I n d e x

A-E

Aflatoxin

caffeic acid quells production of on nuts, Oct-9 genes involved in production of, Oct-6 preventing formation of with antioxidants, Oct-2 Air quality, use of LiDAR to test near farms, Aug-8 Air-soil exchange of carbon, Aug-20 Animal diseases, exotic and emerging, Jun-2, 23 Anthocyanin

content in Black Pearl pepper, Sep-4 new one found in Beluga black lentils, Apr-23 Antibiotic resistance, bacterial transfer of, Oct-20 Apple replant disease, nitric oxide helps control, Apr-22 Apples

Malus sieversii germplasm collection, Jan-2, 4 rootstock breeding for disease resistance, Jan-2, 4 ARS Bioenergy Task Force, Aug-2

ARS National Research Programs for:

Emerging Diseases, Jun-23

Food Safety, Oct-23

Natural Resources and Sustainable Ag Systems, Aug-23 Obesity. Mar-23

Asian longhorned beetle, detection/tracking of, May-14 Asian soybean rust, Jun-12

Aspergillus

aflatoxin production by in nuts, Oct-9

A. flavus genes for aflatoxin production, Oct-6
genomes of two species sequenced, Oct-2

Avian diseases, breeding chickens that resist, Jun-22

Avian influenza heat inactivates in egg products, Feb-21

vectored vaccines for, Feb-21; Jun-19

Bacteri

interactions with protozoa in ruminants, Oct-20 nonthermal ways to kill in foods, Oct-4 Barber pole worm, *H. contortus*, detecting, Feb-9

Barber pole worm, *H. contortus*, detecting, Feb-S Barley

as cover crop for potatoes, May-10 heat-stable enzymes that withstand malting, Sep-18 Beans, resistant lines of great northern, pinto, Jun-12 Beef, hide washing reduces pathogens in, Oct-10 Biobased energy, Aug-2, 4

Biocontrol

of Indianmeal moths with parasitic wasps, May-23 of sugar beet root maggot with fungus, Sep-16 of whiteflies, Apr-14

Biodiesel

production of from *Cuphea*, Aug-4 uses for glycerol byproduct of, Aug-2
Black lentils, new anthocyanin in Beluga variety, Apr-23
Black raspberry decline, BRDaV virus causes, Jun-15
Blueberry, pterostilbene content of, Nov/Dec-6 *Brassica*

as cover crop for potatoes, May-10 pest-control role of in apple replant disease, Apr-22 Brucellosis

HOOF-Prints method to track outbreaks of, Jan-21 new projectile vaccine tested in wildlife, Jun-7 *Cacao*, endophytes fight fungal diseases of, Jun-16 CAHFSE: Collaboration in Animal Health and Food Safety Epidemiology, Oct-18

Campylobacter

bacteriocins kill in chicken intestinal tract, Oct-14 farm-to-fork epidemiology profiling of, Oct-18 genome of emerging *C. lari* sequenced, Oct-17 sources of contamination in poultry, Feb-10 Carbon dioxide, crop response to high levels of, Aug-20

Carbon storage

how agricultural practices can increase, Aug-20 on farms, effect on global carbon cycle, Aug-8

Catfish, frozen foods from meat byproducts of, Jan-16 Cattle

defaunation to rid rumen of protozoa, Feb-6 E. coli 0157:H7 hiding place found in, Oct-20 expected progeny differences for Brahman, Sep-11 gene-expression studies of BVDV infection in, Jan-11 gentle management of, May-22

grazing on seeded pastures vs. rangeland, Feb-19 immunity to bovine diarrhea virus in, Nov/Dec-2, 4 limonene from citrus peel waste as feed for, Apr-19 Poly-x sugar injections reduce mastitis in, Feb-20 spinosad useful in fighting fever ticks on, Jun-8

Cheese, low-fat mozzarella, Mar-12

Chesapeake Bay, farming and health of, Nov/Dec-14 Chickens, see Poultry.

