



SCIENCE NEWS®

The Weekly Newsmagazine of Science

Science Service Publication
Volume 152, No. 15, October 11, 1997

Thomas Peter Bennett	Publisher
Julie Ann Miller	Editor
Blair Burns Potter	Managing Editor
Dan Skripkar	Production/Design Director
David Lindley	Associate Editor
Janet Raloff	Senior Editor
Ivars Peterson	Environment/Policy
	Online Editor
Bruce Bower	Mathematics/Physics
Richard Monastersky	Behavioral Sciences
	Internship Coordinator
	Earth Science
	Biomedicine
Kathleen Fackelmann,	
Nathan Seppa	Astronomy
Ron Cowen	Life Sciences
Christine Mlot	Biology
John Travis	Chemistry/
Corinna Wu	Materials Science
Sid Perkins	Science Writer Intern
Meghan Mitchell	Editorial Assistant
Gwendolyn Gillespie	Editorial Secretary
Cait Anthony	Books/Advertising
Donald R. Harless	Business Manager

SCIENCE NEWS (ISSN 0036-8423) is published weekly on Saturday, except the last week in December, for \$49.50 for 1 year or \$88.00 for 2 years (foreign postage \$6.00 additional per year) by Science Service, 1719 N Street, N.W., Washington, D.C. 20036. Preferred Periodicals postage paid at Washington, D.C., and additional mailing office. POSTMASTER: Send address changes to SCIENCE NEWS, P.O. Box 1925, Marion, Ohio 43305. Change of address: Four to six weeks' notice is required — old and new addresses, including zip codes, must be provided. Copyright © 1997 by Science Service. Title registered as trademark U.S. and Canadian Patent Offices. Printed in U.S.A. Republication of any portion of SCIENCE NEWS without written permission of the publisher is prohibited. For permission to photocopy articles, contact Copyright Clearance Center at 508-750-8400 (phone) or 508-750-4470 (fax).

Editorial, Business, and Advertising Offices
1719 N St. N.W., Washington, D.C. 20036
202-785-2255; scinews@sciserv.org

Subscription Department
P.O. Box 1925, Marion, Ohio 43305
For new subscriptions and customer service, call 1-800-552-4412.

Visit SCIENCE NEWS ONLINE for special features, columns, and references.
<http://www.sciencenews.org>

This Week

- 228 Missing Enzyme Incites Cancer Debate
- 228 Bursting bubbles break chemical bonds
- 229 Prion proponent wins Nobel for medicine
- 229 Mental disorders tied to teen parenthood
- 230 Water link to frog deformities strengthened
- 230 Plant estrogens may ward off breast cancer
- 231 Full report of nuclear test fallout released
- 231 Big gun: Pistol shines in the infrared

Research Notes

- 236 Biomedicine

Articles

- 232 Inside Old Faithful

Cover: Each year, an estimated 2.4 million people thrill to the sight of Yellowstone National Park's Old Faithful—but what makes the geyser tick? Geologists used a video camera and other probes to discover a few of Old Faithful's innermost secrets. (Photo: National Park Service)

- 234 Toothsome Technology
- 238 Sampling and the Census

Departments

- 227 Letters
- 237 Books

SCIENCE NEWS is published by Science Service, a nonprofit corporation founded in 1921. The mission of Science Service is to advance the understanding and appreciation of science through publications and educational programs.

Board of Trustees — *Chairman*, Dudley Herschbach; *Vice Chairman*, Gerald F. Tape; *Secretary*, David A. Goslin; *Treasurer*, Willis Harlow Shapley; Joseph W. Berg Jr.; Robert W. Fri; J. David Hann; Shirley M. Malcom; Eve L. Menger; C. Bradley Moore; Ben Patrusky; H. Guyford Stever; Sanford J. Ungar; Deborah P. Wolfe; *Chairman Emeritus*, Glenn T. Seaborg; *Honorary Trustees*, Edward Bliss Jr.; Bowen C. Dees; Elena O. Nightingale; John Troan.

Officers—*President*, Thomas Peter Bennett; *Vice President and Business Manager*, Donald R. Harless.



Letters

'Enough' grain depends on use

The world's population can satisfy its hunger quite well with either a grain-based or a meat-based diet ("Can Grain Yields Keep Pace?" SN: 8/16/97, p. 104). Thus every individual has a choice: meat or grain.

But what of the collective? The process of turning grain crops into meat is grossly inefficient. If we, collectively, were to choose to eat grain—as bread, pasta, and so on—instead of feeding it to cattle, we could, in theory, feed many times our current world population with today's harvests.

CORRECTION

In "A Silent Cool" (SN: 9/6/97, p. 152), Cronin B. Vining is described as president of the International Thermoelectric Society. Vining is the former president; D.M. Rowe is the current president.

The collective health benefits of such a choice would be equally dramatic.

Bill Sturgeon
Petroia, Calif.

Countering cholera

Rita Colwell states that "remote sensing may help researchers provide early warnings of when and where cholera will strike. Such warnings may encourage people to take extra precautions with their drinking water" (SN: 8/2/97, p. 72). This implies that cholera epidemics are primarily due to misinformation of some sort on the part of sufferers and that the information provided by remote sensing would significantly help these people to avoid the disease.

Cholera is essentially a disease of poverty. It is caused not by lack of information but by horrible living conditions and polluted water. I hardly think that telling poverty-stricken people they should "take extra precautions with their drinking water" is very

meaningful when they are forced to live in hovels and get their water from polluted sources. In fact, doing so would be an insult to their intelligence!

John Jaros
Lynbrook, N.Y.

Cholera is indeed a disease born of poverty. Yet this poverty will not be eliminated in the near future, and Colwell believes that warnings of cholera outbreaks can be useful immediately. For example, she and her colleagues have shown that people can significantly lower the risk of cholera infection if they filter water through a folded sari, a traditional garment worn by millions of women. —J. Travis

How much steroid is too much?

As an occasional user of inhaled steroids for asthma, I was concerned about the article linking them to cataracts ("Inhaled steroids

Letters continued on p. 235

OCTOBER 11, 1997

SCIENCE NEWS, VOL. 152

227