



# PROCEEDING

Food Globalization:  
**New Technology in  
An Era of *Change***

The **10<sup>th</sup>**   
**National Student Conference**  
on food science & technology

Soegijapranata Catholic University  
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**Proceedings**

**The 10<sup>th</sup> National Student Conference**

**Food Globalization : New Technology in An  
Era of Change**

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## **Preface 10<sup>th</sup> NSC – “Food Globalization: New Technology in An Era of Change”**

This is a proceeding of the 10<sup>th</sup> National Student Conference on Food Science and Technology done by Food Technology Department, Soegijapranata Catholic University. Seeing that this conference is organized by only the students of the faculty, ten consecutive years of performance deserves quite praise. Thanks to their powerful motivation and energy, this event can be held in routine without skipping a single year.

In this year conference we focused on the development of food in globalization era. As we know it, since globalization has begun there has been lots of changes in many sectors of life including food. On the bright side, it can be seen that globalization has made food become highly varied, more “functional”, and somewhat safer by using new material, more sophisticated technology, or even change the food source’s genetic structure. Although there are a lot of advantages in the era of food globalization, there will be many risks that make people have to be aware in consuming the foods.

The conference was specifically designed to discuss all of these matters, where students of food technology department can share their research and opinion. This proceeding covers two sections of paper that are papers of the keynote speakers and also from the presenters. There are six platform themes that were used: *Food Product Development*, *Food Quality and Safety*, *Food Management and Business*, *Food Engineering*, *Food Microbiology & Biotechnology* and *Functional Food*. With the ongoing changes in food related to the current globalization, I am quite sure there will be more topics that can be discussed in other student’s conferences or academic communities.

Semarang, January 7, 2010

Alberta Rika Pratiwi  
Chairman of the Steering Committee



## POTENTIAL TO SUBSTITUTION PEKING DUCK WITH TIKTOK (MULE) DUCK

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### ABSTRACT

Poultry meat is a good source of animal protein, it contains complete essential amino acids and good comparison. Poultry meat in terms of economic cost is also relatively affordable when compared with other livestock meat such as beef and mutton. In Central Java the menu of duck meat apparently still not as popular as chicken meat. Most common reasons Indonesian people are reluctant to eat duck meat because the smell is rancid, the meat harder, and the color more red than chicken meat. The demand of peking meat in Indonesia always increase. But unfortunately, peking duck has not been cultivated in Indonesia. To meet this market demand, has been imported from Taiwan, in frozen form. However, because the cost is high enough, then for peking duck became less attractive. Therefore, in the area Indonesia has already implemented crossbreeding between en Tiktok duck have content that resembles peking duck, even fat content lower than peking duck. Besides that posture of thicker tiktok flesh, tiktok meat can be served boneless (without bones) with the size of the shape and size resembling a peking duck meat. thok and duck to get new varieties of tiktok duck to replace the role of peking duck.

**Keywords :** *Tiktok duck, peking duck, poultry meat*

### INTRODUCTION

Poultry meat is a good source of animal protein, because it contains complete essential amino acids and the comparison amount is good. In addition, poultry meat fibers are shorter and soft making it easy to digest. Poultry meat in terms of economic cost is also relatively affordable when compared with other livestock meat such as beef and mutton. Animal Husbandry Department of Central Java province reported that the level of meat consumption

in Central Java in 2007 amounted to 11.9 kg / capita / year. The biggest consumption of 79.37% comes from poultry meat (consisting of 1.05% egg producing chicken meat, broiler meat 55.79%, 15.63% domestic poultry meat, and 6.90% derived from duck meat.) While the smallest consumption of 9.22% comes from large ruminant meat consisting of beef and buffalo meat 7.46% 1.76%, and 11.41% came from small ruminant meat, meat goat that is 2.25% and pork 9.15% (Department

of Agriculture of Central Java Province, 2008).

In Central Java, Indonesia in particular and generally, the menu of duck meat apparently still not as popular as chicken meat. Therefore, efforts are generally intended for the production of duck eggs (duck), not for meat (duck meat). Duck meat itself just a bit difficult to be offered to consumers as a food substitute for chicken meat as if the duck meat is considered less prestigious than the menu with chicken meat. That's why ducks are sold for meat most of the duck farm which has old age, or the drake is left as a stud. Whereas in the world market, both duck and wild duck into account sources of protein equivalent to chicken. Another reason for the low supply business of duck meat this is the low selling price.

