INSTABRIGHT e-GAZETTE
ISSN: 2704-3010
Volume V, Issue IV
May 2024
Available online at https://www.instabrightgazette.com

****

KERATIN PRODUCTION FROM CHICKEN Gallus gallus domesticus FEATHERS AS A HAIR STRENGTHENING FORMULA

Bugtong, Aleckxa Reign D.
Dador, Krista Juliane
Dela Rea, Moira Bianca
Dimatulac, John Joseph S.
Gatdula, Cielo Vinice B.
Riosa, Russel Aaron B.
Balayan Senior High School

ABSTRACT

As a result of the high temperature and the surrounding bodies of water, the Philippines has a high relative humidity. The dominant humid season of the country may affect Filipinos in various aspects, specifically in terms of hair maintenance since humidity is found to be critical for the tendency of the hair to frizz. Additionally, frizz is one of the negative effects of weak hair. This experimental study focuses on chicken Gallus gallus domesticus feathers, abundant agricultural waste rich in keratin, as a hair-strengthening formula, followed by a series of experiments and tests to verify its effectiveness. Chicken feather waste is the suitable raw material for this study, given its abundant availability in the poultry industry and the harmful environmental effects of its disposal, which may be lessened through utilizing it in a way that would benefit not only the human body but the environment as well. Also, chicken feather waste contains 91% pure keratin, which makes it a promising material in terms of the formulation of a

****

****

INSTABRIGHT e-GAZETTE
ISSN: 2704-3010
Volume V, Issue IV
May 2024
Available online at https://www.instabrightgazette.com

****

new hair-strengthening formula. As stated by the result of the experimental study, the concentration with the most significant impact is the 3 grams of keratin hydrolysate concentration, which led to strengthening the hair with the capacity to withstand an average weight of 125 grams over a 4-day trial period, surpassing the standard weight capacity of hair, which is 100 grams. Furthermore, the 3 grams of keratin hydrolysate concentration showed the most effectiveness in comparison to the standard hair spray, which means that the keratin-infused hair formula for hair strengthening is effective and may be used for hair strengthening. These findings indicate that keratin extracted from chicken feather waste presents a promising, natural, and environmentally sustainable option for strengthening hair, especially in humid climates such as that of the Philippines.