

Fruit Aqueous Extract of Brazilian Pepper Tree (*Schinus Terebinthifolius*, Raddi) on Selected Quality Parameters of Frozen Fresh Pork Sausage

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Editorial

Consumption of fresh sausages, ham, and mortadella has increased in recent years, mainly because they are simple, quick to prepare. However, the consumption of meat products has been associated with obesity, cancer, and heart disease, raising public health concerns about safety, sanitation, convenience, and flavor of foods [1]. In this sense, two of the main problems in the processing and storage of fresh sausages is the loss of color and lipid peroxidation [2]. Consequently, to improve the quality of meat products and gain the consumer's preference, the main innovation in the meat producing chain today is the replacement of synthetic preservatives and antioxidant agents by natural products that have the same effect on foods [3].

Like other meat products, fresh sausages experience some degree of color change during processing and storage. Importantly, color is an essential parameter of foods, influencing customer preference. For this reason, this attribute has become the main aspect considered in the development of natural food coloring products [4].

With the decreasing use of synthetic additives in foods due to the associated toxicity issues, the industry has sensed a gradual rise in the demand for natural agents used for the same purposes. For instance, several natural coloring agents like annatto, curcumin, betalains, carmine, and anthocyanin extracts are currently included in the formulations of food products [5]. But besides natural colorings, plant-derived antioxidant and antimicrobial agents are also used in an increasing number of food products. Presenting a number of important medicinal properties, *Schinus terebinthifolius* (Raddi) is widely used in Brazilian ethno medicine as anti-inflammatory and healing agent and in the treatment of lung disease [6]. The in vivo and in vitro studies have discussed the numerous biological effects of *S. terebinthifolius*, which include antioxidant, antibacterial, and antifungal properties [7].

Phenols play an important role in lipid stability, and have become an important ingredient in many food products [8]. More specifically, phenolic compounds like anthocyanins, biflavonoids, and gallotannins have been detected in the exocarp of *S. terebinthifolius* fruits [9]. But it was also discovered that the main phenolic compounds in the species were the biflavonoids I6, II8-biapegin (agathisflavone), I3"II8-bipegin (amentoflavone), and II-2,3-dihydro-I3", II6-biapegin [10].

References

- 1. Andrade JC, Nalério ES, Giongo C, Barcellos MD, Ares G, et al. (2018) Consumer sensory and hedonic perception of sheep meat coppa under blind and informed conditions. Meat Science 137: 201-210.
- 2. Mielnik B, Sem S, Egelandsdal B, Skrede G (2008) Byproducts from herbs essential oil production as ingredient in marinade for turkey thighs. LWT - Food Science and Technology 41(1): 93-100.
- 3. Almeida PL, Lima SN, Costa LL, Oliveira CC, Damasceno KA, et al. (2015) Effect of jabuticaba peel extract on lipid oxidation, microbial stability and

Editorial

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sensory properties of Bologna-type sausages during refrigerated storage. Meat Sci 110: 9-14.

- Barros F, Stringheta C (2006) Microencapsulamento de antocianinas. Biotecnologia Ciência e Desenvolvimento 9 (36).
- Silva G, Constant L, Figueiredo R, Moura M (2010) Formulação e estabilidade de corantes de antocianinas extraídas das cascas de jabuticaba (Myrciaria ssp.). Alimentos e Nutrição 21(3): 429-436.
- Barbosa L, Demuner A, Clemente A (2007) Seasonal variation in the composition of volatile oils from Schinus terebinthifolius Raddi. Quim Nova 30(8): 1959-1965.
- 7. de Lima M, de Souza J, dos Santos A, de Andrade M, Sant'Ana A, et al. (2006) Anti-bacterial activity of

some Brazilian medicinal plants. Journal of Ethnopharmacology 105(1): 137-147.

- 8. Maestroduran R, Cabello R, Gutierrez R (1994) Phenolic compounds from olive (Olea europaea). Grasas y Aceites 45(4): 265-269.
- Feuereisen MM, Hoppe J, Zimmermann BF, Weber F, Schulze-Kaysers N, et al. (2014) Characterization of Phenolic Compounds in Brazilian Pepper (Schinus terebinthifolius Raddi) Exocarp. J Agric Food Chem 62 (26): 6219-6226.
- 10. Feuereisen MM, Gamero BM, Zimmermann BF, Schieber A, Schulze-Kaysers N (2017) Pressurized liquid extraction of anthocyanins and biflavonoids from Schinus terebinthifolius Raddi: A multivariate optimization. Food Chem 214: 564-571.

