

March 2009
Vol. 57, No. 3
ISSN 0002-161X

Agricultural Research is published 10 times a year by the Agricultural Research Service, U.S. Department of Agriculture (USDA). The Secretary of Agriculture has determined that this periodical is necessary in the transaction of public business required by law.

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Agricultural Research

Solving Problems for the Growing World

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Cover: At Aloun Farms on the Hawaiian island of Oahu, left to right, ARS entomologists Roger Vargas and Eric Jang, University of Hawaii professor Ron Mau, and Hawaii Department of Agriculture administrator Lyle Wong inspect a Sudax border sprayed with GF-120 protein bait, which helps suppress fruit flies. Sudax is a hybrid of sorghum and sudan grass. This and several other ARS-state partnership efforts are discussed in the story beginning on page 4. Photo by Stephen Ausmus. (K11006-21)

IN THE NEXT ISSUE

SATELLITE SPYING—Crop residue left in place can protect soil from erosion and keep fertilizers where they belong. But it's also being eyed as feedstock for ethanol production. So, how much can be removed and how much must remain? ARS researchers are developing techniques for using satellite sensors and GIS (Geographic Information Systems) to find the answers. The technology is also helping them spot infestations of leafy spurge, a troublesome invasive weed.

PHYTOCHEMICAL FIGHT—One reason that eating fruits and vegetables is so good for you is that they contain beneficial compounds called "phytochemicals." The resveratrol in red grapes or the catechins in teas, for example, can help fight chronic inflammation, a condition that can lead to disease. ARS researchers are uncovering important information on how, precisely, these compounds battle inflammation.

SCRAPIE IN GOATS—Goats, like sheep, can suffer from scrapie, a deadly degenerative disease. But less is known about the disease in goats, particularly whether any resistance genes exist. ARS and university scientists have discovered four gene variants that may be involved in resistance. There's also a quick new method to detect scrapie.