

**ChickCare in Latin America**

# Commercial trial in broiler integrator company in Ecuador

As a result of intensive research & development program, Trouw Nutrition has started to commercialize its new specialty for early life nutrition called **ChickCare 0-4 days**. This new product has been designed based in three main areas of knowledge: mineral metabolism, functional proteins and nutrient strategies. **ChickCare 0-4 days** brings our birds the possibility to express the maximum genetic potential, unlocking flock productivity and bringing an optimal business results. In order to demonstrate the effect of ChickCare in a broiler operation, a commercial trial was carried out in one of the most relevant broiler integrator companies of Ecuador.

**Experimental design**

The study was conducted in a commercial farm with ten barns. A total of 380.000 Cobb/Ross old chicks were used in a proportion of 50% males : females.



Experimental units

Three feeding programs were used (Figure 1) and varied in the type of pre-starter and started feed used. Treatment 1 was the best practices used in the company (commercial starter feed) and fed 152.000 broilers. Treatment 2 and 3 were two young animal feed programs, which varied in the type of feed used after **ChickCare 0-4 days**.

Thus, treatment 2 was a combination of **ChickCare 0-4 days** (60 grams) + Micropelleted feed (120 grams) that fed 114.000 broilers. However, in treatment 3 only **ChickCare 0-4 days** (60 grams) was used following by company best practices (control diet) and fed also 114.000 broilers chicks.

Treatment 1	Treatment 2	Treatment 3
Company best practices	ChickCare 0-4 days (60 g)	ChickCare 0-4 days (60 g)
	Micropellet (120 g)	Company best practices
	Company best practices	

Figure 1. Dietary treatments used in study

**Results**

Chicks located in control diet were 9.51% heavier than chicks receiving **ChickCare 0-4 days** at placement (44.7 g vs 40.4 g). However, at day 4, chicks receiving **ChickCare 0-4 days** were 6.23% heavier than chicks fed with control diet (115.1 g vs 108.3 g). Those results represented a relative improvement in body weight gain of (15.7%) in the first four days of age. (Figure 2)

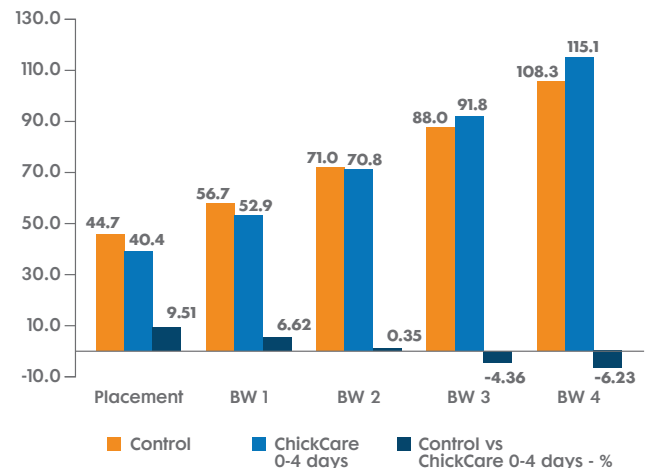


Figure 2. Effect of ChickCare 0-4 days on body weight (g) evolution from 0 to 4 days of age

### Performance variables at market age

The evolution of body weight in different treatments is shown in figure 3. The body weight at placement was 45.0, 39.3 and 39.6 grams for treatment 1, 2 and 3 respectively. That represents a relative difference against control of 12.6 % and 12.0%.

In spite of this body weight difference at the beginning of the trial, chicks fed with **ChickCare 0-4 days** obtained better body weight at market age (42 days approximately). Therefore, chicks fed with treatment 2 and 3 had a final body weight of 2748 and 2778 grams respectively. That represent a difference versus control of 50 and 80 grams respectively. (Figure 3)

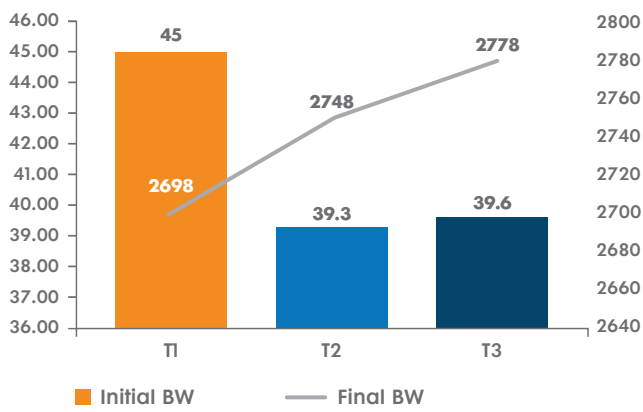


Figure 3. Effect of ChickCare 0-4 days on body weight evolution (g) from 0 to 42 days of age

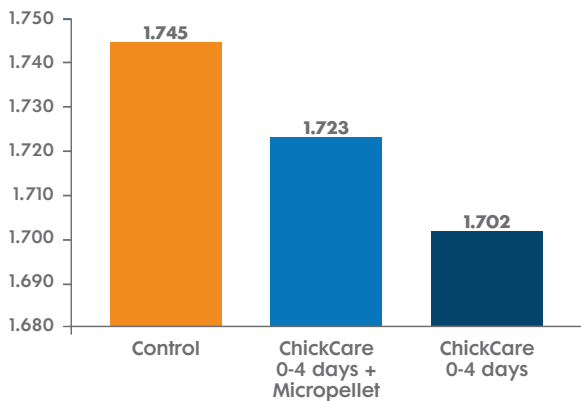


Figure 4. Effect of ChickCare 0-4 days on feed conversion ratio (g/g) from 0 to 42 days of age

Feed conversion ratio was 1.702, 1.723 and 1.745 for control, treatment 2 and 3 respectively. That represented an improvement in efficiency (grams of meat per gram of feed) of 22 and 43 grams for chicks fed with **ChickCare 0-4 days** and **ChickCare 0-4 days + Micropellet** feed in the whole production period. (Figure 4)

No numerical effects in mortality was detected between treatments. There were not available data regarding carcass or breast yield.

### Financial study

At the end of the trial a financial study was carried to evaluate the benefits of **ChickCare 0-4 days**. Therefore, in order to calculate the return of investment, it was compared the control diet against treatment 3 (application of 60 grams of **ChickCare 0-4 days** in the whole feeding program). Body weight and feed conversion ratio was used in the economic calculations.

Variable	Control	ChickCare 0-4 days	ChickCare 0-4 days vs Control
Body weight (g)	2698	2778	+ 80 *
Feed conversion ratio (g/g)	1.745	1.702	- 0.043

Total revenues\*\*: 4623 US dollars/flock  
Total costs\*\*\*: 1254 US dollars/flock

➔ **ROI: 3.7**

\* Body weight difference used for ROI calculation

\*\* Price of meat (kg) was established at the beginning of the trial and were provided by client

\*\*\* Based in cost difference between control and ChickCare 0-4 days recipe

### Conclusions

Based in the results obtained in the current trial, we can concluded that **ChickCare 0-4 days**:

- ▶ Improve performance variables at early stage of life (specially in chicks with low body weight or under challenge conditions)
- ▶ Improve global production results (final body weight and feed conversion ratio)
- ▶ Optimize profitability of broiler operation