

ide can be used as the extractant to render not only protopectin but also water-insoluble pectates and pectinates soluble simultaneously.

In the commercial samples, the water-, oxalate- and sodium hydroxide-soluble pectins varied from 0.041 to 0.210, 0.043 to 0.127 and 0.076 to 0.232 g. per 100 g. of concentrate, respectively. However, in 83 percent of the samples the water-soluble fraction occurred between 0.075 and 0.150 g.; whereas, in 74 percent of the samples the ammonium oxalate-soluble pectin amounted to 0.075 g. or less. Occurrence of the three pectic fractions in commercial samples of frozen concentrated orange juice in relation to the amount of pectin in different ranges is presented graphically in Figure 3.

SUMMARY

Pectinesterase and pectic substances have become of considerable importance in the production of frozen concentrated citrus juices because of difficulties encountered in clarification and gelation. Methods are presented for the measurement of PE activity and for the extraction and colorimetric estimation of pectic substances in citrus juices and concentrates. These methods have been used at the Florida Citrus Experiment Station for routine control work and for a survey of 221 commercial samples of frozen concentrated orange juices from 23 Florida processors.

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