

UA Scientist Diagnoses New Disease: Hydrometeorological Paranoia

By JOHN RIDDICK

A new disease called hydrometeorological paranoia has been diagnosed by a University of Arizona scientist.

It is most common among ranchers and it is likely to become epidemic during the late summer, Dr. James E. McDonald, physicist in the Institute of Atmospheric Physics, says in an article in "Weatherwise."

The symptoms are feelings of persecution by nature.

The victim sees rain falling on range land all around—except on his own.

"We may safely conclude that the encirclement illusion will be quite common among persons who are better observers than they are statisticians," McDonald said.

A good statistician himself, McDonald broke the nature of the disease by recreating the cause.

Let's imagine a typical summer day during the monsoon season when thunderstorms build up every afternoon.

We can expect that in an area of 10,000 square miles—100 miles on an edge—50 thunderstorms might drop water, each on an area of about one mile in diameter.

"We may assume that each observer is able to detect a shower out to a distance of 25 miles from his location," McDonald said.

The scientist then plotted on a



graph the likelihood that any particular rancher would have water fall on him—and on the other hand, how much he would see fall on others.

On a random sample of five rancher observers, rain did not fall on a single one. In fact the shortest distance from any observer to the nearest storm was

4 miles—which he could see very well indeed.

If a man were to ride into the area after the storm and interview 1,000 farmers and ranchers who saw it, he would find that only four observers actually had gotten wet themselves.

"Of the 996 disappointedly dry

observers, some 920 could be expected to stress that they had seen showers in every one of their four quadrants," McDonald said.

Then it is no wonder that the poor observer crying "It rains everywhere but here" has an attack of hydrometeorological paranoia.