Malaysian Layer Farm Data

Summary:

1. Improved the rate of production decline.
2. Decreased the mortality by 32%.
3. Improved the color of the yolks by 3 grades in the Roche fan color scale.

Objective:

To evaluate the effects of Essential supplementation on layer performance.

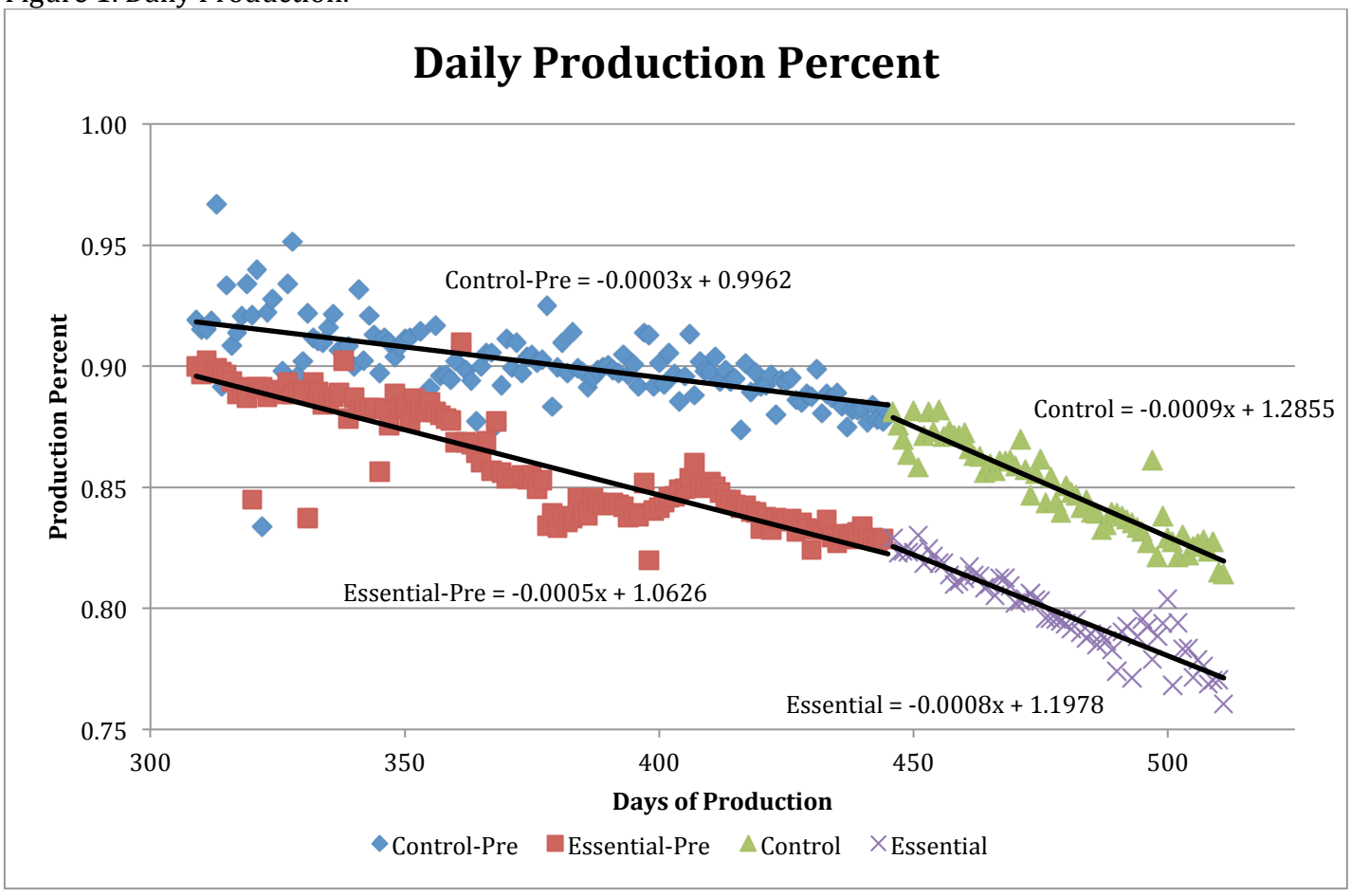
Materials and Methods:

Hisex brown layers were divided into a control group and an Essential group (1.5kg/MT). There were no other differences in the diets. Essential was supplemented from week 64 to week 72.

