SPECIAL SECTION

Smarter Pest Control

INTRODUCTION
728 The Pesticide Paradox

NEWS
730 Pesticide Planet
732 A Lethal Dose of RNA
734 The War Against Weeds
737 Vietnam Turns Back a “Tsunami of Pesticides”
738 In Rural Asia, Locking Up Poisons to Prevent Suicides
740 Growing Up With Pesticides

REVIEW
742 Current Challenges and Trends in the Discovery of Agrochemicals
C. Lamberth et al.
746 Pivoting the Plant Immune System from Dissection to Deployment
J. L. Dangl et al.
752 Evaluating Pesticide Degradation in the Environment: Blind Spots and Emerging Opportunities
K. Fenner et al.
759 Wildlife Ecotoxicology of Pesticides: Can We Track Effects to the Population Level and Beyond?
H.-R. Köhler and R. Triebskorn

EDITORIAL
695 The Road to Pollinator Health
Catherine Woteki

NEWS OF THE WEEK
698 A roundup of the week’s top stories

NEWS & ANALYSIS
701 Budget Woes Threaten Long-Term Heart Studies
702 Researchers Scramble to Understand Camel Connection to MERS
703 Senator’s Demands Freeze NSF Political Science Grants
704 Europe Aims for a Cut-Rate Superlaser to Power Future Particle Accelerators

NEWS FOCUS
706 New Team, Old Hands
The Women of the Cosmos Club
708 Pluto, the Last Planetary First
710 The Crab That Roared

LETTERS
713 Develop, Then Intensify
J. Hanspach et al.
Extra Oversight for H7N9 Experiments
H. Jaffe et al.
The Systematic Place of Morals in Markets
C. Luetge and H. Rusch
Response
A. Falk and N. Szech

BOOKS ET AL.
715 Tesla
W. B. Carlson, reviewed by T. J. Misa
716 Fatal Flaws
J. Ingram, reviewed by J. J. McDonald

POLICY FORUMS
717 Reevaluate Pesticides for Food Security and Safety
P. J. R. Verger and A. R. Boobis

PERSPECTIVES
720 Long Noncoding RNAs Xist in Three Dimensions
A. Dimond and P. Fraser
721 Gauging Greenland’s Subglacial Water
M. Lüthi
722 Paths from Pesticides to Parkinson’s
F. Kamel
724 Earthquake Risk in Turkey
M. Erdik

REVIEWS

CORRECTIONS AND CLARIFICATIONS

SPECIAL SECTION
Smarter Pest Control

INTRODUCTION
The Pesticide Paradox

NEWS
Pesticide Planet
A Lethal Dose of RNA
The War Against Weeds
Vietnam Turns Back a “Tsunami of Pesticides”
In Rural Asia, Locking Up Poisons to Prevent Suicides
Growing Up With Pesticides

POLICY FORUMS
Reevaluate Pesticides for Food Security and Safety

PERSPECTIVES
Long Noncoding RNAs Xist in Three Dimensions
Gauging Greenland’s Subglacial Water
Paths from Pesticides to Parkinson’s
Earthquake Risk in Turkey

LETTERS
Develop, Then Intensify
Extra Oversight for H7N9 Experiments
The Systematic Place of Morals in Markets
Response

BOOKS ET AL.
Tesla
Fatal Flaws

CONTENTS continued >>

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.

CONTENTS

SPECIAL SECTION Smarter Pest Control

INTRODUCTION
The Pesticide Paradox

NEWS
Pesticide Planet
A Lethal Dose of RNA
The War Against Weeds
Vietnam Turns Back a “Tsunami of Pesticides”
In Rural Asia, Locking Up Poisons to Prevent Suicides
Growing Up With Pesticides

POLICY FORUMS
Reevaluate Pesticides for Food Security and Safety

PERSPECTIVES
Long Noncoding RNAs Xist in Three Dimensions
Gauging Greenland’s Subglacial Water
Paths from Pesticides to Parkinson’s
Earthquake Risk in Turkey

LETTERS
Develop, Then Intensify
Extra Oversight for H7N9 Experiments
The Systematic Place of Morals in Markets
Response

BOOKS ET AL.
Tesla
Fatal Flaws

CONTENTS continued >>

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.

CONTENTS

SPECIAL SECTION Smarter Pest Control

INTRODUCTION
The Pesticide Paradox

NEWS
Pesticide Planet
A Lethal Dose of RNA
The War Against Weeds
Vietnam Turns Back a “Tsunami of Pesticides”
In Rural Asia, Locking Up Poisons to Prevent Suicides
Growing Up With Pesticides

POLICY FORUMS
Reevaluate Pesticides for Food Security and Safety

PERSPECTIVES
Long Noncoding RNAs Xist in Three Dimensions
Gauging Greenland’s Subglacial Water
Paths from Pesticides to Parkinson’s
Earthquake Risk in Turkey

LETTERS
Develop, Then Intensify
Extra Oversight for H7N9 Experiments
The Systematic Place of Morals in Markets
Response

BOOKS ET AL.
Tesla
Fatal Flaws

CONTENTS continued >>

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.

CONTENTS

SPECIAL SECTION Smarter Pest Control

INTRODUCTION
The Pesticide Paradox

NEWS
Pesticide Planet
A Lethal Dose of RNA
The War Against Weeds
Vietnam Turns Back a “Tsunami of Pesticides”
In Rural Asia, Locking Up Poisons to Prevent Suicides
Growing Up With Pesticides

POLICY FORUMS
Reevaluate Pesticides for Food Security and Safety

PERSPECTIVES
Long Noncoding RNAs Xist in Three Dimensions
Gauging Greenland’s Subglacial Water
Paths from Pesticides to Parkinson’s
Earthquake Risk in Turkey

LETTERS
Develop, Then Intensify
Extra Oversight for H7N9 Experiments
The Systematic Place of Morals in Markets
Response

BOOKS ET AL.
Tesla
Fatal Flaws

CONTENTS continued >>

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.

CONTENTS

SPECIAL SECTION Smarter Pest Control

INTRODUCTION
The Pesticide Paradox

NEWS
Pesticide Planet
A Lethal Dose of RNA
The War Against Weeds
Vietnam Turns Back a “Tsunami of Pesticides”
In Rural Asia, Locking Up Poisons to Prevent Suicides
Growing Up With Pesticides

POLICY FORUMS
Reevaluate Pesticides for Food Security and Safety

PERSPECTIVES
Long Noncoding RNAs Xist in Three Dimensions
Gauging Greenland’s Subglacial Water
Paths from Pesticides to Parkinson’s
Earthquake Risk in Turkey

LETTERS
Develop, Then Intensify
Extra Oversight for H7N9 Experiments
The Systematic Place of Morals in Markets
Response

BOOKS ET AL.
Tesla
Fatal Flaws

CONTENTS continued >>

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.
779 Earliest 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.

786 The Gene Sr33, an Ortholog of Barley Mla Genes, Encodes Resistance to Wheat Stem Rust Race Ug99 S. Periyannan et al. Two resistance genes are identified that could protect wheat from a virulent fungus that can severely reduce crop yields.

789 A Long Noncoding RNA Mediates Both Activation and Repression of Immune Response Genes S. Carpenter 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.
Editor's Summary

This copy is for your personal, non-commercial use only.

**Article Tools**  Visit the online version of this article to access the personalization and article tools:
http://science.sciencemag.org/content/341/6147

**Permissions**  Obtain information about reproducing this article:
http://www.sciencemag.org/about/permissions.dtl