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ON THE WEB THIS WEEK
>> Science Podcast
Listen to a special show focused on smarter pesticides, including stories on preventing pesticide suicides, RNA interference for bugs, and manipulating the plant immune system.
>> Find More Online
Check out Science Express, our podcast, videos, daily news, our research journals, and Science Careers at www.sciencemag.org.

COVER
Stem rust fungus Ug99 is deadly to unprotected wheat strains (two stems on the right), but not to those protected by innate resistance genes (three stems on the left). In this special issue, we explore past and future strategies for responding to diseases and infestations caused by pests. The solutions demand our best knowledge of chemistry, immune responses, and ecosystem stability. See page 728.

Photo: Evans Lagudah and Zak Pretorius

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779 Earlyest Evolution of Multituberculate Mammals Revealed by a New Jurassic Fossil C.-X. Yuan et al.
A fossilized skeleton reveals the origins of diverse feeding and locomotor adaptations of once-common rodent-like multituberculates.

783 Identification of Wheat Gene Sr33 That Confers Resistance to Ug99 Stem Rust Race Group C. Saintenac et al.
Two resistance genes are identified that could protect wheat from a virulent fungus that can severely reduce crop yields.

786 The Gene Sr33, an Ortholog of Barley Mla Genes, Encodes Resistance to Wheat Stem Rust Race Ug99 S. Periyannan et al.
In mice, a broadly acting RNA, lincRNA-Cox2, regulates the circuit that controls the inflammatory response.

796 Recurrent Insect Outbreaks Caused by Temperature-Driven Changes in System Stability W. A. Nelson et al.
Seasonal temperature changes destabilize population cycles in the tea tortrix moth and drive the timing of pest outbreaks.

800 A Gut Lipid Messenger Links Excess Dietary Fat to Dopamine Deficiency L. A. Tellez et al.
In mice, a high-fat diet functionally disrupts a gut lipid that controls the brain’s perception of the reward value of food.
Science 341 (6147), 694-803.