

Nutritive Value of Meat from Philippine White Mallard (*Anas boschas* L.) and Pekin (*Anas platyrhynchos* L.) Ducks

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INTRODUCTION



12.13% increase in total duck egg production was recorded by the Philippine Statistics Authority in 2015.



- Duck meat:**
- ⊗ tough
 - ⊗ course-textured
 - ⊗ fishy smell



Philippine White Mallard Duck (PWM) egg-type breed producing large-size eggs, however, fewer in numbers.

Better carcass appearance due to its white plumage compared with the brown and black Mallard ducks.

Objective: to compare the nutritive value of Philippine White Mallard meat and skin with that of broiler Pekin duck.

MATERIALS AND METHODS

Experimental Treatments

Slaughtered at 12 weeks of age

Sampling

Equipment Used



Muscle and skin samples from the breast were taken for amino acid and fatty acid profiles, and cholesterol content.



Amino Acid Profile



Fatty Acid Profile



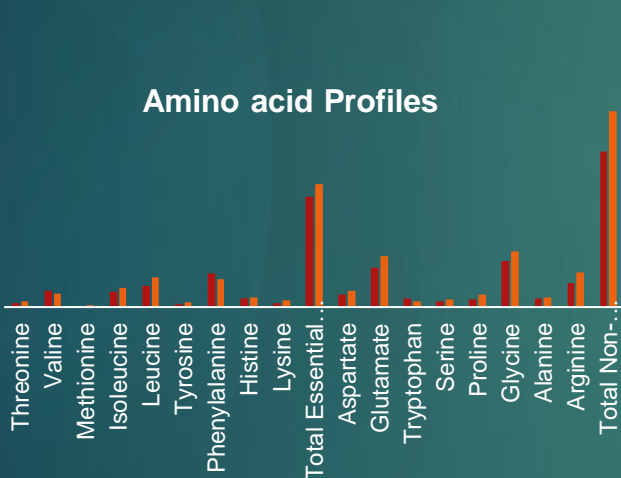
Cholesterol Content

PWM (n=25) Pekin (n=25)

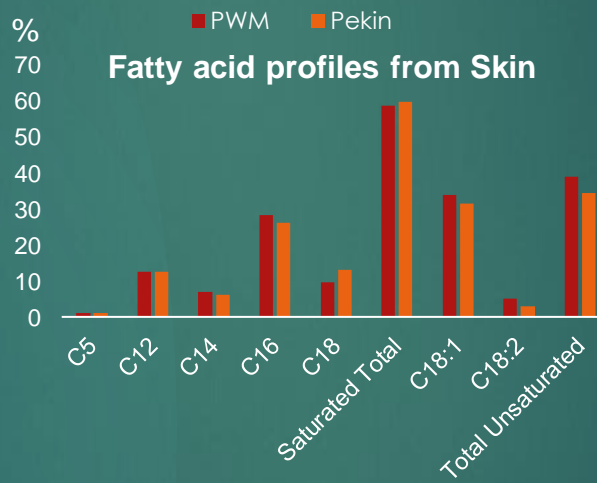
Statistical Analysis: Data were analyzed using an Independent-Sample T-test at 5% level of confidence using the SPSS.

RESULTS AND DISCUSSION

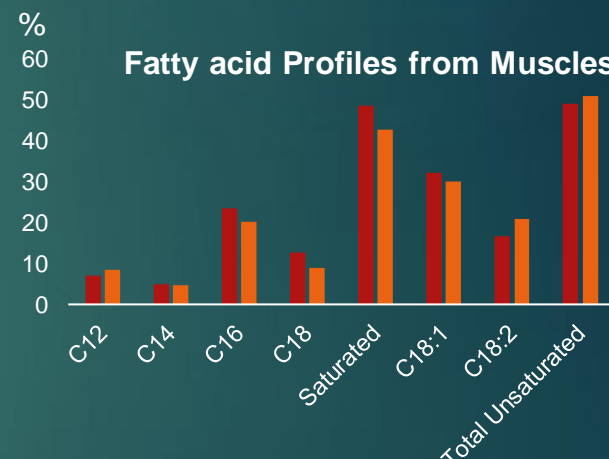
Amino acid Profiles



Fatty acid profiles from Skin



Fatty acid Profiles from Muscles



Ratios of fatty acids of skin and muscles

Cholesterol content (mg/100g) of meat

- ❖ Similar amino acid and fatty acid profiles.
- ❖ Cholesterol content of PWM meat is higher than Pekin and could possibly be improved by adjusted nutrition.
- ❖ Similar nutritive value and good sources of quality nutrients for humans.

%	PWM		Pekin	
	Skin	Muscles	Skin	Muscles
SFA	60.8±8.6	50.9±9.0	65.5±9.9	45.8±12.3
UFA	39.1±8.6	49.2±8.9	34.5±10	51.4±12.3
MUFA	33.9± 4.2	16.2±23	31.4±8.6	15.3±21
PUFA	1.7±3.0	4.2±8.4	1.02±1.7	5.2±10.4
SFA/UFA	1.54	1.04	1.9	0.89
SFA/MUFA	1.77	1.58	2.08	1.5
SFA/PUFA	11.75	3.02	21.55	2.2

	PWM		P-value
	PWM	Pekin	
Skin	34.02±	23.65±	0.05
Lean	91.39±	76.35±	0.01

CONCLUSION

Philippine White Mallard ducks show potential for meat processing because of its unsaturated fatty acids and can compete with other meat-type ducks due to its comparable nutritional value.

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REFERENCE: Brudnicki A, Brudnicki W, Wach J, Kulakowska A and Pietruszyńska D. 2012. Amino acid composition in the Wild Boar (*Sus scrofa ferus*) meat originating from different part of carcass. Journal of Central European Agriculture 13 (4): 662-670.

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