



Fig. 1. Grapefruit leaves with high (left), low (middle) and deficient (right) nitrogen concentrations. From T.W Embleton.



Fig. 2. Nitrogen deficient leaves from 25-year-old 'Marsh' grapefruit in Corona, Calif. From W.P. Bitters.



Fig. 3. Nitrogen sufficient (left) and deficient lemon leaves (right). From T.W. Embleton.



Fig. 4. Phosphorus deficient lemon leaves. From T.W. Embleton.

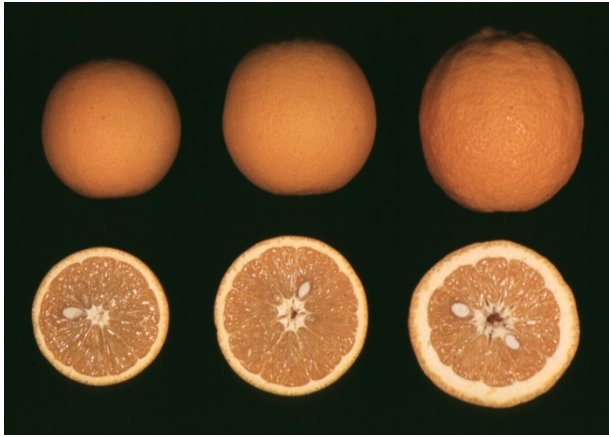


Fig. 5. 'Valencia' fruit from trees having leaf phosphorus concentrations that are in excess (0.18% P), normal (0.13%-0.14% P), and deficient (0.11%-0.12% P, note rough peel). From T.W. Embleton.

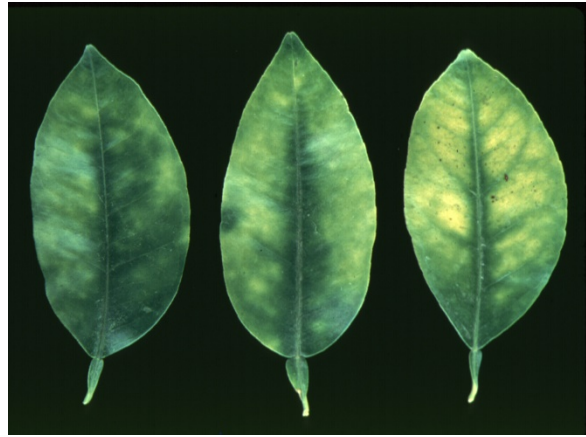


Fig. 6. Potassium deficient grapefruit leaves. From T.W. Embleton.



Fig. 7. Potassium deficient lemon leaves. From T.W. Embleton.



Fig. 8. Potassium deficient lemon leaves and fruit. From T.W. Embleton.



Fig. 9. Magnesium deficient navel orange leaves. From T.W. Embleton.



Fig. 10. Magnesium deficient lemon leaves (0.03%-0.15% Mg). From T.W. Embleton.



Fig. 11. Magnesium deficient leaves from lemon on 'Macrophylla' rootstock. From W.P. Bitters.



Fig. 12. Iron deficient orange leaves. From T.W. Embleton.



Fig. 13. Iron deficient grapefruit leaves. From T.W. Embleton.



Fig. 14. Iron deficient lemon leaves. From T.W. Embleton.

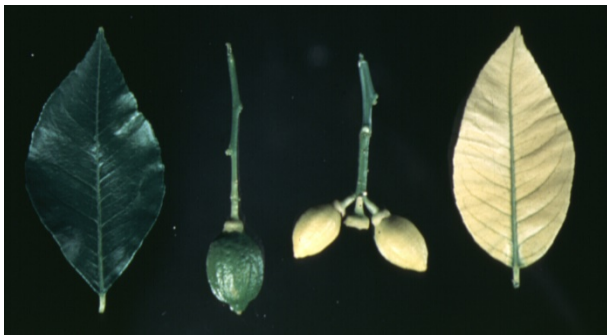


Fig. 15. Comparison of iron sufficient (left) and deficient (right) lemon leaves and fruit. From T.W. Embleton.



Fig. 16. Boron deficient leaves (5 ppm B) of navel orange on trifoliate orange rootstock. From T.W. Embleton.



Fig. 17. The corky vein symptom of boron deficient navel orange leaves (5 ppm B). From T.W. Embleton.



Fig. 19. A boron deficient lemon leaf with corking of the veins typical of boron deficiency. From C.J. Lovatt.



Fig. 18. Boron deficient leaves from 10-year-old lemon trees. From C.J. Lovatt.

