Smashed Potatoes

More than 1200 genetically modified (GM) potato plants have been destroyed in New Zealand, where such attacks are rare.

Early on 10 January, someone cut the steel mesh covering a greenhouse of the New Zealand Institute for Crop & Food Research (CFR) complex at Lincoln, entered a high-level containment facility, and ripped labels from pots, cut potato plants, and stuffed them into garbage bags. "The history of the plants has gone and so, therefore, has the science," says CFR plant biotechnologist Margy Gilpin.

Most of the plants had been engineered to produce a toxin from *Bacillus thuringiensis* (Bt) that can kill the potato tuber moth. Others were designed to resist bacterial soft rot, a major problem in New Zealand. Scientists have replanted tissue-cultured plants, but the experiment has been set back a year, says CFR plant geneticist Tony Conner. A 3-year-old breeding experiment that had produced 110 chimeric potato plants was also ruined.

GM potatoes lie in shambles.

New Zealand scientists are experimenting with several GM crops, but potatoes have had the highest profile since a well-publicized 1999 incident, when a group called Wild Greens uprooted Bt potato plants and ones engineered with an antibacterial peptide copied from African clawed toads. Police have yet to apprehend anyone involved in the latest attack.

Anthrax Revisited

The recent bioterrorist attacks have made doctors and researchers hungry for knowledge about inhalation anthrax, which hadn't been seen in the United States for a generation. So last week, the *American Journal of Medicine* took the unusual step of republishing a classic in the field: a 1960 paper about the last U.S. outbreak, which occurred in a goat-hair mill in Manchester, New Hampshire. Sometimes called woolsorter's disease, it struck five people, killing four.

The journal hopes the paper will help familiarize doctors with anthrax—and indeed, says author Stanley Plotkin, now a professor emeritus at the University of Pennsylvania in Philadelphia, the similarities between the Manchester patients and the 11 recent cases is striking: "I'm still very pleased with what I wrote 40 years ago."

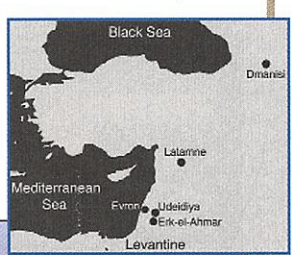
Very Old Tools

Geophysicists from Israel and the United States have firmed up the date for the oldest known hominid site in the Middle East.

The site, Erk-el-Ahmar, was discovered several decades ago in the so-called Levantine Corridor, the narrow band of habitable land in Israel and Jordan that offered the most obvious way for the ancestors of modern humans to disperse out of Africa. The site contains choppers and flakes of flint that look like some of the oldest tools found in Africa.

The new dating by magnetostratigraphy, announced at last month's meeting of the American Geophysical Union in San Francisco, confirms an age of 1.7 million to 2.0 million years. The technique traces periodic reversals in Earth's magnetic field. Taking samples from a nearby rocky outcrop, Hagai Ron of the Geophysical Institute of Israel and Shaul Levi of Oregon State University in Corvallis located the distinctive signature of a reversal known to have occurred 1.78 million years ago. The date coincides nicely with those of ancient hominid sites in Dmanisi, Georgia, and in Java. Previously, the oldest well-dated site in the corridor was Ubeidiya, a few kilometers to the north of Erk-el-Ahmar, put at 1.4 million years.

Geophysicists are excited about the dating. Magnetostratigraphy is difficult in shallow lakebed sediments such as these, which rarely preserve the necessary fine detail, says Carl Swisher III, a geologist at Rutgers University in New Jersey. But Ron and Levi's findings, if replicated with similar sediments, show that scientists can use it to distinguish eras in human prehistory.



DOE's Losing Gamble

The Department of Energy (DOE) bypassed peer review and spent $400,000 field-testing an "implausible" pollution-detection device that relies on a human operator to sense changes in magnetic fields, according to a new report from the agency's Inspector General (IG).

U.S. and Ukrainian companies invented the passive magnetic resonance anomaly mapping (PMRAM) system, a tool that looks sort of like a weed whacker. They claim that an operator wired to PMRAM's lunch pail–sized black box of electronics can sense the magnetic resonance produced by underground contaminants after calibrating the instrument using pure samples. There is only one qualified operator of the device, a Ukrainian associated with the Kiev company Geoecolog, according to the 11 January IG report.

Two years ago, the DOE's Office of Environmental Management hired Geoecolog and its U.S. partner, Pollution Prevention Associates (P2A) in Lakewood, Colorado, to conduct three field tests at contaminated sites in Ohio and Tennessee. But then the agency's Office of Science and Technology, which is supposed to review technologies before taxpayers reach for their wallets, got wind of the method and asked the American Society of Mechanical Engineers to look into it. The society was unimpressed: It said that the technology provided "no useful information during the three tests" and "appeared to be implausible," according to the IG's report. The IG concluded that DOE "could have avoided spending over $400,000" if there had been proper oversight. DOE has stopped testing the technology.

Still, Charles Downs of P2A maintains that the gadget works. The field tests, he says, were plagued with inadequate calibrations and a lack of pure contaminant samples.

CREDITS: (TOP TO BOTTOM) ROBERT LAMBERTS/CROP & FOOD RESEARCH, LINCOLN; DOE; OREGON STATE UNIVERSITY