



EFFECT OF Ph AND HEATING TECHNIQUES ON EXTRACTION OF PECTIN FROM DIFFERENT SOURCES AVAILABLE IN PAKISTAN

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ABSTRACT

Pectin is complex heteropolysaccharide primarily present in the cell wall of terrestrial plants cell wall. Although it is obtained from citrus peels and apple pomace, but new sources have been investigating to fulfill the increased demand of pectin. The current study aimed to evaluate the effect of three parameters (pH level and heating methods) on the yield of pectin from peels of five different sources. Pectin was extracted from peels of sapodilla, banana, muskmelon, orange and apple at different pH levels (pH 1-pH 7) and with two heating methods include heating on Bunsen burner and microwave heating and after keeping the extracting mixture for 24hrs at room temperature before final precipitation of pectin. Although the results of the current study showed highest pectin yield from orange peels but among the three new sources (sapodilla, banana and muskmelon), banana peels pectin was found to show highest yield at pH 3. While the lowest yield was resulted from muskmelon peels among the five fruits peels. Pectin yield was found to be significantly influenced by pH level and heating method after 24hrs curing. Microwave heating showed significantly increased yield of pectin from all the investigated fruits peels. Thus concluded that these new sources of pectin can play promising role in order to fulfill the global requirement of pectin production.