

## A-C

- Africa, ARS collaborative research in, Oct-16
- Agricultural chemicals, environmental fate of, Jul-4
- Agricultural emissions, ARS efforts to reduce, Jul-2, 4-19
- AgroAtlas, interactive Russian/English website of crops, Mar-14
- Air quality  
measuring particulate matter emissions, Jul-9  
overview of ARS research on reducing ag. emissions, Jul-2, 4-19
- Anaerobic soil disinfection, as methyl bromide alternative, Mar-12
- Animal diseases, Oct-4
- Apples, multispectral imaging detects defects/pathogens on, Apr-4
- ARS National Research Programs for  
Air Quality, Jul-2, 17  
Food Safety, Apr-2, 13
- ARS Office of International Research Programs, Oct-2, 4, 14
- ARS Strategic Action Plan for Food Safety, Apr-13
- Aspergillus flavus*, testing fungicides for, Apr-4
- Bacillus thuringiensis* (Bt)  
Bt cotton, Nov/Dec-16  
long-lasting strains of, Mar-21
- Barley, winter, ethanol from, Feb-2
- Beans, Oct-4
- Beef  
effect of gas grilling on *E. coli* O157:H7 in, Apr-17  
pathogen-monitoring systems found adequate, Apr-4
- Bees, *Bombus huntii*, *B. occidentalis*, Aug-14
- Bio-PCR, sensitive sample-enrichment technique, Apr-22
- Biochar  
effects of amending soils with, Nov/Dec-2, 4  
feedstocks for, methods of making, Nov/Dec-2, 4
- Biocontrol  
field tests of Green Muscle fungus, Jan-4  
of emerald ash borer with parasitic wasps, fungus, Apr-18  
of red imported fire ant with phorid fly, Jan-7  
urease-producing Bt strains last longer, Mar-21
- Bioenergy/Biofuel  
crops for Pacific Northwest vegetable rotations, Feb-4  
economics of producing from straw, Feb-6  
feedstocks for, Feb-2  
oilseed, grass crops for biofuel production, Feb-4  
stress-tolerant yeasts for production of, Aug-20
- Blueberries  
breeding, May/Jun-2, 4, 14  
genebank of in Corvallis, May/Jun-7  
nutrients in, health benefits of, May/Jun-2, 9
- Borlaug Global Rust Initiative, Oct-2, 4
- Brazil, ARS collaborative research with, Oct-14
- Bt cotton, Nov/Dec-16
- Cacao  
diseases of, Sep-8, Oct-4  
Peruvian varieties, genetic identification, Sep-8
- Camelina, as bioenergy crop for Pacific Northwest, Feb-4
- Canola, as bioenergy crop for Pacific Northwest, Feb-4
- Cantaloupe, whitefly migration to cotton from, Nov/Dec-16
- Carbon sequestration, Mar-6, Nov/Dec-2, 4
- Carrots, ultraviolet light boosts antioxidants in, Jan-13
- Cattle tick fever, Oct-2
- Cattle  
anaplasmosis vaccine tested in animals, Mar-21  
citrus byproducts kill bacteria in gut of, Nov/Dec-10  
dairy, keeping outdoors vs. indoors, May/Jun-18  
feed restriction and efficiency, Jan-18  
feedlot manure management with electrical conductivity, May/Jun-17  
gene markers for resistance to multiple diseases, Sep-12  
heat and tick tolerance of Nguni, Oct-16  
lab tests to detect drug residues in, Apr-12  
meadow fescue as forage for, Mar-7  
new PCR test detects osteopetrosis in, Sep-20  
wet distillers grains with solubles and *E. coli* in, Apr-8
- Cayenne tick can transmit equine piroplasmiasis to horses, Oct-20
- CGIAR, ARS research partnerships with, Oct-2, 4, 13
- Chamomile tea, health benefits of, Mar-19
- Chesapeake Bay  
fate of legacy pesticides in air, rain, Jul-4  
federal forest lands help protect, Feb-10
- Chocolate, see Cacao.
