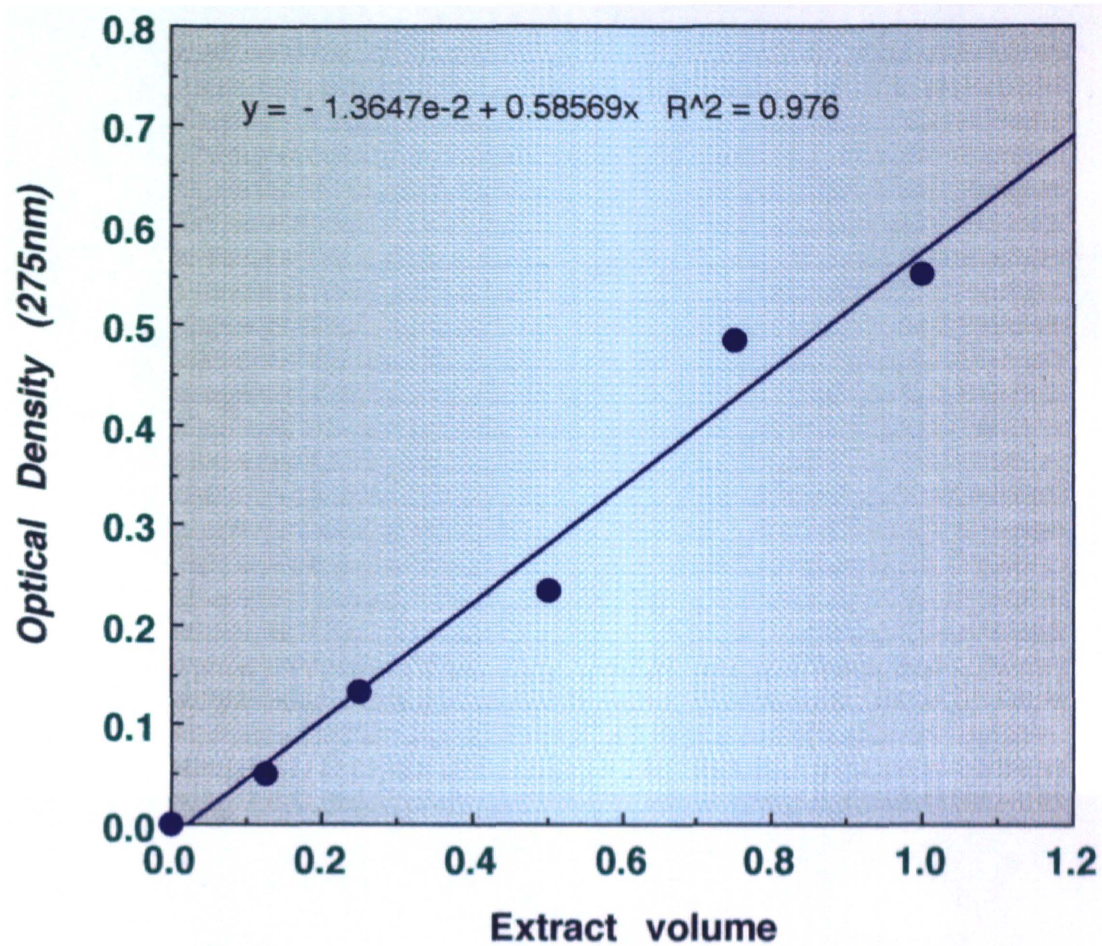


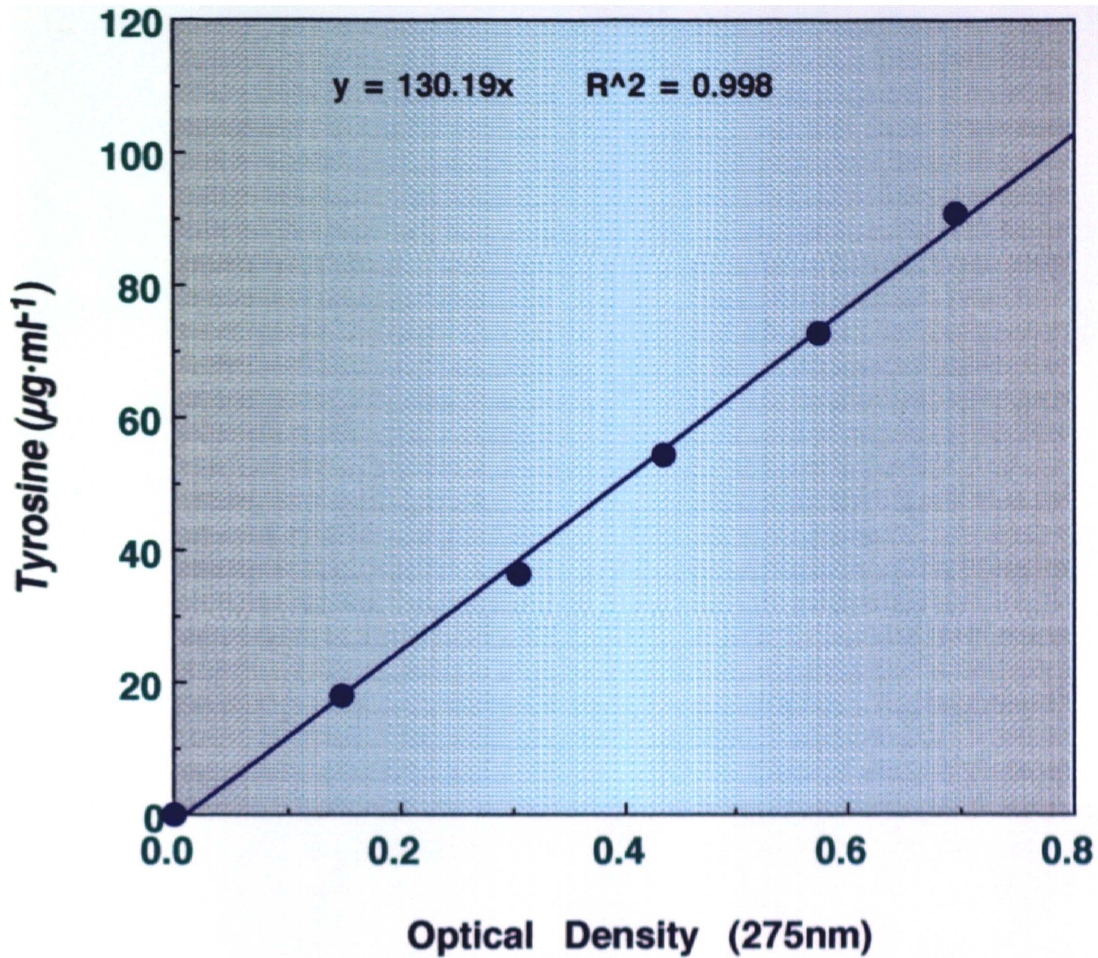
# 琉球大学学術リポジトリ

## パイナップル果実の糖・有機酸合成に関する研究

メタデータ	言語: 出版者: 川満芳信 公開日: 2010-03-17 キーワード (Ja): 糖類, クエン酸, 有機酸, パイナップル, リンゴ酸, シュークロース, シュウ酸, ブロメライン, タンパク, 有機酸類, 糖酸比 キーワード (En): Malic Acid, Ananas comosus L.Merr., Sugar, Oxalic Acid, Organic Acid, Citric Acid, Ananas comosus (L.) Merr., Blomelain, Sucrose 作成者: 川満, 芳信, Kawamitsu, Yoshinobu メールアドレス: 所属:
URL	<a href="http://hdl.handle.net/20.500.12000/16387">http://hdl.handle.net/20.500.12000/16387</a>

