

Carefully read the description of the experiment below. Be prepared to answer the questions that follow the design description as a class quiz.

An experiment was conducted to examine the effect of supplementing different green feeds (water spinach, sweet potato leaves and duckweed) to broken rice based diets on performance of various factors in 204 hens during a 17 week experiment. The experiment was carried out in the experimental farm of Cantho University from October 2003 to February 2004. The experimental animals were

female Luong Phuong chickens at 4 weeks of age. The experiment consisted of 4 diets with 3 replicate pens for each diet with 17 chickens per pen. The diets were (1) Control diet: Mixed diet without any green feed, (2) DW: Mixed diet + duckweed (*ad libitum*), (3) WS: Mixed diet + Water spinach (*ad libitum*) and (4) SP: Mixed diet + Sweet potato vines (*ad libitum*).



A number of variables were measured on the chickens including Live weight (g), Carcass weight (g), Carcass yield (%), Liver weight (g), Gizzard weight (g), Caecum length (cm), Abdominal fat (g) and the chemical composition of breast and thigh meat (protein, fiber, ash, etc). A number of variables were also measured on factors related to egg production such as age at 1st egg (days), egg weight (g), and egg yolk weight and color (Lightness, Greenness and Yellowness) at the 4th week of laying. For our purposes the variable of interest will be the combined mean weight gain of the 17 chickens in each pen at the end of the experiment.

Answer choices:	(A) pens	(B) combined live weight	(C) egg yolk weight
	(D) diets	(E) individual chicken weight	(F) experimental farm

Name _____ Quiz Number ____ Date ____ / ____ / 2012

Circle the appropriate letter for each question.

- 1) What is the experimental unit for this experiment? A B C D E F
- 2) What is the sampling unit for this experiment? A B C D E F
- 3) What is the dependent variable for this experiment? A B C D E F
- 4) What is the treatment variable for this experiment? A B C D E F
- 5) If the design is RBD, what are the blocks? A B C D E F NA
- 6) Does it seem more likely that the treatments are fixed or random? (A) fixed (B) random
- 7) What is the treatment arrangement for this experiment? (A) single factor (B) factorial (C) nested
- 8) What is the experimental design? (A) CRD (B) RBD (C) LSD (D) Split-plot (E) Repeated Measures
- 9) The treatment degrees of freedom are _____ .
- 10) The degrees of freedom for the error used for testing treatments are _____ .