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異なる熟度で収穫したウメ'南高'果実の追熟期間が果実および梅酒の品質に及ぼす影響

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Effect of the Ripening Period of Fruit Harvested at Different Maturity on the Qualities of Fruit and Processed Ume Liqueur in 'Nanko' Japanese Apricot (*Prunus mume*)

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摘 要

ウメ果実の追熟期間が果実および梅酒品質に及ぼす影響を調査した.果実は収穫後すぐに軟化が進み、急激なエチレン発生に伴って黄化した.果肉(果皮を含む)の β -カロテン含量は採取3~5日後より急増し、抗酸化能は未熟な果実を除いては採取時と同じか低く推移した.梅酒品質については、青果収穫開始期以前に採取した果実の場合、追熟日数が長いものほど梅酒抽出量(歩留まり)とソルビトール含量が低いが、追熟日数が4~6日のもので褐色度、クエン酸、総有機酸、ポリフェノール含量、抗酸化能が最も高かった。青果収穫盛期以後に採取した果実の場合、採取後4日のもので褐色度が大きいが、追熟しないもので梅酒抽出量、リンゴ酸、総有機酸、ソルビトール含量が最も高かった。

以上のことから、熟度が進んだ果実は収穫後速やかに加工する方がよく、熟度があまり進んでいない 果実を梅酒に加工する場合は、4日程度追熟して加工する方がよいと判断された.

以上のことから、梅酒加工を前提とする場合の梅酒品質に基づく収穫時期の特定には、果実硬度が利用できると考えられた.

Summary

Effects of the duration of ripening on the qualities of harvested fruit and the processed Japanese apricot liqueur (ume liqueur) were investigated in 'Nanko' Japanese apricot (Prunus mume Sieb. et Zucc.). Rapid softening of harvested fruit was observed, followed by the yellowing with the increase of ethylene production. β-caroten concentration in the flesh (with skin) sharply increased from 3-5 days after harvest. Antioxidant activity of the flesh changed with equal or below level at harvest except for immature fruit. When the fruit picked before the commercial harvest time was processed to ume liqueur, sorbitol content and extracted volume from fruit in the ume liqueur decreased as the processed fruit stored longer period. However, ume liqueur possessed the highest content of citric acid, total organic acid, phenolics and the highest browning strength in the stored period when the fruit ripened for 4-6 days were processed. When the fruit picked after commercial harvest time was processed to ume liqueur, the ume liqueur made of 4-day ripened fruit possessed the highest browning strength. However, contents of malic acid, total organic acid, sorbitol and extracted volume from fruit in the ume liqueur were the highest when the fruit was processed immediately after harvest. Therefore, we thought that mature fruit should be processed immediately to ume liqueur while immature fruit should be hold for about four days before processing.