



***USING BREAST CONFORMATION AS A BODY CONDITION SCORING  
SYSTEM FOR VILLAGE CHICKEN***

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**USING BREAST CONFORMATION AS A BODY CONDITION SCORING  
SYSTEM FOR VILLAGE CHICKEN**

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## CERTIFICATION

The project report attached here entitled:

Using Breast Conformation As A Scoring System For Identification Of Village Chicken is prepared by Hasanah Binti Daud and submitted to the faculty of Agriculture In Partial Fulfillment Of The Requirement Of SHW 4999 (Final Year Project) For Award Of The Degree of Bachelor Agriculture (Animal Science) is hereby accepted.

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## ABSTRACT

This research aim is to evaluate the breast conformation of chicken by using breast conformation as a scoring system for identification of village chicken. This system will set up the body condition score as a method to the body score of chicken. The scoring system will describes the difference body condition for both sex of chicken. It is based on palpating the breast and was developed in both male and female of bird. This scoring method doesn't have in village chicken. That's why this method should develop to help in compare village chicken with other type of chicken. Akar putra chicken will be used as an indicator to compare with colour broiler chicken. The indicator is use is the indicators used to determine body score of chickens after the cross section of the keel bone is the height of the keel bone thickness of the meat around the keel bone, high size of the keel bone to the spine (frame) and also the size of the ribs. The result show that there was significant difference ( $P < 0.05$ ) for meat around the keel bone and the shape of the breast conformation for the akar putra chicken and colour broiler chicken. The male chicken show that both types of chicken this year showed growing faster rate than female, but female also showed higher meat thickness male chicken. This is because the female takes a long time to grow and eat more than the quantity of food from male to achieve the desired weight. The result show that the color of broiler chicken breast conformation get higher score than akar putra chicken because colour broiler chicken has a faster growth rate than the akar putra chicken. This difference can be seen in weight of 1.5 kg of colour broiler chicken color get score 3 and 4 but the akar putra only get score 2. For the weight 2kg akar putra chicken got a score of 4 chicken and broiler chicken color has

reached the score 5. From this research I can conclude that the akar putra can be used to identify the true village chicken because the breast conformation is slim than colour broiler chicken.



## ABSTRAK

Penyelidikan ini dilakukan adalah bertujuan untuk menilai bentuk dada ayam dengan menggunakan bentuk dada dalam sistem skor pemarkahan untuk mengenal pasti ayam kampung. Sistem skor pemarkahan ini digunakan untuk menentukan keadaan bentuk dada ayam yang berdasarkan bentuk dada ayam yang telah ditentukan. Sistem skor pemarkahan ini masih tiada lagi pada ayam kampung. Oleh itu, cara ini digunakan untuk membandingkan ayam kampung dengan jenis ayam yang lain. Ayam akar putra digunakan sebagai petunjuk aras untuk dibandingkan dengan ayam kampung kacukan. Petunjuk aras yang digunakan untuk ukuran ini adalah belahan tulang keel, ketebalan daging disekeliling tulang keel dan juga ukuran tulang rusuk (rangka) ayam. Keputusan eksperimen menunjukkan perbezaan yang signifikan ( $P < 0.05$ ) pada ketebalan daging disekeliling tulang keel dan bentuk dada ayam akar putra dan ayam kampung kacukan. Ayam jantan menunjukkan kadar pertumbuhan yang cepat berbanding ayam betina tetapi ayam betina menunjukkan ketebalan daging yang tinggi berbanding ayam jantan. Hal ini kerana ayam betina mengambil masa yang lama untuk membesar dan makan dalam kuantiti yang lebih daripada ayam jantan untuk mencapai berat yang dikehendaki. Keputusan eksperimen juga menunjukkan ayam kampung mendapat skor bentuk badan yang tinggi berbanding ayam akar putra kerana ayam kampung membesar lebih cepat daripada ayam akar putra. Perbezaan dapat dilihat pada berat 15kg, dimana ayam kampung mendapat skor 3 dan 4 manakala ayam akar putra hanya mendapat skor 2. Bagi berat 2 kg pula ayam akar putra mendapat skor 4 dan ayam kampung mencapai skor 5. Daripada kajian ini saya merumuskan bahawa ayam akar putra boleh digunakan untuk menentukan ayam kampung sebenar kerana bentuk dada yang lebih langsing daripada ayam kampung.

## CHAPTER 1

### 1.1 INTRODUCTION

The village chicken of Malaysia, also referred indigenous chicken can be the crossbred between red jungle fowl and the descendants of exotic domestic breeds initially brought in from Europeans country ,mainly British (Dugama,2006). Village chicken is now a common term for chicken that roam free in the field and well adapted to natural environment. With active muscle movement and organic nature of their diet, these chicken produce highly textured and delicious (Azhar , 2007). The meat of indigenous chicken are similar in characteristic with the spent layer hen but more different from broiler meat (Chuaynukool *et al.*,2007). The traditional village or indigenous chicken generally has a much slower growth rate compared to the commercial type color broiler chicken, also referred as crossbred village chicken, when raised under similar condition.

Body condition scoring methods have been developed for horses, cows, sheep, and broilers (Frischknecht & Jull 1946; Henneke 1985; Orr *et al.* 1986; Edmonson *et al.* 1989). This method is usually is-used for evaluating the adequacy of previous feed supply, determining future feed requirements, assessing the health status of individual animals, and establishing the condition of animals during routine animal management or welfare inspections.

The scoring system to be developed in this study will be based on a body condition of chicken. It is-basically related to the muscling of the breast; in particular, around the keel bone. The body condition scoring system is aimed to classify the score into five categories. It is predicted that as the body condition score increased, empty body

weight, fat weight, muscle weight, and fat % in the empty body increased. Birds with the lowest condition score had particularly poorly developed breast muscles. This body condition scoring method can be a useful subjective way of assessing a bird's body reserves.

There is a potential to develop a body condition scoring method for village chicken to differentiate it with other chicken types. The Akar Putra village chicken breed will be use as the reference point. The scoring system develops by (N.Gregor and J.K Robin 1998) for layer chicken the relative fatness or body condition of a flock through the use of a six-point scale. A body condition score of 3 or 4 is an average fleshed chicken and represents a logical target for most chicken flock. A BCS 1 chicken is extremely thin while a BCS 6 chicken is extremely fat and obese. A final sketched schematic outline of the breast and keel bone will be used as reference. Body condition scores could reflect productivity and flock management particularly nutritional management.

## **1.2 Hypothesis**

The body condition scoring system for village chicken positively correlates breast conformation to the chicken type.

## **1.3 Objective**

To determine the body condition score of two village chicken types in the market (Akar Putra chicken and colour broiler chicken) at different body weight.

The specific objectives are:

- To determine BCS in two different village chicken types.
- To compare BCS of male and female chicken.

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