A study of puree samples processed from experimental plats over a period of 10 years has revealed that a number of factors influence the quality and composition of the puree. The factors most outstanding have been climatic conditions, defoliation due to disease, insect injury or nitrogen and mineral deficiency (directly or indirectly), soil type (1), and general soil fertility factors (2) such as poor soil drainage and excessive leaching.

The general procedure is to collect 25 pounds of tomatoes at random from the carefully replicated plats. The fruit is washed, trimmed, quartered, mashed with a potato masher, heated to 155°F (while being constantly stirred), and held at this temperature for 4 minutes. This procedure breaks the skins and the seed from the walls. The puree is then passed through a cyclone operated at 1500 r.p.m. using a small mesh screen and then brought to a boil, placed in cans, sealed, and placed in boiling water for 10 minutes.

The number of samples collected each year usually exceed 200. These samples are analyzed during the winter season by standard methods of analysis.

Seasonal Influence on Composition

A mean of the composition of all the samples over the 10-year period was determined, and the results are shown in Fig. 1. These results indicate...