

**Diversification of fruits needed;  
horticulturists study ways  
that may make possible**

## Blueberries for Kentucky

By **CARL E. CHAPLIN**

More diversification of fruit crops is needed in Kentucky.

The blueberry, a delicious fruit but one not known to many people here, shows promise as a new fruit to add to the list of those grown in the state. Provided it could be profitably produced, there should be a ready market. The price is always good, and since Kentucky blueberries would mature a month to 6 weeks before those in Michigan they should command a premium price.

Under optimum conditions, the plants require a highly organic soil with a pH of 4.5 to 5.0. Such a soil would be considered as being strongly acid. Some Kentucky soils have the proper acidity, but they are mineral soils low in organic matter. Also, at certain times of the year their moisture supply is likely to be inadequate, and it is necessary that soils in which blueberries grow have a rather constant water table of about 18 inches.

The problem, therefore, is to overcome the effect of the low organic matter content and low moisture supply, as well as to lower the pH of the soil where it is too high.

### **Experiment Started in 1953**

An experiment designed to find methods for adapting the blueberry to Kentucky soil and climatic conditions was started by the Kentucky Agricultural Experiment Station in 1953. Two varieties are being used, and the plants are being grown under three different systems: (1) with an 8-inch sawdust mulch; (2) with an 8-inch sawdust mulch in addition to irrigation, and (3) with irrigation alone.

The soil in one-half of each plot was acidified with aluminum sulfate. The plants (24 in each plot) were set in early spring, and after they had become estab-

lished one-fourth pound of ammonium sulfate was added per plant. One-half pound of ammonium sulfate has been used yearly since then. It was found that this large amount of nitrogen fertilizer was necessary to promote satisfactory growth on soils low in organic matter.

At the time the work was begun, the pH of the soil ranged from 7.42 to 6.23. Growth the first two years was better on the plots that were acidified with aluminum sulfate, but after that time the heavy applications of ammonium sulfate had reduced the pH of the soils of the other plots 1 to 2 points, or to an

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**Blueberries as a commercial fruit crop for Kentucky appear promising provided certain production problems can be overcome.**

*(Photo: Michigan Agricultural Experiment Station)*