- CIAT, ARS research partnerships with, Oct-4
- CIMMYT, ARS research partnerships with, Oct-4
- Citrus byproducts, antibiotic activity in cattle, Nov/Dec-10
- Citrus greening, spectroscopy identifies leaf changes earlier, Aug-11
- Citrus root weevils, attracting nematodes that kill, Jan-8
- Computer models  
2 combined to simulate PM10 erosion in Mexico, Jul-12  
GPFARM-Range for livestock stocking rate, Mar-18  
KINEROS2 for hydrological processes, Mar-10  
Nitrogen Index, Sep-18  
Nitrogen Loss and Environmental Package, Sep-18  
Object Modeling System for managing of, Feb-22  
Phenology MMS predicts time of crop growth stages, May/Jun-22  
SWAT calibrated for *E. coli* levels in streambeds, Jul-20  
SWIM for irrigation management, Aug-12  
to predict streambank failure, Feb-20  
USDA Water Erosion Prediction Project, Mar-8
- Conservation grazing for rangeland management, Mar-2, 6
- Continuous cropping to preserve soil moisture, Jan-14
- Corn  
deficit irrigation study in the West, Aug-12  
raising beta-carotene content of, Oct-4  
tillage, fertilizer methods compared in Idaho, Aug-22
- Corn earworm, soy saponins and growth of, Aug-8
- Corn stover, biochar made from, Nov/Dec-2, 4
- Corn-soy blend, cooked, for emergency food aid, Aug-2, 4
- Cotton  
Bt, Nov/Dec-16  
control of sweetpotato whiteflies in, Nov/Dec-16  
detecting source of boll weevil outbreak, Jan-20  
greige, use in nonwoven fabrics, Sep-14  
Cotton gins, measuring particulate matter emissions, Jul-9  
Coville, Frederick, blueberry breeding by, May/Jun-2, 4, 14  
Crop pests, new method of using nematodes to control, Nov/Dec-12  
Crop water productivity function, Aug-12  
Cropping systems, no-till, and 4-year rotations of various crops, Jan-14  
Cryopreservation of ash tree budwood, Apr-18  
Cucurbit yellow stunting disorder virus, Mar-20
- D-F**
- Dairy facilities, greenhouse gas emissions from, Jul-4
- DNA markers, oligonucleotide primers identify more, Jul-22
- Dried distiller's grains, Feb-2
- Dried plums, developing new germplasm, Mar-16
- East Coast fever, Oct-4
- Eggs, crack-detection method doesn't harm quality, Jul-22
- EMBRAPA, ARS research exchange program with, Oct-2, 14
- Emerald ash borer, ARS-APHIS-Forest Service efforts to control, Apr-18
- Endophytes  
importance of conserving, Jan-22  
in meadow fescue are nontoxic, Mar-7  
presence or absence in tall fescues, Nov/Dec-14
- Environmental benefits of keeping dairy cows outdoors, May/Jun-18
- Environmental data, system for wireless delivery of, Feb-22
- Environmental fate of "legacy" pesticides, Jul-4
- Environmental remediation, biochar and, Nov/Dec-2, 4
- Equine piroplasmiasis, imidocarb dipropionate to treat, Oct-20
- Erosion  
factors affecting soil's susceptibility to, Jul-9  
no-till reduces rate of in Pacific Northwest, Mar-8  
preventing with grasses and grazing, Mar-6  
role of seepage in streambank collapse, Feb-20
- Escherichia coli*  
assays for 6 Shiga-toxin producing serogroups, Apr-8  
citrus compounds reduce in cattle gut, Nov/Dec-10  
O157:H7, fate of on cooked steaks, Apr-17  
genes activated when colonizing lettuce, Apr-14  
levels of, vaccines for, in cattle, Apr-8  
migration into spinach roots, Apr-7  
sensitive method for detecting in water, Feb-8  
survival in streambed sediment, Jul-20
