

the sweet cherry, in cotton, and in other plants there is a reduction in fruit setting during periods of low light intensity. In the present work it is shown that with the Delicious apple "the total gram-calories of radiation received per square centimeter in southern Michigan during this 7-day period averages 2,550; in sections where setting is so heavy that thinning is required it averages 3,000 to 4,000." (A supplemental note added after this bulletin went to press states that in 1949 the Delicious apple set heavy crops in most Michigan orchards. The gram-calories of radiation recorded per square centimeter at East Lansing during the week when blossoms were opening was 3,232, and for the following week the figure was 3,136.)

(3) "SPRAY MATERIALS. In most sections where fruit setting of this variety is heavy no fungicides are used: most sections employing fungicides to control scab in the pre-blossoming, blossoming and fruit setting periods now use lime-sulfur or wettable sulfur. The one is highly toxic, the other is mildly toxic. Certain copper-containing materials and fermate are still less toxic." Tabular data show that in general the highest percentage setting was obtained where no fungicides were applied.—W. S. FLORY, JR.

EDITOR'S NOTE: The Mississippi station is recommending two of the perfect-flowered muscadine varieties, Burgaw and Wallace, for general use in that state, along with Topsail, a pistillate variety from the same U.S.D.A.-North Carolina cooperative breeding project. J. P. Overcash, Louie Walton and B. C. Hurt in *Mississippi Farm Research*, October, 1950, thus summarize their variety recommendations to home fruit planters: "If it is possible to have only one vine then either Burgaw or Wallace should be used. If only two vines can be planted then one should be of the pollinator type and the other can be one of the high quality [pistillate] varieties such as Topsail, Hunt, Scuppernon, and Thomas."—J. C. McD.

Short Prunings

Better Muscadine Grapes to Come

The release in 1946 of the muscadine grape varieties Tarheel, Burgaw, Pender, Duplin, Willard, and Wallace opened up an entirely new field to breeders of muscadine grapes for these are the first perfect-flowered varieties to be introduced. This, however, was another blow to the male sex—"bull" vines are no longer needed. The new varieties not only produce pollen which causes the blooms of the imperfect flowered varieties like Scuppernon, Thomas, and Hunt to set fruit, but they also bear fruit. Their quality is very acceptable but not quite up to that of the better standard varieties.

Probably more valuable than these six varieties themselves will be the progeny from them and their unnamed brothers and sisters. The valued perfect-flowered character is now available to all muscadine grape breeders. Thousands of perfect-flowered seedling vines are growing from them and many appear to have better quality fruit than Thomas and Hunt. Thorough testing before introduction takes time, but better perfect-flowered varieties of muscadine grapes are on the way.