

For the first week after the chickens were purchased, they were fed on straight Larro broiler mash. At the end of this time they were weighed and leg-banded. The control group was continued on the same program with the exception that a half cup of Larro chick size pellets was spread over the mash each morning and another half cup at night.

A special feeder and timing device was constructed for the experimental group. The feeder consisted of a solenoid driven device which delivered, when an electrical contact was made, a small quantity of pellets from a hopper standing two feet from the floor, in such a manner that the pellets rolled down an inclined plane of plywood and spread out into the trough below. The timing device consisted of a synchronous motor actuating an inverted pendulum with a mercury switch attached. A screw adjustment made possible the delivery of a range of 5 to 10 impulses in a closely grouped pattern, so that when the timer was running, every 2 1/4 minutes a series of electrical contacts was made with the feeder solenoid, causing it to click sharply from 5 to 10 times, at the same time releasing small quantities of pellets which fell into the feeder below.

The number of hours per day during which the feeder was allowed to operate was determined largely by the behavior of the chickens. An effort was made to prevent the chickens from hearing the sound of the feeder when they were no longer eating. Thus an attempt was made to turn the feeder off when the chickens ceased to eat the pellets which it delivered. The actual length of time during which the feeder operated then varies somewhat from day to day, but the general pattern was 3 to 4 hours in the morning and 3 to 4 hours in the afternoon.

The results of this experiment are presented below.

Table I
Feed Intake

Date	Group	
	Experimental N = 12	Control N = 11
	Grams of Pellets	Mash Grams of Pellets
3-21-49	928	160
3-22-49	1208	160
3-23-49	1008	160
3-24-49	1125	160
3-25-49	1475	160
3-26-49	1000	160
	<u>6744</u>	<u>8.75 lbs.</u>
	(14.85 lbs.)	(2.11 lbs.)
		(10.86 lbs. total)
Total lbs. per bird	1.24	.99
Lbs. per bird per day	.21	.16