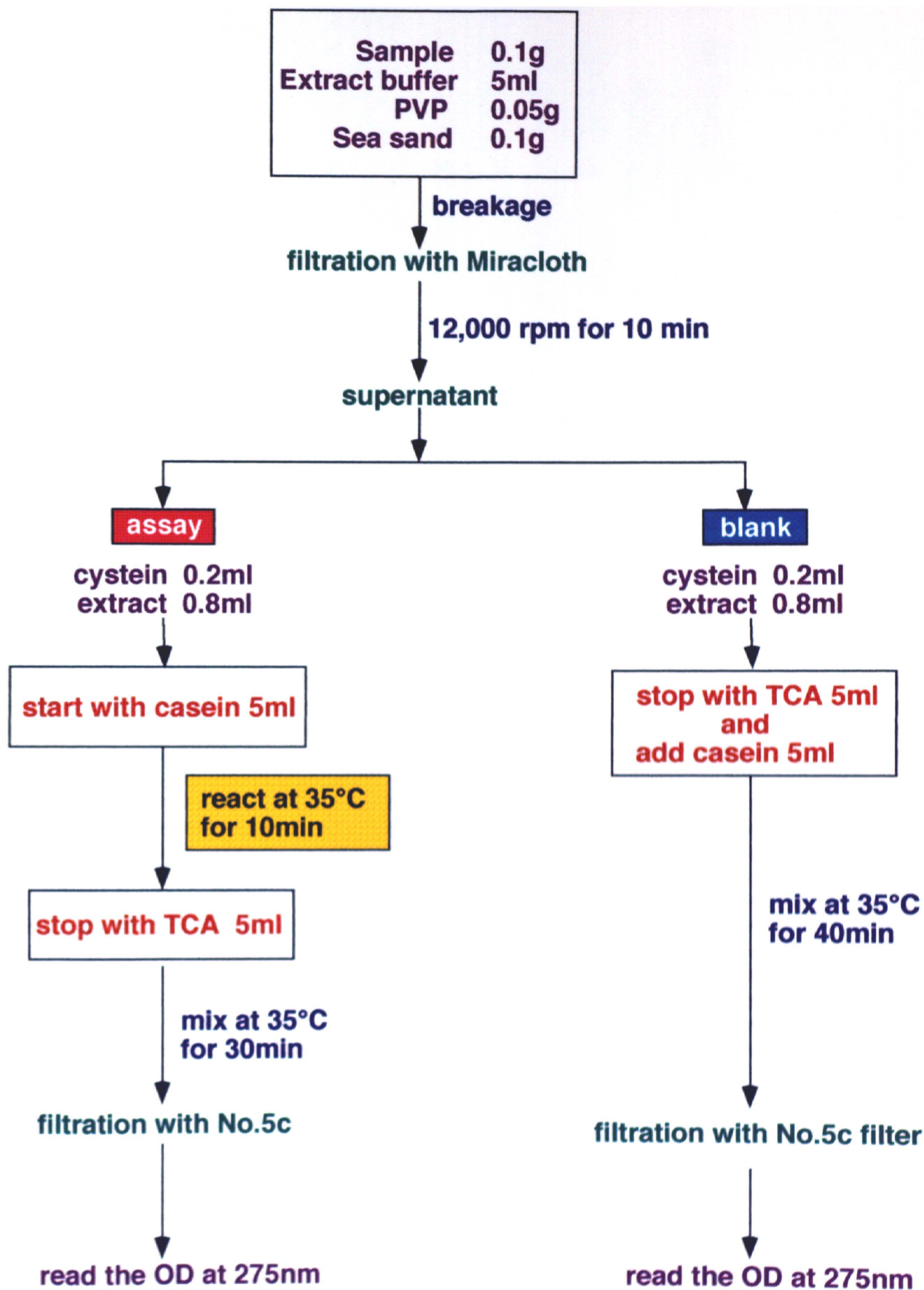


**Fig. 1. The relationship between activity of bromelain and extract volume.**



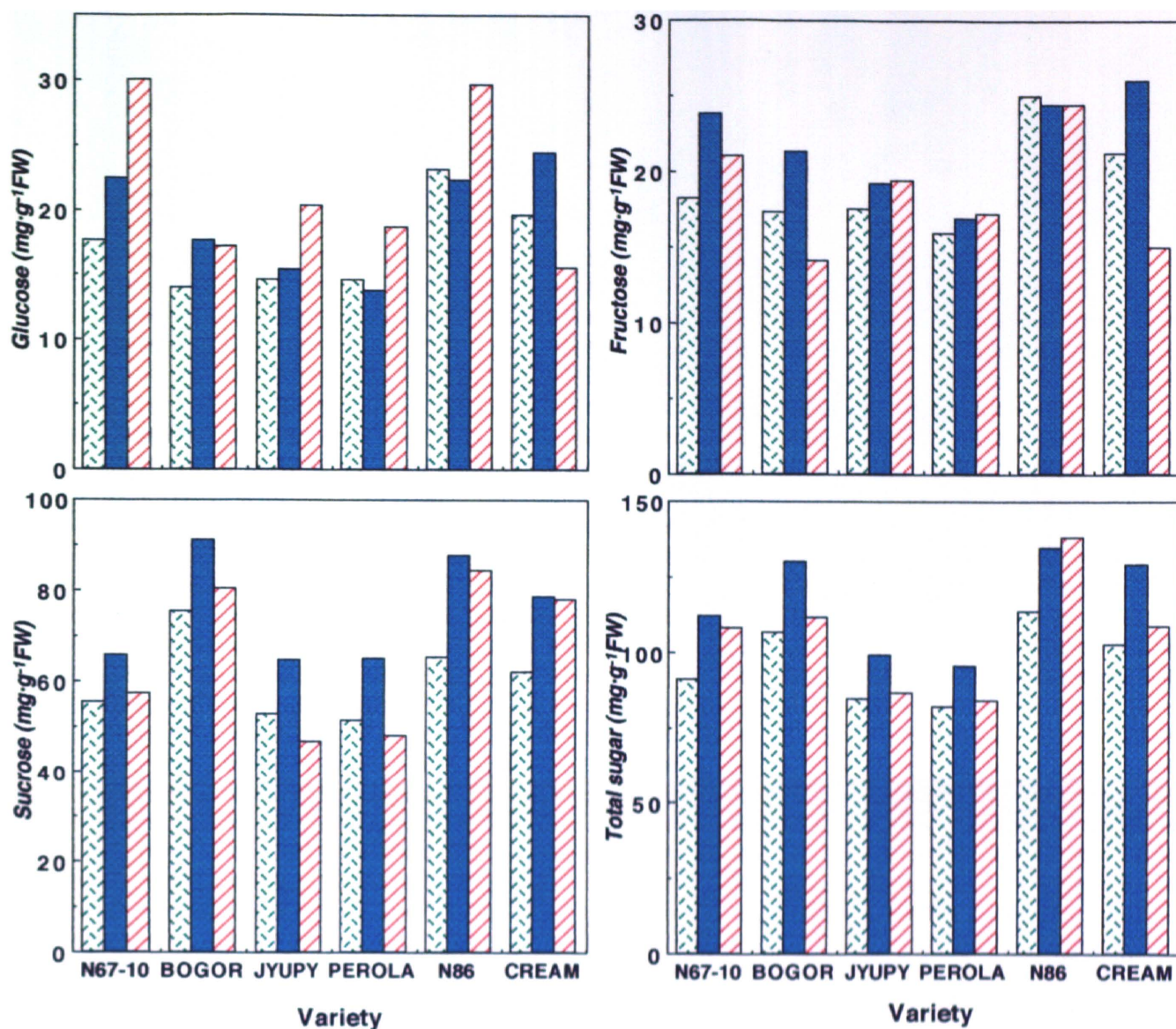
**Fig. 3. The relationship between Tyrosine and optical density. The formula in the figure was used as the calibration for bromelain activity.**



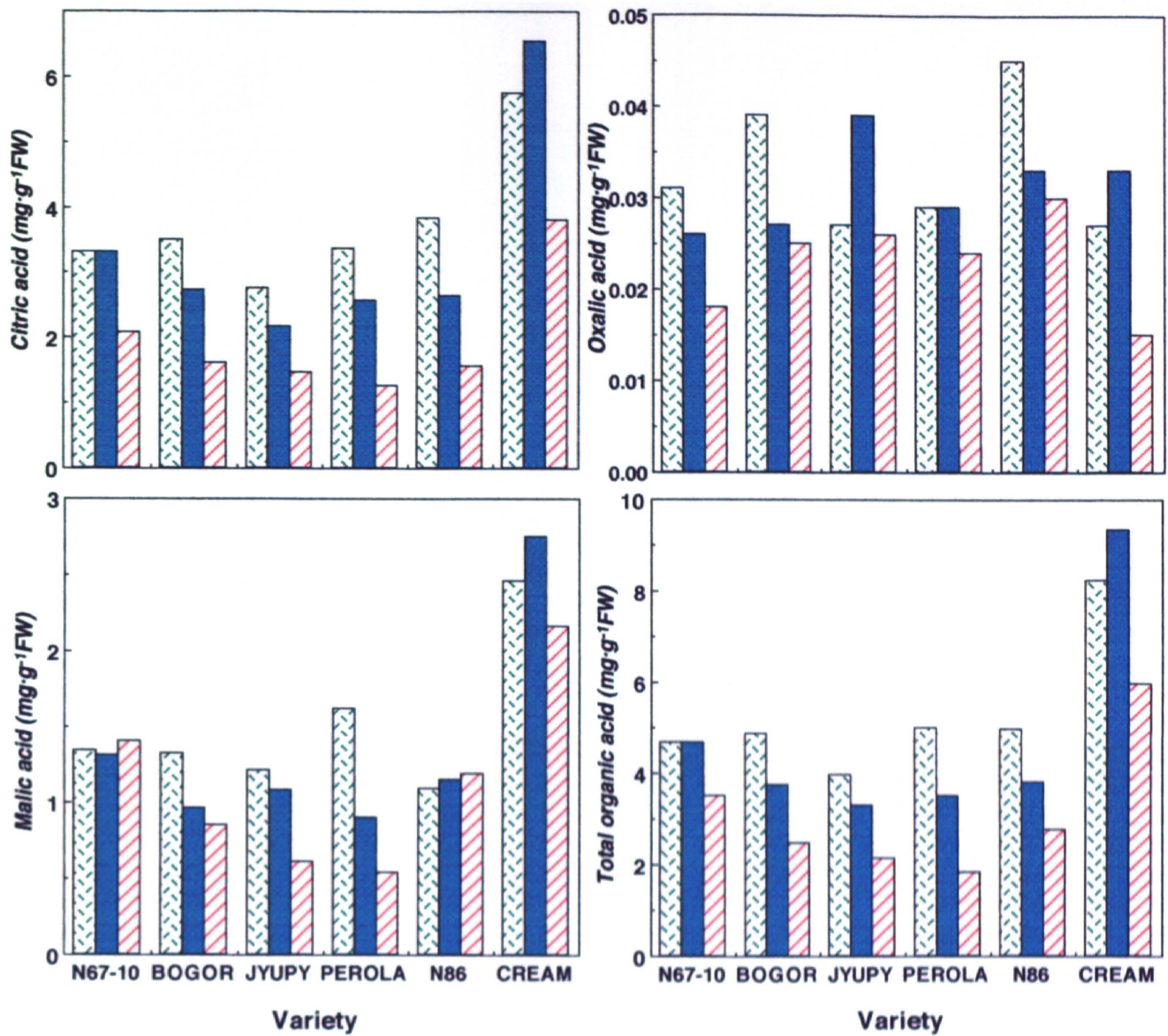


**Fig. 4. Flow chart for bromelain activity measurement.**



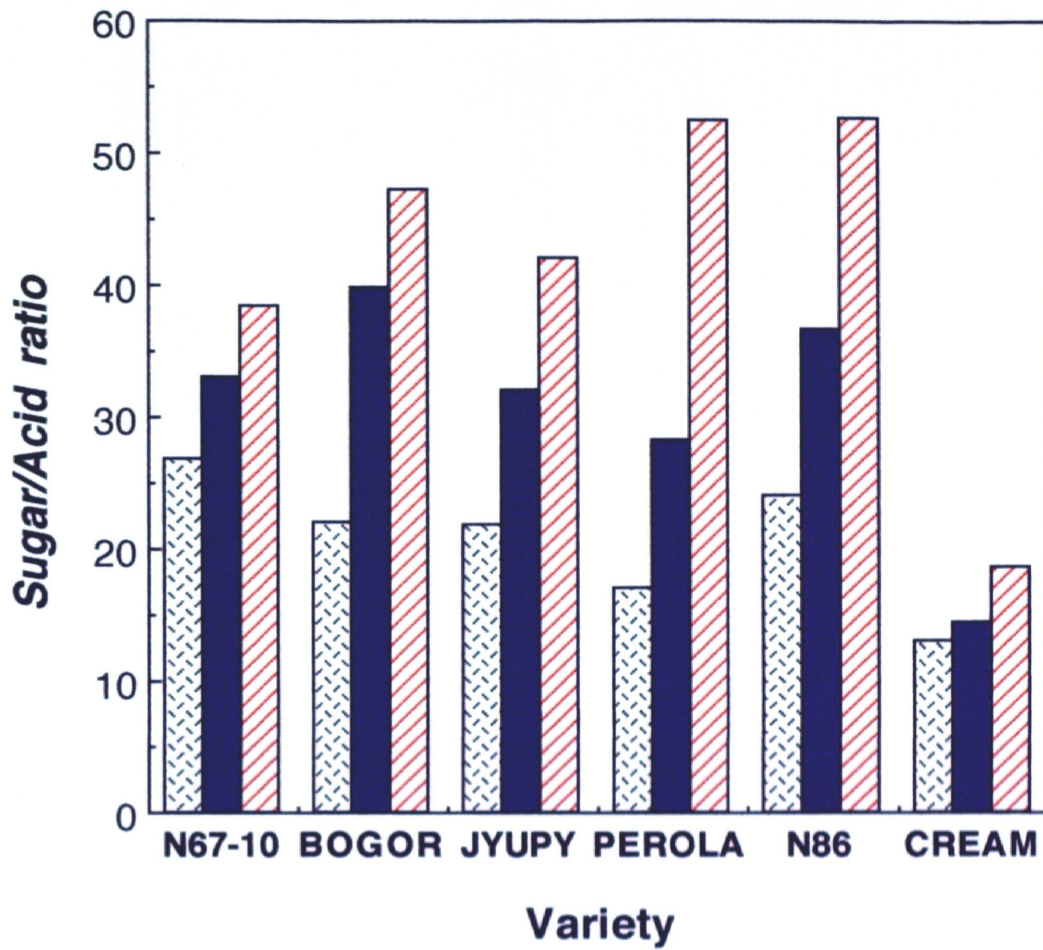


**Fig. 5. Varietal differences in glucose, sucrose, fructose and total sugar in pineapple fruit. Samples were obtained from upper (☒), lower (■) and core (▨) of the fruit.**



