

#### Abstract:

In earlier studies we demonstrated how the yield of factory grade (red ripe) fruit followed a normal distribution over time. This emphasizes the importance of selecting the optimum harvest date for once-over harvesting if maximum factory yield is to be achieved. These studies emphasize the importance of taking a number of successive (destructive) harvests, if a true estimate of the yield potential of different cultivars is to be obtained. A similar need also occurs with different agronomic treatments (e.g. fertilizer levels, or irrigation treatments), which may modify the maturity characteristics of the treatment. Some doubt has been expressed on the relevance of such studies in arid environments, but data is presented from California to show that the model is equally applicable irrespective of environment. With the increasing interest in lycopene it would also be highly desirable to monitor how these levels (and pH, acidity and °Brix) are influenced by harvest date, agronomic treatment (and of course cultivar).