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Modified Alcohol Oxidase Method Used to Determine the Degree of Pectin Methylesterification

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The degree of methylesterification of pectin was measured using a modified alcohol oxidase method to determine the methanol liberated from pectin by saponification. When the alcohol oxidase method was used to determine the degree of methylesterification from crude pectin extracted from raw vegetables, the colorimetric determination value was thought to be low compared with the net value. From this result it was hypothesized that crude pectin contained some substance which had a reduction effect (inhibitory factor) on the determination value. This inhibitory factor could be removed by the addition of a copper sulfate in the alkaline condition. Two alcohol oxidase methods were applied to investigate a method to determine the degree of methylesterification of pectin; one was the method reported by Hamano *et al.* (1990) and the other was that reported by Klavons & Bennett (1986). The determination value of the two methods agreed when a copper sulfate was added.

Keywords: [methylesterification](#), [spectrophotometry](#), [determination](#), [alcohol oxidase](#), [methanol](#), [pectin](#), [vegetables](#)

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