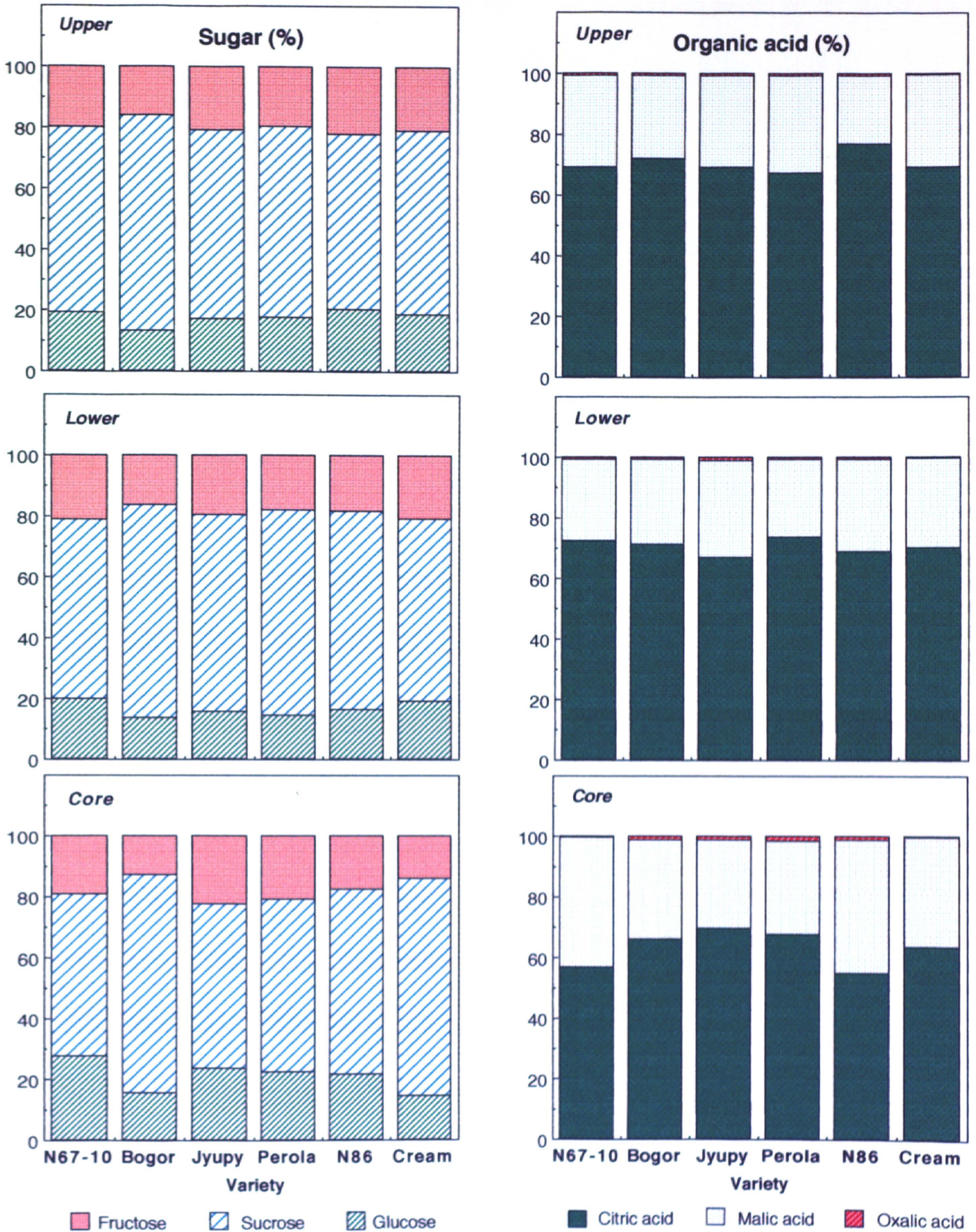
**Fig. 6. Varietal differences in citric acid, malic acid, oxalic acid and total organic acid in pineapple fruit.**





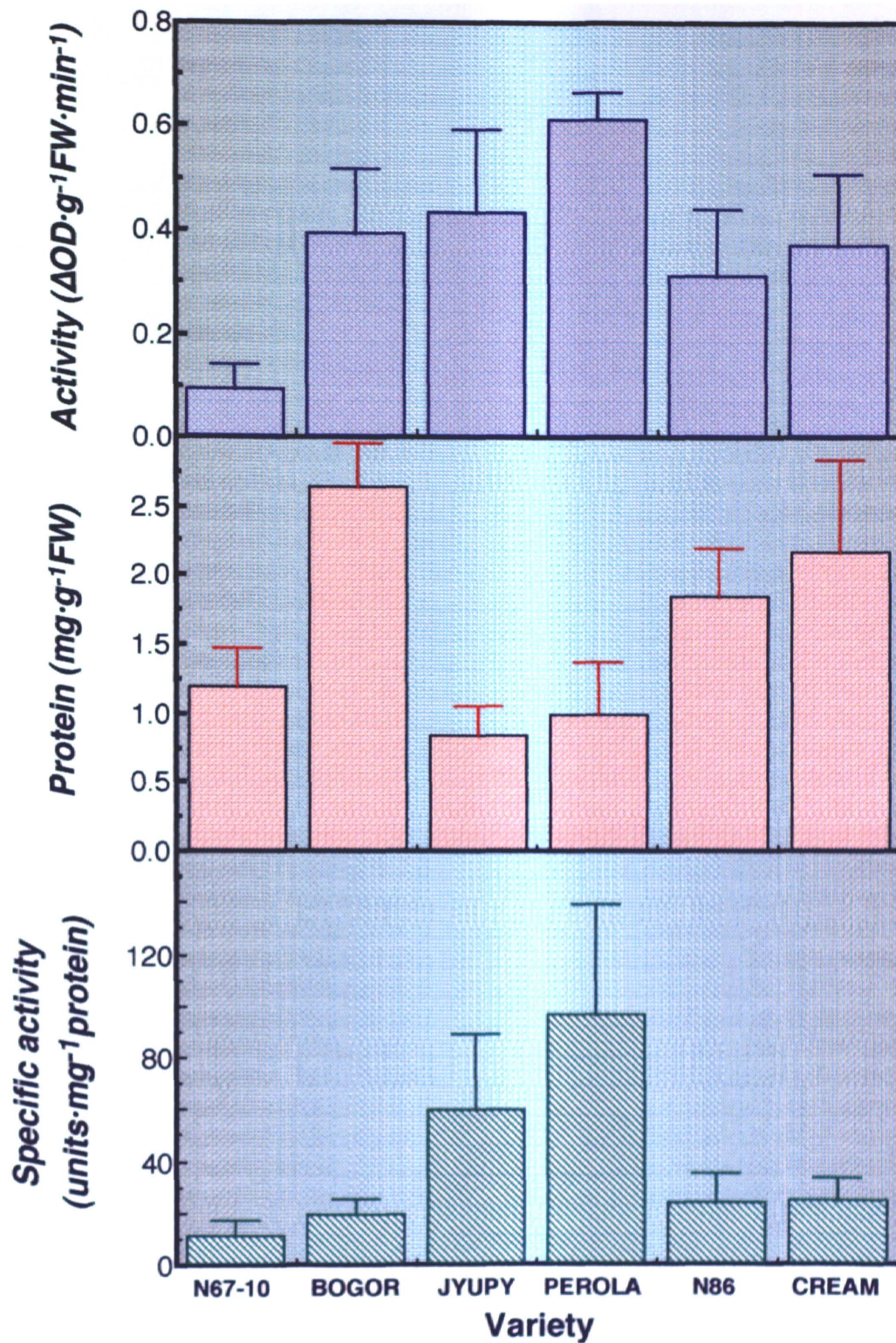
**Fig. 7. Varietal differences in Sugar/acid ratio in pineapple fruit.**





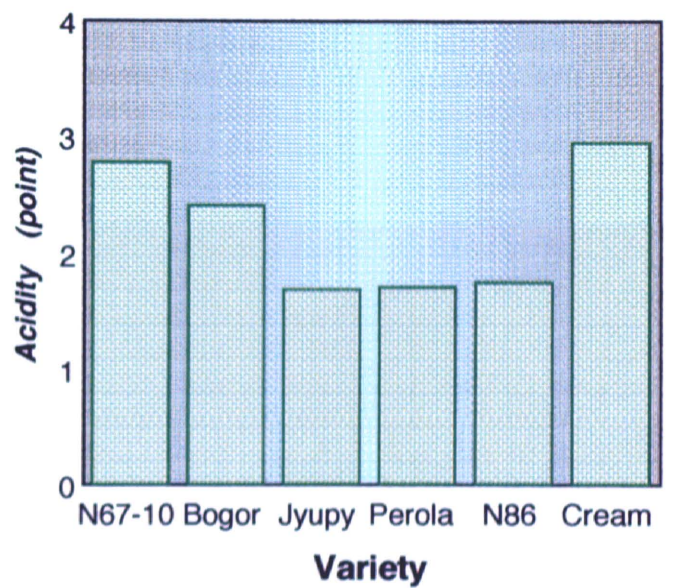
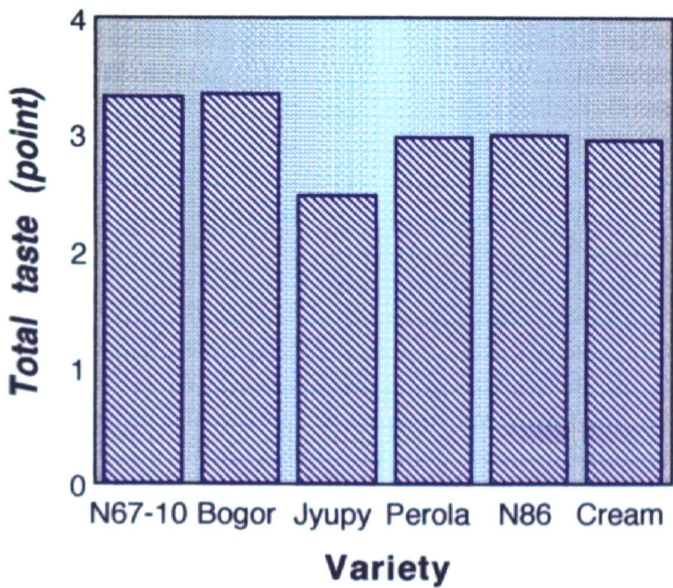
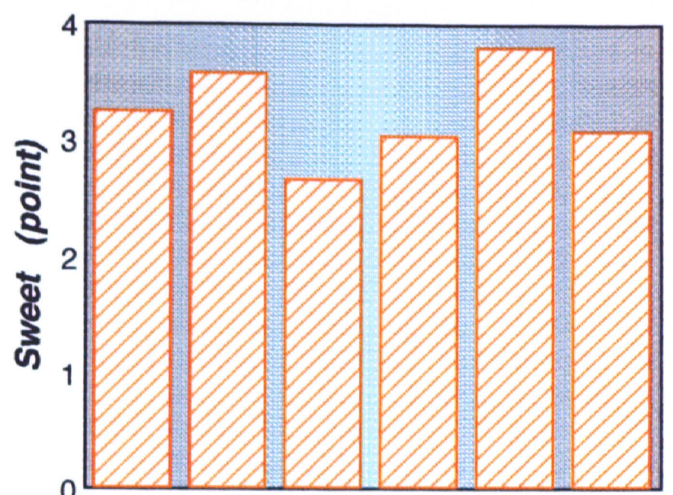
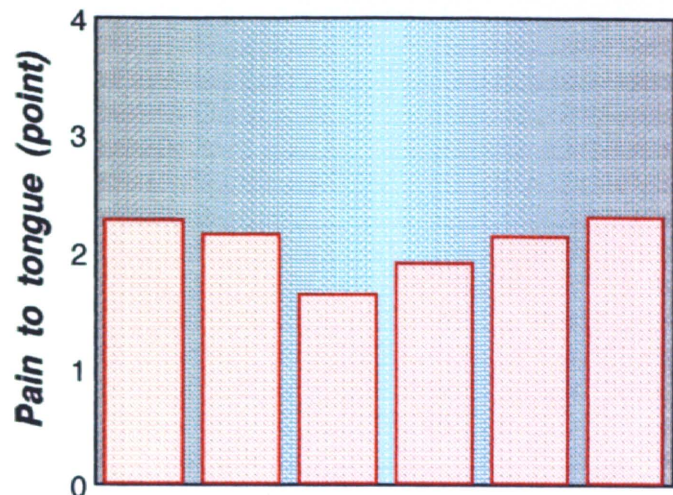
**Fig. 8. Ratio of the component of sugar and organic acid in pineapple varieties.**