- Ethanol  
cellulosic, stress-tolerant yeast in production of, Aug-20  
from switchgrass in Pacific Northwest, Feb-4  
from winter barley, switchgrass, Feb-2
- Fall armyworm, plant lignin levels and resistance to, Aug-8
- Fallow and soil moisture preservation, Jan-14
- Fertilizers  
methods compared for corn in Idaho, Aug-22  
nitrogen management computer models, Sep-18
- Fescue toxicosis, avoiding, Nov/Dec-14
- Fescue, tall, for nematode control in peaches, Nov/Dec-14
- Fire and rangeland management, Mar-4
- Fish, faster freeze-dry process for salmon cubes, Aug-16
- Food Safety Research Information Office, Apr-13
- Food safety  
ARS collaborations with other countries, Apr-2, 4  
overview of ARS current research on, Apr-2, 4-17
- Food security  
cooked instant corn-soy blend for food aid, Aug-2, 4  
in Africa, Oct-16
- Food, contamination from residues and antibiotics, Apr-2
- Foodborne pathogens, new methods for detecting Apr-2
- Foot-and-mouth disease, Oct-4
- Forage  
festulolium ryegrass, Nov/Dec-9  
GPFARM-Range model predicts yields of, Mar-18
- Forums  
At the Agricultural Research Service, Bioenergy Is Up and Running, Feb-2  
Conservation Grazing Uses Livestock as Ecosystem Engineers, Mar-2  
Feeding the World Through Food Technology Excellence, Aug-2  
Food Safety Advances and Collaborations Here and Abroad, Apr-2  
Innovative Ways To Fight Insect Pests, Jan-2  
Managing Land With Aerial Digital Cameras, Sep-2  
Solving Global Agricultural Issues: International Scientific Collaboration Is the Key, Oct-2  
Sound Science, Sound Air: Helping Agriculture and Air Quality at the Same Time, Jul-2  
The Delightful Domesticated American Blueberry: Some Research Challenges for Its Next 100 Years, May/Jun-2  
Turning to Nature To Address Some of Our Most Vexing Problems, Nov/Dec-2  
Fruit crops, generic irradiation dose for Hawaiian, Feb-12

- Fumigants, preplant groundcovers as alternatives to, Nov/Dec-14
- Fungi, new endophytic isolated from cacao, Sep-8
- ## G-O
- Genes**  
 for stress tolerance in yeast, Aug-20  
 quantitative trait loci in cattle linked to 3 diseases, Sep-12
- Genetic map for highbush blueberry, May/Jun-4
- Genetic markers for cattle marbling, fatty acids, Jan-18
- Genetics**  
 enhancing tomatoes with, Feb-9  
 Illumina Bovine SNP50 BeadChip use, Sep-20  
 new PCR test detects osteopetrosis in cattle, Sep-20
- Germplasm**  
 collecting, preserving cacao, Sep-8  
 collections of, Oct-2, 4
- Global change and streamflow in western mountains, Jan-16
- Global Foot and Mouth Disease Research Alliance, Oct-2
- Grass**  
 germplasm, Jan-22  
 festulolium ryegrass, Nov/Dec-9  
 meadow fescue's benefits as cattle forage, Mar-7  
 nontoxic tall fescue MaxQ, Jan-22, Nov/Dec-14  
 tall fescue for nematode control in peaches, Nov/Dec-14
- Grasshoppers, effects of grazing, fires on, Jan-4
- Green Wedge federal lands, environmental benefits of, Feb-10
- Greenhouse gas emissions**  
 biochar's effect on, Nov/Dec-2, 4  
 from dairy facilities, Jul-4
- GRIN-Global plant germplasm database, Oct-13
- Ground covers, fabric vs. polypropylene, Aug-22
- Hardwood, biochar made from, Nov/Dec-2, 4
- Hibiscus tea shown to lower blood pressure, Mar-19
- Horses, cELISA test for equine piroplasmosis in, Oct-20
- Huanglongbing (HLB), see Citrus greening.
