

GUM ACACIA (GA) well acknowledged as Gum Arabic is a gum that is gained by making cuts in the bark of the grown trees of acacia Senegal trees. The term "Gum Arabic" originated from the trading between the Arab and European countries. The primary source of the GA is from Kordofan, in the region of Sudan, which yields over 90% of the world's resources, [2]. It is undeniable that Islam et al. (1997) showed that the marketable grade of GA which was composed from Acacia Senegal trees has the best quality as compared to other varieties [3]. GA, chemically is a complex polysaccharide that has been deemed as a safe dietary fibre by the United States, Food and Drug Administration (FDA) since 1970.



Figure 1. GA is well acknowledged as
Gum Arabic
Source:
https://khni.kerry.com/news/acacias-roleas-a-functional-fibre/

"GA has been extensively used in the food industry as a thickening agent, emulsifier, and stabilizer (e.g. in gummy candies, marshmallows syrup, and soft drinks). For other foods like chocolate, ice cream, chewing gum, and jam it is also used as a binding agent while for confectionary products it acts as a sugar crystallization inhibitor [4]. Then, in beverages such as wine clarifiers and citrus juices, it works as an emulsifier and also as a stabilizer in the manufacturing of soft drinks. Additionally, GA is also well used in pharmaceutical industries, lithography, cosmetics, textile, and pottery, "

In pharmaceutical industries, it is utilized in throat pastilles, tablets and pills as a binder, emulsification, and stabilization [5]. Apart from that, GA preserves an excellent source of dietary fibre that produce lots of advantages and an outstanding supply of prebiotics.

The solvent fibre of GA is the most excellent source of prebiotic which is up to 85%, and it is the greatest noteworthy prebiotic that originates within the shape of soluble fibre [6].



Figure 2. Now, in addition to its versatility, digestive health can be added to the list the benefits of acacia gum.

Source: https://www.foodnavigator.com/News/Promotional-Features/Thebenefits-of-acacia-gum-in-gut-health

Other than that, the prebiotic source in GA makes a difference in advancing more grounded bones, improving, and the resistant reinforcing framework, feeding thousands of great bacterial species within the colon and incrementing the number of great microbes within the stomach-related system. [7]. In summary, GA has many benefits to be explored and applied. Many sectors can profit from GA by innovating and manufacturing more good products, as well as leveraging new business opportunities for other industries.

REFERENCES

 Beyene, M. (1993, November 15). Investing In Acacia Senegal - Lessons From The Sudanese Experience To Eritrea. The Scandinavian Institute of African Studies, Retrieve on August 11, 2016, from http://www.divaportal.se/smash/get/diva2:288762/FULLT EXT01.pdf

- 2. Joseleau, J. P., & Ullmann, G. (1990). Phytochemistry. Biochemical Evidence for the Site of Formation of Gum Arabic in Acacia Senegal. Elsevier, 29(11), 3401-3405. http://dx.doi.org/10.1016/0031-9422(90)85246-C
- 3. Islam, A.M., Phillips, G.O., Sljvo, A., Snowden, M.J., and Williams, P.A. (1997, October). A Review of Recent Developments on the Regulatory, Structural and Functional Aspects of Gum Arabic. Elsevier, 11(4), 493-505. http://dx.doi.org/10.1016/S0268-005X(97)80048-3
- 4. Azeez, O.S. (2005). Decolourization of gum Arabic using activated charcoal. Leonardo J. Sci., 7: 23-32.
- Lemenih, M., & Kassa, H. (2011). Opportunities and Challenges for Sustainable Production and Marketing of Gums and Resins in Ethiopia. Center for International Forestry Research, 105.

http://dx.doi.org/10.17528/cifor/003478

- Gibson, G. R., Scott, K. P., Rastall, R. A., Tuohy, K. M., Hotchkiss A., Dubert-Ferrandon A., .Buddington R. (2010). Dietary Prebiotics: Current Status and New Definition. Food Science and Technology Bulletin: Functional Foods, 7(1), 1-19. doi:10.1616/1476-2137.15880
- Sousa V.M.R.d., Santos E.F.d, & Sgarbiero V.C. (2011). The Importance of Prebiotics in Functional Foods and Clinical Practice. Food and Nutritions Sciences, 2, 133-144. http://doi:10.4236/fns.2011.22019