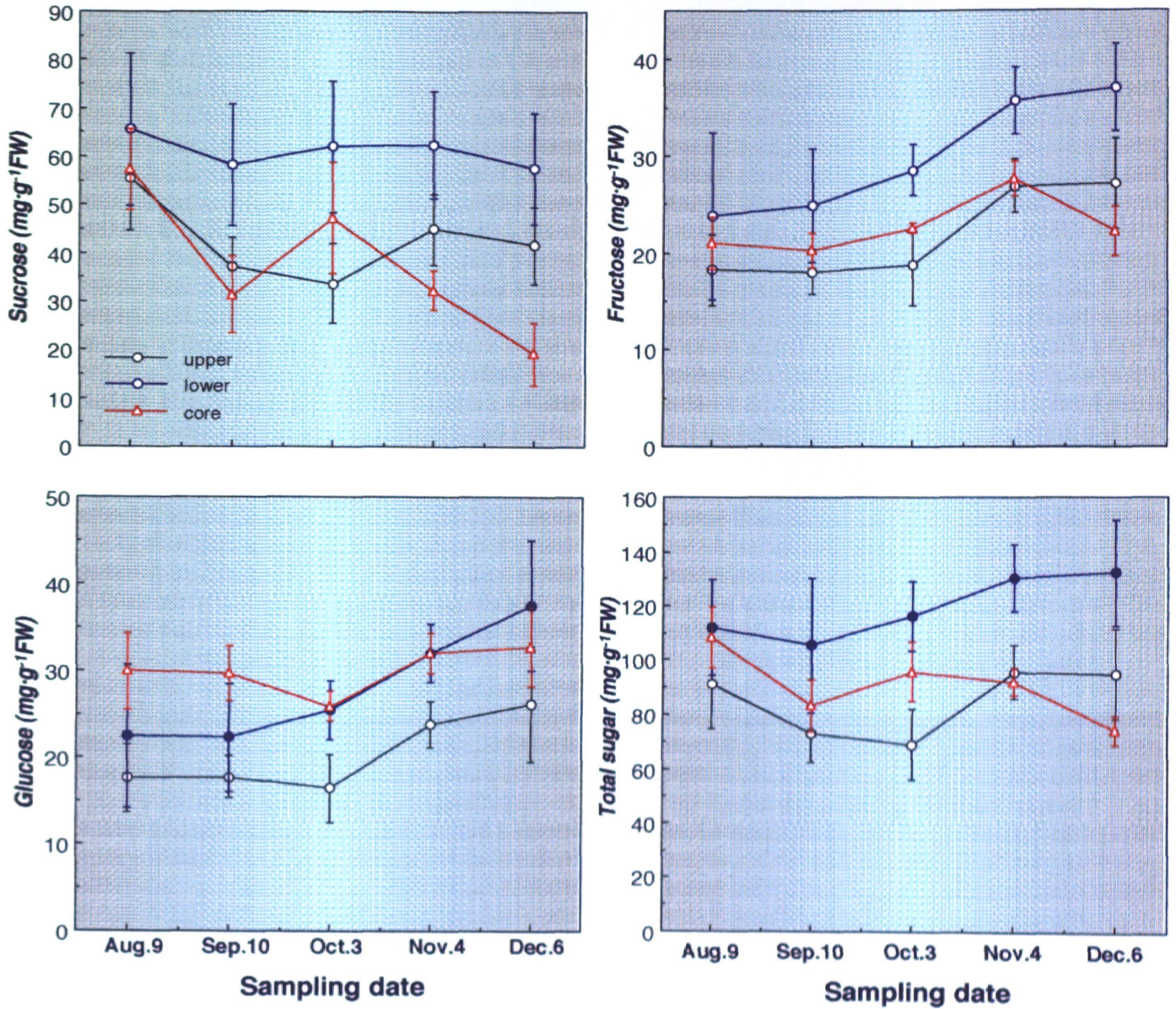
**Fig. 9. Varietal differences in bromelain activity, protein, and specific activity in pineapple fruit.**





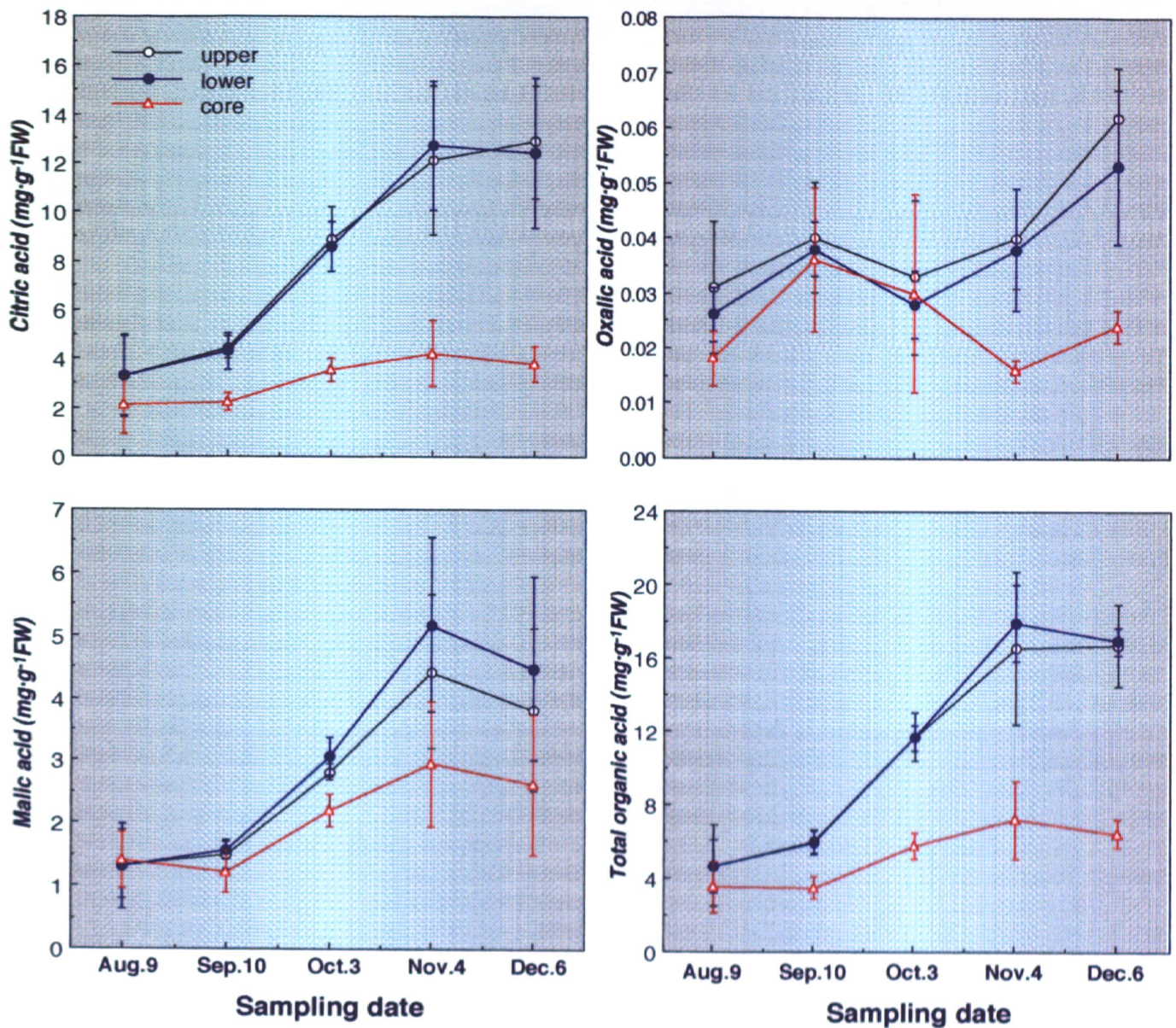
**Fig. 10. The eating quality in pineapple varieties.**





