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A COMPARISON OF SLAT FLOORS, LITTER FLOORS AND  
CAGES FOR LAYING HENS

P. E. Plumart<sup>1</sup>, R. D. Muller<sup>2</sup> and C. W. Carlson<sup>3</sup>

Commercial hybrid pullets were distributed in 3 different buildings at 20 weeks of age and fed similar diets. Twelve slat floor pens in a building referred to as the environment house and 2 litter floor pens in a building referred to as the brooder house each received 140 pullets (1 bird/sq. ft.). Six pullets were placed in each of 32 cages in a cage layer house.

From 23-26 and 27-30 weeks of age, the following percent hen-day egg production was attained: environment house (slat floors), 45.12, 56.95; brooder house, 60.53, 75.71; and cage house, 47.83, 73.42.

From 35-38 and 39-42 weeks of age, the following production was attained: environment house (slat floors), 51.36, 48.44; environment house (litter floors), 65.00, 63.45; brooder house, 78.26, 74.36; and cage house, 69.94, 71.76. The difference between production on litter and slat floors (15%) was found to be very highly significant. Since the diets used gave satisfactory production for the caged layers, the differences between slat and litter floors were not caused by inadequate nutrition. Because of these differences, the slat floors were removed from 6 of the 12 pens in the environment house.

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In the environment house one chamber of 4 pens was maintained by a furnace-air conditioner at 60° F., while two other chambers were thermostatically controlled at 45 and 55 degrees F. by ventilation fans. It may be noted in Table 1 that lower egg production occurred in the coldest chamber.

TABLE 1. HEN-DAY EGG PRODUCTION

<u>Experiment 2A.</u>			<u>Experiment 2B.</u>		
	<u>AGE (wks.)</u>			<u>AGE (wks.)</u>	
	23-26	27-30		35-38	39-42
<u>ENVIRONMENT HOUSE</u>			<u>ENVIRONMENT HOUSE</u>		
	%	%		%	%
60° F.	46.76	59.81	60° F.	59.75	57.86
55° F.	44.66	57.38	55° F.	61.27	58.05
45° F.	43.94	53.67	45° F.	53.53	51.92
			Slat Floor	51.36	48.44
			Litter Floor	65.00	63.45
Mean	45.12	56.95	Mean	58.18	55.94
<u>BROODER HOUSE</u>			<u>BROODER HOUSE</u>		
Mean	60.53	75.71	Mean	78.26	74.36
<u>CAGE HOUSE</u>			<u>CAGE HOUSE</u>		
Mean	47.83	73.42	Mean	69.94	71.76