Cicadas, fungus from is new source of myriocin, Feb-8
Citrus peel waste, ethanol production from, Apr-19
Competitive exclusion of *Campylobacter* in turkeys, Oct-20
Compost tea, additives boost pathogens in, Sep-22
Conservation and precision agriculture, May-10
Conservation management

CEAP: Conservation Effects Assessment Project, Aug-16, 22; Nov/Dec-14, no-till may limit potassium uptake by roots, Jan-23 soil-air exchange of CO₂ under, Aug-20 use of no-till in a cotton crop. Jan-14

Corn

Cover crops

aflatoxin-resistant lines of, Oct-6 bacterial endophyte fights *Fusarium* in, Oct-6 canopy thickness fights wild proso millet, May-20 tracking emerging viruses in, Jun-10

Corn gluten meal, improved methods to apply, Apr-20 Corn redness syndrome, search for cause of, Jun-10 Cotton

DNA marker database for, Jul-21 exporting to China, May-4 genome map, DNA marker database for, Apr-23 no-till, poultry litter raise yields in drought, Jan-14 overview of ARS-invented gin technologies, May-18 tropical spiderwort weed control in, Sep-7

control of apple replant disease with, Apr-22 for potatoes, May-10

C-Trim cuts fat, carbs in foods, Mar-12 Cuphea seeds, post-cold-storage warming of, Jul-11 Dates, ARS-Egypt studies of, Jul-16 Dutch elm disease-tolerant trees, Jun-18 E. coli

additives boost growth of in compost tea, Sep-22 chlorate feed additive reduces in livestock, Oct-14 farm-to-fork epidemiology profiling of, Oct-18 killed by bacteriophages isolated from cattle, Oct-14 nonthermal ways to kill in foods, Oct-4 O157:H7, Oct-20

Energy, alternative sources of, Aug-2, 4 Energy independence with biobased products, Aug-2 Erosion

computer models predict increases in, Sep-22 from farms, minimizing, Aug-12 Ethanol

advantages of using soybeans to make, Nov/Dec-9 citrus peel waste used to make, Apr-19 improving production, cost of, Aug-2

F.I

FAMACHA chart detects worm infection in sheep, Feb-9 Floral and nursery plants, ARS improvements to, Sep-2 Food safety

antibody-based methods to detect pathogens, Oct-13 antimicrobial treatments of fresh-cut produce, Jul-2, 4

caffeic acid quells aflatoxin on nuts, Oct-9 detecting food pathogens in livestock, Oct-20 fighting mycotoxins that contaminate crops, Oct-6 four Listeria genomes sequenced, Oct-17 genome of Campylobacter lari sequenced, Oct-17 heat kills poultry viruses in egg products, Feb-21 nonthermal ways to pasteurize foods, Oct-4 on-farm, in-plant microbe monitoring, Oct-18 online database of information about, Feb-2 postharvest decontamination of beef, Oct-10 preharvest reduction of bacteria in livestock, Oct-14 reducing incidence of food poisoning, Oct-2 Salmonella-protozoa interactions and, Feb-4, 6 sources of Campylobacter in poultry, Feb-10 two methods to count pathogens in beef, Oct-10 Forage kochia, taller variety for winter grazing, Jan-18

A Constant Fight Against New and Rare Diseases, Jun-2
A Food Safety Net Based on Science, Oct-2
Crisis Calls, Science Responds, May-2
Farm-Based Energy and Sustainable Agriculture: Twin
Missions for the 21st Century, Aug-2
Food Safety's Bright Web Venue: FSRIO, Feb-2
Grapevine Research Extends Vigorous New Tendrils, Apr-2
Helping Processors Improve Their Cut of the Produce
Industry, Jul-2
Ornamentals Find Their Niche, Sep-2

Protecting Livestock—From Day One, Nov/Dec-2
Tackling a Weighty Problem: America's Obesity
Epidemic, Mar-2