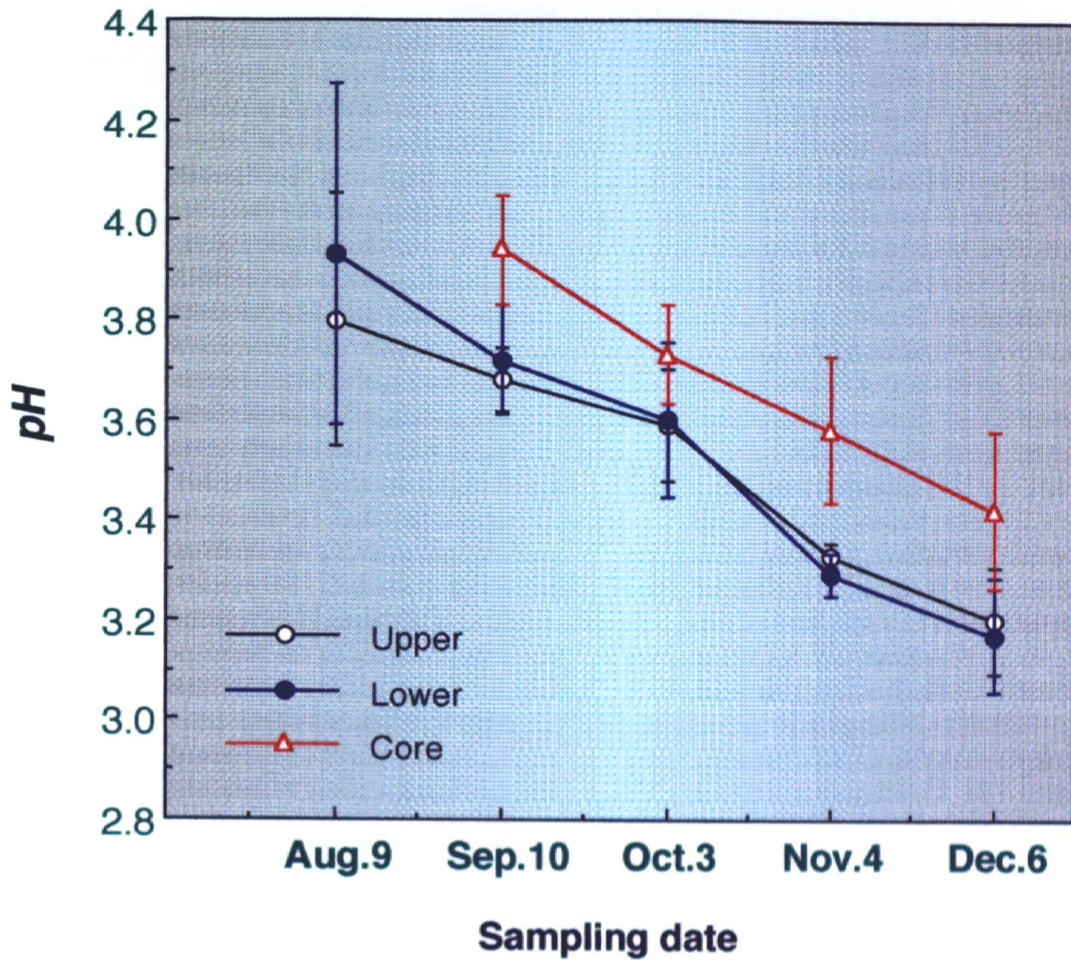
**Fig. 11. Seasonal change of sucrose, glucose, fructose and total sugar in pineapple fruit.**





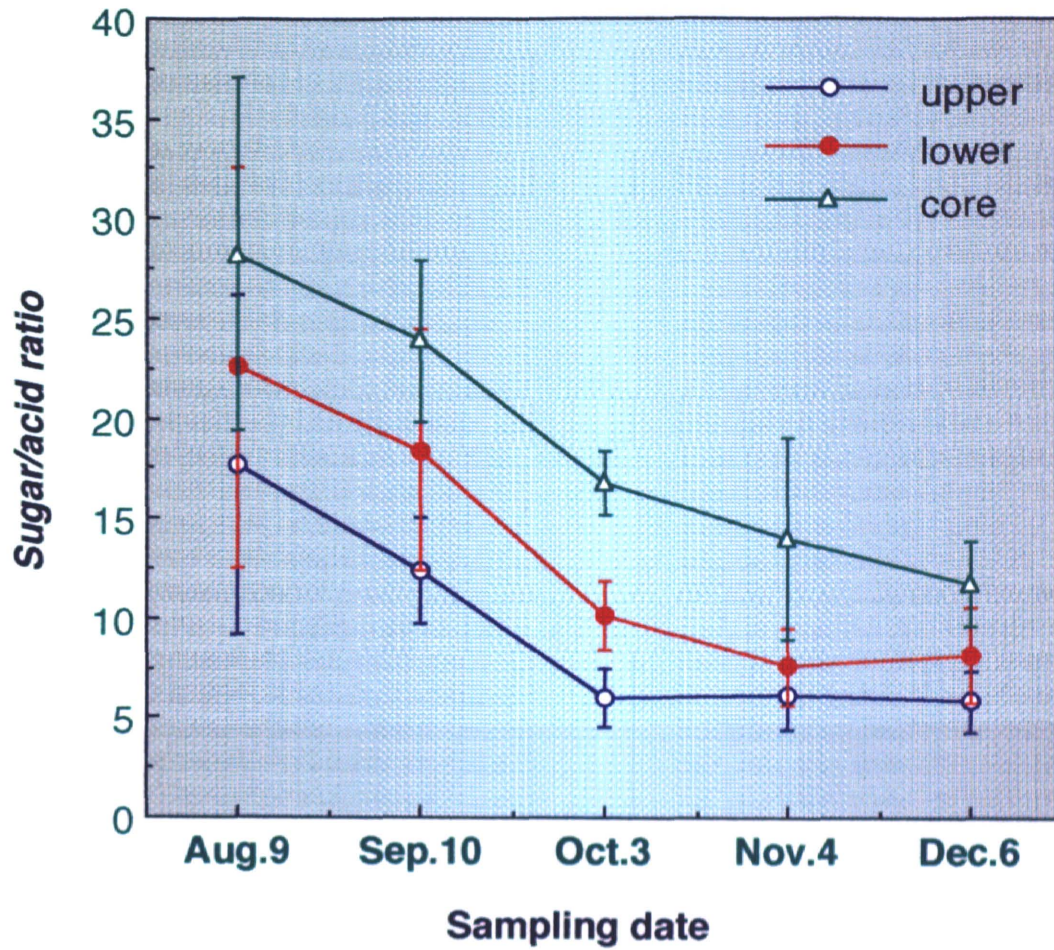
**Fig. 12. Seasonal changes in citric acid, malic acid, oxalic acid and total organic acid in pineapple fruit.**





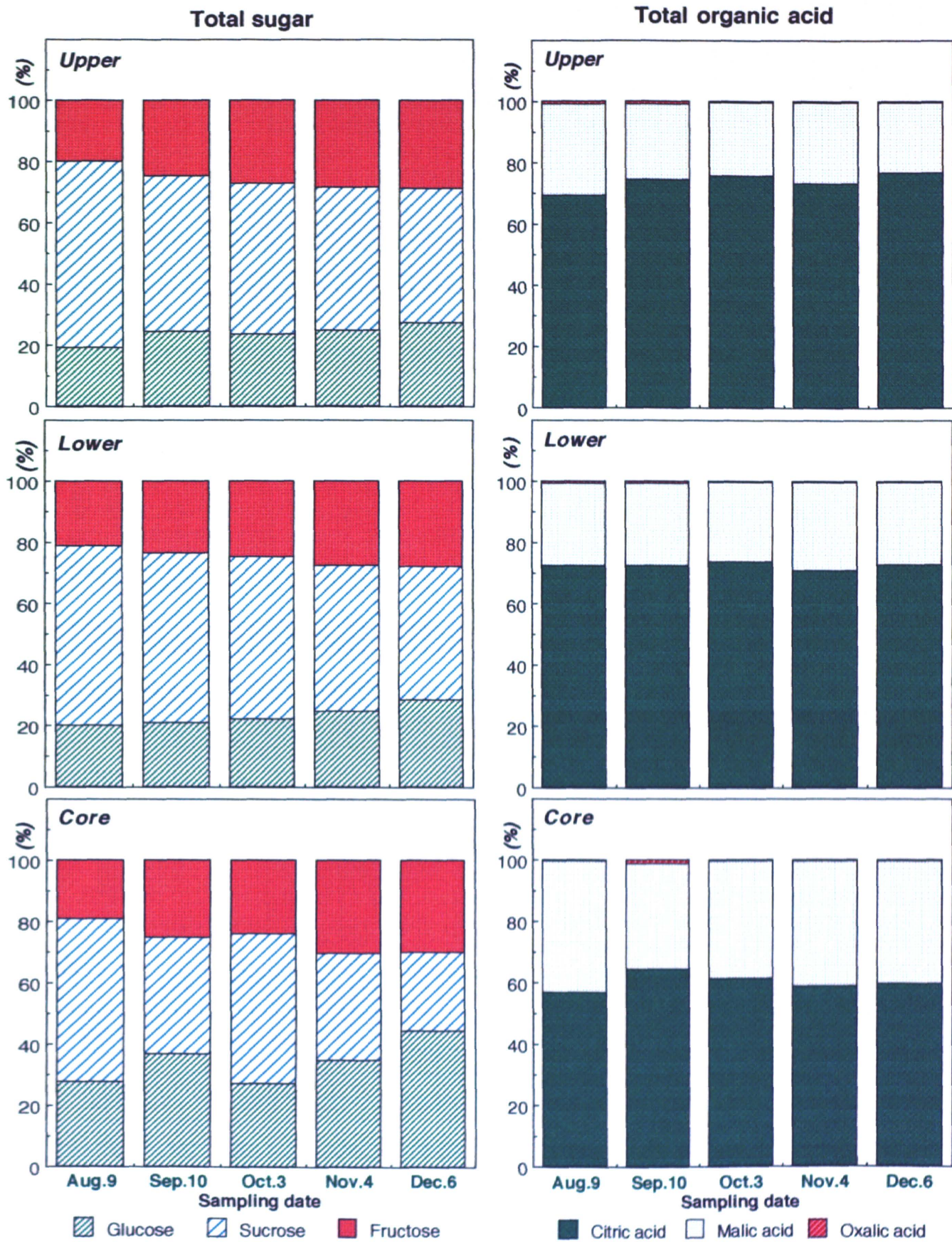
**Fig. 13. Seasonal changes in juice pH of pineapple fruit.**





