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Feeding Chicken Breeders

The lowest feed cost per chick will be obtained if the ration is balanced to maintain specific body weight and to provide the required nutrients from which a strong, healthy chick will be hatched. A breeder diet of this type must be well fortified with protein, minerals, vitamins, antibiotics and unidentified factor sources.

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Feeding Chicken Breeders

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LAYING HEN BREEDER STRAINS should be fed a diet containing about 16 to 17 percent protein with a Calorie-protein ratio of approximately 50:1. A breeder ration that has given excellent performance in flocks is shown in Table 1.

A diet to be fed to heavy breeder-broiler type hens should contain from 18 to 19 percent protein, Table 1. Directions for the use of a concentrate by mixing it with corn and sorghum follow. When modifications are desired because of price and availability of protein sources, the amino acid content should be a major factor in the selection or substitution of a specific protein source.

Energy

The broiler-breeder hen tends to become too heavy if a high-energy feed is fed. A decrease in egg production and an increase in mortality may result. It is recommended that the broiler-breeder hen diet contain 800 to 900 Calories of productive energy per pound and the diet for egg-layer breeders contain 900 to 950 Calories of productive energy per pound. Experimental and practical feeding tests have shown that these levels of energy in the breeder diets produce the most desired results. The major sources of energy for breeder hen diets are the various cereal grains, mill by-products, fats and oils. Economy, availability and mixing facilities dictate the choice of energy sources. Appropriate changes in grain sources should be made as their prices and availabilities vary.

Minerals

Diets for both heavy and light breeders should be well fortified with manganese and zinc. The required levels of manganese can be provided by half pound of feed grade manganese sulfate and the zinc by three-eighths of zinc sulfate per ton. The formulas shown in Table 1 have been compounded to provide adequate levels of calcium and available phosphorus. Supplemental calcium and phos-

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TABLE 1. FORMULAS FOR BREEDER HEN DIETS AND CONCENTRATES

Ingredients	Broiler-breeder hen diet	Laying breeder hen diet	Breeder concentrate	Diets made by use of the breeder concentrate	
				Broiler-breeder hen	Laying breeder hen
	Pounds per ton				
Yellow corn	502	572		500	600
Sorghum grain	700	700		700	700
Soybean oil meal (44% protein)	450	380	1125		
Fish meal (60% protein)	100	100	250		
Dehydrated alfalfa meal (17% protein)	50	50	130		
Phosphorus source	40	40	100		
Limestone or oyster shell flour	140	140	350		
Salt	7	7	17.75		
Manganese sulfate	½	½	1.25		
Zinc sulfate	⅜	⅜	1		
Vitamins-antibiotics-arsonic-premix[1]	10	10	25		
Breeder concentrate				800	700
	Calculated analysis				
Protein %	18.50	17.20	33.37	18.45	17.20
Fat %	2.70	2.75	1.38	2.54	2.67
Crude fiber %	3.30	3.00	4.80	3.12	2.98
Calcium %	2.90	2.89	7.20	2.83	2.71
Total phosphorus %	1.03	1.02	1.68	0.85	0.87
Inorganic phosphorus %	0.53	0.53	1.33	0.53	0.47
Calories (productive energy per pound)	878	894	554	882	909
Calories-protein ratio	47:1	52:1	17:1	48:1	53.1

[1]See the section on vitamins, antibiotics and arsonics for the composition of the premix.

phorus should not be added to these diets, nor should any calcium source be given free choice.

Vitamins, Antibiotics and Arsonics

The vitamin premix should be packaged in a 10 or 25-pound package, so that the micronutrients can be distributed evenly in the finished feed. The vitamin, antibiotics and arsonic acid premix should contain the following amounts for each ton of finished feed: stabilized vitamin A, 6,000,000 IU; vitamin D_3, 2,500,000 ICU; vitamin E, 5,000 IU; riboflavin, 4 grams; d-calcium pantothenate, 10 grams; niacin, 30 grams; choline chloride, 600 grams; vitamin B_{12}, 12 milligrams; vitamin K, 2 grams; antibiotic, 10 grams; arsonic acid (either 45 grams of 3-nitro-4-hydroxyphenylarsonic acid or 90 grams of arsanilic acid.) For mixing the concentrate, two and a half times these amounts should be made up in a 25-pound premix package, and one package used for each ton of concentrate. The 10-pound vitamin premix packages could be used but would be less economical and more cumbersome.

One of a Series

This is one of a series of six leaflets on feeding poultry under Texas conditions. Titles of the leaflets are:

Feeding Broilers
Feeding Flock Replacements
Feeding Laying Hens (in process)
Feeding Chicken Breeders
Feeding Turkey Breeders
Feeding Growing Turkeys

Additional copies of the six leaflets will be available as issued from the offices of the extension agents located in each Texas county, or from the Agricultural Information Office, Texas A&M University, College Station, Texas.

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