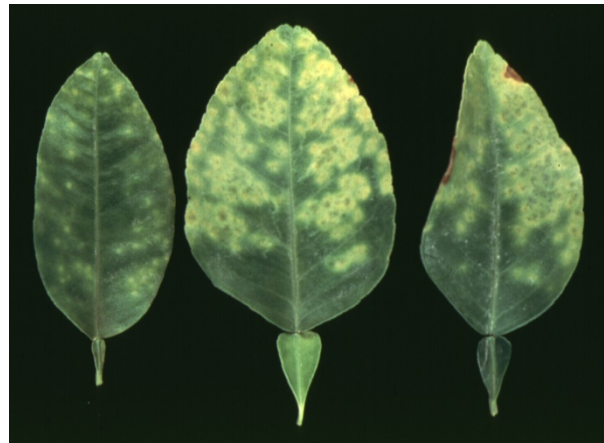


Fig. 20. Symptoms of boron excess in grapefruit leaves (760-1150 ppm B). From T.W. Embleton.



Fig. 21. Symptoms of boron excess in leaves of navel orange. From T.W. Embleton.



Fig. 22. Symptoms of boron excess in lemon leaves. From W.P. Bitters.

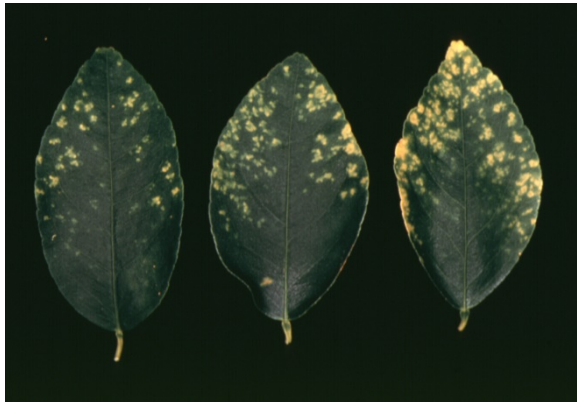


Fig. 23. Symptoms of boron excess in leaves of 'Bears' lime. From T.W. Embleton



Fig. 24. Zinc deficient navel orange leaves. From T.W. Embleton.



Fig. 25. Zinc deficient lemon foliage. From T.W. Embleton.



Fig. 26. Copper deficient fruit of navel orange on 'Troyer' citrange rootstock. From T.W. Embleton.



Fig. 27. Copper deficient 'Valencia' orange fruit. From W.P. Bitters.

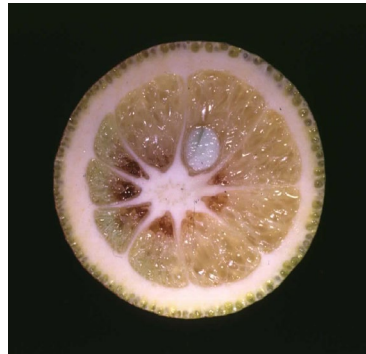


Fig. 28. Gum pockets in fruit caused by copper deficiency of 'Valencia' orange. From W.P. Bitters.



Fig. 29. Copper deficiency of lemon. From T.W. Embleton.

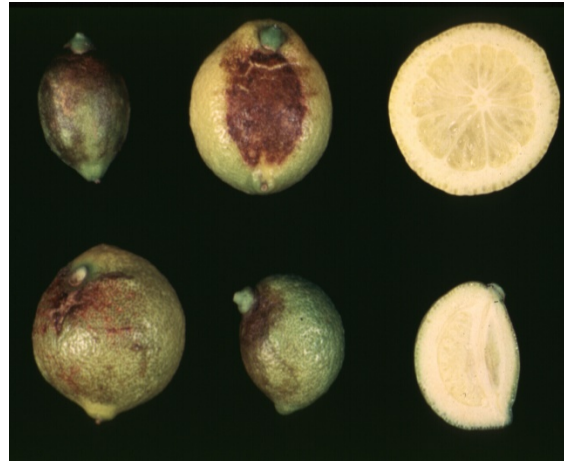


Fig. 30. Copper deficient lemon fruit. From T.W. Embleton.



Fig. 31. Gum pockets in shoots of copper deficient lemon. From T.W. Embleton.



Fig. 32. Copper damage to 'Valencia' fruit and leaves caused by a copper spray. From T.W. Embleton.





Fig. 33. Copper damage to a lemon leaf and fruit resulting from a copper spray. From T.W. Embleton.



Fig. 34. Copper damage to a lemon fruit caused by a copper spray. From T.W. Embleton.