

# The Illinois Horticultural Experiment Station

by

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On December 1, 1949, a cooperative agreement was approved by the Department of Horticulture of the Illinois Agricultural Experiment Station, and the Southern Illinois University, Carbondale, Illinois, relative to the establishment and operation of a Horticultural Experiment Station at Carbondale in Jackson County. The purpose of the station was to provide facilities for carrying out research and demonstrations with horticultural crops to help satisfy the needs of the growers in Southern Illinois. Breeding and development of new varieties of fruits adapted to the region, and testing the adaptability of existing varieties and rootstocks, were to be important functions of this station.

The station at Carbondale was activated on August 1, 1951 with the acquisition of the land, and is a horticultural enterprise participated in by both the Illinois Agricultural Experiment Station and Southern Illinois University. At present the station comprises three tracts of land: the South Unit of 25 acres, the West Unit of 65 acres, and the vegetable trials of 4 acres—a total of 94 acres. The headquarters of the station, located on the West Unit, is composed of a combination laboratory and machine shed building, a sash type greenhouse, a propagation cellar and an artificial pond with an area of  $1\frac{1}{2}$  acres. The laboratory is intended to aid in the breeding of fruits for disease resistance. It is equipped for cytological and histological studies and for the isolation and culture of pathogenic organisms to be used in the artificial inoculation of seedlings from the breeding program. The laboratory will also serve as a field headquarters for visiting Illinois Agricultural Experi-

ment Station personnel. The sash type greenhouse is used for the propagation of seedlings and varieties of fruits and vegetables and for the cross-inoculation of seedling populations with pathogenic organisms. The pond has ample capacity to provide water for spraying and for the irrigation of nearby nurseries and vegetables plots. Each university provides a full time Civil Service foreman, and the routine work is done by student laborers of Southern Illinois University.

Much of the work underway is concerned with the following Illinois Agricultural Experiment Station projects: (1) Inheritance and Breeding of Commercially Important Characters in the Peach, (2) Inheritance and Breeding of Commercially Important Characters in the Apple, (3) Trials of Dwarfing Rootstocks for Apples. The Strawberry variety trials under way are part of a cooperative research project.

Since the station is now only eighteen months old, most of the fruit trees are still too young to bear fruit. The major exception is the peach seedlings. Approximately 1200 peach seedlings were planted in 1949 and fruited in 1952. These seedlings have been evaluated for desirable horticultural characters, including resistance to bacterial spot. A number of peach crosses were made in the spring of 1953, using very small trees of desirable selections and varieties.

It is believed that the growers in Southern Illinois will be efficiently served by the station at Carbondale. Two state institutions amicably cooperating in the solution of horticultural problems should accomplish more for the welfare of Southern Illinois growers than either institution could individually.