

Title: Total Phenolic, Vitamin-C Content and Antioxidant Activity of Peel and Flesh of Abiu
(*Pouteria caimito*)

Author(s): Ms. Nannalin Tungmunde

Student ID: 640510130

Major: Chemistry

Advisor(s): Associate Professor Dr. Nuchnipa Nuntawong

Type of presentation* (choose 1): Oral Presentation (เฉพาะ ตัวแทนศ.ที่สาขาเลือกให้นำเสนอแบบบรรยาย)
 Poster (สำหรับ นศ.ที่นำเสนอผลงาน ณ จุดติดตั้งโปสเตอร์ตามปกติ)
 Cooperative Education (เฉพาะ ผลงานที่นศ.ทำต่อเนื่องมาร่วมกับหน่วยงานภายนอก)

ABSTRACT

Abiu (*Pouteria caimito*) is a tropical fruit native to South America. This fruit is gaining popularity in Thailand, particularly in the northern and northeastern regions, where it is widely cultivated and sold. Abiu is rich in essential vitamins and minerals, including vitamin C, fatty acids, and antioxidants, which help reduce the risk of various diseases and promote overall health. This research aims to compare the total phenolic content using Folin-Ciocalteu reagent, antioxidant activity using the DPPH radical scavenging method, and vitamin C content using the redox-titration technique of the flesh and peel of Abiu at two ripeness stages: half-ripe (greenish-yellow fruit) and fully ripe (yellow fruit). It was found that ethanol extract of the peel had a higher total phenolic content than the flesh at both ripeness stages. However, the ethanol extract of fully ripe flesh had the highest antioxidant activity ($IC_{50} = 105.40 \mu\text{g/mL}$) and vitamin C (4.96mg/mL) compared to the half-ripe flesh and the peel of both ripeness stages. This finding suggest that, the high total phenolic content in Abiu peel extract may have potential applications in health and cosmetic products. Additionally, the fully ripe flesh is more suitable for consumption than that of half-ripe stage due to its higher antioxidants and vitamin C content, providing greater nutritional benefits

*Type of presentation must be matched with an option you choosing on student upload system.

**The abstract can be more than one page and must be approved by project advisor before upload.