



from Jones-Hamilton Co.

Winter Economic Benefits: The Effect of PLT® on Fuel Cost, Bird Performance, Ammonia and Litter pH on Broiler Farms

High levels of ammonia in the poultry house can lead to reduced bird body weight, higher feed conversion, more culls and condemnations, more respiratory disease and ascites. Ammonia levels were dramatically reduced in the PLT® treated houses. This allowed for a decrease in ventilation (fewer fans running with less fan time) conserving heat, resulting in a significant savings in fuel cost. Control houses required more ventilation and more fuel, and still had higher ammonia levels.

Fuel Savings

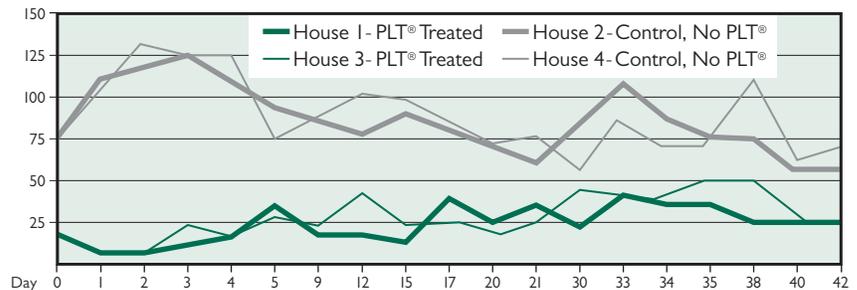
Fuel usage was monitored daily in each house. In the PLT® treated houses, ammonia levels were so low that ventilation could be kept to a minimum, resulting in significant fuel savings. PLT treated houses averaged \$783 in fuel savings (\$1.25/gal propane) compared to the control houses.

Protocol

Four, four-house broiler farms were used for this trial. Two farms were located on the Delmarva Peninsula where outside temperatures averaged 20°F at the time of PLT® application. The other two farms were located in South Carolina, where outside temperatures averaged 50°F at application time. Breeder flock source distribution was equalized between all four houses on each farm.

On each farm, litter in two of the houses was treated with PLT® at a rate of 50-lbs/1000 sqft. The other two houses served as controls, with litter left untreated. Size of all houses was 40X500 feet. Inside temperature at PLT application was 90 F, with litter temperature at 80° to 85°F. Built-up litter was used on each farm with litter age ranging from 2 to 13 flocks.

Fuel Usage (gals.) During Grow-out



Average Weight (lbs.)/Farm

	PLT® Houses	Control Houses	PLT® Advantage
Farm A	212,724	207,716	5,008 extra pounds
Farm B	229,560	228,220	1,340 extra pounds
Farm C	254,966	241,159	13,807 extra pounds
Farm D	266,957	258,001	8,956 extra pounds

Bird Performance

Birds in the PLT® treated houses had significant weight gains compared to those in the control houses. The energy they consumed was spent in growth and weight gain instead of

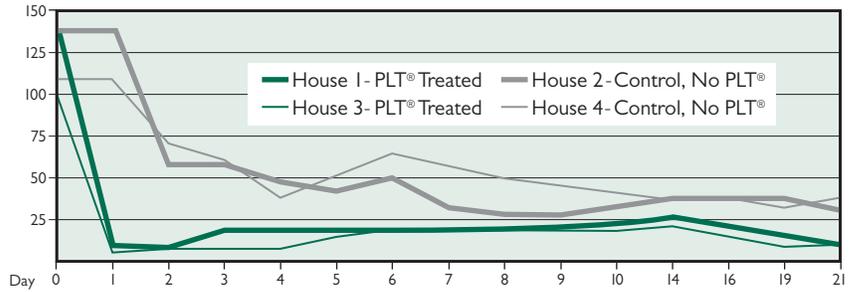
fighting disease and stress caused by high ammonia levels.

PLT® treated houses produced an average of 3,640 extra pounds. At an average live cost of 25 cents/lb., the cost savings is \$910 per house.

Litter Cost Savings

Ammonia levels in the treated houses were significantly lower than in the controls. PLT® acidifies the litter and binds ammonia, making it safe to re-use longer. Average litter savings per 40X500 foot PLT treated house is \$1,700 (average cost of new litter).

Ammonia (ppm) Levels During Grow-out



Litter pH

The pH of litter in PLT® treated houses was significantly lower than that of the litter in the control houses.

Average Litter pH Immediately After PLT® Application

Control houses

pH 8.25

PLT® treated houses

pH 1.83

Summary

PLT® more than pays for itself and generates significant revenue. The approximate cost to treat a house brood chamber with PLT is \$125.00 (which is not reflected in the table below).

Average Savings in PLT® Treated House

Litter Cost Savings	\$1,700
Fuel Savings	\$783
Improved Bird Weight	\$910
Total Savings Per House	\$3,393

This PLT® research trial proves the cost saving benefits of PLT. Many producers use PLT year-round to cut costs, improve bird performance and increase profits.



Poultry Litter Treatment

The Science of Litter Management

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