NOTES
FLORET STERILITY IN WHEAT CAUSED BY A LATE SPRING FREEZE

A snowstorm accompanied by temperatures as low as 27°F in central and western Kansas on May 21 and 22, 1931, was apparently responsible for an unusual type of floret sterility which occurred in certain varieties of wheat grown in cooperative tests with farmers. Approximately 50 of these cooperative varietal tests in as many different locations were examined and an estimate made of the injury sustained in each case.

There was no noticeable injury to the awns, glumes, leaves, or culms of the plants. In some cases the sterility was slight, only occasional heads showing sterile florets. In other cases the injury was severe, many heads being observed in which all of the florets were sterile and others with varying degrees of sterility. As the grain developed in the fertile florets, the affected heads took on a ragged, irregular appearance that was noticeable at a considerable distance. The proportion of sterile florets in the different varieties varied directly with their earliness in maturity, being as high as 90% in Early Blackhull, a variety which normally heads and ripens a week to 10 days earlier than Turkey. The sterility was always less in other varieties.

Fig. 1 shows (1) the location of the variety tests in central and western Kansas, (2) the location of those tests in which the sterility in Early Blackhull was 5% or more, and (3) the minimum temperature recorded by the nearest weather bureau station for the 2-day period, May 21-22.

It will be noted that practically all of the floret sterility occurred in an area about two counties wide, extending across central-western Kansas in a southwesterly direction. The minimum temperatures in this area ranged from 27°F to 31°F. Minimum temperatures from