



Extension Ag Update

providing education and research support to the agricultural industry
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“Biosecurity” and “Biocontainment” for Livestock in 2001

*Dick Wallace, DVM, MS, Dairy Extension Veterinarian, University of
 Illinois Extension*

The year 2001 has generated an additional wake-up call for those involved with the health and well-being of our nation’s livestock. First, the hoof and mouth disease outbreak in Great Britain heightened our awareness of biosecurity in the U.S. Then, the terrorist actions on September 11 increased concerns about possible acts of bioterrorism. Now, we hear of a confirmed case of bovine spongiform encephalopathy in Japan.

Establishing rational, practical biosecurity plans involves evaluating risks or threats as well as the probabilities of occurrence of those risks. The events of September 11 certainly make this task much more daunting, if not impossible. This is not the time for additional knee-jerk reactions, but it is a good time to re-evaluate our own day-to-day actions and duties to help maintain the productivity of U.S. livestock.

Since biosecurity and biocontainment cannot be found in the dictionary, let me offer a formal and straightforward definition for each. Biosecurity can be defined as “a process to protect from attack or interference due to biological organisms.” This process can be applied to yourself, a farm, the state, or our country. A hood-of-the-truck definition could be shortened to “keeping the bad bugs off the farm.” Biocontainment, on the other hand, can be defined as “a process to keep biological organisms within a limited space or area.” Back to the hood-of-the-truck, an uncomplicated definition is “keeping the bad bugs from leaving the farm.”

Preparedness, vigilance, and maintenance of best-management practices are our best chance for insulating our livestock industries. Be aware of the clinical signs of foreign animal diseases. Early detection is essential. Participate in animal disaster simulations coordinated by the Illinois Department of Agriculture. Prevent the spread of disease by wearing rubber boots and using disinfectant when visiting farms. Those of us “in the field” will be the first line of defense should a foreign animal disease be introduced. Our best shield is early recognition and reporting of disease, followed by a rapid response with a coordinated plan from our regulatory personnel.

For more information visit the University of Illinois Extension Biosecurity website at:<http://il-trail.outreach.uiuc.edu/biosecurity/> or the Center for Disease Control bioterrorism web page at <http://www.cdc.gov/ncidod/diseases/bioterr.htm> ※

► BioTerrorism

<http://aenews.wsu.edu>

Agrichemical & Environmental News, November Issue, 2001, Washington State University

Articles Include:

1. Terrorists at the Table, Part I: FDA Looks at Food Bioterrorism
2. Terrorists at the Table, Part II: Developing an Anti-Terrorism Plan
3. Terrorism on the Hoof: Livestock as a Bioterrorism Target
4. The “New” Bioterrorism: A Public Health Perspective
5. Pesticides as Weapons: Agrichemical Industry’s Role in Anti-terrorism
6. Crop Duster Concerns:
NW Aerial Applicators Respond to FBI/FAA

Pesticide Storage and Security

Philip Nixon, Extension Specialist, Dept. Nat. Res. & Environ. Sci., 217-333-6650, nixonp@mail.aces.uiuc.edu and Bruce Paulsrud, Extension Specialist, Dept. of Crop Sci., 217-244-9646, paulsrud@uiuc.edu

Proper storage is important in keeping pesticides in good condition for use next year as well as keeping children and unauthorized people from tampering with these products. Pesticides should not be exposed to temperatures over 110 degrees F. or breakdown and loss of effectiveness can occur. Also, check the pesticide label to see if you should guard against freezing temperatures. Store your herbicides separately from insecticides, fungicides and other pesticides to avoid their contamination from herbicide fumes.

Pesticides should be kept locked up except when they are being used. Even when you remove a container of pesticide for use, you should keep the storage area locked while mixing and loading the sprayer, spreader, or other application equipment. Even if the storage area is in sight of the mixing and loading area, you may be called away to the phone or to assist someone else. Just a

few minutes absence can be enough for a child or other person to find the storage area and become poisoned. With today's concern about terrorism, an unauthorized person entering the area may be more than a curious passerby. Sprayers, spreaders, and other pesticide application equipment should also be kept locked up and secured to protect it from tampering and accidents. Be especially watchful and suspicious of unauthorized people in these areas.