Travels To Gather, Improve Apples Start To Bear Fruit, Jan-2 Fresh-cut produce, improving safety of, Jul-2, 4 Fruits, edible food wraps made from, Apr-23 Fumonisin, genes that regulate production of, Oct-6 Fungal diseases of grain crops, efforts to fight, Jun-4 Fungal endophyte-plant interactions clarified, Jun-16 Fungi

arbuscular mycorrhizal, physiology of, Jan-12 gene cluster for mycotoxin production in, Oct-6 useful peptides from *Cordyceps heteropoda*, Feb-8 *Fusarium*, genes in that produce fumonisin, Oct-6 Gene pyramiding to breed disease-resistant beans, Jun-12 Genes, toxin-producing in fungi, Oct-6 Genetic engineering, viral vector ferries genes into insect cells, Sep-15

Genetics

expected progeny differences for Brahmans, Sep-11 expressed sequence tags from *Fusarium*, Oct-6 Genomics facility supports Mid South Area, Jul-20 Goats, eye test for barber pole worm infection in, Feb-9 Grains

acoustic sorter separates insect-damaged, Sep-23 fighting fungal diseases of, Jun-4 new low-cost harvesting unit for, Jul-23 Grapes

automated trellis system estimates yields, Apr-12 embryo rescue technique, Apr-5 genes for color, resistance, adaptation, Apr-9 new releases, Apr-4 overview of ARS research on, Apr-2, 4, 9, 12 phenols in muscadines, Apr-7 pterostilbene content of, Nov/Dec-6 Grasses, cool-season, on Great Plains pastures, Feb-19 Greater sage grouse, preserving habitat of, Nov/Dec-10

Greenbugs, online tools to manage in wheat, Sep-23 Greenhouse gases, measuring from soil, Aug-8 Herbicides, atrazine use and breakdown period, Aug-18 Honey bees, tylosin tartrate for foulbrood, Jul-23 HOOF-Prints method to identify *Brucella* species, Jan-21 Horseweed, glyphosate resistance in, Jan-23

Horticulture

Chapman Field, new subtropical ornamental, Jan-7 greenhouse monitoring/watering system, Feb-12 Human nutrition

body mass index and vegetable consumption, Mar-7 calorie and nutrient databases, Mar-2 childhood obesity research, Mar-2, 7, 8 copper and bone calcium during weight loss, Mar-22 diet compliance, not type, key to success, Mar-19 eating habits, lifestyle, body mass index linked, Mar-6 effects of probiotics added to foods, Nov/Dec-8 eHealth computer games to lower child obesity, Mar-8 fat-fighting foods and ingredients from ARS, Mar-12 "Health at Every Size" diet alternative, Mar-10 high dietary carbohydrate linked to cataracts, Feb-23 lowering upper limit of dietary copper intake, Jan-23 macrophages cause inflammation in fat tissue, Mar-4 new test for zinc status, May-23

new test for zinc status, May-23 obesity intervention research in Delta region, Mar-16 obesity prevention in African-American girls, Mar-7, 8 perilipin gene variations and obesity, diabetes, Mar-5 plant-based diet may help control weight, Mar-22 refined-grain foods raise lipoproteins, Mar-20 research to prevent weight gain, obesity, Mar-2, 23 salivary proteomics cataloging, May-9 whole grains slow progression of stenosis, Feb-23 zinc and metabolic response during exercise, Apr-18 Insect control

new gene-transfer technique may aid, Sep-15 steam-based heat treatments for, Sep-23 Insect growth regulators, benefits of, Apr-14 Insect-repelling compounds from *Callicarpa*, Feb-15 Insects

DNA tool matches immature and adult stages, Apr-23 spatial analysis detects in stored grain, Sep-23 Integrated pest management of whiteflies, Apr-14 International agricultural problems, ARS efforts to solve, May-2, 4

Irradiation

kills pathogens in foods, Oct-4 of beef carcass reduces pathogens, Oct-10 Laboratory animals, new lancet for drawing blood from, May-23 Lambs, organic vs. inorganic selenium absorption in, Sep-20

genomes of four strains sequenced, Oct-17 serotypes of sequenced, Oct-2 two highly specific methods to detect, Oct-13 vestock

chlorate feed additive reduces gut bacteria in, Oct-14 maternal antibody-vaccine interactions, Nov/Dec-2, 4 new disease-research center for, Jun-20 phytase in feed aids phytic acid digestion, Jul-14

