

poultry litter. Total organic matter and crude fiber were similar in digestibility for the two ingredients, and ether extract from the citrus pulp was more digestible. The coefficients obtained for citrus pulp were somewhat lower for nitrogen and higher for ether extract and crude fiber than reported previously (Ammerman and Arrington, 1961; Keener et al. 1957).

The nitrogen deposited in the litter primarily through droppings was well utilized by the animals (Table 8). Even though twice as much nitrogen was ingested daily from the poultry litter than from citrus pulp, the amount of nitrogen excreted in the feces was essentially the same (4.53 vs 4.30 grams). Since the protein requirement for the yearling wether is approximately 10% of the diet (National Research Council, 1964) and the poultry litter contained 19.9%, it is not surprising that the major portion of the apparently absorbed nitrogen from the diet was eliminated through the urine. In spite of the urinary loss the average net nitrogen retained daily by the animal consuming the poultry litter diet was 4.74 compared with 1.53 grams for the citrus pulp diet.

Table 8: Nitrogen Balance Data¹

Nitrogen	Ration		
	Chicken Litter	Citrus Pulp	Basal Mixture
Intake, gram/day	21.90	8.90	18.03
In feces, gram/day ²	4.53 ^a	4.30 ^a	4.63 ^a
In urine, gram/day ²	12.63 ^a	3.07 ^c	6.33 ^b
Retained, grams/day ²	4.74 ^a	1.53 ^b	2.07 ^b
Retained, % ²	21.64 ^a	17.19 ^b	15.89 ^b
Digested, grams/day ²	17.37 ^a	4.60 ^c	8.40 ^b

¹Each value represents an average of three determinations.

²Means with different superscripts are significantly different according to Duncan's multiple range test (1955).

SUMMARY AND CONCLUSIONS

One experiment conducted with broiler type chicks, from one day of age to eight weeks, indicated that citrus pulp was a satisfactory source of litter for floor pens. Growth rate of broilers reared on citrus pulp was equal to that of those reared on wood shavings. Visual observations of the litter indicated that it was absorptive and served equally as well as wood shavings for this purpose.

The litter from the pens containing the citrus pulp was fed in digestibility trials to determine its value for feeding lambs. Both nutrient digestibility and composition of the litter were compared with that of citrus pulp. On a per cent composition