- Human nutrition**  
 blueberry powder placebo for nutrition research, May/Jun-10  
 cooked instant corn-soy blend for food aid, Aug-2, 4  
 fiber in soft-wheat whole-grain flour, Nov/Dec-18  
 herbal tea health benefits, Mar-19
- ICARDA, ARS research partnerships with, Oct-4
- ILRI, ARS research partnerships with, Oct-4
- Insect cadavers, rearing and applying nematodes in, Nov/Dec-12
- Insect pests**  
 generic irradiation of fresh produce to control, Feb-12  
 monitoring device identifies insects by sounds, Mar-22
- Insecticides**  
 broad spectrum vs. pest specific, Nov/Dec-16  
 new for military, public, Jan-2  
 nootkatone activity prolonged with lignin, Jan-10
- International collaborations, ARS's involvement in, Oct-2, 4-18
- Invasive species, blue sedge, *Carex breviculmis*, found, identified in Mississippi, Oct-22
- IRRI, ARS research partnerships with, Oct-4
- Irrigation, limited in the West, Aug-12
- KARI, ARS research partnerships with, Oct-4
- KEMRI, ARS research partnerships with, Oct-4
- LABEX, ARS-Brazil exchange research program, Oct-2, 14
- Lettuce, studies of how *E. coli* colonizes, Apr-14
- Livestock, as tools for rangeland management, Mar-2, 4
- Melons, resistance to cucurbit yellow stunting disorder virus, Mar-20
- Methyl bromide, alternatives to, Mar-12
- Mollusks, identifying and inactivating pathogens in, Apr-16
- Mormon cricket, timing biocontrol of, Jan-4
- Mountain plovers, habitat of, Mar-4
- Mushrooms, ultraviolet light boosts vitamin D in, Jan-13
- Nanocomposites, Oct-14
- National Agricultural Library, Apr-13, May/Jun-14
- National Plant Germplasm System, Jan-22
- Nematodes**  
 masking-tape application method, Nov/Dec-12  
 root knot, control of in peaches, Nov/Dec-14  
*Steinernema carpocapsae* attack peachtree borers, Feb-16  
 test distinguishes potato cyst from golden, Aug-18
- Newcastle disease in poultry, new vaccine for, Jan-12
- Nitrogen**  
 computer models for better use of, Sep-18  
 sequestration, Mar-6
- No-till and soil moisture preservation, Jan-14
- Object Modeling System for delivery of science models, Feb-22
- Oranges, dried feed pellets have antibiotic activity, Nov/Dec-10
- Organic farming**  
 ryegrass certified for, Nov/Dec-9  
 use of ground covers in, Aug-22
- Ozone**  
 breeding soybeans to tolerate high levels of, Jul-14  
 damage to plants, Jul-15, 17
- ## P-S
- Peaches**  
 fire gel protects beneficial nematodes applied to trees, Feb-16  
 tall fescue ground cover controls nematodes, Nov/Dec-14
- Peachtree borers, biocontrol of with nematodes, Feb-16
- Peppermint tea, clinical studies of needed, Mar-19
- Petunia, anthocyanins toxic to cabbage loopers, Aug-8
- Phorid fly, *Pseudacteon cuttellatus*, as fire ant biocontrol, Jan-7
- Plant breeding, FasTrack system for, Mar-16
- Plant production/breeding work with CIP, Oct-4
- Plums, early flowering gene shortens breeding time, Mar-16
- Potatoes**  
 breeding line resists wireworms, Sep-22  
 importance to food security, Oct-4  
 ridged row vs. raised flat bed planting, Sep-11  
 test distinguishes nematodes that threaten, Aug-18
- Poultry**  
 litter, biochar made from, Nov/Dec-2, 4  
 multispectral imaging detects feces on, Apr-4  
 vaccine for Newcastle disease virus, Jan-12  
 yeast extracts as antibiotic alternative in organic, Apr-8
