

# CARCASS PERCENTAGE OF GROWING MALE LOCAL TURKEY RAISED EXTENSIVELY

(Persentase Karkas Kalkun Jantan Lokal yang Dipelihara Secara Ekstensif)

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## ABSTRAK

Penelitian ini bertujuan untuk mengetahui persentase karkas dan bagian-bagian karkas kalkun lokal jantan periode pertumbuhan yang dipelihara secara ekstensif. Materi yang digunakan adalah kalkun lokal. Metode penelitian yang digunakan adalah metode survei. Sampel kalkun diambil dari peternak tradisional yang tersebar di Kabupaten Banyumas. Sampel kalkun terdiri dari 4 kelompok umur pertumbuhan, yaitu (1) umur >8- 12 minggu, (2) umur >12-16 minggu, (3) umur >16-20 minggu, dan (4) umur >20-24 minggu. Setiap kelompok umur kalkun diwakili oleh 5 ekor. Untuk mengetahui persentase karkas, semua sampel kalkun dipotong. Data diperoleh dari rata-rata kelima ekor kalkun pada setiap kelompok umur, kemudian diinformasikan secara deskriptif. Dari hasil yang diperoleh dapat dilaporkan bahwa (1) semakin bertambahnya umur kalkun, persentase karkas bervariasi, namun ada kecenderungan naik, (2) semakin bertambahnya umur kalkun, semakin tinggi persentase karkas bagian paha dan dada, kecuali bagian sayap dan giblet semakin rendah, dan (3) rata-rata persentase bagian karkas tertinggi adalah paha (18,67 persen), diikuti dada (13,15 persen), punggung (9,55 persen), sayap (9,44 persen) dan giblet (7,06 persen).

**Kata Kunci:** Karkas, Kalkun, Pertumbuhan, Ekstensif

## INTRODUCTION

In Indonesia, turkeys are raised extensively and it brings about low population and production. Based on their body conformation and color feather, turkey in the country belong to the breeds of Standard Bronze and White Holland which are potential to produce meat. However, these turkeys are kept mostly as ornamental poultries (Anggorodi, 1995). This situation is not fortunate for meat productions they have high growth rate: 4.5 kg body weight at 12 weeks old or 5.8 kg at 16 weeks old with feed conversion of 2.3 – 2.7 kg feed per kg body weight (Dark, 1979).

In Banyumas Regency, turkeys have been raised for meat production especially to meet the demand of meat

during celebration days (Tugiyanti *et al.*, 1998). The turkeys slaughtered were those with high body weight, regardless male or female, and people did not pay attention on turkey sex.

Efficiency to obtain meat should be understood by calculating carcass percentage and its parts at growing period. Due to that reason a survey has been conducted on extensive turkey in the area.

## RESEARCH METHOD

Materials used were local turkey taken from traditional farmers in Banyumas Regency. The poultry was grouped into 4 age grouped: (1) >8-12 weeks, (2) >12-16 weeks, (3) >16-20 weeks, and (4) >20-24 weeks. 5 male turkeys represented each grouped.

Survey method was applied in this study. Carcass weight was taken from carcass and its parts (breast, back, wings, thigh, and giblet); this weight was then compared to body weight to get carcass percentage. Background of rising and age of turkey were based on farmer information and direct observation. Data obtained were presented descriptively.

## RESULTS AND DISCUSION

### Whole Carcass

Overall carcass percentages were between 54.89 to 58.97 percent. These figures were slightly lower than that of extensive male duck, which was 62.24 percent (Suswoyo, 1999), 60 – 75 percent (Siregar, 1979), 60.3 – 61.5 percent (Leclercq and de Carville, 1985). Detail information on turkey carcass was presented in Table 1.

Table 1 shows that the highest percentage was at >8-12 age group followed by >12-16 age group, while the lowest was at >16-20 age group. The highest was achieved by the age group was due to that the young turkeys were fed using starting broiler ration with high content of protein (21-23 percent) which affected its high growth rate. It was usual that farmers in the area used starting broiler diet for young turkeys, to secure the bird life. On the other hand, turkeys at the older age groups (>12-16 and >16-20) were fed mainly using rice bran in the morning and then they were scavenged during the day until afternoon. Usually, they scavenge in the garden around farmers' homes to seek feed naturally

available such as grains and leaf materials. In this condition the turkeys had low quality feed with limited quantity, which lead to low growth rate and low fleshing rate as well. This was quite different to turkey at >20-24 age group. Based on crop content analysis, turkeys in this group had high quantity of feed. They did not just eat grains found on the ground but also insects, worm, garden snails, snails, and grasses. These kinds of feeds support their growth rate and this brought about higher carcass percentage. This result was inline with National Research Council (1994) reported that body weight of male turkey were 8.2 kg, 12.6 kg, and between 20.7 to 24.5 kg at 12, 16 and >32 weeks of old respectively.

### Back Carcass

Back carcass of male growing local turkeys was between 8.34 to 10.58 percent. This result was lower compared to back carcass percentage of poultry in general, which is 13 –14 percent (BLPP, 1990 in Lestari, 1997). Carcass percentage of each age group in this study is in Table 1.

The table indicates that at >16-20 age group the percentage tends to decrease. This was due to the low of carcass percentage in general. This fact told that growth of tissue at the age group was mostly concentrated on thigh and breast muscle. Result of this study was slightly lower than that of Tugiyanti *et al.* (1998) in which the average back carcass was 11.94 percent.