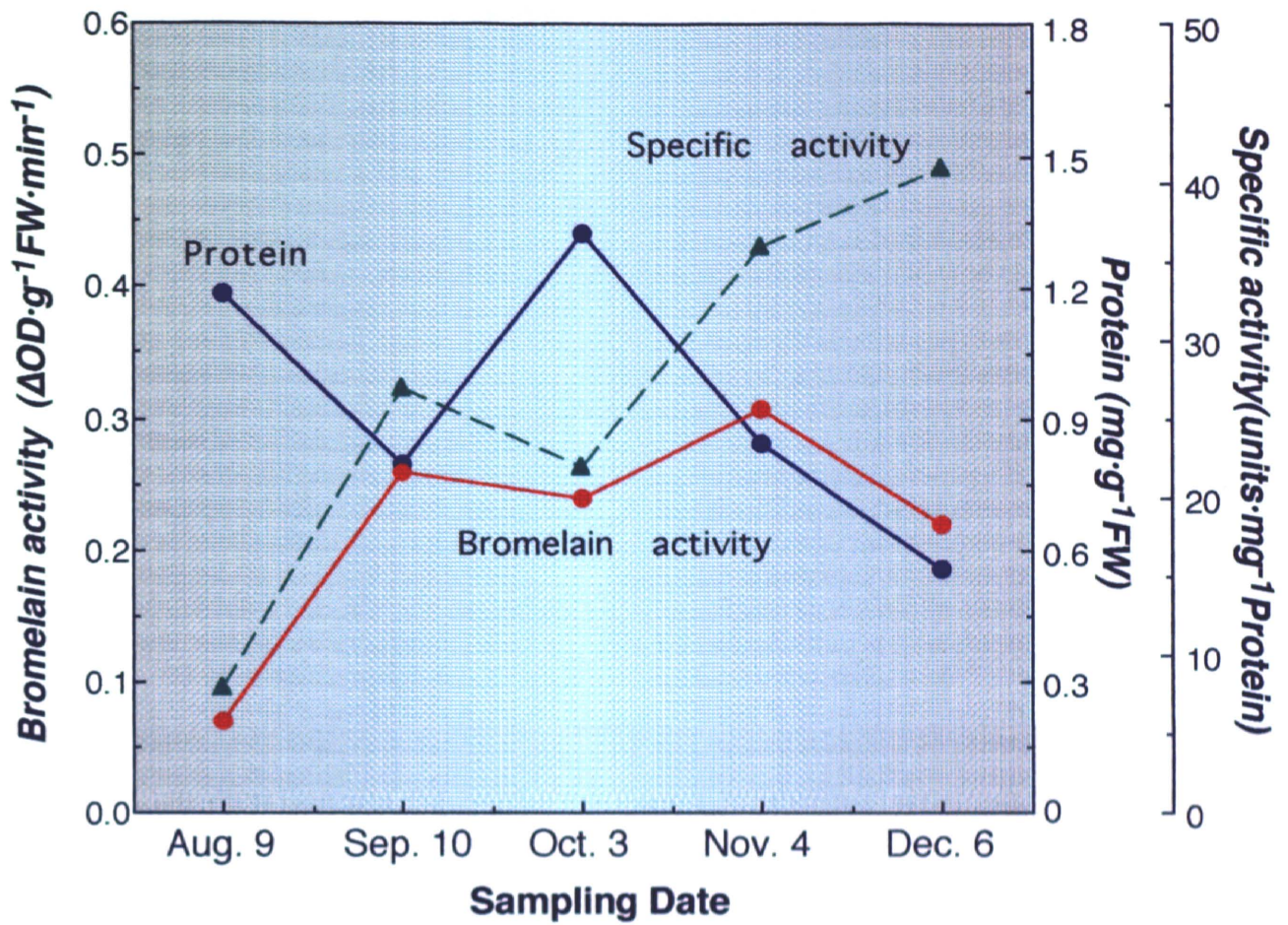
**Fig. 14. Seasonal changes in sugar/acid ratio in pineapple fruit.**





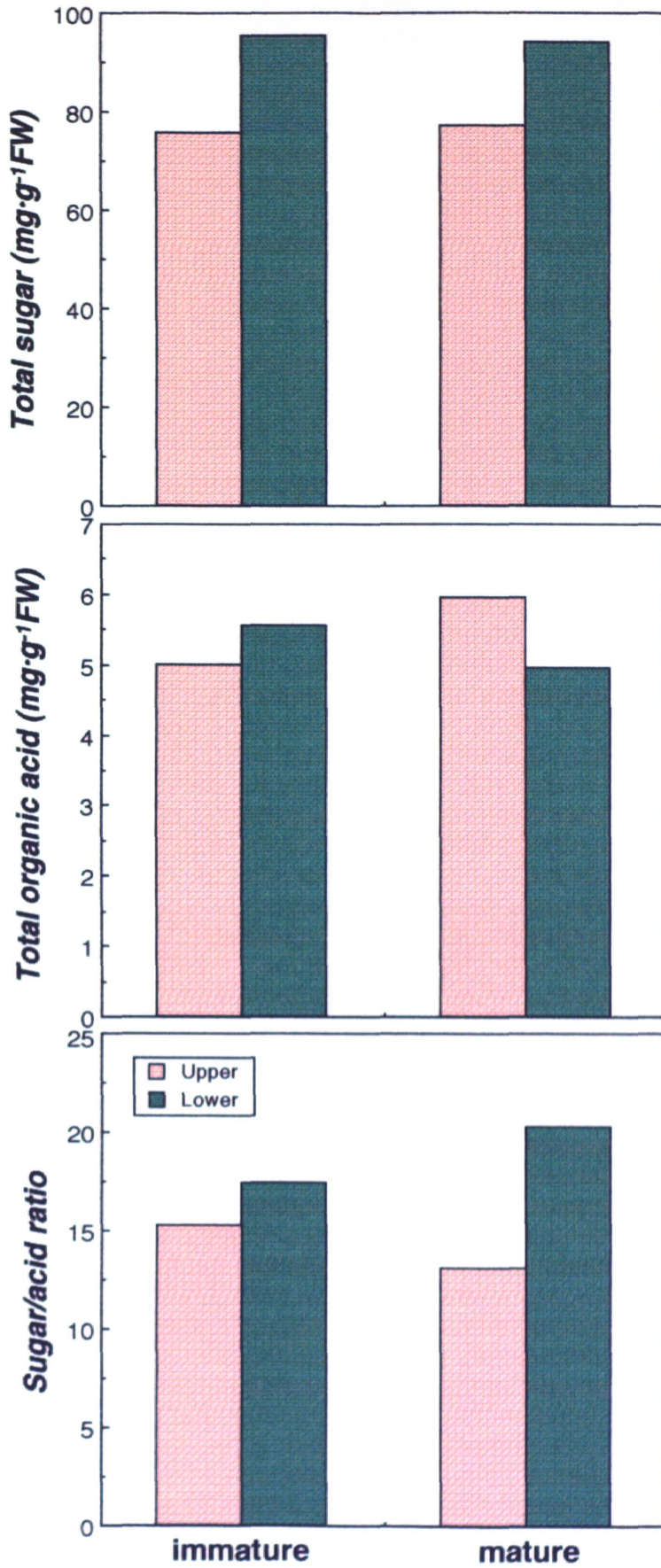
**Fig. 15. Seasonal changes in ratio of the component of sugar and organic acid in pineapple fruit.**



