

Experiment 3  
Force Feeding

This experiment is designed to test the basic premise that if one can get more feed into the chicken it will utilize it in added weight gains. Weight gains in two matched groups of broiler birds are being studied to this end. One group is being fed pellets ad libitum; the other is being offered pellets ad libitum and is in addition being force fed twice a day.

The subjects are 30 White Rocks hatched July 13. Prior to the start of the experiment they were fed ad libitum on broiler mash. On August 12 they were switched to ad lib. chick-size pellets. They were weighed and banded on this date also, and weight gains recorded at the end of the week for two subsequent weeks. During this time, large pellets were gradually introduced so that the birds were on 100 per cent. hen size pellets by August 30. At the end of the two weeks two groups of 11 birds each were selected from the 30, paired as closely as possible for weights and gains on all weighing occasions. The remaining eight birds (Group S) were held in reserve as spares to be used if necessary and as an additional control. Mean weights and gains of the experimental (Group F) and control groups (Group L) are given in Table 1.

Table 1  
Mean Weights and Gains for Preliminary  
Weeks, Experimental and Control Groups  
(Figures in Oz.)

	Group F: Exp. Weight	Gain	Group L: Contr. Weight	Gain
Initial	9.1		9.1	
End of wk.1	13.9	4.8	13.7	4.6
End of wk.2	17.8	3.9	17.8	4.1

On August 30 the selected groups and the spares were separated and housed in three adjacent cages. The spare and the control group were fed ad lib. on hen-size broiler pellets. The experimental group was offered hen-size pellets ad lib. and was force-fed morning and evening beginning on the evening of August 30.

For the force feedings, a mixture of broiler mash and water was prepared in a ratio of 227 grams of mash to 345 grams of water, this ratio yielding a mash of suitable consistency to be forced, from a caulking gun with a special fitting, through a rubber hose which was inserted into the chicken's crop. In the first three feedings, the chickens took on an average of over 3 ounces of this mixture per feeding per bird. The following table gives average intake for the first three force feedings:

Table 2  
Mean Intake of Force Feeding Mixture by Experimental Birds

Feeding	Mean Ounces Intake
1	2.29
2	3.61
3	3.95
Total	9.85
Average	3.28