Table 1. Percentage of Carcass and Its Parts of Male Growing Turkey

| Carcass Component | Age (weeks)  |              |              |              |
|-------------------|--------------|--------------|--------------|--------------|
|                   | > 8 – 12     | > 12 – 16    | > 16 – 20    | > 20 – 24    |
| Whole             | 58.97 ± 0.49 | 57.95 ± 1.06 | 54.89 ± 2.34 | 58.66 ± 1.32 |
| Back              | 9.71 ± 0.23  | 10.58 ± 0.12 | 8.34 ± 0.09  | 9.55 ± 0.11  |
| Breast            | 12.88 ± 0.22 | 11.48 ± 0.12 | 12.26 ± 0.15 | 15.99 ± 0.03 |
| Wing              | 10.65 ± 0.22 | 9.33 ± 0.12  | 9.21 ± 0.15  | 8.57 ± 0.03  |
| Thigh             | 18.10 ± 0.09 | 18.33 ± 0.08 | 18.68 ± 0.12 | 19.08 ± 0.25 |
| Giblet            | 7.64 ± 0.15  | 7.73 ± 0.06  | 7.39 ± 0.19  | 5.47 ± 0.12  |

### Breast Carcass

Breast carcass has a range of 11.48 to 15.99 percent. Table 1 shows the detail information of the carcass. At >12-16 age group the percentage decreased, but it was increased thereafter. Drastically increase was at the highest age group. This was probably due to the fleshing of the bird was mainly happen in the breast. Marsden (1971) stated that young tom turkey (male turkey with less than 8 months old) has tender meat with soft sternum. This proves that turkey at that age had good growing rate particularly fleshing rate at breast portion.

### Wing Carcass

Wing carcass was between 8.57 to 10.65 percent. Compared to wing carcass of poultry in general, this result was lower. BLPP (1990) in Lestari (1977) reported that the figure was 13–14 percent on average. Detail data at each age group is presented in Table 1.

The table indicates that the higher the age the lower the percentage. It was due to fleshing was more concentrates on

breast and thigh when the bird getting older. At the same time, bone and flesh of the wings were strong enough to support feather growth as body balancer. Mirran and Orr (1970) cited by Pudjiastuti (1985) stated that percentage of shank, wing, and neck reduce when turkey becoming old, while percentage of thigh and back increase.

### Thigh Carcass

Thigh carcass varied between 18.10 to 19.08 percent with detail information in table above. Thigh carcass increased inline with increasing age. It shows that muscle growth of the bird was concentrated on the thigh. This result confirmed Mirran and Orr (1970) as stated before. It seems that turkey at the age has high potential to produce high proportion of thigh meat.

### Giblet Percentage

Giblet percentage was between 5.47 to 7.73 percent. This result was higher compared to giblet percentage of poultry in general, which was 5 – 6 percent (BLPP, 1990 in Lestari, 1997).

Detail information on giblet of age group is in Table 1 above.

Table 1 indicates that the older the turkey the lowest the percentage. This was due to tissue growth tends on breast and thigh, so growth of the giblet decreased. These data were slightly higher than the result of Tugiyanti *et al.* (1988) stated that average of turkey giblet percentage was 6.63 percent.

### CONCLUSION

Carcass percentage of extensive male turkey varies at different, but it tends to increase inline with the age. The older the turkey the higher the percentage of thigh and breast carcass. The highest percentage of carcass was thigh (18.67 percent), followed by breast (13.51 percent), back (9.55 percent), wings (9.44 percent), and giblet (7.06 percent).

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### REFERENCES

- Anggorodi, H.R. 1995. *Nutrisi Aneka Unggas*. PT. Gramedia Pustaka Utama. Jakarta.
- Dark, J. 1979. *Raising Turkeys*. Agnote No. 328. Victorian Department of Agriculture. Melbourne.
- Leclercq, B.H., and de Carville. 1985. *Growths and Body Composition of Duck*. In: *Duck Production, Science and World Practice*. D.J. Farrell and P. Stapleton (Eds). University of New England. Armidale.
- Lestari, P. 1997. *Bobot Badan dan Persentase Paha dan Dada Berbagai Galur Ayam Broiler yang Dipelihara di Dataran Tinggi dan Dataran Rendah*. Skripsi. Fakultas Peternakan UNSOED. Purwokerto.
- Marsden, J.S. 1971. *Turkey Production Agriculture Handbook*. No. 393. Agriculture Research Service. USDA. Washington.
- National Research Council. 1994. *Nutrient Requirement of Poultry*. National Academy Press. Washington.
- Pudjiastuti, A. 1985. *Pengaruh Cara Pemotongan Sayap Terhadap Persentase Karkas, Potongan-Potongan Karkas, persentase Giblet, Lemak Abdomen dan Persentase bagian yang Terbuang pada Ayam Broiler*. Laporan Penelitian. Fakultas Peternakan IPB, Bogor.
- Siregar, A.P. 1979. *Makanan Itik*. Prosiding Seminar Ilmu dan Industri Perunggasan II. BPPT, Bogor.
- Suswoyo, I., I.H. Sulistyawan, Rosidi, dan E. Tugiyanti. 1999. *Penampilan Produksi daging Itik Jantan yang Dipelihara secara Tradisional Berdasarkan Umur Potong*. Laporan Penelitian. Fakultas Peternakan UNSOED, Purwokerto.
- Tugiyanti, E., Rosidi dan I. Suswoyo. 1998. *Studi Tentang Performans Kalkun yang Dipelihara Masyarakat Kabupaten Banyumas*. Laporan Penelitian. Fakultas Peternakan UNSOED, Purwokerto.