In addition to being kept locked, the pesticide storage area should be plainly labeled as a pesticide storage area. A sign stating "Danger - Pesticides - Keep Out" or similar information should be appropriate. If you have Hispanic employees who do not read English, then the warning should also be in Spanish. A list of stored pesticides should be kept in your office and with the local fire department. There should also be a map or other information as to which particular building and part of the building contains pesticides. This information can be very useful to the fire department for the protection of firefighters as well as avoiding environmental contamination from pesticide being carried away with water used to fight the fire.

Near the pesticide storage area there should be soap and water for washing any pesticide off of your hands or other skin areas. Maintain an eyewash station or at least have a faucet or hose for splashes into the eye. The first aid for eye exposure by many pesticides is to wash the eyeball with running water for at least fifteen minutes. Have a fire extinguisher handy because many pesticides are flammable. An absorbent material should be available for any liquid pesticide spills. This may be sawdust, kitty litter, oil dry, or specialized absorbent pads or "snakes" to surround and contain spills. Have a broom, dustpan, and trash can to pick up and store any dry spills or absorbed liquid spills until they can be disposed of properly. Pesticide labels will have a telephone number to contact the pesticide company on the proper method to [dispose](#) of spilled pesticide. Local emergency personnel such as fire and police departments as well as the Illinois Environmental Protection Agency can also provide assistance.

Use the following checklist to improve the safety and security of your facility and pesticide storage area:

- For safety reasons, label your pesticide storage building with a sign stating "Danger-Pesticides-Keep Out" and post a list of emergency contacts at the main entrance to the storage area. Include the names, addresses, and phone numbers of at least two key employees, and the number for the police and the fire department. In addition, "Emergency: Dial 911" and the Illinois Poison Center (800-222-1222; this number works nation-wide) should also be listed.
- Keep inventory records of pesticides up to date and easily accessible. A current inventory list and map clearly showing which building(s) or parts of buildings contain pesticides should be kept with the fire department in case there is a fire at your facility.
- Have a complete label and Material Safety Data Sheet (MSDS) for every product on the premises.
- Ensure pesticide storage areas are locked and secure when unattended and strictly limit access to storage areas by limiting and tracking who has keys.

- Storage areas should be well lighted and sturdy so any attempt to force entry will require a substantial effort that can be noticed and reported. To enhance security, provide adequate outside lighting and consider using a surveillance system or security service.
- Block ramps and driveways at night and disable forklifts and other equipment that could be used during a theft. Secure application equipment to prevent sabotage, theft, and misuse. Inspect storage areas and equipment regularly.
- Be alert to strangers that “snoop” around the facility and ask unusual questions and also to purchasers who:
 - seem unfamiliar with details of using a pesticide (ask them a few casual pest or pesticide usage questions), act nervous, seem uneasy or vague, and avoid eye contact;
 - demand immediate possession of purchased material rather than future delivery;
 - ask for material in smaller, individual containers rather than in bulk;
 - insist on paying with cash instead of using credit or a check.

In addition to your regular sales records (only licensed applicators may purchase restricted-use pesticides and the [dealer is required to keep records](#)), keep a log of suspicious persons or activities by writing down the date, suspicious activity, a physical description of the person, license plate number, and vehicle description. In the event of a theft or any signs of tampering or attempts to force entry, contact the police and provide them with a copy of your log book.

Be proactive and discuss pesticide safety, storage, and security issues with your employees. For more information about accident prevention, chemical security, and facility design, see “Chemical Accident Prevention: Site Security (EPA, Feb 2000)” available on-line at <http://www.epa.gov/swercepp/pubs/secale.pdf>. This 8-page publication also provides a valuable list of organizations, websites and books that address these issues in more depth. For information on pesticide safety, visit <http://www.pesticidesafety.uiuc.edu>

The following agencies can be contacted to report possible pesticide terrorism: FBI- Chicago Office at (312) 431-1333; National Response System at (312) 353-2318; EPA Emergency Planning and Community Right-to-Know Act (EPCRA) hotline at (800) 424-9346; or National Pesticide Telecommunications System at (800) 858-7378.*



Rural Route 2 is Available at 1-800-468-1834

<http://www.extension.uiuc.edu/ruralroute/>

The Rural Route 2 service is designed to help farm families get through tough times. This **confidential service** provides referrals for farm business and family financial advice; helps manage economic as well as personal situations; helps locate local support; and identifies assistance through the Illinois Farm Development Authority.

