

Uniformity



Feed Management

	Males on Crumble Starter	Males on Pellet Starter	Females on Crumble Starter	Females on Pellet Starter
Avg Wt at 42 days (lbs)	5.47 (2.48 kg)	5.44 (2.46 kg)	4.86 (2.20 kg)	4.72 (2.14 kg)
%CV	7.99	30.51	4.67	35.14

Pens of birds in a trial received large crumble starter feed, and ate the feed for approx 7 days. The affect of feeding the pellet for a week vs. pens that received normal crumbled starter feed is shown above.



Skin Tears

- u Problems at plant with skin fall from carcasses.
 - Back and breast skin tearing
- u Skin looks “greasy” and muscle looks “mushy”.
- u Meat looks partially cooked.
 - Common to see with hot scalding when water temp get too high, but this company uses cold scalding.

Field Observations

- u Birds panting
 - Internal temp 107°F (41.7°C)
 - » Normal 106.5°F (41.4°C)
 - Ambient temp: low of 50°F (10°C) and high of 75°F (23.9°C)
- u No mortality issues
 - DOA's within normal range at plant.
- u No CNS Signs
- u Muscle twitching extensive post mortem.

Feed

- u Nicarbazin used at 181.6 gm/ton (0.02%) in starter feed.
 - Fed for 21 days
 - Approved Levels: 0.01% - 0.02%
 - » 90.8-181.6 g/ton
 - » Commonly used at 113.5 g/ton (0.0125%)
- u Exposure to high levels continued for several weeks before formulation changed.

Toxicity

- u High doses (2X) noted in literature.
 - Clinical signs:
 - » Severe stunting
 - » Central Nervous Signs: ataxia, prostration, paresis progressing to paralysis of legs, neck, and wings, trembling, star gazing

Common Dose Related Side Effects Of Nicarbazin

- u Breeder Hen Impact
 - Hatch
 - Egg color
 - Egg production and egg size
- u Heat Intolerance
- u Weight Suppression
- u Increased Feed Conversion
- u Skin integrity (?)
 - Associated with other chemical anti-coccidials

Dose Related Side Effects Of Nicarbazin

- u Heat Intolerance
 - Increases with dose
 - Age, dose, and environment (heat index) related
 - » Rapid increase in temperature and humidity have greatest effect
 - Interferes with bird's ability to respond to heat stress
 - » Increases bird's metabolic rate
 - » Reduces bird's maximal respiratory rate
 - » Hyperthermia can occur in normal temperatures

Skin Tears

- u The increased metabolism, and resulting higher body temp, may weaken the skin integrity.
 - Affect connective tissue (?)
 - Immediate response was with increasing ventilation and electrolytes in water.
- u Maybe not directly caused by nicarbazin, just enhanced by nicarbazin.
 - There is some other underlying issues or inciting factors involved

Other Compounding Factors

- u Other underlying issues or inciting factors that may be involved:
 - fat levels in the feed, energy levels of the feed, fat quality, pickers, etc.
 - » Use more pickers with cold scalding to reduce over picking with fewer pickers.
 - » High energy level in finisher and W/D feed
 - u Increase fat levels in finisher feeds produce increased fat deposit in skin making it more fragile.