



# TECHNICAL BULLETIN

## PLT DELIVERS MEASURABLE RETURNS

### THREE TRIALS SHOW CONSISTENT PERFORMANCE GAINS, REAL ECONOMIC IMPACT

In broiler production, every management decision ultimately shows up in two places: pounds sold and feed consumed. Birds that die do not convert feed, birds under stress do not grow efficiently, and small changes in feed conversion or livability compound rapidly.

For that reason, the return on investment (ROI) of PLT cannot be measured solely in ammonia reduction. It must be evaluated by its impact on bird performance.

Across three controlled university trials at the University of Delaware, PLT consistently improved key economic drivers – including livability and feed conversion – under a range of seasonal and competitive conditions.

The results tell a clear story: performance improves and profit follows.

#### 1 Performance Under Pressure: PLT vs. No Litter Amendment in Summer

Summer flocks present a unique test. Ventilation rates are high and many growers assume litter amendments are not necessary. To test that assumption, researchers compared PLT applied at 100 lb/1,000 sq. ft. to a control with no litter amendment during summer flocks (May – September). Ammonia was monitored continuously at bird level every 30 minutes throughout the flock cycle (Table 1).

Even under these conditions:

LIVABILITY IMPROVED

BODY WEIGHT INCREASED

FEED CONVERSION IMPROVED

ENERGY USAGE WAS REDUCED

“  
What would  
+0.5%  
livability  
mean for  
your bottom  
line?  
”

JH	MAY - JUNE		JULY - AUGUST		2 FLOCK AVERAGE		DIFF.
	FLOCK 1		FLOCK 2				
	PLT	CONTROL	PLT	CONTROL	PLT	CONTROL	PLT - CONTROL
<b>LIVABILITY (%)</b>	98.7	98.3	97.9	97.2	98.3	97.7	+ 0.5%
<b>BODY WEIGHT (lb)</b>	7.27	7.17	7.39	7.14	7.33	7.16	+ 0.17 lb
<b>FCR</b>	1.47	1.56	1.39	1.41	1.43	1.48	- 0.05
<b>ELECTRICITY (kWh/ton weight)</b>	276	273	335	359	306	316	- 3.3%
<b>GAS (cft/ton weight)</b>	623	698	156	170	390	434	- 10.2%

Table 1. Impact on performance measures in houses treated with PLT vs no litter amendment

How much is 4 points of feed conversion worth to you?

## 2 Head-to-Head: PLT vs. Acid Alum

Two additional flocks compared PLT to acid alum (AA) under standard commercial application timing (Table 2).

PLT was applied one day prior to chick placement. Acid alum was applied according to label timing several days prior to placement. Across these flocks, PLT delivered better bird performance:

GREATER LIVABILITY      FCR IMPROVED 4 POINTS

JH	NORMAL APPLICATION				2 FLOCK AVERAGE		DIFF.
	FLOCK 1		FLOCK 2		PLT	AA	
	150 lb PLT	50 gal AA	150 lb PLT	36 gal AA			PLT - AA
LIVABILITY (%)	97.4	97.1	98.1	96.9	97.7	97.0	+ 0.7%
FCR	1.54	1.60	1.47	1.51	1.51	1.55	- 0.04

Table 2. Flock performance in houses treated with PLT vs Acid Alum

## 3 Performance in the Wake of Early Application

A separate comparison evaluated PLT applied four days before chick placement to address concerns with the timing of application in the field. Even when application timing was adjusted:

LIVABILITY AND FCR FAVORED PLT

This reinforces that PLT's value lies in performance consistency, not simply application date.

JH	EARLY APPLICATION				2 FLOCK AVERAGE		DIFF.
	FLOCK 1		FLOCK 2		PLT	AA	
	150 lb PLT	40 gal AA	150 lb PLT	30 gal AA			PLT - AA
LIVABILITY (%)	96.8	96.2	98.2	97.8	97.5	97.0	+ 0.5%
FCR	1.64	1.68	1.51	1.56	1.57	1.62	- 0.05
ELECTRICITY (kWh/ton weight)	23	26	184	196	103	111	- 7.2%
GAS (cft/ton weight)	817	926	1088	1070	953	998	- 4.5%

Table 3. Performance and utility differences in houses treated early with PLT vs Acid Alum



## WHY PERFORMANCE IMPROVES

Ammonia is not just an air quality metric. It is a biological stressor. Reducing ammonia during brooding and early growth:

- Supports respiratory integrity
- Improves paw quality and welfare
- Reduces physiological stress
- Improves overall health
- Supports feed efficiency

## PERFORMANCE FIRST, ECONOMICS FOLLOW

When evaluating litter amendments, the question should not be How low was the ammonia? The question should be Did bird performance improve?

Across multiple flocks, PLT consistently improved the two metrics that drive profitability in broiler production: livability and feed conversion.

In a business measured in hundredths of FCR and fractions of a percent livability, those improvements matter. When performance improves, profit follows.

## BEYOND THE ROI

PLT is the only manufactured, quality-controlled litter amendment. We know consistency in formulation leads to consistency in results; and we have the data to support these claims because Jones-Hamilton is the only company to invest in ongoing R&D. Our commitment extends beyond the product to:

FIELD TECHNICAL SUPPORT AND TRAINING

APPLICATION OPTIMIZATION

LITTER ASSESSMENT AUDITS

When product performance is supported by research and technical expertise, ROI becomes repeatable.

### At-a-Glance: ROI of PLT



#### FOR GROWERS

- Increased livability
- Increased body weight & total pounds produced
- Reduced utility usage

#### FOR INTEGRATORS

- Improved feed conversion
- Increased total pounds sold
- Reduced feed cost per pound produced
- Improved paw quality



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