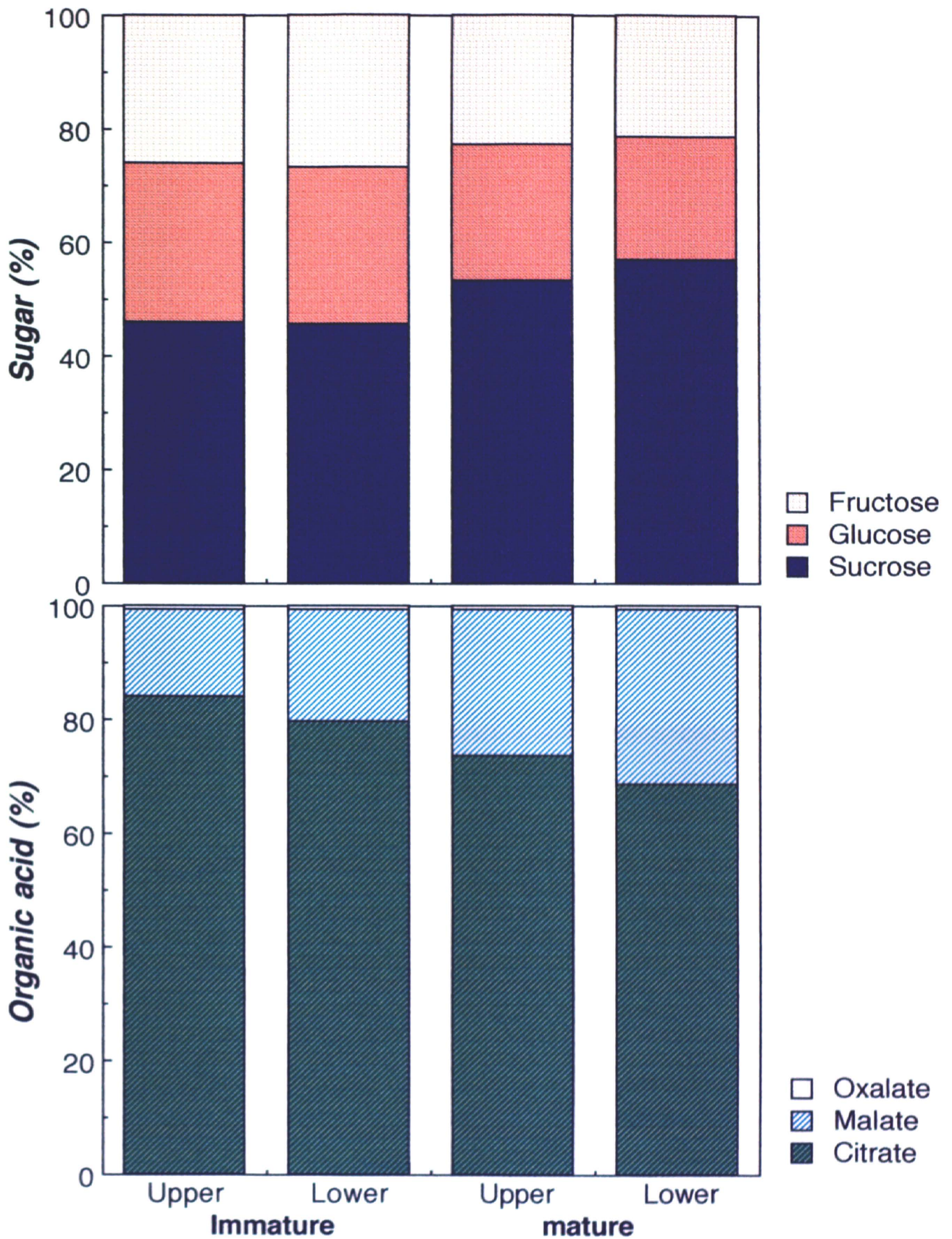


**Fig. 16. Seasonal changes in bromelain activity, protein and specific activity in pineapple fruit.**



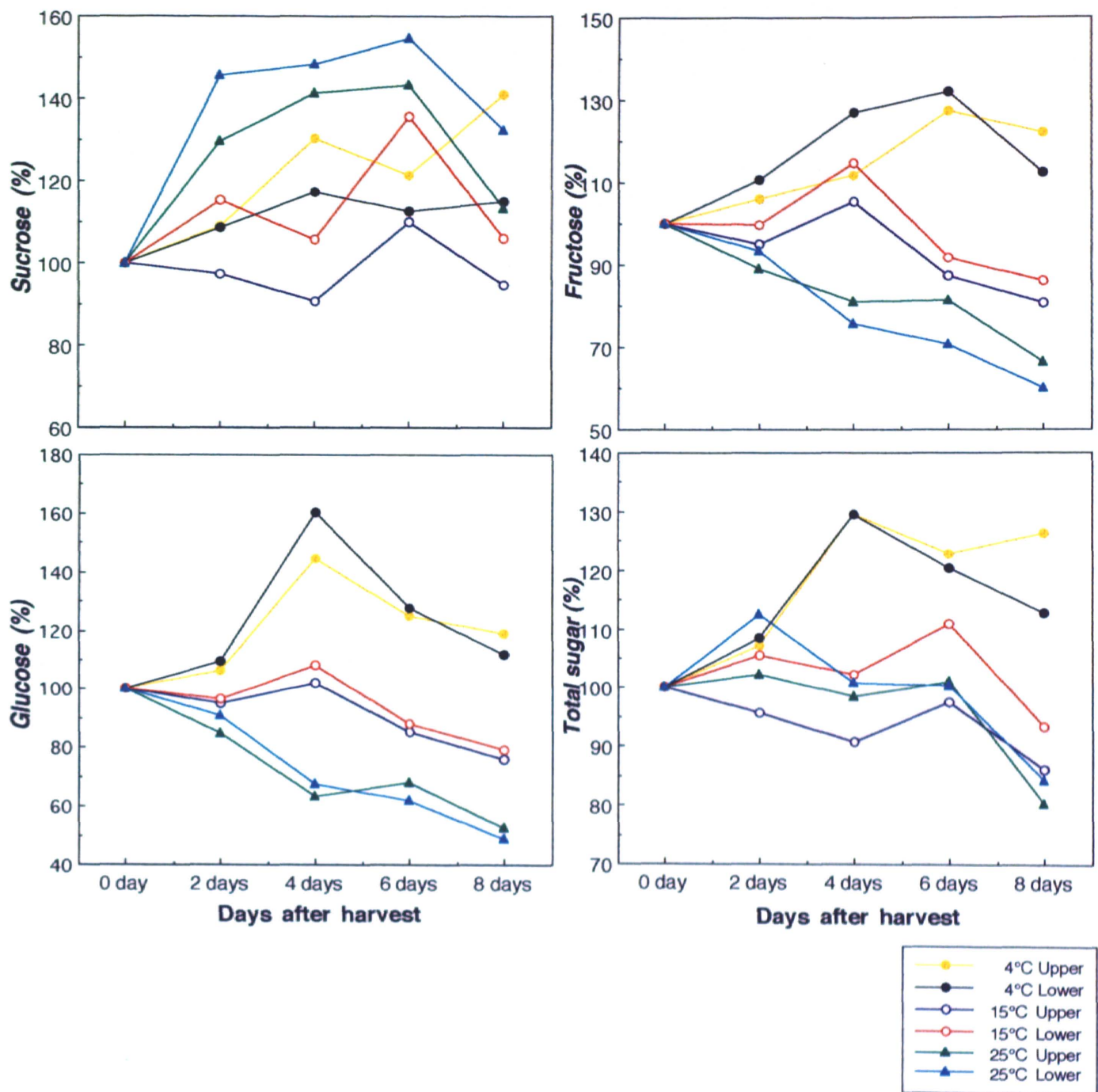


**Fig. 17. The comparison between the component of immature fruit and its mature fruit.**



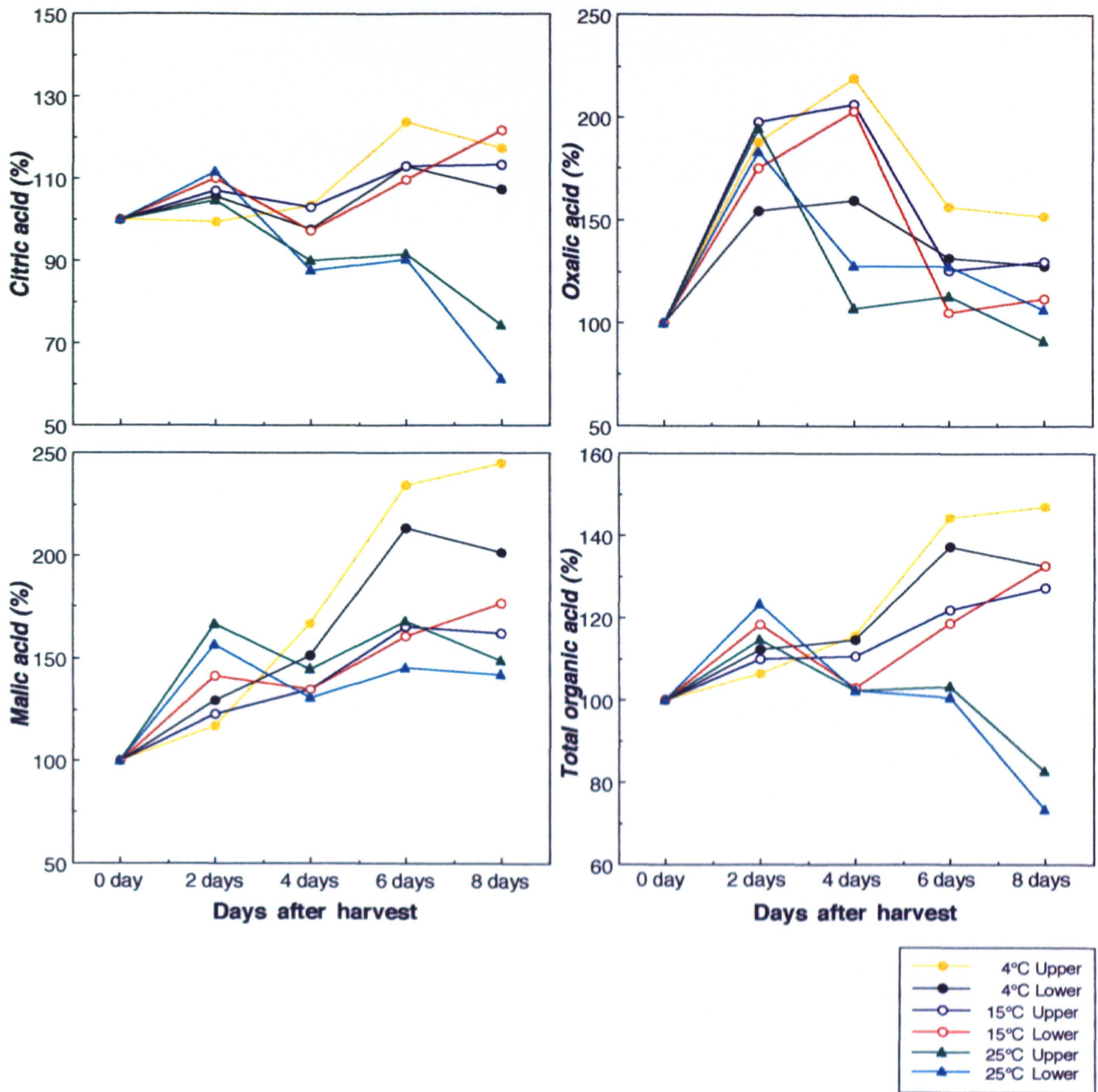
**Fig. 18. The comparison between the ratio of component of immature fruit and its mature fruit.**



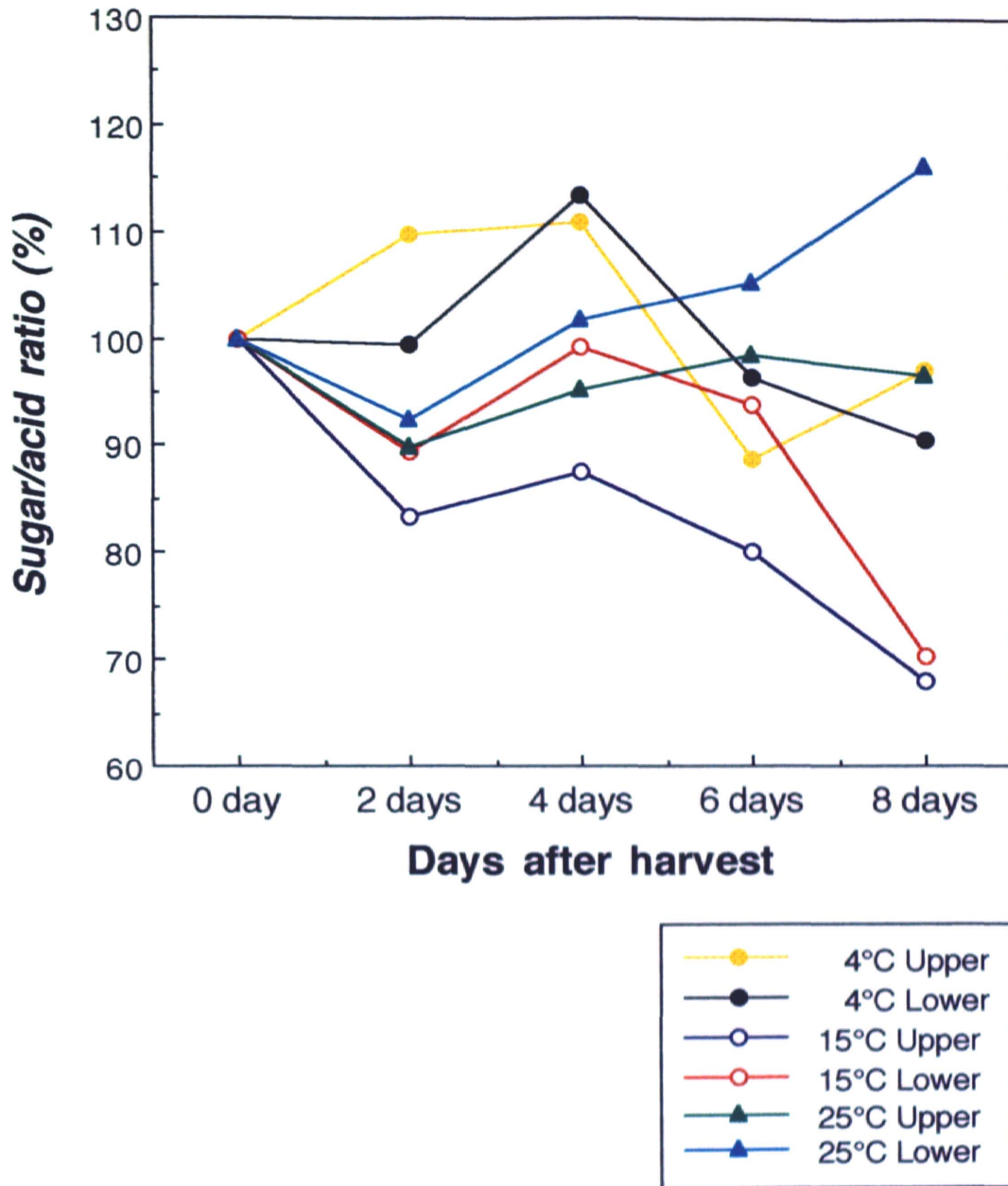


**Fig. 19. Effect of post-harvest temperature on content of glucose, sucrose, fructose and total sugar in pineapple fruit.**



