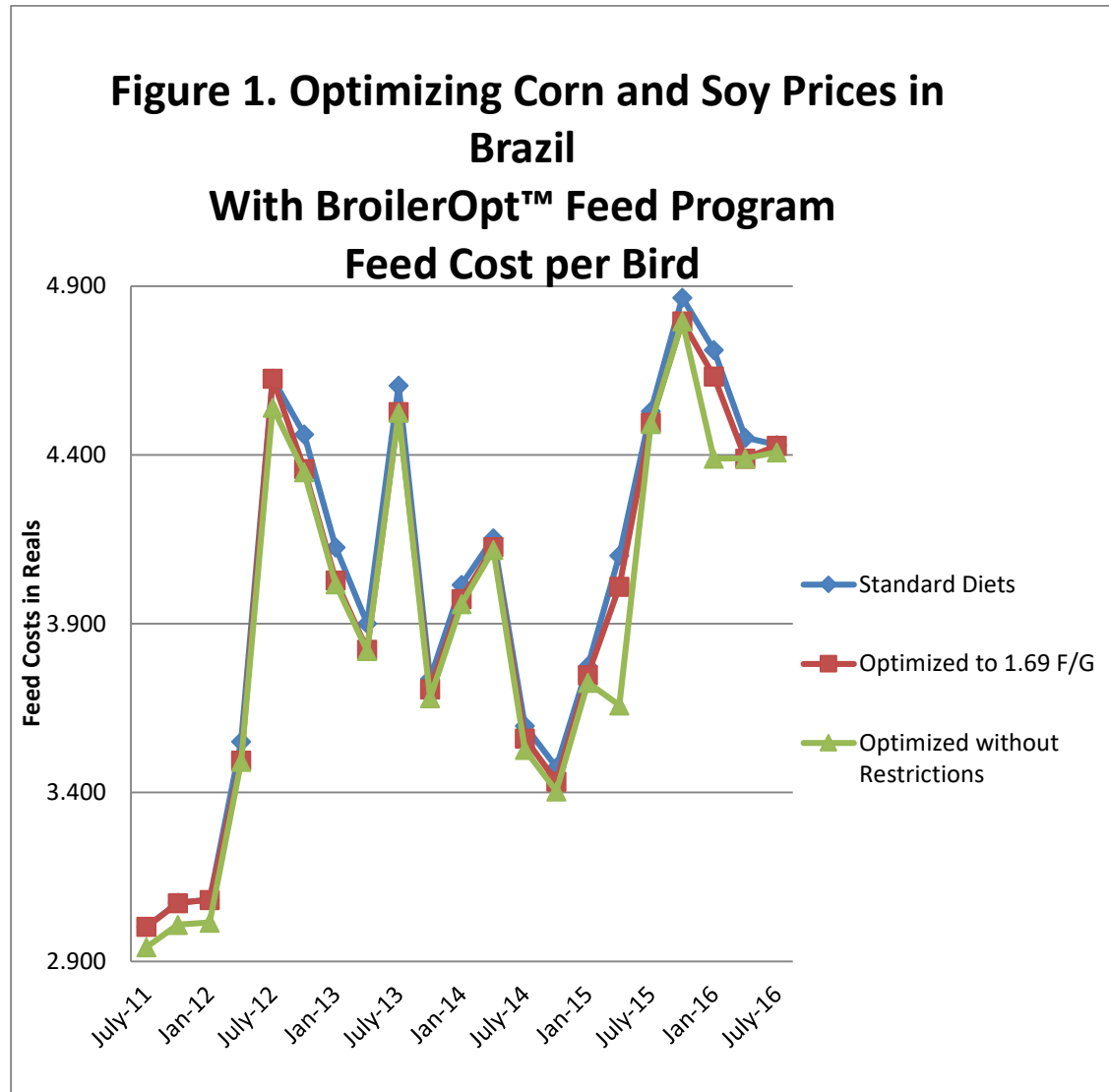


Feed Costs over 5 Years with Brazilian Corn and Soy Prices and the BroilerOpt™ Feeding Program

Ingredient Costs Drive Feeding Decisions More Than Broiler Growth
Or Changing “Requirements”.

To show the value of BroilerOpt™ Feeding program, we followed two ingredients on the movement of the optimum cost of production when all other prices are not changed. While changing corn and soy prices will affect other prices, these were impossible to predict and ignored to simplify comparisons. The BroilerOpt™ Feeding Program can identify the less expensive Broiler feed costs with any of several constraints or none



The quarterly prices of Corn and Soybean Meal as found on Index Mundi.com were used (Table 1). The prices are given in Brazilian Reals.

