

No. 392
Aug. 13

A SCIENCE SERVICE FEATURE

? WHY THE WEATHER ?

By Dr. Charles F. Brooks
of Clark University.

HOT DAYS AFTER THUNDERSTORMS

While some thunderstorms announce the arrival of cool dry weather, others are followed by close, muggy weather that feels hotter than that before the storm. A characteristic round of weather in the region north of latitude 35 degrees is as follows; a cool, partly cloudy day with northerly winds; a cool, clear night, a dry, clear, hot day or two; then a day with "rain before seven" maybe with a thunderstorm, followed by "shine before eleven" with muggy heat, and perhaps more showers in the afternoon. Still another muggy day may follow before the thunderstorm on the cool front of a northwesterly wind brings relief.

Thunderstorms cannot occur till there is enough moisture present, even if the weather is very hot. But in generally hot weather the arrival of much moisture, such as may be brought in a few hours by a southerly wind in eastern North America, at once allows thunderstorms to form, though the muggy phase of the hot weather is just beginning.

In winter, thunderstorms of this type mark the arrival of warm, humid air at a moderate height, though a cold layer of air near the ground may prevent people from enjoying that warmth. In summer, however, the sun's heat is great enough almost invariably to warm the surface layer of air sufficiently to expand it and mix it with the warm wind above. From sunrise to 10 a.m. on such days the moisture percentage in the lower air may nearly double.

(Tomorrow: Thermometer Does Not Show How Hot We Feel)

All rights reserved by Science Service.

SCIENCE SERVICE,
B and 21st Sts.,
Washington, D.C.