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Studies on extraction of essential oil and pectin from sweet orange

Pravin Ghatge[1], Syed Hammed Hashmi[1], Girish Marotirao Machewad[2] and Sharad Pawar[1]
[1]Department of Food Chemistry and Nutrition, [2]Department of Food and Industrial Microbiology, College of Food Technology, Marathwada Krishi Vidyapeeth, India

The essential oil and pectin extraction from sweet orange were studied. The physical characteristics of sweet orange were found color (greenish yellow). The wt of peel, juice, pomace and seed was 47.1, 77.65, 66, 12.6 g respectively. The yield of essential oil obtained from flavedo peel layer is 3.02%. Further the physicochemical characteristics of essential oil were found yellowish liquid appearance, orange odor, relative density (21.02 g/ml), specific gravity (0.841 g/ml), solubility in alcohol (soluble in 95% but insoluble in 90%), peroxide vale (3.5), evaporation residue (4.25%), flash point (48^{0}C), aldehyde (1.3%) and ester content (2.0%). The yield of pectin extracted by acid precipitation method from albedo peel layer was 20.12%. Further the physicochemical characteristics of pectin were found color (brown), moisture content (3.78%), ash (0.62%), degree of methoxylation (9.2%), gel grade (150%) and calcium pectate (7.40%).

pughatge@indiatimes.com