The initial or Standard feeds were the first month's best cost from Broiler Opt Feed Program for the target feed conversion. Then, the Standard diets were formulated to the same specifications throughout and growth computed based on the same feed weights per bird each month from July, 2011 to July, 2016.

Using BroilerOpt Feeding Program and the Standard Diet specifications, the standard feeds were formulated each quarter. The total feed costs were found for a Mixed flock of Cobb broilers grown to 2.90 kg (approx. 6.4 lbs.) with a feed conversion of 1.69.

The calculations kept the growth of each flock to 2.90 kg on the Standard diets. The exact formulas and costs varied slightly due to the ingredient costs. The exact same weight of each feed was fed.

Then, the diets were optimized using BroilerOpt to two conditions. The first was to optimize the diets to a feed conversion of 1.69 or lower (so as not to change performance) changing nutritional constraints within the optimization limits on energy, protein and feed intakes. Amino acids were held in a constant ratio to protein during the optimizations.

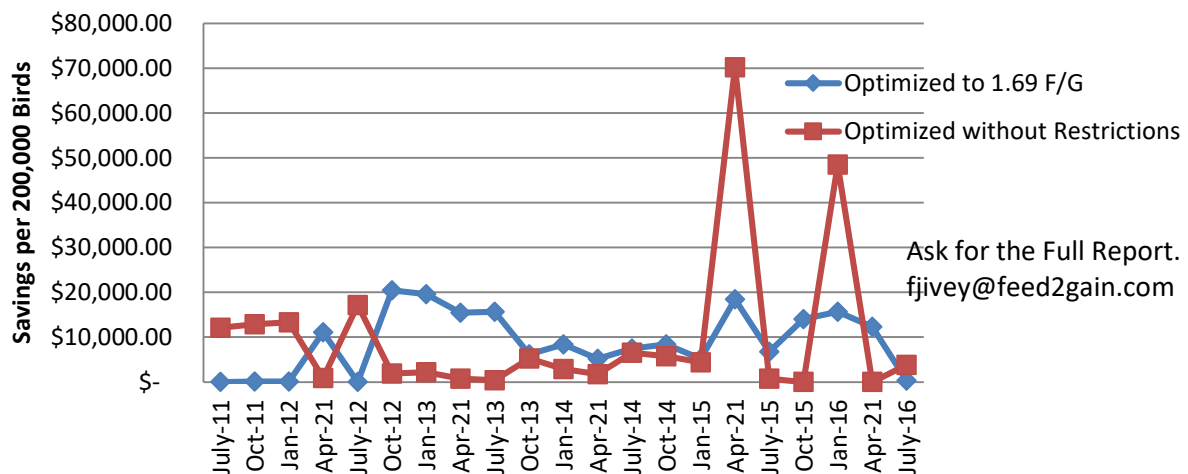
The second condition was the diets were formulated without regard to feed conversion changing diets and feed intakes as before. The only real difference was the elimination of the feed conversion restriction.

In summary, prices affected the cost of feed per bird, on average for the 2.9 kg flocks. Feed conversion was not affected in the standard diet flocks.

Average feed costs for the "Optimized to Feed Conversion" were about 1.1 % below the Standard Diets or about R\$45,000 per million birds. This included cost savings from altering the feed amounts.

Average feed costs for the "Optimized without Feed Conversion" considerations were 1.3 percent lower or R\$50,000 Standard diets.

**Figure 2. Optimizing Corn and Soy Prices in Brazil
With BroilerOpt™ Feed Program
Daily Savings - 200,000 Birds per day in Reals**



**Table 1. Prices per Tonne
in Reals**

Month	Corn	Soy
July-11	470.34	608.7
Oct-11	489.05	618.39
Jan-12	488.86	622.78
Apr-12	507.38	815.3
July-12	675.65	1,121.26
Oct-12	653.11	1,055.74
Jan-13	616.46	928.5
Apr-13	561.37	894.04
July-13	626.96	1,187.57
Oct-13	442.65	1,011.18
Jan-14	473.26	1,128.27
Apr-14	496.93	1,192.55
July-14	404.83	1,001.96
Oct-14	400.18	928.27
Jan-15	460.11	998.22
Apr-15	526.12	1,069.40
July-15	577.36	1,268.65

Oct-15	665.95	1,314.14
Jan-16	651.48	1,202.31
Apr-21	586.89	1,169.77
July-16	620.7	1,530.14