Results:

Production. The rate of production in the Essential group was decreasing at a rate 1.67 times that of the control (-0.005 vs. -0.003, for Essential and control respectively). The Essential group improved the persistency of production until the rates of decline for both the groups were nearly equal (-0.008 and -0.0009 for Essential and control respectively).

Figure 1. Daily Production.



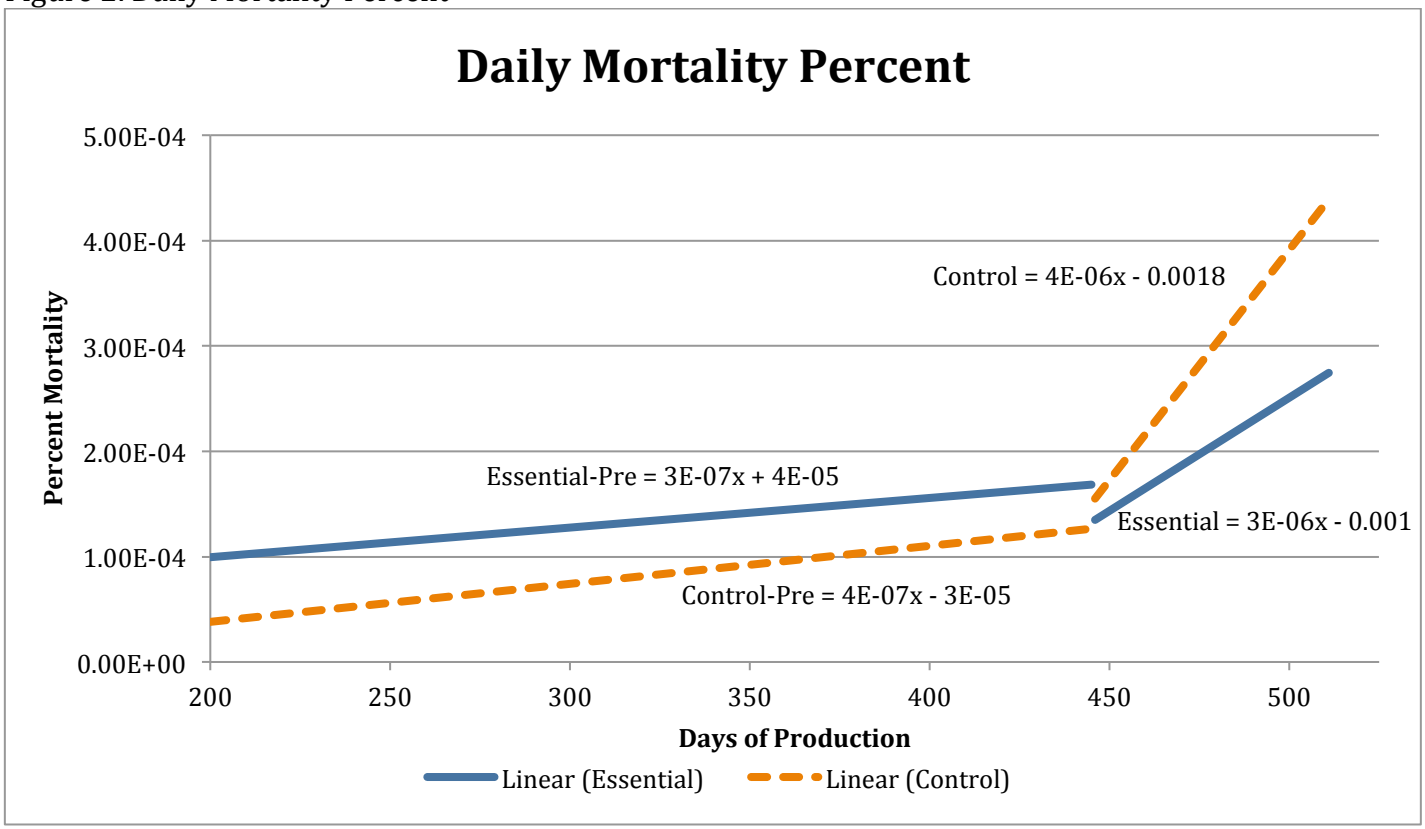
Applying the improved slope seen in the Essential group to historical norms, **there is an increase in production of 3.5% or an additional 12.25 eggs with the supplementation of Essential.**

