

## **PENGARUH PERBEDAAN KONSENTRASI BAHAN PENYAMAK GAMBIR TERHADAP KUALITAS FISIK KULIT SAMAK KELINCI**

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### **INTISARI**

Penelitian ini bertujuan untuk mengetahui kualitas fisik kulit kelinci dengan bahan penyamak nabati, yaitu gambir dengan perlakuan perbedaan konsentrasi bahan penyamak. Penelitian menggunakan bahan kulit kelinci *New Zealand* segar yang terdiri dari lima perlakuan dengan tiga kali pengulangan. Perlakuan yang diberikan yaitu perbedaan tingkat konsentrasi bahan penyamak nabati yaitu P0 (mimosa 10%), P1 (gambir 10%), P2 (gambir 15%), P3 (gambir 20%), dan P4 (gambir 25%). Data yang diperoleh dalam penelitian ini akan dianalisis menggunakan uji *One Way Anova*. Jika hasilnya berbeda nyata, maka akan dilanjutkan dengan uji *Duncan's New Multiple Range Test* (DMRT). Parameter penelitian yang akan diuji kali ini adalah kualitas fisik yang meliputi uji suhu kerut, kuat tarik, kemuluran, dan kuat bengkok. Hasil uji kualitas fisik kulit pada suhu kerut menunjukkan bahwa P0 (mimosa 10%) memiliki nilai suhu kerut tertinggi, yaitu 76,40°C. Hasil uji kualitas fisik kulit pada kuat tarik menunjukkan bahwa P2 (gambir 15%) memiliki nilai kuat tarik tertinggi, yaitu 2382,50 N/cm<sup>2</sup>. Hasil uji kualitas fisik kulit pada kemuluran menunjukkan bahwa P3 (gambir 20%) memiliki nilai kemuluran tertinggi, yaitu 25,08%. Hasil uji kualitas fisik kulit pada kuat bengkok menunjukkan bahwa P0 (mimosa 10%), P1 (gambir 10%), P2 (gambir 15%), P3 (gambir 20%), dan P4 (gambir 25%) memiliki hasil kuat bengkok, yaitu tidak retak. Kesimpulan dari penelitian ini yaitu gambir dapat digunakan sebagai salah satu bahan penyamak nabati yang ramah lingkungan pada proses penyamakan kulit kelinci. Hasil terbaik terdapat pada P2 (gambir 15%) dengan nilai suhu kerut 66,27°C, kuat tarik 2382,50 N/cm<sup>2</sup>, kemuluran 27,54%, dan kuat bengkok tidak retak.

**Kata Kunci:** Kulit Kelinci, Penyamakan, Bahan Penyamak Gambir, Kualitas Fisik Kulit.

## **EFFECT OF DIFFERENT CONCENTRATIONS OF GAMBIR TANNING AGENT ON THE PHYSICAL QUALITY OF RABBIT TANNED LEATHER**

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### ***ABSTRACT***

This research aimed to determine the physical quality of rabbit skin with vegetable tanners, namely gambier with different concentrations of tanners. The research used fresh New Zealand rabbit skin material consisting of five treatments with three repetitions. The treatments given were different levels of concentration of vegetable tanners, namely P0 (mimosa 10%), P1 (gambier 10%), P2 (gambier 15%), P3 (gambier 20%), and P4 (gambier 25%). The data obtained in this study will be analyzed using the One Way Anova test. If the results are significantly different, it will be continued with Duncan's New Multiple Range Test (DMRT). The research parameters that will be tested this time are physical quality which includes wrinkle temperature test, tensile strength, extensibility, and bending strength. The results of the physical quality test on wrinkle temperature showed that P0 (mimosa 10%) had the highest wrinkle temperature value, 76.40°C. The results of the physical quality test on tensile strength showed that P2 (gambier 15%) had the highest tensile strength value, which was 2382.50 N/cm<sup>2</sup>. The results of the physical quality test of leather on pliability show that P3 (gambier 20%) has the highest pliability value, which is 25.08%. The results of the physical quality test of leather on bending strength show that P0 (mimosa 10%), P1 (gambier 10%), P2 (gambier 15%), P3 (gambier 20%), and P4 (gambier 25%) have strong bending results, which are not cracked. It is concluded that gambier can be used as a tanning agent in the process of tanning rabbit skin. The best results were found in P2 (gambier 15%) with a wrinkle temperature value of 66.27°C, tensile strength of 2382.50 N/cm<sup>2</sup>, ductility of 27.54%, and bending strength without cracks.

**Keywords:** Rabbit Skin, Tanning, Gambier Tanning Agent, Physical Quality of Skin.