils
- Trace elements

A sanitizing powder that reduces the harmful effects of ammonia, moisture and pathogenic bacteria in housing.
Improved Facility Environment

Litter Temperature (°F)

- Litter Temperature Improvement—
  - Reduces moisture
  - LOWERS litter temperature
  - Keeps facility cooler and drier
  - Reduces feet and leg problems

Ammonia Reduction—
- Improved immune function response
- Absorbs uric acid BEFORE ammonia gas is produced
- Less skin burning
- Fewer respiratory health problems
- Improved handler health

Grounds Management—
- Ventilated air contains less odor
- Improve exterior air quality

Improved Profitability

For Mature Birds— Better hygiene leads to healthier birds and improved economic outcome.

For Chicks— Too much moisture in bedding and high ammonia levels can be harmful to young birds and effect growth rates.

Application— Simple & Effective

Hand Application— Sprinkle around feeders and drinkers to reduce moisture retarding pathogenic bacteria and mold.

Blowing— Blow Mistral on interior surfaces to absorb moisture, reducing pathogen production. Apply after pressure washing or cleaning the facility, and between production cycles.

Dry Food Baths / Dust Bathing— Place in dry pans to encourage dust bathing. Promotes healthy feet, legs and plumage.

Field results - Meat broilers

<table>
<thead>
<tr>
<th></th>
<th>Control group</th>
<th>Mistral</th>
<th>Differences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bedding surface (ft²)</td>
<td>6458</td>
<td>6458</td>
<td>/</td>
</tr>
<tr>
<td>Survival rate (in %)</td>
<td>95.8</td>
<td>97.2</td>
<td>1.5%</td>
</tr>
<tr>
<td>Slaughter age (days)</td>
<td>41</td>
<td>40</td>
<td>1</td>
</tr>
<tr>
<td>Slaughter Weight (lb)</td>
<td>4.07</td>
<td>4.39</td>
<td>7.6%</td>
</tr>
<tr>
<td>Average daily weight gain (g)</td>
<td>45.2</td>
<td>49.8</td>
<td>10.2%</td>
</tr>
<tr>
<td>Feed Conversion Ratio</td>
<td>2.03</td>
<td>1.87</td>
<td>7.9%</td>
</tr>
<tr>
<td>Meat Production Sold (lb)</td>
<td>48630</td>
<td>52966</td>
<td>8.9%</td>
</tr>
</tbody>
</table>

World-Wide Awards for Improved Health & Production