

this summer with rain at Buffalo, although the Buffalo district is not particularly wet in summer as a rule. From July 13th to August 17th, inclusive, the six Wednesdays included within the period gave a total of 3.09 inches of rain, although the total amount for the entire period of 36 days was but 4.27 inches; that is, 72% of the total rainfall for the period occurred on the six Wednesdays.—*J. H. Spencer*, Senior Meteorologist.

CORRELATION BETWEEN WINTER AND SUCCEEDING SUMMER WEATHER

A study of the relation between the mean temperature of winter and that of the following summer for 115 years of record at Philadelphia and Baltimore shows a probability of 78% at Baltimore and 80% at Philadelphia that a winter with a mean temperature 4° or more above the 115 year average will be followed by a summer with mean temperature above the 115 year average. The probability is 22% at Baltimore and 20% at Philadelphia that a winter with mean temperature 4° or more above the average will be followed by a summer with temperature below the average. Similarly the probability is 78% at Baltimore and 64% at Philadelphia that a winter with mean temperature 4° or more above the normal will be followed by a summer with total precipitation below the normal for 115 years. The difference between Baltimore and Philadelphia precipitation is that Philadelphia receives more showers in summer during drought periods.

This summer at Baltimore followed the probability rule and had temperature above normal and rainfall below normal,—about a month's rain below normal.

This increases the 115 year probability percentage slightly.—*J. R. Weeks*, Baltimore, Md.

GRASSHOPPERS TAKE ADVANTAGE OF CONVECTION

For some days previous to Aug. 4, 1931, there had been hordes of grasshoppers on the east shore of Lake Winnebago, but very few on the west shore. On Aug. 4 the farmers and cottagers on the west shore saw what appeared to be a low dark cloud approaching them from the east, over the lake. To their astonishment, in a few minutes great quantities of 'hoppers began falling, some falling in the lake, but great quantities surviving the 10-mile journey across the water. They became so deep on the ground for a distance of about a mile along the shore that it was necessary to haul them away by truck.

This kind of 'hopper is unable to stay in quiet air more than a few seconds, and having once fallen into the water, is unable to jump out. A 200-ft. hill rises abruptly from the water on the east shore, and they undoubtedly "took off" from this, and were caught in a rising current of air. The day was mostly overcast, with light variable winds, mostly from the east.—*K. M. Hutchins*, Neenah, Wis.