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## **Effects of Low Pressure Storage on Various Taste C Substances and Hardness of Ume Fruit**

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After treatment with about 200 ppm hypochlorite solution, ume fru (*Prunus mume* Sieb. et Zucc.) was soaked in water, 5% NaCl or lactate or ashed kelp as a hardener. The fruit was stored at a press After 6 months, we analyzed the organic acids, free sugars (sugars) (amino acids), inorganic cations and pectic substances in the ume f the hardness, and the yeasts and lactic acid bacteria were examined were obtained: (1) Yeasts and lactic acid bacteria were not detecte

a hardener obviously softened. Though ume fruit with a hardener gave hardness, the fruit stored in water decreased slightly more than that with NaCl. (3) Ume fruit with Ca lactate contained lactic acid produced lactate to Ca ion and lactic acid. However, organic acids in ume fruit decomposed during storage. (4) Though sucrose was resolved to glucose and fructose, the sugars in ume fruit decomposed to any compound except the sugar. Asparagine in fresh ume fruit was asparagine which represented 93.3% of the total amino acids. The ratio of asparagine in stored ume fruit was almost the same as that in fresh ume fruit. In addition, amino acids in ume fruit were considered not to decompose. Because the Ca content in the alcohol-insoluble substances prepared with Ca lactate or ashed kelp increased, Ca in both hardeners was thought to be related to components such as pectic substances. (7) With storage, ume fruit showed a decrease in the ratio of 0.05 N hydrochloric acid-soluble pectin (HSP) to total pectin and water-soluble-pectin (WSP) ratio. Though the HSP in ume fruit with Ca lactate showed a decrease, the degree of decrease was less than that of the fruit without a hardener. The WSP ratio did not increase. Furthermore, ume fruit with ashed kelp showed a higher HSP ratio than the fruit with Ca lactate, and the WSP was less than that of the fruit with Ca lactate. From these results, it was found that under low pressure storage, the sucrose in ume fruit resolved to glucose and fructose, the taste components in ume fruit were maintained. Furthermore, it was found that ashed kelp has an ability about equivalent to Ca lactate to maintain the hardness of ume fruit during storage. However, the mechanism for maintaining hardness might differ each case.

**Keywords:** [ume fruit](#), [low pressure](#), [amino acids](#), [sugars](#), [organic acids](#), [hardness](#)

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