Universitas Ngudi Waluyo
Program Studi Farmasi, Fakultas Kesehatan
Skripsi, Februari 2023
Wiwin Anuggerah Silmi
051191137

KARAKTERISTIK MINYAK BIJI LABU KUNING (*Cucurbita moschata* Duchesne) DAN PENENTUAN AKTIVITAS ANTIBAKTERI TERHADAP *Staphylococcus aureus*
(xv + 76 hal + 2 gambar + 8 tabel + 6 lampiran)

ABSTRAK

Latar belakang: Infeksi bakteri merupakan masalah kesehatan yang sering terjadi, salah satunya disebabkan oleh bakteri *Staphylococcus aureus.* Pengobatan dengan antibiotik secara berlebihan dapat menyebabkan terjadinya resistensi. Minyak biji labu kuning *(Cucurbita moschata* Duchesne*)* merupakan minyak nabati yang memiliki potensi antibakteri yang belum banyak diketahui. Kandungan senyawa flavonoid, alkaloid, saponin, tanin dan polifenol pada minyak biji labu kuning bersifat sebagai antibakteri. Tujuan dari penelitian ini adalah untuk mengevaluasi karakteristik fisik dan aktivitas antibakateri minyak biji labu kuning *(Cucurbita moschata* Duchesne*)* terhadap bakteri *Staphylococcus aureus.*
Metode: Jenis penelitian yang dilakukan adalah penelitian eksperimental menggunakan metode soxhletasi dengan pelarut n-heksan terhadap uji karakteristik fisik minyak biji labu kuning (uji organoleptis, uji kadar air, bobot jenis, dan bilangan penyabunan) serta metode difusi cakram untuk uji aktivitas antibakteri terhadap *Staphylococcus aureus.*
Hasil: Minyak biji labu kuning *(Cucurbita moschata* Duchesne*)* hasil ekstraksi soxhlet didapatkan hasil rendemen minyak 32,80%. Karakteristik fisik didapatkan hasil kadar air 4,8%, bobot jenis 0,4, bilangan penyabunan 454,49 mg KOH. Pada uji aktivitas antibakteri didapatkan nilai diameter zona hambat sebesar 1,78mm.
Kesimpulan: Minyak biji labu kuning *(Cucurbita moschata* Duchesne*)* memiliki aktivitas antibakteri yang lemah terhadap *Staphylococcus aureus* dan karakteristik fisik minyak biji labu kuning memenuhi syarat pada parameter bobot jenis.

Kata kunci: Minyak biji labu kuning, *Staphylococcus aureus*, karakteristik fisik, antibakteri.

Ngudi Waluyo University
Pharmacy Study Program, Faculty of Health
Thesis, February 2023
Wiwin Anuggerah Silmi
051191137

CHARACTERISRICS OF YELLOW PUMPKIN SEED OIL *(Cucurbita moschata* Duchesne*)* AND DETERMINATION OF ANTIBACTERIAL ACTIVITY AGAINTS *Staphylococcus aureus*
(xv + 76 Pages + 2 Image + 8 Tables + 6 Attachments)

ABSTRACT

Background: Bacterial infection is a health problem that often occurs, one of which is caused by the *Staphylococcus aureus* bacteria. Excessive treatment with antibiotics can cause resistance. Pumpkin seed oil *(Cucurbita moschata* Duchesne) is a vegetable oil that has antibacterial potential that is not widely known. The content of flavonoids, alkaloids, saponins, tannins, and polyphenols in pumpkin seed oil has antibacterial properties. The purpose of this study was to evaluate the physical characteristics and antibacterial activity of pumpkin *(Cucurbita moschata* Duchesne*)* seed oil against *Staphylococcus aureus* bacteria.
Methods: The type of research conducted was an experimental study using the soxhletation method with n-hexane solvent to test the physical characteristics of pumpkin seed oil (organoleptic test, test for water content, specific gravity, and saponification number) and the disc diffusion method to test the antibacterial activity against *Staphylococcus aureus*.
Results: Pumpkin seed oil *(Cucurbita moschata* Duchesne*)* resulting from soxhlet extraction yielded a 32.80% oil yield. Physical characteristics showed that the water content was 4,8%, the specific gravity was 0,4, and the saponification number was 454,49 mg KOH. In the antibacterial activity test, the diameter of the inhibition zone was 1,78 mm.
Conclusion: Pumpkin seed oil *(Cucurbita moschata* Duchesne*)* has weak antibacterial activity against *Staphylococcus aureus*, and the physical characteristics of pumpkin seed oil fulfill the requirements on the specific gravity parameter.

Keywords: Pumpkin seed oil, *Staphylococcus aureus*, physical characteristics, antibacte