In China, Taiwan, Hong Kong, and Singapore's menu roast duck, steamed duck, and smoked duck is always served at every meal and in the restaurant. Since the government of China joined the WTO in 2001, the popularity of duck meat menu is now also spread to Southeast Asia, Europe, Japan, and America, along with the spread of Chinese products to international markets. In almost all chinese food restaurants in Europe and America, with easy to find the menu of duck meat. In Indonesia alone, chinese food restaurant offering Peking duck dishes are also

increasing. Consequently, demand is increasing Peking duck

But unfortunately, Peking duck has not been cultivated in Indonesia. To meet this market demand, has been imported from Taiwan, in frozen form. A Peking duck meat importers said that its import capacity on average per month in 2008, at 2 container capacity of 180 tons, which increased nearly 3 times compared to the year 2006 (Sudarto, Pers\_kom). So that people are starting mengembangkan interbreeding between the duck and mentog alibio. Naturally, a cross in from the crossbreeding these two breeds is a lot happening with Alabio as mentog as males and females. Results of this interbreeding is blengong or blengoh duck, a posture closer mentog posture. Marriage is another cross mentog as a male and a female Alabio, which produces Tiktok, and is an acronym of "duck - mentog". Although this Tiktok horizontal posture, such as parental parent, but the meat produced is thicker, so the closer to Peking duck.

## METHOD

The morfological characteristics of Tiktok, Tiktok have rapid body growth, faster than the growth mentog own. Tiktok age 3 months, the same posture with local wild duck adult posture. Cultivation technique the growers inform similiarities in cultivation technique between tiktok and



local duck. Because habits between tiktok and local duck is same. Market respons about 200 tiktok ducks per week. Pricing justification the price per bird of about 3 kg weight peking duck Rp. 80.000 tiktok duck Rp. 65.000 local duck Rp. 22.000/bird of 2kg. The survey was made at Jambu and Bandungan tiktok growers. Literatur survey to find out increase protein levels, and reduce the rancid with lower levels of fat.

## RESULT

Comparing the results of field and literatur surveys with recent research on this area. Tiktok duck sold in top rank restaurant, whereas local duck is sold to street cafe. And second question the answer is Slaughtering technique, slaughtering technique of tiktok and peking duck more spesific than local duck. If we want to slaughter Peking or Tiktok duck we can't make it is stress, but if we want to slaughter local duck we must make local duck stress, because local duck is more agressive than peking duck. So the meat of Peking or Tiktok duck is thicker than Local duck. After we slaughter Peking or Tiktok duck, we make the meat of Peking or Tiktok duck in the rigor mortis process. The process is finished after the blood are run out. And then the meat of Peking or Tiktok duck saved into freeze and finalay packaging. Nutient values in Peking duck, Local duck, and Tiktok duck are protein, fat, ash, water, and other substance. The protein in Peking

duck is 21%, in Local duck is 18%, and in the Tiktok duck 20%. If we see the fat the Peking duck is 6% and Local duck 5% same with Tiktok duck. And we can see ash in Peking duck, Local duck, and Tiktok duck are same 2%. If we see the water in the Peking duck are 70%, in the Local duck are 74%, and the water in Tiktok duck are 72%. And the other substance for all are same there are 1%.

## CONCLUSION

The conclusion on this papper are Tiktok can replace the role of peking duck because:

1. The similiarities morfological, nutrient value, meat texture, thickness and taste  
The similiarities morfological are big and fat. If we see nutrient value, meat texture, thickness and taste are little different
2. Tiktok duck can cultivate in Indonesia  
The Tiktok can cultivate in Indonesia because easy to cultivate. Local duck as maternal parental. Mule duck as the paternal parental. When it goes to wrong parental (local duck as the paternal and mule duck as the maternal) the fillial is called Blengoh duck.
3. Positive market respons  
The positive are people like Tiktok because the taste are nearly same with Peking duck
4. Pricing justification

The pricing are little different but Peking is more expensive than Tiktok duck.

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