



GROGEL PLUS SAVES HATCHLINGS IN TRANSIT

We've reviewed our field tests of **GROGEL PLUS** (GG+) and consolidated the results by species. While the total number of birds is limited, the results are striking!

These experiments were done to simulate transport times and conditions from hatchery to the grow-out farm up to 72 hours after hatch. Neither food nor water was provided. However, it is the case that when food and water *are* provided early, **GROGEL PLUS** starts hatchlings off even faster, and further reduces first-week mortality.

The value of birds saved over their first 72 hours of life ("Benefit") exceeds the "Cost" of GROGEL PLUS:

Benefit : Cost Ratio*

- TURKEY HENS: 2.09
- LAYERS: 1.58

| | TURKEY HENS | LAYERS |
|-----------------------|-------------|--------|
| CONTROL BIRDS | 120 | 180 |
| GROGEL PLUS BIRDS | 120 | 180 |
| CONTROL MORTALITY | 4 | 5 |
| GG+ MORTALITY | 2 | 3 |
| GG+ BIRDS SAVED | 2 | 2 |
| VALUE OF DAY OLD BIRD | \$0.75 | \$0.85 |
| VALUE SAVED BY GG+ | \$1.50 | \$1.70 |
| TOTAL COST OF GG+ | \$0.72 | \$1.08 |
| BENEFIT:COST RATIO | 2.09 | 1.58 |

*Based on mortality data only

REDUCED WEIGHT LOSS

Dehydration is always a major problem. In addition to better survivability, **GROGEL PLUS** reduced 72-hour weight loss:

| SUMMARY RESULTS BY SPECIES (GG+ VS CONTROL) | | | | |
|---|--|------------------------------------|-----------------|-----------------|
| SPECIES | AVERAGE WEIGHT LOSS PER CHICK/POULT | | | |
| | AVERAGE WEIGHT LOSS CONTROL GROUP (gm) | AVERAGE WEIGHT LOSS GG+ GROUP (gm) | DIFFERENCE (gm) | IMPROVEMENT (%) |
| TURKEY HENS | 13.6 | 12.2 | 1.4 | 10.3% |
| LAYERS | 10.8 | 8.4 | 2.4 | 22.2% |

SUMMARY

GROGEL PLUS proves its worth both in terms of livability and weight. Results of the individual tests are presented below:

| | | MORTALITY after 72 hrs | | | | | | | |
|----------------|---------|--------------------------|------------------------|------------|-------------|--------------------------|------------------------|------------|-------------|
| | | CONTROL | | | | GROGEL PLUS | | | |
| TEST NUMBER | SPECIES | TEST GROUP BIRDS (start) | TEST GROUP BIRDS (end) | BIRDS LOST | % loss | TEST GROUP BIRDS (start) | TEST GROUP BIRDS (end) | BIRDS LOST | % loss |
| L-186 | LAYER | 60 | 60 | 0 | 0.0% | 60 | 59 | 1 | 1.7% |
| L-189 | LAYER | 60 | 57 | 3 | 5.0% | 60 | 59 | 1 | 1.7% |
| L-190 | LAYER | 60 | 58 | 2 | 3.3% | 60 | 59 | 1 | 1.7% |
| LAYER SUMMARY | | 180 | 175 | 5 | 2.8% | 180 | 177 | 3 | 1.7% |
| T-184 | TURKEY | 60 | 56 | 4 | 6.7% | 60 | 58 | 2 | 3.3% |
| T-187 | TURKEY | 60 | 60 | 0 | 0.0% | 60 | 60 | 0 | 0.0% |
| TURKEY SUMMARY | | 120 | 116 | 4 | 3.3% | 120 | 118 | 2 | 1.7% |
| TOTAL | | 300 | 291 | 9 | 3.0% | 300 | 295 | 5 | 1.7% |

| | | WEIGHT LOSS after 72 hrs | | | | | | | |
|------------------------|---------|--------------------------|---------------------|------------------|-----------------|-----------------------|---------------------|------------------|-----------------|
| | | CONTROL | | | | GROGEL PLUS | | | |
| TEST NUMBER | SPECIES | AVG WEIGHT gm (start) | AVG WEIGHT gm (end) | weight lost (gm) | weight lost (%) | AVG WEIGHT gm (start) | AVG WEIGHT gm (end) | weight lost (gm) | weight lost (%) |
| L-186 | LAYER | 36.9 | 26.9 | 10.0 | 27.1% | 36.9 | 28.2 | 8.7 | 23.7% |
| L-189 | LAYER | 36.6 | 27.7 | 8.9 | 24.4% | 36.3 | 27.7 | 8.6 | 23.7% |
| L-190 | LAYER | 37.2 | 23.9 | 13.3 | 35.8% | 37.2 | 29.4 | 7.7 | 20.7% |
| LAYER AVERAGE SUMMARY | | 36.9 | 26.1 | 10.8 | 29.1% | 36.8 | 28.4 | 8.4 | 22.7% |
| T-184 | TURKEY | 54.7 | 42.4 | 12.3 | 22.6% | 57.4 | 46.0 | 11.3 | 19.8% |
| T-187 | TURKEY | 60.9 | 46.1 | 14.8 | 24.3% | 60.9 | 47.8 | 13.1 | 21.6% |
| TURKEY AVERAGE SUMMARY | | 57.8 | 44.2 | 13.6 | 23.5% | 59.2 | 46.9 | 12.2 | 20.7% |