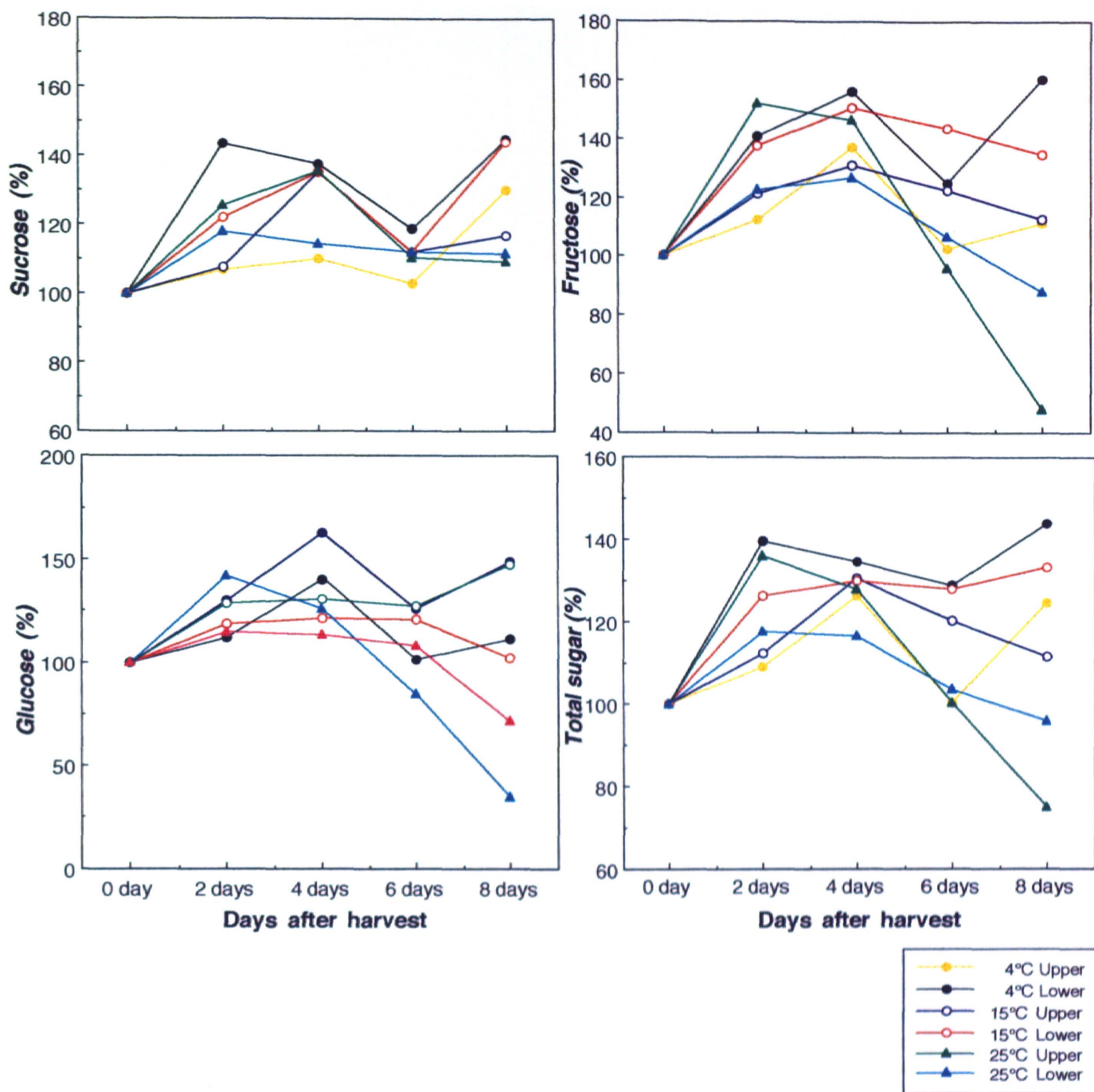


**Fig. 20. Effect of post-harvest temperature on content of citric acid, malic acid, oxalic acid and total organic acid in pineapple fruit.**

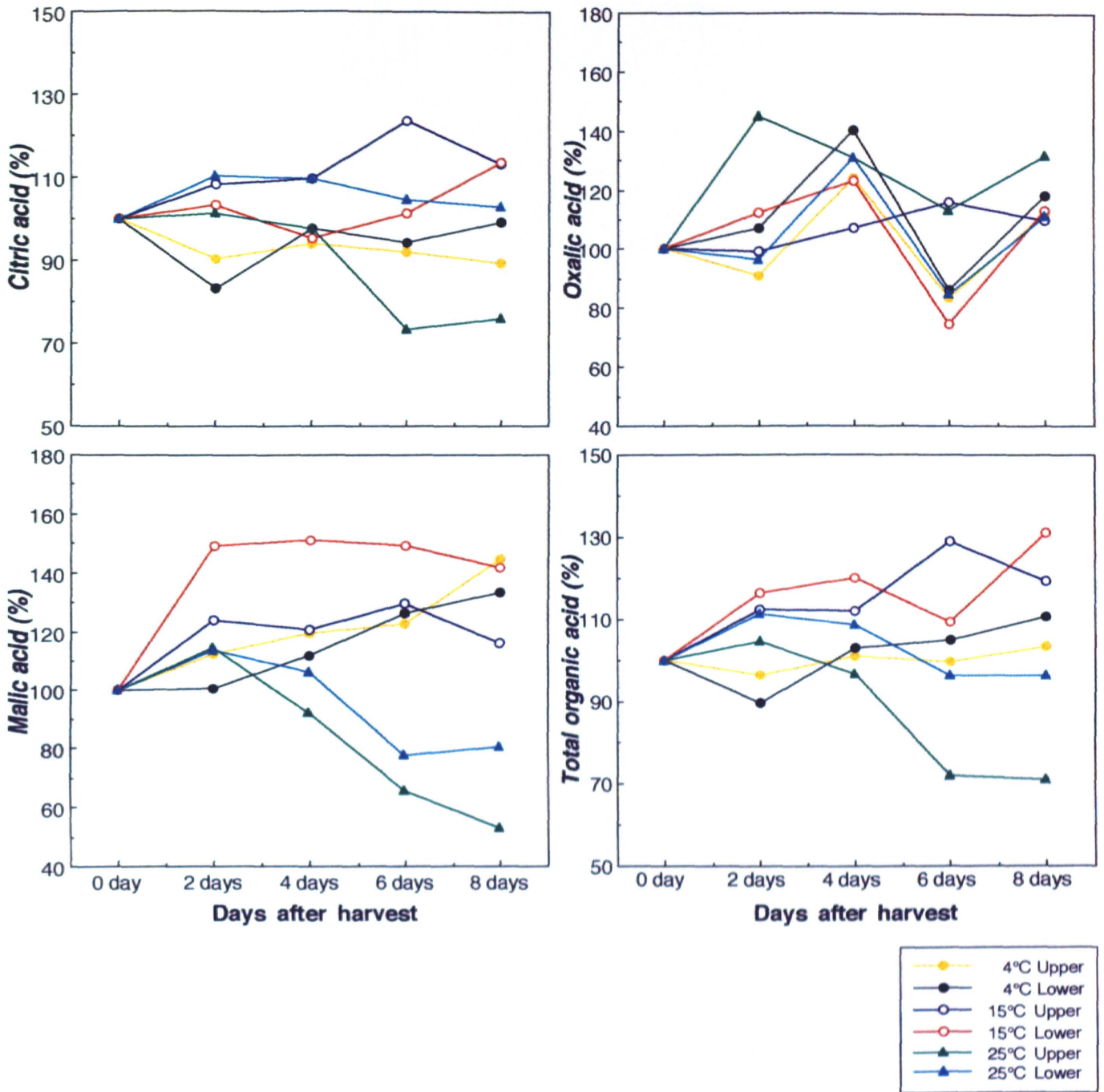


**Fig. 21. Effect of post-harvest temperature on sugar/acid ratio in pineapple fruit.**



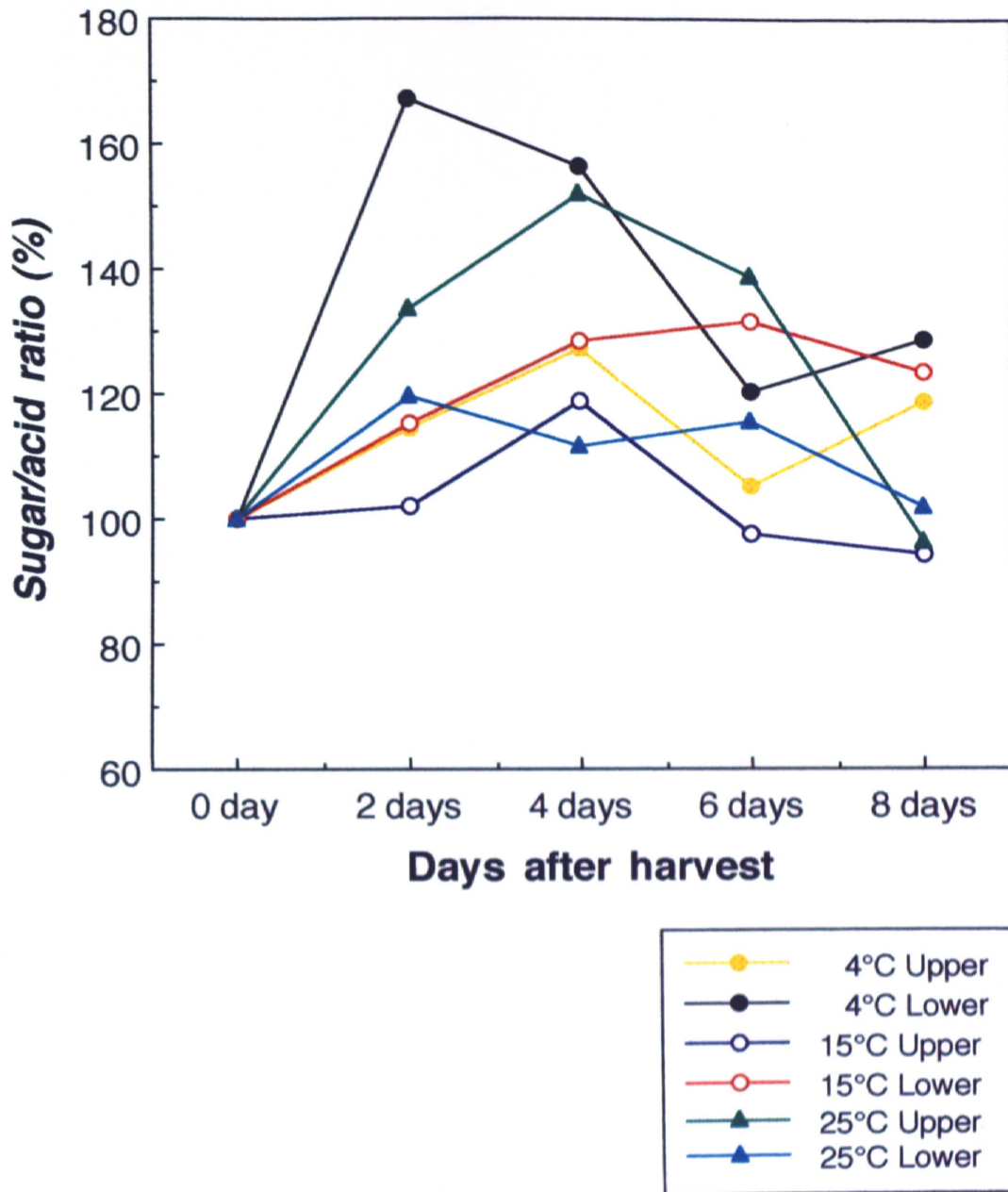


**Fig. 22. Effect of post-harvest temperature on content of glucose, sucrose, fructose and total sugar in mature fruit.**



**Fig. 23. Effect of post-harvest temperature on content of citric acid, malic acid, oxalic acid and total organic acid in mature fruit.**





**Fig. 24. Effect of post-harvest temperature on sugar/acid ratio in mature fruit.**