

**EFFECTS OF VARIOUS FOOD ON THE BIOLOGICAL COMPONENTS  
OF WHITE RATS (*Rattus norvegicus*) AND RICE FIELD RATS (*Rattus  
argentiventer*)**

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**ABSTRACT**

Rat is one of the pests that can be a threat by damaging plants from the start of planting to the storage period and in a short time can cause losses. Food can affect the development of rat. This research aimed to determine the effect of the type of food and sex on the biological components and behavior of rats. This research method used a two-factor Completely Randomized Design (CRD) for the non-choice test. The first factor was the type of food (rice, peanuts, soybeans, cassava, sweet potato, and corn). The second factor was sex (male and female). The choice test used one-factor Completely Randomized Design (CRD) type of food (rice, peanuts, soybeans, cassava, sweet potato, and corn). The research results show that the interaction between sex and type of food only occurs in the amount of excrement where female white rats fed with sweet potato produced more excrement on 7.3 g. Rice was the food that resulted in the highest gain on weight gain on (16.2 g). Corn was the food that consumed the most by white rats (349.2 g). White rats preferred peanut as the first choice of food percentage (33.3%) whereas rice field rats preferred corn as the first choice of food (29.2%). The non-choice test, rice is preferred by rats because it has more carbohydrate content. The choice test, corn and peanut were more preferred because the food contain more water.

**Keywords:** Rats, food plants, biology, behavior