METEOROLOGY

Rains Mark Summer's End

➤ THE ANNUAL September rains, which occur with almost clocklike regularity in the northern Midwest, mark the start of the shift from summer to winter weather.

Three Wisconsin meteorologists reached this conclusion after studying weather information from the Great Lakes region collected during the past 45 years. Prof. Reid A. Bryson and James F. Lahey, University of Wisconsin meteorology department, and Paul J. Waite, the U. S. Weather Bureau, report there is nothing new in the knowledge that September rains are a fairly dependable annual event.

Farmers often try to seed their fields to catch these rains, which usually occur within an area bounded by a line running from the western tip of Lake Superior to the edge of South Dakota and Nebraska, then eastward to Ohio.

The rains normally follow a dry spell in late August, which also seems to be a regular occurrence. The rainfall peak, on the average during the 45-year period, occurs on Sept. 18.

The weather pattern marking the shift from summer to winter is the blocking of warm, moist air from the south, which has been predominant during the summer, by a counter-flow of cool air from the north. When these two masses mix, clouds and rain result.

There are also rainfall peaks on Sept. 5, 11 and 26, in addition to the 18th, the meteorologists found. The higher than average rains every seven or eight days throughout the month seem to result from the slow west-to-east movement of the entire weather pattern and the slow passage of cold

Once a front has passed, a few clear days

may follow before the next rain. After the September rains, the entire continental weather pattern changes and becomes stable, often for long periods, bringing Indian summer days. At this time, the skies are often clear across the entire United States, and air flows are unmarred by centers of deep low pressure systems.

Although the actual dates of the weather events change from year to year, the events can be expected to occur in most vears.

Science News Letter, September 21, 1957

PSYCHOLOGY

Mental "Warm Up" Helps **In Solving Problems**

➤ A BRISK MENTAL "warm up" may be as helpful in solving problems as in getting a track athlete ready for the 100-yard dash, Dr. Irving Maltzman, Lloyd Brooks and Stanley Summers, University of California at Los Angeles psychologists, have suggested.

Problem solving, by definition, is something that requires an uncommon response, the investigators point out. They believe it is possible to train into people the habit of uncommon responses. Such a habit might facilitate problem solving even though responses in the training situation may not enter into the solution of a given problem.

As a "warm up," subjects were asked to indicate on a written test some uses for unrelated objects such as a table leg, piece of balsa wood and a string. This set mental activity in motion.

Then they were presented a problem involving two strings hanging from opposite corners of a large room, a screwdriver and a piece of balsa wood. The problem was to grasp the two strings, one in each hand, without detaching or breaking them.

Solution was first to tie the screwdriver to the end of one string, swing it, then grab the other string and extend it to its maximum length, and, finally, catch the first string on its upswing.

Subjects who had experienced the written test solved the two-string problem significantly faster than a control group that had not taken the written test.

The UCLA investigators believe their experiments suggest that facilitation of problem solving may be possible by such simple "warm-up" training procedures.

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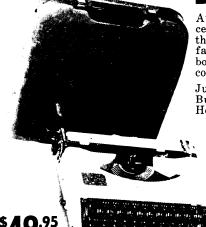
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