

Herbal product linked to hepatitis

An herb used to combat obesity may cause a dangerous inflammation of the liver called hepatitis.

The herb is germander (*Teucrium chamaedrys*), a member of the mint family whose blossoms are used in teas, tonics, and herbal capsules. Health food stores promote these products as harmless weight-loss methods.

Now, Dominique Larrey of the Saint-Eloi Hospital in Montpellier, France, and his colleagues describe seven cases of hepatitis associated with germander capsules or germander tea. All patients had used the herb for an average of nine weeks, in most cases to lose weight. The researchers could find no other cause of liver disease, such as alcohol abuse or viral infection. Furthermore, the hepatitis vanished when the patients stopped taking germander products. The researchers describe their findings in the July 15 *ANNALS OF INTERNAL MEDICINE*.

Scientists have yet to identify any chemical in germander that causes liver problems, says Ryan J. Huxtable, a pharmacologist at the University of Arizona in Tucson. Huxtable wrote an editorial accompanying the research report.

Germander isn't the only herb known to cause liver disease, Huxtable adds. He notes that comfrey, widely used as a digestive aid, can also cause hepatitis. He believes cases of herbal poisoning are vastly underreported. Illnesses caused by toxic herbs typically become chronic and thus can be difficult to recognize as herb-related.

Although herbs add spice to life, Huxtable recommends a cautious approach to herbal medicines or teas. He advises against daily use of such products and warns parents not to give herbal preparations to infants or young children, who lack the enzymes needed to metabolize potentially toxic chemicals.

Asian mosquitoes carry dangerous virus

The Asian tiger mosquito, *Aedes albopictus*, hitched a ride to the United States in 1985. Since that time, federal scientists have been anxiously monitoring these biting insects, which in Asia are known to carry several microbes that cause human illness.

In 1990, entomologists reported they had isolated the so-called Potosi virus from specimens of Asian tiger mosquitoes collected in Potosi, Mo. (SN: 11/17/90, p.309). The Potosi virus is not known to cause illness in humans.

Now, U.S. scientists have reason to worry. Carl J. Mitchell of the Centers for Disease Control's division of vector-borne infectious diseases in Fort Collins, Colo., and his colleagues describe finding a disease-causing virus in Asian tiger mosquitoes collected from a tire dump in Polk County, Fla. This dump, which has since been destroyed, contained about 3 million tires when the mosquitoes were collected.

In the July 24 *SCIENCE*, Mitchell's team describes isolating 14 strains of eastern equine encephalitis (EEE) from tiger mosquitoes collected at the dump. EEE, which affects both horses and humans, can cause fever, chills, nausea, and a potentially lethal inflammation of the brain.

The report adds to earlier fears that the Asian tiger mosquito could fuel outbreaks of virus-caused human disease in the United States. The insect, which has spread rapidly through the Southeast and Midwest, "is a very aggressive biter," Mitchell says. He adds, however, that "we don't have any evidence that *A. albopictus* is transmitting this virus to humans."

Entomologists don't know whether the mosquitoes found in the Florida tire dump are unusual or indicative of a more widespread problem. The Centers for Disease Control has asked five state vector-control agencies to collect Asian tiger mosquitoes from their freshwater swamp breeding habitats. "If we find that it is becoming frequently infected, then we definitely would have reason for concern," Mitchell says.

Warming raises sea level off California

Surface waters off the coast of southern California have warmed by nearly 1°C over the past 42 years, causing the water to expand and raising the sea level in that area by about 4 centimeters, according to a new study of ocean temperatures.

Dean Roemmich of the Scripps Institution of Oceanography in La Jolla, Calif., examined temperature and salinity records taken by ships in the waters off California. The records show that the upper 100 meters of the ocean have warmed by 0.8°C since 1950, reports Roemmich in the July 17 *SCIENCE*.

Calculations suggest such a warming should cause the upper waters of the ocean in this region to expand, raising sea levels by roughly 1 millimeter per year. Indeed, records of tide height from the area indicate that sea levels have been rising, but the record is complicated by unrelated factors that lower and raise the land surface, causing an apparent change in sea level.

Roemmich says the California findings can help the effort to predict how the oceans would react to a global greenhouse warming. But he cautions that the warming's cause remains unclear. The rise could represent a natural temperature swing in one area only.

Extreme variability found in Arctic ice

Because the polar regions may show early signs of a changing climate, several researchers have examined records of sea ice, looking for hints of global warming over the past few decades. Indeed, some studies have detected decreases in ice thickness and ice extent consistent with the idea that the world is warming (SN: 7/21/90, p.46; 7/13/91, p.27). But a new, more comprehensive study shows that ice thickness varies substantially, indicating that scientists currently lack sufficient information to detect any climate trend through Arctic ice records.

Data collected near the North Pole during six submarine cruises between 1977 and 1990 reveal that the average ice draft—the amount of ice below sea level—varied through the period, rising and falling by as much as 25 percent between cruises, report Alfred S. McLaren and colleagues in the July 16 *NATURE*. This is the first documentation of such substantial variability in sea ice, says McLaren, a physical geographer associated with Columbia University's Lamont-Doherty Geological Observatory in Palisades, N.Y. A former submarine commander with the U.S. Navy, McLaren is now publisher of *SCIENCE NEWS*.

Per Gloersen of NASA's Goddard Space Flight Center in Greenbelt, Md., says the new study emphasizes the need to obtain ice data sets covering longer time intervals and wider geographic areas.

Teachers convey faulty quake lessons

If many students across America don't know what causes earthquakes, the reason may lie in their teachers. So suggests a study reported last week. Katharyn E. K. Ross and Andrea S. Dargush of the National Center for Earthquake Engineering Research in Buffalo, N.Y., surveyed 45 elementary and secondary school teachers from Salt Lake City. They found teachers often held inaccurate beliefs about the causes of earthquakes and how best to respond to them. Ross and Dargush described their work at the Tenth World Conference on Earthquake Engineering in Madrid, Spain.

Thirty-one percent of the teachers agreed with the incorrect statement that quakes occur because the Earth's core moves to the surface. Slightly over half also answered that earthquakes stem from "the layers of the Earth fighting"—a response that demonstrates confusion about earthquake analogies.

All those surveyed knew that people should get under a table and move away from windows during an earthquake. But almost a quarter said that people should go into a storm cellar, a tactic appropriate for tornadoes, not earthquakes.