Fall is Good Time to Find Buckthorn

John Church, Natural Resource Educator, Rockford Extension Center,
815-397-7714

Non-native, exotic buckthorn plants have been known to be a problem in wooded and other natural areas for a number of years, due to their competitive nature. However, in the past year, it has been found that they also can be host to the soybean aphid, a new field crop pest. Exotic buckthorn varieties have been introduced to North America as ornamental shrubs. There are also native buckthorn species in Illinois, but they are less competitive.

During the summer and autumn of 2000, the soybean aphid was observed in Midwestern states. Some of the heaviest infestations were observed in northern Illinois. U. of I. entomologists also found the aphids present in soybean fields this year. The aphids feed on soybean plants and can cause stunting and reduce pod set. It has been determined that at least two types of exotic buckthorn plants are overwintering hosts for the aphids. Researchers are continuing research on the types of buckthorn that act as hosts, their typical distribution, and the degree of involvement with soybean aphid infestations in fields. Buckthorn plants do not invade soybean fields, but can be common around field edges.

In wooded or other natural areas, exotic buckthorn species shade or crowd out native vegetation. When the desirable, low growing plants are lost, bare soil is often exposed and susceptible to excessive erosion, especially on slopes and near streams and rivers. The competitive buckthorn plants can also choke out bigger shrubs, which reduces food supplies for wildlife and creates dense barriers for humans and animals to travel through.

Now is a good time to identify buckthorn, since it is one of the last shrubs to lose their leaves in the fall, it stands out more easily. Buckthorn control can be done with herbicides or controlled burns. Researchers at the Illinois Natural History Survey indicate that regular prescribed burning is the preferred method when feasible. This may be especially true for areas with abundant numbers of plants. Proper burning permits and safety control measures should be in place before burning. For isolated plants, herbicide treatments may be the most feasible.

For further information on buckthorn, its control, or the soybean aphid, contact your local University of Illinois Extension office. ✖

Resources to Consider

► Development at the Urban Fringe and Beyond: Impacts on Agriculture and Rural Land

Ralph E. Heimlich and William D. Anderson, ERS Agricultural Economic Report No. 803. 88 pp., June 2001

Land development in the United States is following two routes: expansion of urban areas and large-lot development (greater than 1 acre per house) in rural areas. Urban expansion claimed more than 1 million acres per year between 1960 and 1990, yet is not seen as a threat to most farming, although it may reduce production of some high-value or specialty crops. The consequences of continued large-lot development may be less sanguine, since it consumes much more land per unit of housing than the typical suburb. Controlling growth and planning for it are the domains of State and local governments. The Federal Government may be able to help them in such areas as building capacity to plan and control growth, providing financial incentives for channeling growth in desirable directions, or coordinating local, regional, and State efforts. To download a copy, go to: <http://www.ers.usda.gov/publications/aer803/>. To order: call the USDA Order Desk at 1-800-999-6779 from 8:30 a.m.-5 p.m. (Et) or by mail at USDA Order Desk, 5285 Port Royal Road, Springfield, VA 22161.

University of Illinois Variety Testing: Corn Soybean, Sorghum, and Forage

<http://www.cropsci.uiuc.edu/vt/index.html>

During late November, the variety results for corn and soybeans from the 2001 research variety plots will be posted on the Variety Research webpage. One of the most important production decisions facing farmers each year is which variety or hybrid to grow on their farm. The variety testing program in the Department of Crop Sciences at the University of Illinois provides fast, accurate, and unbiased performance data on a large number of varieties and hybrids to address this very important production decision. Call your Extension office to receive a copy. ※

Research Results:

Evaluation of the U.S. Regulatory Process for Crops Developed through Biotechnology

Council for Agricultural Science and Technology, (CAST),
www.cast-science.org

Regulators need adequate resources to make more information available to the public about how decisions on biotechnology are made, according to a new Council for Agricultural Science and Technology (CAST) issue paper. The “*Evaluation of the U.S. Regulatory Process for Crops Developed through Biotechnology*”; paper includes recommendations for policy and research in agricultural biotechnology. It is particularly timely as the Environmental Protection Agency is making decisions regarding the registration fate of biotechnology-derived crops, such as Bt corn.

A group of nine science and policy experts prepared the issue paper for CAST, which represents 36 food and agricultural scientific organizations. “Having accepted the unenviable task of evaluating how U.S. regulatory agencies determine the safety of biotech crops, we decided to describe the process, then comment on how the process can be improved” explained food safety expert Bruce Chassy of the University of Illinois.