M-R

Maize Genetics and Genomics Database, Jul-23 Manure, portable analyzer for, Jul-20 Manure-management system, three-stage, Aug-12 Molds, nonthermal ways to kill in foods, Oct-4 Mosquitoes, callicarpenal repellent for, Feb-15 MSEA: Management System Evaluation Areas, Aug-16 Mycotoxins

ARS helps monitor incidence of, Oct-2 genes involved in production of, Oct-6 National Plant Germplasm System, Jan-2, 4, 7; Feb-22; Apr-9: Jul-12. 18

Newcastle disease virus

heat inactivates in egg products, Feb-21 used as vaccine vector, Jun-19 used in avian flu vaccine, Feb-21

Nuts, caffeic acid quells aflatoxin production on, Oct-9

Oats, HiFi spring line high in fiber, beta-glucan, Feb-11 Organic farming vs. conventional methods, Apr-20 Ornamental plants

efforts to breed new, Sep-2, 4

germplasm collected from Puerto Rico, Jul-12 Peanuts, blight resistant, high in oleic acid, Apr-16 Peppers

new ornamental, culinary varieties from ARS, Sep-4 organic vs. conventional production of bell, Apr-20 water use, needs, efficiency when irrigated, Sep-12 Pesticides, DRIFTSIM software estimates drift of, May-23 Phosphorus

alum reduces loss of from poultry litter, Nov/Dec-18 new enzyme helps livestock digest, Jul-14 Phosphorus Index, Nov/Dec-14

Phytase, redesigned, aids phytic acid digestion, Jul-14 Phytochemicals, new, role in platelet adhesion, Jan-22 Pigs, see Swine.

Pine stands, straw harvesting, silvopasturing in, Jul-8 Plant diseases, exotic and emerging, Jun-2 Plant pathogens, TIGER method may help identify, Nov/Dec-16 Potatoes, benefits of cover crops to, May-10 Poultry

alum-treated litter cuts nutrient runoff, Nov/Dec-18 bacteriocins kill bacteria in intestinal tract of, Oct-14 H5N1 avian influenza. May-4 litter used to fertilize cotton, Jan-14 mass vaccines for avian influenza, Feb-21 new research center for diseases of, Jun-20 plastic from feathers of, Aug-16 sources of Campylobacter in, Feb-10 using vectored vaccines for diseases of, Jun-19 Poultry houses, electrostatic air sampler for, Oct-14 Precision agriculture and conservation, May-10 Prickly pear cactus, protecting from cactus moth, Sep-8 Protozoa, interactions with Salmonella by, Feb-4, 6 Protozoa-bacteria interactions in ruminants, Oct-20 Pterostilbene, beneficial effects of, Nov/Dec-6 Rainbow trout, research on ID genes in, Jan-17

Rangeland
aerial-remote-sensing system for monitoring, Feb-16
managing sagebrush/sage grouse on, Nov/Dec-10
seeded pastures help defer use of, Feb-19
Rice, blast resistance genes found in collection, Jul-18
Rice-based batter reduces oil in fried foods. Mar-12

S-Z

Sagebrush, managing to benefit wildlife, Nov/Dec-10 *Salmonella*

additives boost growth of in compost tea, Sep-22 farm-to-fork epidemiology profiling of, Oct-18 genetics of DT104 strain's antibiotic resistance, Feb-6 methods to monitor and kill in or on animals, Oct-14 protection of by *Tetrahymena* protozoa, Feb-4 *Sclerotinia* blight, resistance genes in peanuts, Apr-16 Scrapie, accurate genetic test for, Nov/Dec-20 Screwworms, ARS helps eradicate in Aruba, May-4 Seed storage of oil-rich tropical species, Jul-11 Selenium, organic vs. inorganic absorption in lambs, Sep-20 Sheep

