

SCIENCE NEWS®

A Science Service Publication
Vol. 108/October 18, 1975/No. 16
Incorporating Science News Letter

OF THE WEEK

Brain-hemisphere functions	244
Government funds energy schemes	244
Second Atmospheric Explorer	245
Pineal gland hormone	245
Boys vs. girls	246
Nobel Prizes	246
French ion accelerator	246
Rare meteorite found	247
200-mile zone	247
Jupiter: Carbon monoxide trace	247

RESEARCH NOTES

Behavioral Sciences	248
Space Sciences	248

ARTICLES

Truffles: Environmental helpmates	250
Mapping Mars's gravity	255

DEPARTMENTS

Letters	243
---------	-----

COVER: Truffles—friend or feast? The gourmet mushroom with the big price turns out, upon closer inspection, to be an essential link in forest ecology. See p. 250. (Illustration: Ann Lunsford)

Publisher	E. G. Sherburne Jr.
Editor	Kendrick Frazier
Senior Editor and Physical Sciences	Dietrick E. Thomsen
Senior Editor and Behavioral Sciences	Robert J. Trotter
Biomedical Sciences	Joan Arehart-Treichel
Biology/Chemistry	Janet L. Hopson
Science and Society	John H. Douglas
Space Sciences	Jonathan Eberhart
Contributing Editor/ Mathematics	Lynn Arthur Steen
Copy Editor	Michelle Galler Riegel
Art Director	Dale Appleman
Assistant to the Editor	Susan Strasburger
Books	Margit Friedrich
Advertising	Scherago Associates, Inc. 11 W. 42nd St. New York, N.Y. 10036 Fred W. Dieffenbach Sales Director

Copyright © 1975 by Science Service, Inc., 1719 N St., N.W., Washington, D.C. 20036. Republication of any portion of SCIENCE NEWS is prohibited.

Editorial and Business Offices
1719 N Street, N.W.
Washington, D.C. 20036

Subscription Department
231 West Center Street
Marion, Ohio 43302

Subscription rate: 1 yr., \$10; 2 yrs., \$18; 3 yrs., \$25. (Add \$2 a year for Canada and Mexico, \$3 for all other countries.) Change of address: Four to six weeks' notice is required. Please state exactly how magazine is to be addressed. Include zip code.

Printed in U.S.A. Second class postage paid at Washington, D.C. Title registered as trademark U.S. and Canadian Patent Offices.

Published every Saturday by SCIENCE SERVICE, Inc., 1719 N St., N.W., Washington, D.C. 20036. (202-785-2255). Cable SCIENSERV. Telex 64227.

LETTERS

S.I. units of measurement

As a respected and widely read publication in the scientific field you have the opportunity to support the international effort to standardize units of measurement and notation to represent measurements. The International System of Units (SI) is now widely accepted as a remarkably consistent and simple set of specifications for communicating scientific measurements. You could do your part by avoiding the use of the following:

- 1) "Imperial" or "British" units such as inches, pounds, fahrenheit, slugs.
- 2) Outmoded metric units such as angstrom, ergs, gammas and gauss.
- 3) Older names for certain metric units such as mho (instead of Siemens) and cps (instead of Hertz).
- 4) Obscure units such as calories, furlongs, BTU's, horse-power, atmospheres.
- 5) Multiples of basic units that are not powers of a thousand, such as decagram, hectare or centimeter.
- 6) Compound prefixes such as milli-micron instead of nano.

Berthold K.P. Horn
Assistant Professor
M.I.T. - A.I. Laboratory
Cambridge, Mass.

