# California Agriculture Hands-on learning: Healthire choice, better lives Heden y residuals Healthy residuals

Garden-enhanced nutrition education increases children's fruit and vegetable intakes, helping to address high childhood obesity rates (see page 30). Research indicates that long-lasting improvements are achieved through multiple efforts - offering healthy foods on school campuses; teaching nutritional and environmental science in the context of gardening; and involving communities and regional agriculture (see pages 13, 21). Shown are students tending their vertical garden at Downtown Value School in Los Angeles. The school also has a flower and produce garden that goes around the school grounds, a small greenhouse and a worm compost bin. Photo by Peter Bennett

# **News departments**

### Editorial

 UC addresses needs of California youth Eastin

### To our readers

5 2013 Statewide Conference UC ANR: California Roots, Global Reach Allen-Diaz

### Research news

- 7 Early findings: Food insecurity, obesity high in low-income Latino families
- 9 Initiative promotes youth development, healthy living, science literacy

Editor's note: California Agriculture gratefully acknowledges the faculty chairs for this special issue, David Campbell and Sheri Zidenberg-Cherr, from the UC Davis Departments of Human Ecology, and Nutrition, respectively.

# TABLE OF CONTENTS

JANUARY-MARCH 2013 • VOLUME 67 NUMBER 1

# Special issue:

# Healthy Families and Communities

Current UC research fosters healthier choices, better lives

### Research and review articles

13 Communitywide strategies key to preventing childhood obesity

Crawford et al.

New school and community strategies to prevent obesity are informing Cooperative Extension programs.



21 Lessons of Fresh Start can guide schools seeking to boost student fruit consumption

Crawford et al.

Students participating in the California Fresh Start Program doubled their servings of fruit at breakfast.

30 Integrating local agriculture into nutrition programs can benefit children's health

Scherr et al.

School garden and Farm to School programs can boost fruit and vegetable consumption, which could help prevent childhood obesity.



38 Positive youth development merits state investment Campbell et al.

A new paradigm for youth programs has measurable benefits; it should be considered a strategic investment.

47 More effective professional development can help 4-H volunteers address need for youth scientific literacy

Smith and Schmitt-McQuitty

Adult 4-H volunteers who lead youth science projects benefit from professional development.



54 Findings show lesson study can be an effective model for professional development of 4-H volunteers

Smith

Lesson study, a professional development strategy based on a community of practice model, shows promise with science-focused 4-H volunteers.

## E-Edition

62 This article can be found in full on the California Agriculture website; for a summary and link, see page 62.

Nitrogen fertilizer use in California: Assessing the data, trends and a way forward

Rosenstock et al.

A system for reporting growers' use of nitrogen fertilizer could help reduce its health and environmental impacts.



# Supplementary material (online only)

65 Bibliography of UC ANR research on the Healthy Families and Communities Strategic Initiative priorities

See table of contents at: www.californiaagriculture.ucanr.edu.