Production Difference	Average Production	Average Eggs produced per hen
Control w/ Essential	90%	315
Control	86.50%	302.75
Difference in Production	3.50%	12.25 eggs
Cost of Essential		6.68 eggs
Profit		5.57 eggs

Table 1. Production Differences

Mortality. The daily mortality rate before the inclusion of Essential was similar in both groups (0.0000003 vs. 0.0000004 for Essential and control respectively). During Essential's inclusion period, the daily mortality rate in the control group accelerates considerably and the mortality is 32% lower in the group supplemented with Essential.

Figure 2. Daily Mortality Percent



Cumulative Mortality	Initial	Final	Change in Percent	Difference in Mortality
Essential	4.6%	5.9%	1.3%	32%
Control	2.5%	4.4%	1.9%	

Table 2. Change in Cumulative Mortality

Yolk Pigments. Yolk color is dependent on the antioxidant status of the birds as pigments are degraded rapidly due to oxidation. Therefore, improvements in yolk color are related to improvements in the antioxidant status. Yolks from hens supplemented with Essential showed richer and yellower yolks when compared to yolks of control eggs, which means that the antioxidant status of those birds were better. On the Roche yolk color fan, **Essential yolks were graded as 13, versus control yolks that were graded as 10.**

Figure 6. Control (left) vs. Essential (right)

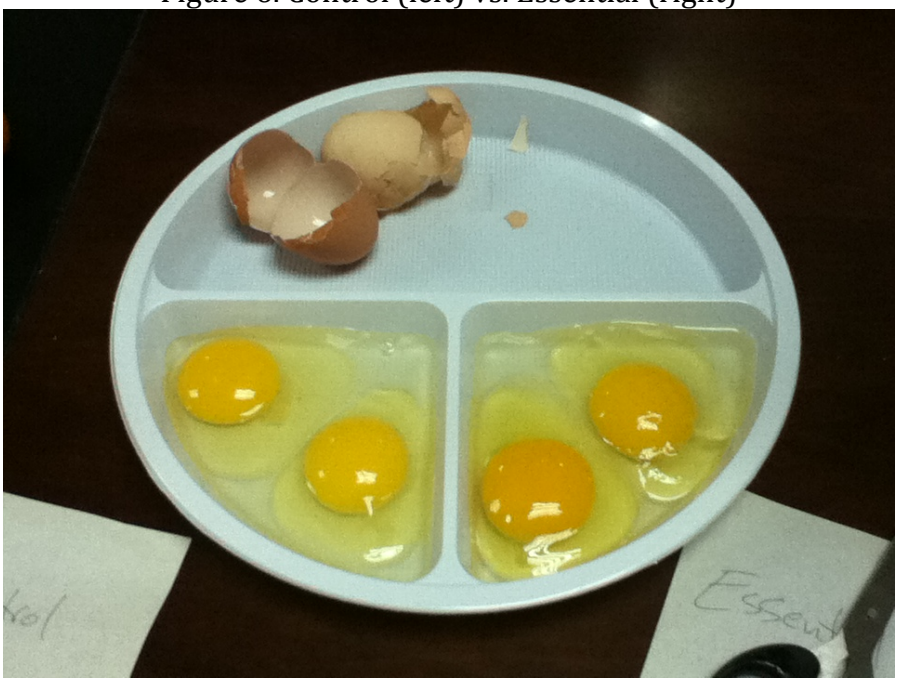


Figure 7. Control (left, 10) vs. Essential (right, 13)

Conclusion:

The supplementation of Essential:

1. Improved the persistency in egg production leading to a 3.5% increased egg production.
2. Decreased the mortality.
3. Improved the color of the egg yolks.