COVER
Tomato (*Solanum lycopersicum*) domestication and selection resulted in an explosion of different fruit shapes and sizes, as exemplified by heirloom varieties. Wild ancestors of tomatoes such as *S. pimpinellifolium*, the smallest fruit shown here, were round (middle row, second from left). See page 1527.
Image: Kelly Krause/Science; photos: Esther van der Knaap

DEPARTMENTS
1451 Science Online
1453 This Week in Science
1459 Editors’ Choice
1464 Contact Science
1465 Random Samples
1467 Newsmakers
1547 New Products
1548 Science Careers

EDITORIAL
1457 The IPCC Must Maintain Rigor
by Susan Solomon and Martin Manning

NEWS OF THE WEEK
Two Papers From Korean Lab Found to Lack ‘Scientific Truth’ 1468
$300 Million in Private Money for New Investigators 1469
Physicist Wins Open Illinois Seat 1470
Indian Government Offers Helping Hand to Women Scientists 1470
Hiding From Biting Insects in Plain Scent 1471
>> Science Express Report by M. Ditzen et al.

LETTERS
The Right Pitch for Saxophonists P. King 1483
Second Basket’s Negative Impact C.-C. Carbon 1484
Going Public with the Scientific Process R. Cronje 1484
Hoyle’s Role in B2FH G. Burbridge 1485
CORRECTIONS AND CLARIFICATIONS
1484

BOOKS ET AL.
Reading Popular Physics Disciplinary Skirmishes and Textual Strategies E. Leane, reviewed by D. Kaiser 1485
Elizabeth Blackburn and the Story of Telomeres Deciphering the Ends of DNA C. Brady, reviewed by M. A. Goldman 1486

POLICY FORUM
Inappropriate Use and Portrayal of Chimpanzees S. R. Ross et al. 1487

PERSPECTIVES
Observing Our Origins F. J. Ciesla 1488
>> Report p. 1504
Customized Signaling Circuits P. M. Pryciak 1489
>> Report p. 1539
The New Diamond Age? P. W. May 1490
This Coincidence Cannot Be Accidental D. J. Scalapino 1492
>> Report p. 1509
Standing on the Shoulders of Giants F. Coward 1493
A Quiescent Working Memory S. Fusi 1495
>> Report p. 1543

NEWS FOCUS
Dueling Visions for a Hungry World 1474
NSF Fellowships Called Powerful Tool for Building the Pipeline 1477
Blood-Matching Goes Genetic 1478
Cryptologists Cook Up Some Hash for New ‘Bake-Off’ 1480
Hash of the Future?

SCIENCESCOPE
Proposed Frog Ban Makes a Splash 1472
Spanish Scientists Question Accreditation Plan 1472
U.K.’s Royal Society Ventures Into Funding Start-Up Companies 1473

NEWS FOCUS
Dueling Visions for a Hungry World 1474
NSF Fellowships Called Powerful Tool for Building the Pipeline 1477
Blood-Matching Goes Genetic 1478
Cryptologists Cook Up Some Hash for New ‘Bake-Off’ 1480
Hash of the Future?

NEWS FOCUS
Dueling Visions for a Hungry World 1474
NSF Fellowships Called Powerful Tool for Building the Pipeline 1477
Blood-Matching Goes Genetic 1478
Cryptologists Cook Up Some Hash for New ‘Bake-Off’ 1480
Hash of the Future?

SCIENCESCOPE
Proposed Frog Ban Makes a Splash 1472
Spanish Scientists Question Accreditation Plan 1472
U.K.’s Royal Society Ventures Into Funding Start-Up Companies 1473
Coherent Dynamics of a Single Spin Interacting with an Adjustable Spin Bath
R. Hanson, V. V. Dobrovitski, A. E. Feiguin, O. Gywat, D. D. Awschalom
Simulations successfully show how the spin of a nitrogen vacancy in diamond is coupled to those of surrounding nitrogen impurities and how coherence between them is lost.
10.1126/science.1155400

Gate-Variable Optical Transitions in Graphene
F. Wang et al.
Application of electrical biases to single or double layers of graphene change its infrared reflectivity, mimicking aspects of transistors and opening up optoelectronic applications.
10.1126/science.1152793

Impact of Artificial Reservoir Water Impoundment on Global Sea Level
B. F. Chao, Y. H. Wu, Y. S. Li
Accounting for water impounded globally in artificial lakes that were filled during the past 80 years raises estimates of natural contributions to recent sea level.
10.1126/science.1154580

Nutritional Control of Reproductive Status in Honeybees via DNA Methylation
R. Kucharski, J. Maleszka, S. Foret, R. Maleszka
Epigenetic modifications that involve methylation cause female honeybee larvae to become queens rather than workers when they are fed royal jelly.
10.1126/science.1153069

Insect Odorant Receptors Are Molecular Targets of the Insect Repellent DEET
M. Ditzen, M. Pellegrino, L. B. Vosshall
The widely used insect repellent DEET acts by inhibiting olfactory neurons that respond to odors such as those that attract insects to their hosts.
>> News story p. 1471
10.1126/science.1153121

Simple organic molecules and water are abundant in the inner disk of a star like our early Sun, implying that organic synthesis is occurring there.
>> Perspective p. 1488

Under pressure, the insulator silane (SiH\textsubscript{4}) transforms to a metallic phase and, at even higher pressures and low temperatures, becomes superconducting.

High-resolution neutron-scattering experiments reveal behavior in pure lead and niobium superconductors beyond that described by the standard theoretical framework.
>> Perspective p. 1492

A three-block polymer can generate long cyclic polymers in solution, which can be further functionalized to form polymer brushes and tubular assemblies.

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He Heard, She Heard
Girls and boys use different parts of their brains to process language.

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Who was the first to improve on a widely used classic formula?

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ST NETWATCH: Ask a Scientist
This Web site from the Howard Hughes Medical Institute lets users submit their questions directly to scientists; in Educator Sites.

From drifter to researcher.

From the Archives: The Drifter
I. Chen
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>> See also Financing Your Research From Industry feature, p. 1548

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Science 319 (5869), 1453-1551.