

TECHNICAL SERVICE



BULLETIN



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No. 280

STRESEEZ TWO® IMPROVES PERFORMANCE OF HEAT-STRESSED BIRDS

STRESEEZ TWO® is a soluble multi-vitamin supplement, added to drinking water when poultry are stressed by placement, vaccination, debeaking, disease, etc. **STRESEEZ TWO** has consistently improved the performance of young chicks grown in a research facility with brooders set at 91 degrees F, and the room itself at 72 degrees F (see Technical Service Bulletins 272 and 277).

Because hot weather also can stress birds, a test was conducted recently to determine whether **STRESEEZ TWO** is effective under hot summer conditions.

MATERIALS AND METHODS

As in prior tests, one-day old Ross/Ross males were received from a commercial hatchery where they had been Mareks-vaccinated. The chicks were weighed individually and allotted so the replicate groups weighed approximately the same. There were 18 replicates per treatment, with 10 chicks per replicate.

The day-old chicks were placed in Petersime brooding batteries, and offered a 22.5% protein, 1419 M.E. Cal/lb. broiler diet ad libitum. Fresh water was offered daily to both control and treatment groups.

The control group received untreated fresh water. From the 8th through the 14th day of life, the treatment group received water including **STRESEEZ TWO**, at the rate of 2 ounces per 128 gallons. The test ended at 17 days of age.

Throughout this test, brooders were maintained at 102 degrees F, and the room was held at 85 degrees F. Ross Breeders' recommended brooding area and house temperatures are 87.8 and 78.8 degrees F, respectively, on Day 1, and 77.0 and 75.2 degrees F on Day 17.

RESULTS

As in all previous tests, chicks receiving **STRESEEZ TWO** outperformed control birds for the full 17-day period:

TREATMENT	GAIN/BIRD <u>grams</u>	FEED/GAIN
CONTROL	366.7	1.37
TREATMENT	371.9	1.33
%IMPROVEMENT	1.4	2.9

The strong results on feed/gain showed a definite trend toward significance, with $P < .12$.

DISCUSSION

During the first 17 days of life, the comfort zone for broilers declines about 10 degrees. Throughout this trial, temperatures were kept constant. Therefore the excessive heat load on the chicks steadily increased during the test.

Because the breeder's recommended temperature decreases another 7 degrees as broilers mature beyond 17 days of age, it may well be that the improved performance in this test would become even more marked if the test temperatures were maintained for an entire grow-out period.

This trial marks the third consecutive test demonstrating the benefits of using **STRESEEZ TWO**:

<u>TSB</u>	<u>AGE OF CHICKS DURING TREATMENT</u>	<u>GAIN/BIRD (improvement over control)</u>	<u>FEED/GAIN</u>
272	1-5 days	2.4%	0.7%
277	1-17 days	13.0%	1.3%
280	8-14 days	1.4%	2.9%

Whether added to drinking water on the first day or the eighth; whether the treatment is for 5, 7, or 17 days; and whether the temperature is moderate or elevated, **STRESEEZ TWO** has repeatedly improved the performance of young, growing poultry. **STRESEEZ TWO** can be a tool of considerable importance for poultry producers who are building profit.