- Prairie dogs and rangeland management, Mar-4
- Rangelands**  
 maintaining biodiversity on, Mar-4  
 monitoring with digital imaging, Sep-2, 4, 7
- Red imported fire ants, field release of phorid fly biocontrol, Jan-7
- Remote sensing, aerial digital imaging to monitor rangelands, Sep-2, 4
- Reynolds Creek Experimental Watershed, precipitation at, Jan-16
- Rice, new varieties of, Oct-4
- Rift Valley fever, Oct-4
- Runoff from compacted surface soils, Mar-10
- Safflower as bioenergy crop for Pacific Northwest, Feb-4
- Salmon, faster freeze-dry process for, Aug-16
- Salmonella enterica*, citrus compounds reduce in cattle gut, Nov/Dec-10
- Salmonella*, sensitive method for detecting in water, Feb-8
- Screwworm, Oct-2
- Sheep parasites, Oct-4
- Shellfish, identifying, inactivating pathogens in, Apr-16
- Skip-row planting and soil moisture preservation, Jan-14
- Soil**  
 biological properties that affect wind erosion of, Jul-9  
 effects of ground covers on, Aug-22
- Soil fumigants**  
 dimethyl sulfide (Paladin), methyl iodide (Midas), Mar-12  
 measuring, slowing emissions of, Jul-18
- Soil fumigation with poultry litter, molasses, and heat,** Mar-12
- Soil moisture**  
 effect on herbicide volatilization, Jul-4  
 preserving with no till, rotations, Jan-14
- Soil quality**  
 effects of biochar on, Nov/Dec-2, 4  
 restoring with grasses and grazing, Mar-6
- Soybeans**  
 insecticidal properties of saponins from, Aug-8  
 Swedish variety Fiskeby is stress resistant, Jul-14
- Spinach**  
 market lighting affects nutrients in, May/Jun-22  
 study of *E. coli* in, Apr-7
- Streambanks, mechanisms behind collapse of, Feb-20
- Sugarcane, solutions to factory and refinery problems, May/Jun-20
- Sweetpotato whitefly, preserving predators of, Nov/Dec-16
- Switchgrass**  
 as bioenergy crop for Pacific Northwest, Feb-4  
 biochar made from, Nov/Dec-2, 4  
 ethanol from, Feb-2  
 insecticidal properties of saponins from, Aug-8  
 near-infrared sensing predicts ethanol yields, Aug-17
- ## T-Z
- Ticks**, nootkatone-lignin formulation kills nymphs, Jan-10
- Tillage**  
 conventional vs. no-till in Pacific Northwest, Mar-8  
 methods compared for corn in Idaho, Aug-22
- Tomato**  
 lycopene levels in red vs. tangerine colors of, Feb-15  
 yeast gene improves shelf life, lycopene in, Feb-9
- USDA Regional Biomass Research Centers, Feb-2
- Vegetative caps for landfills, Feb-10
- Water quality, federally owned land helps protect, Feb-10
- Water use, selling water rights from nonirrigated acreage, Aug-12
- Water-conservation studies in Arizona, Mar-10
- Water, measuring actual use by crops, Aug-12
- Watermelon, finding DNA markers for desired traits, Jul-22
- Western bumble bee, *Bombus occidentalis*, decline, Aug-14
- Wheat**  
 effects of increased heat on, Feb-19  
 Ug99 rust, Oct-4  
 whole-grain flour from soft, Nov/Dec-18
- White mustard as bioenergy crop for Pacific Northwest, Feb-4
- Whiteflies**  
 life tables for, Nov/Dec-16  
 role in cucurbit yellow stunting disorder, Mar-20
- Wildlife on rangelands, Mar-4
- Winter wheat, no-till, in Pacific Northwest, Mar-8
- WorldWideScience.org, Oct-18
- Yeast**  
 source of surfactant-like sophorolipids, Jul-21  
 stress-tolerant, for cellulosic ethanol production, Aug-20
- Yerba mate, properties of saponins from, Aug-8