

Fluorine Work Important

The discovery made by the College of Agriculture that fluorine in drinking water is the cause of mottled enamel of human teeth, has received nation-wide attention. Surveys of the distribution of mottled enamel revealed its prevalence in several large areas of the State.

The map at right shows these areas to be along the Gila and San Pedro rivers, the Salt River Valley, scattered areas in Co-chise County and to a lesser extent in most of the other counties, especially the southern counties. Recent spot surveys have shown that areas in which mottled enamel was very prevalent 15 years ago are now practically free of the difficulty.

The most practical way of preventing fluorosis, or mottled teeth, is to use water which is low in fluorine. Some cities such as Douglas and Coolidge have changed the location of their wells and are now using water relatively low in fluorine.

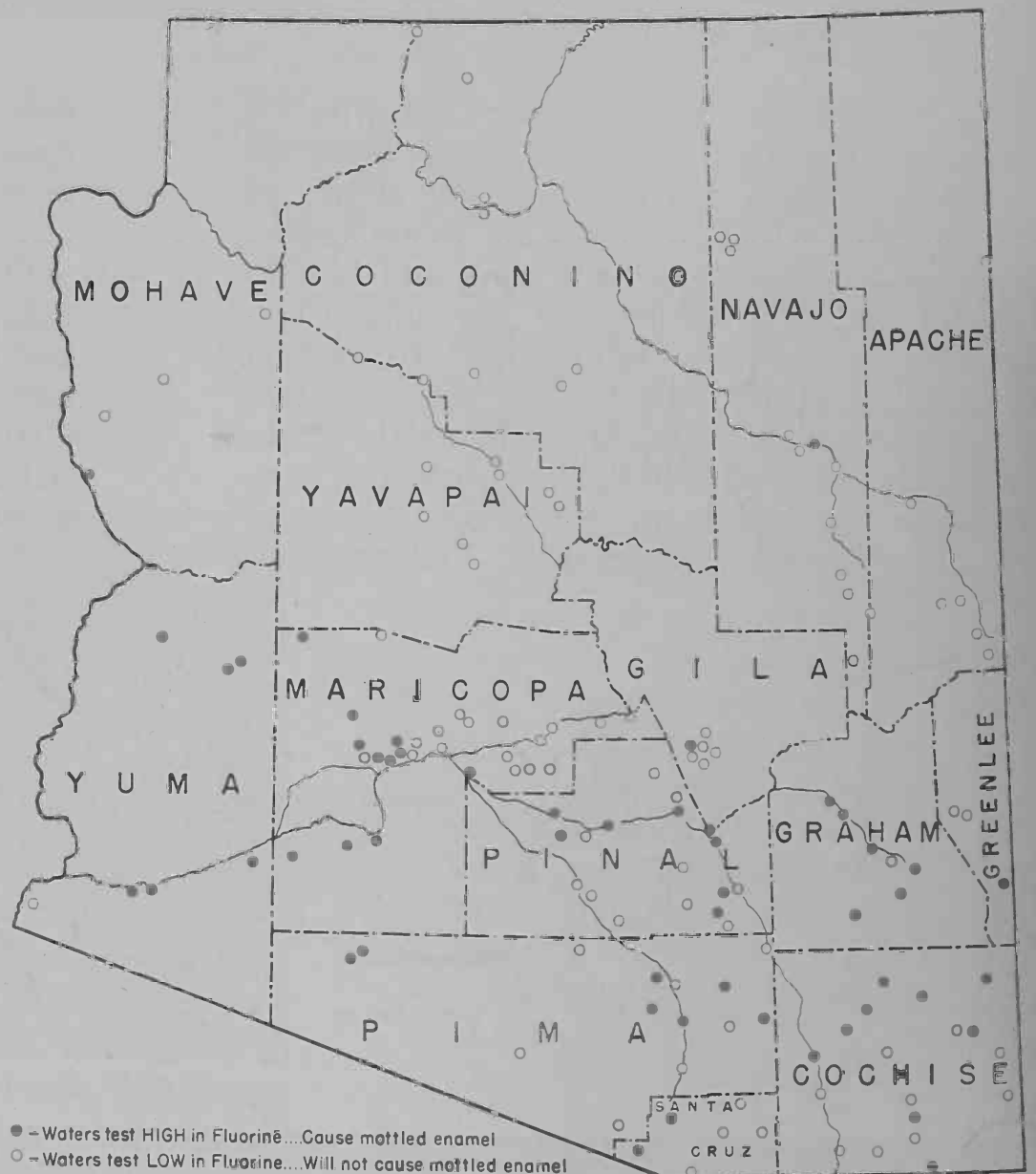
The suburban district northeast of Phoenix is now largely served by water from the city mains so the high-fluorine local well waters do not present the menace which they did formerly.

In localities such as St. David, Ajo and Duncan, where low-fluorine waters are not available in quantity, bone filters developed at the University of Arizona are used to defluoridate the water. As a result of the research conducted in Arizona, it is becoming increasingly difficult to find cases of severe fluorosis either in Arizona or elsewhere in the United States.

Trace amounts of fluorine in water harden teeth and reduce tooth decay. In slightly higher concentrations it softens the teeth and produces the ugly disfiguring defect known as mottled enamel.

The difference in concentration between beneficial and harmful levels is so narrow that the highest safe amount is not known. Therefore, if fluoridation is practiced, it must be done with extreme caution. This fact has been well publicized by the College of Agriculture.

Fluorine research has more than saved its cost in dental bills, and has afforded satisfaction to those who now have attractive teeth.



The Distribution of Fluorine in Arizona Waters.