

RESULTS AND DISCUSSION

I. Fresh fruit juices:

A. Chemical and physical properties:

a. Moisture and total soluble solids:

The percentage of solids in different juices varies widely. This is due to a number of factors such as type of juice, variety, seasonal variations and cultural practices.

From table (1) it could be seen that the percentage of moisture content of citrus blend, "Balady" orange, and strawberry juices was 88.88, 86.422 and 90.7, respectively. The total soluble solids in these juices were 10, 11.8 and 8.3%, respectively. These results are in agreement with those obtained by Hamed (1988).

b. Titratable acidity and pH:

Titratable acidity and pH are very important in jelly processing since they directly affect jelly formation.

From table (1) it could be noticed that the percentage of titratable acidity were different from juice to another, wherever in citrus blend, "Balady" orange juice and strawberry juice were 1.28, 0.896 and 0.884, respectively. The pH values of citrus blend, "Balady" orange, and strawberry juices were 3.77, 3.54 and 3.69, respectively. These results agree with those obtained by Soliman (1969), Aly (1973) and Rizk et al. (1978).

c. Total sugars:

The percentage and type of sugars are very important in low calory jelly, since they affect the diabetics and obesity

Table (1): Properties of fruits juices.

| Variety Properties | "Bahady" orange juice | Citrus juices blend | Strawberry juice |
|-------------------------------|-----------------------------|---------------------------|---------------------|
| | | | |
| Moisture % | 86.9220 | 88.880 | 90.700 |
| T.S.S. % | 11.8000 | 10.000 | 8.300 |
| Acidity %* | 0.8960 | 1.290 | 0.884 |
| pH value | 3.5400 | 3.770 | 3.690 |
| Reducing sugars % | 4.5000 | 4.200 | 2.850 |
| Total sugars % | 8.8000 | 6.800 | 7.000 |
| Ascorbic acid mg 100 g | 53.9000 | 35.300 | 60.000 |
| Carotenoids mg/100 g | 0.8417 | 0.853 | -- |
| Anthocyanin mg/100 g | --- | --- | 11.630 |
| Color index (O.D. at 420 nm) | 0.0180 | 0.005 | 0.018 |
| Serum color(Trans. at 420 nm) | 76.7000 | 74.900 | 62.000 |
| Relative viscosity | 1.7300 | 1.870 | 1.200 |

* Calculated as citric acid.