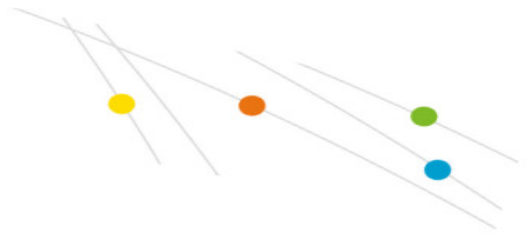




Fall foliar potassium nitrate applications increased grapefruit size

In Florida (USA) a three years study was conducted to determine if potassium applications during late summer and early fall could increase the size of grapefruit. In 1994, foliar sprays were made on 9 September, 6 October and 27 October with an application rate of 22,4 kg KNO₃/ha in 2350 L water. The fruits which received the foliar potassium nitrate application statistically significant increased 11,4% in diameter from September 10 to 23 November as compared to 8,0% for the untreated control. In total, 61% of the fruits sprayed with KNO₃ enlarged 2 sizes or more (Table 1). As larger sized fruits are better priced, the enlargement of these fruit sizes is very beneficial. Fall applications of KNO₃ significantly increased the average grapefruit diameter compared to non-sprayed control fruit in 1994. For the other two years the fruit size was increased, although statistically non-significant. Although average fruit diameter growth was only increased 0,6 to 2,4 mm for treated fruit as compared to control fruit, the greater growth in the smaller fruit sizes is likely to be economically significant in many years.

Table 1. The change in size class from 10 September to 23 November for grapefruit.



Size change	% of fruit	
	Control	KNO ₃
0-1	13	1
1-2	61	38
2-3	20	46
>3	6	15