(For readers' information: The policy of SCIENCE NEWS is to use the same units of measurements in which the research itself is reported by scientists and engineers. This avoids problems of conversion and all the possibilities of arithmetical error that go with that, and it means that the overwhelming majority of the articles are reported in metric, as opposed to English units. As more and more of the scientific and technical communities adapt consistent usage of the standard SI units, as opposed to some of the older or "outmoded" names for metric units, our pages will reflect that trend. As a service we have reprinted the official tables of SI base units, derived units, and their multiples in the next column. These tables and further information are published in "SI units and recommendations for the use of their multiples and of certain other units" (Ref. No. ISO 1000-1973 [E]), available for \$1.50 from the American National Standards Institute, 1430 Broadway, New York, N.Y. 10018. Another source of information is the National Bureau of Standards, Washington, D.C. 20234.—Ed.)

BASE UNITS

Quantity	Name of base SI unit	Symbol
length	metre	m
mass	kilogram	kg
time	second	s
electric current	ampere	A
thermodynamic temperature	kelvin	K
amount of substance	mole	mol
luminous intensity	candela	cd

DERIVED UNITS

Quantity	Name of derived SI unit	Symbol	Expressed in terms of base or supplementary SI units or in terms of other derived SI units
frequency	hertz	Hz	1 Hz = 1 s ⁻¹
force	newton	N	1 N = 1 kg·m/s ²
pressure, stress	pascal	Pa	1 Pa = 1 N/m ²
energy, work, quantity of heat	joule	J	1 J = 1 N·m
power	watt	W	1 W = 1 J/s
electric charge, quantity of electricity	coulomb	C	1 C = 1 A·s
electric potential, potential difference, tension, electromotive force	volt	V	1 V = 1 J/C
electric capacitance	farad	F	1 F = 1 C/V
electric resistance	ohm	Ω	1 Ω = 1 V/A
electric conductance	siemens	S	1 S = 1 Ω ⁻¹
flux of magnetic induction, magnetic flux	weber	Wb	1 Wb = 1 V·s
magnetic flux density, magnetic induction	tesla	T	1 T = 1 Wb/m ²
inductance	henry	H	1 H = 1 Wb/A
luminous flux	lumen	lm	1 lm = 1 cd·sr
illuminance	lux	lx	1 lx = 1 lm/m ²

MULTIPLES

Factor by which the unit is multiplied	Prefix	
	Name	Symbol
10 ¹²	tera	T
10 ⁹	giga	G
10 ⁶	mega	M
10 ³	kilo	k
10 ²	hecto	h
10	deca	da
10 ⁻¹	deci	d
10 ⁻²	centi	c
10 ⁻³	milli	m
10 ⁻⁶	micro	μ
10 ⁻⁹	nano	n
10 ⁻¹²	pico	p
10 ⁻¹⁵	fermi	f
10 ⁻¹⁸	atto	a

SCIENCE SERVICE

Institution for the Popularization of Science founded 1921; a nonprofit corporation

Board of Trustees—Nominated by the AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE: **Deborah P. Wolfe**, Queens College of City University of New York; **Bowen C. Dees**, The Franklin Institute; **Athelstan Spilhaus**, National Oceanic and Atmospheric Administration. Nominated by the NATIONAL ACADEMY OF SCIENCES: **Gerald F. Tape**, Associated Universities; **Allen V. Astin**, Bethesda, Md.; **Glenn T. Seaborg** (President), University of California, Berkeley. Nominated by the NATIONAL RESEARCH COUNCIL: **Gerald Holton**, Harvard University; **Joseph W. Berg Jr.**, National Research Council; **Aaron Rosenthal**, National Academy of Sciences. Nominated by the JOURNALISTIC PROFESSION: **Edward Bliss Jr.**, American University; **Julius Duscha**, Washington Journalism Center; **O. W. Riegel** (Secretary), Washington and Lee University. Nominated by E. W. Scripps Trust: **Milton Harris** (Treasurer), Washington, D.C.; **Edward W. Scripps II** (Vice President and Chairman of the Executive Committee), Edward W. Scripps Trust; **John Troan**, Pittsburgh Press.

Director: E. G. Sherburne Jr.; Assistant Director: Dorothy Schriver; Business Manager: Donald R. Harless; Things of Science: Ruby Yoshioka.