

Breeder Research in the Auburn University Department of Poultry Science

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Recent Research Questions

1. Can breeder pullets be reared on low phosphorus diets with phytase and will they produce?
 - Heavy breeder pullets (Ross 508) were reared from hatching to production, and were maintained through production on diets containing low phosphorus (0.1 to 0.25% available P).
 - We looked at mortality, egg production, shell quality, fertility, hatch, chick quality and waste phosphorus.

Results

1. Can breeder pullets be reared on low phosphorus diets with phytase and will they produce?
 - Pullets and breeders on lower phosphorus diets with phytase performed as well or better than pullets on normal diets without phytase.
 - Waste phosphorus was reduced up to 30% by reducing phosphate in the diet and supplementation with phytase.

Recent Research Questions

1. Can breeder males be reared on an accelerated growth schedule to improve breeding fitness?
 - Ross males were reared from hatching on one of three treatments:
 - Normal (Ross) growth curve with lighting at 21 weeks.
 - Accelerated growth curve to achieve normal 21 week body weight in 16 weeks
 - Accelerated growth curve to achieve normal 21 week body weight in 16 weeks with high protein diet

Results

2. Can breeder males be reared on an accelerated growth schedule to improve breeding fitness?
 - Males grown on the accelerated schedule:
 - Same skeletal size as normal growth males
 - Better uniformity
 - Better fertility
 - Less mortality
 - High protein hurt fertility
 - Initial study only went to 30 weeks of age. 65 week study starts soon.