## Tea Please, No Sugar

Banaba tea has long been a sort of Filipino version of chicken soup. Besides being good for what ails you, folk wisdom holds, banaba alleviates the symptoms of diabetes. Now, the results of the first clinical trial of banaba—better known to English speakers as crape myrtle—suggest that the stuff may lower blood sugar. Some experts warn, though, that no such "hypoglycemic" botanical has yet made it to drug status.

Banaba tree.

Brewed from the leaves of the banaba tree (*Lagerstroemia speciosa*), the folk medicine piqued scientific interest in 1993 when Kazuo Yamazaki, a phytochemist at Hiroshima University's School of Medicine, discovered that it increases glucose uptake by cells in a test tube. Now a team led by Yoshio Ikeda, a professor of preventive medicine at the Jikei University School of Medicine in Tokyo, has tested pills of banaba extract on patients with type 2 diabetes, which involves defective insulin activity. In 22 of 24 patients who swallowed three banaba pills daily for a month, there was a "significant reduction"—13.5% on average—in blood glucose levels compared to no change when the same people took placebos, Ikeda reported in the May issue of *Japanese Pharmacology & Therapeutics*.

"Frankly, I was surprised," he says. "These kinds of [folk] remedies don't usually have much effect." Ikeda says banaba's effect is too mild to affect type 1 diabetes, where insulin-production machinery has been destroyed.

Richard Kahn, chief medical officer at the American Diabetes Association, says patients shouldn't get their hopes up. "There are a huge number of so-called herbal cures for diabetes" that are claimed to work by lowering blood sugar, says Kahn. So far, he says, no drug has come from them.

## A Touch Of Glass

This 34-centimeter-long translucent Roman fish, from the first century A.D., is one of the treasures at Corning's newly renovated glass museum, scheduled to reopen on 19 June after a $62 million renovation. Founded in Corning, New York, in 1951, the museum covers the history and art of glass since the discovery of this versatile substance—first found in the form of fast-cooling lava—some 4000 years ago. A new feature is a Glass Innovation Center, which documents technologies from "float glass"—perfectly flat sheets formed by floating molten glass on a pool of liquid tin—to fiberglass.

## Pusztai Fights On

Arpad Pusztai, the British biochemist whose controversial studies triggered a furious debate in the United Kingdom over transgenic food, has found his prince. Earlier this month he met privately with the Prince of Wales, who has become a leading voice in the campaign against transgenic foods. According to Pusztai, Charles told him he had been cruelly treated by the scientific establishment and deserved an apology. "It's ironic" that royalty will step in when the elected government is not responding to citizens' wishes, observes Pusztai.

Pusztai was suspended from his job at the Rowett Research Institute in Aberdeen, Scotland, last August, after saying on TV that transgenic potatoes could stunt rats' growth (*Science*, 21 May, p. 1247). Critics of genetic engineering pounced on his words to bolster their case, but in May his conclusions were blasted by a panel of the Royal Society.

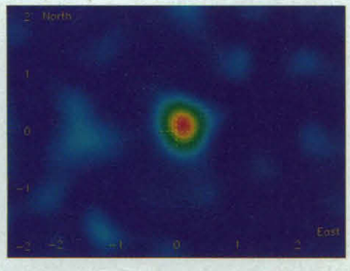
Now Pusztai is fighting back, arguing that the society did not see all his data. A detailed rebuttal was to be posted to a Web site, under construction as *Science* went to press.

## Moonshadow Over Minnesota

Physicists working in an iron mine almost a kilometer underground have detected the "shadow" the moon casts when it blocks cosmic rays streaming toward Earth. Scientists, who announced the feat last week, say it's a step toward identifying the mysterious source of the rays.

When cosmic rays smash into Earth's atmosphere, the collisions spawn muons, hardy particles that can pass through meters of lead like a cannonball through tissue paper. Although muons will leave imprints on film, they will pass right through telescope mirrors, making it impossible to focus them and thus see which direction they're coming from.

Physicist John Cobb of Oxford University and his team are now attempting to track down the elusive sources of cosmic rays with a novel muon detector, made from steel tubes packed with a mixture of argon and carbon dioxide gas and located at the bottom of a defunct mine in Soudan, Minnesota. Built a decade ago to measure proton decay, the Soudan-2 detector is now being pressed into service as, in effect, a muon telescope.




Muon sky map, moon in cross hairs.

Because the moon stops cosmic rays, it creates a moving shadow of blocked incoming rays as it crosses the night sky over Minnesota. The incoming muons leave paths in the gas by stripping off gas electrons. Using a computer to track the directions of these particles, Cobb's team created an image of the moon's "muon shadow." The reconstruction confirms that Soudan-2 can trace an incoming cosmic ray to the region of the sky it came from to "within a small fraction of 1 degree," says Cobb—precise enough to identify potential sources of the rays.

"It is a technical tour de force," says physicist John Learned of the University of Hawaii, Manoa. With the detector now up and running, adds Cobb, "we are in an excellent position to make a survey of the entire sky." That may allow researchers to figure out whether quasars—or some other kind of object—are the cosmic ray fountains.

CREDITS: (TOP LEFT) D. D. SOEJARTO; (TOP RIGHT) THE CORNING MUSEUM OF GLASS; (BOTTOM) J. COBB, OXFORD UNIVERSITY