eye test for barber pole worm infection in, Feb-9 scrapie genetic susceptibility mapped in, Nov/Dec-20 weed-eating habits of benefit native flora, Nov/Dec-10 Shiitakes, gene may be useful in making ethanol, Jul-23 Soil

alum-treated poultry litter raises pH of, Nov/Dec-18 electrical conductivity shows variability of, Aug-18 metal-accumulating plants clean, Aug-16 Soil-air exchange of carbon, Aug-20 Sorghum

anthracnose-resistant African lines of, Feb-22 as cover crop for potatoes, May-10 South American cactus moth, halting spread of, Sep-8 Soybean aphid, breeding plants resistant to, Jun-10 Soybean-oil-based metalworking fluid, May-16 Soybeans

anticancer glyceollin compounds from, Jan-8 potential uses of cellulose from giant, Nov/Dec-9 scoring resistance to bean pod mottle virus, Jun-10 tracking emerging viruses in, Jun-10

two new lines resist nematodes, diseases, Apr-23 STEWARDS database of watershed data, Aug-22 Stormwater runoff, increases predicted, Sep-22 Strawberries, planting method extends harvest, Jul-23 Streambanks, aerial-remote-sensing to monitor, Feb-16 Stripe rust, maintaining, enhancing resistance to, Jun-4 Sugar beets, fungus controls root maggots on, Sep-16 Sugarcane

ČP 89-2143 cultivar tolerates Florida freezes, Jan-20 DNA fingerprinting of seedlings, Jul-20 Super Slurper for chemical-spill cleanup, Aug-16 SWAT, water quality and conservation model, Aug-16 Swine

human adenovirus as gene vector in, Nov/Dec-2, 4 molecular studies of *Salmonella* resistance in, Oct-20 new database of swine genes and proteins, May-23 norepinephrine's effect on *Salmonella* in, Oct-14 tests of probiotic Bb 12 in, Nov/Dec-8 Switchgrass, biofuel from, carbon storage by, Jul-19 *Thrips palmi*, tracking spread of, May-4 Ticks, spinosad useful in controlling on cattle, Jun-8 Tropical spiderwort spread in Southeast cotton, Sep-7 Trout with three sets of chromosomes grow fast, Feb-23 Turkeys, *Campylobacter* dynamics, prevalence in, Oct-20 U.S. National Arboretum, Sept-2 Vaccines

for avian influenza, Feb-21 for Newcastle disease, Feb-21

that bypass livestock maternal antibodies, Nov/Dec-2, 4 Vegetable-oil based elevator hydraulic fluid, Aug-16 Wastewater

algal turf scrubber removes nutrients in, Nov/Dec-14 planctomycetes bacteria isolated from, Feb-23 vegetative mats grown on lagoons, Aug-11 Water primrose, beetle, weevil biocontrols for, May-13 Water quality

acoustic sampling of sediment transport, Aug-12 alum-treated poultry litter promotes, Nov/Dec-18 efforts to improve Chesapeake Bay, Nov/Dec-14 greenhouse monitoring system reduces runoff, Feb-12 use of vegetation around farms to improve, Aug-12 vegetative mats grown on lagoons improve, Aug-11 Water use

greenhouse monitoring/application system, Feb-12 monitoring in irrigated peppers, Sep-12 Watershed data integrated in STEWARDS database, Aug-22 Weed controls, organic, Apr-20 Weeds

herbicide-degrading bacteria and, May-20 managing with seed-decay microorganisms, May-20 WeedSite software for management of, Aug-18 Wheat

leaf rust, scab, stripe rust, Ug99 stem rust, Jun-4 resistance genes to stem rust found in, Jun-4 Wheat seed gall nematode, May-4 Whiteflies, ELISA test identifies predators of, Apr-14 Wildlife, preserving rangeland habitat of, Nov/Dec-10 Wind turbines for electricity production, Aug-2, 4 Wool, itch-free biopolished, Aug-16 Yeasts, nonthermal ways to kill in foods, Oct-4