The paper’s authors found that the U.S. regulatory process for evaluating biotechnology-derived crops is comprehensive and meets its charge of ensuring that biotechnology-derived foods are *at least as safe as* foods derived using traditional breeding techniques. “The greatest challenge is not having access to the documentation on how regulators come to their decisions”, said Chassy. “We believe the public would have more confidence in the process if they knew the rationale for regulatory decisions to accept or reject new biotech crops. Safety testing data are available to the public. Now we need to provide adequate resources so the regulators can explain their decision-making rationale.”

Four Key Questions Evaluated

The authors address (1) How are safety assessment and regulatory reviews conducted? (2) Can obvious strengths and weaknesses of that process be identified? (3) Can improvements be made in conduct and direction of independent research, in performance of safety assessments, in opportunities for consumer participation, or in any other aspects of the regulatory process that will both enhance the quality of the assessments and further ensure the ultimate safety of biotechnology-derived crop products? and (4) Are there improvements to the regulatory review process for biotechnology-derived plants that will enhance public confidence in the process?

Policy Recommendations

- Retain the current case-by-case safety assessment approach and continue to emphasize regulatory conditions carefully tailored to address risks identified for individual biotechnology-derived plant products.
- Finalize the Food and Drug Administration's (FDA) current proposal for a mandatory, premarket notification in lieu of the present policy of voluntary consultation for all food products of agricultural biotechnology.
- Provide the public with rapid, comprehensive accessibility to applications and supporting health and safety data submitted to regulatory agencies for biotechnology-derived products.
- Issue approvals for both food and feed use for crops intended to enter commodity streams.
- Provide the additional resources sorely needed for key regulatory review functions.

Research Recommendations

- Conduct additional research on selected topics to ensure that present-day questions can be answered and that future developments will be assessed adequately.
- Develop rapid screening methods for biotechnology-derived crop proteins in raw agricultural commodities, such as grain and vegetables.
- Conduct additional research to support regulatory oversight and product stewardship of biotechnology-derived crops currently on the market.
- Carry out additional research on the potential health, safety, and environmental effects of biotechnology-derived products that are not designed to be substantially equivalent to their conventional counterparts (sometimes referred to as next generation biotechnology-derived crops).
- Conduct additional research on food allergies and identification and characterization of allergenic food proteins.

CAST is an international consortium of 36 scientific and professional societies. It assembles, interprets, and communicates science-based information regionally, nationally, and internationally on food, fiber, agricultural, natural resource, and related societal and environmental issues to its stakeholders - legislators, regulators, policy makers, the media, the private sector, and the public. For more information contact: Dr. Bruce M, Chassy, 217-244-7291, b-chassy@uiuc.edu ✖

Illinois Livestock Industry Faces Crossroads

Peter Goldsmith, Assist. Prof., Agribusiness and Farm Management, 217-333-5131, pgoldsmi@uiuc.edu, Author: Bob Sampson, Extension Communications Specialist, (217) 244-0225, rsampson@uiuc.edu

Illinois's livestock industry, no longer as vibrant as it once was, stands today at a crossroads, according to a University of Illinois study that examined the economic impact, challenges, and potential futures of the industry. However, livestock production retains a significant economic impact on certain regions of the state.

"In 1979, livestock accounted for 1.68 percent of the gross state product," said Peter Goldsmith, assistant professor in the Department of Agricultural and Consumer Economics and coauthor of "The Economic Impact of Illinois's Livestock Industry" with Hedi Idris, a research assistant in the department.

"By 1999, that figure had fallen to .37 percent, a decline of four per cent per year. This dramatic shift has been due to the combined effects of the decline of the livestock sector and the expansion of the state's economy over the 22-year span. In terms of the nominal value of livestock marketings, the volume of business has decreased 36 percent or 1.8 percent per year. This is an annual contraction of \$42 million per year. Most of the decline has occurred in the past 10 years."

Commercial enterprises in Illinois are broken down as follows: 45 percent are swine units, 21 percent are dairy farms, 22 percent are cow-calf operations, and 12 percent are a fed cattle enterprise. Goldsmith said livestock is a \$3.4 billion industry in Illinois that directly employs 28,610 people with a total employment impact of 43,198. The industry annually contributes more than \$330 million in taxes.

"While swine enterprises make up 45 percent of the commercial livestock business, they account for 53 percent of livestock's total cash receipts," he said. "More than 18,000 jobs are associated with the state's swine industry. Beef is second, generating over \$800 million in output and directly employing more than 14,000 full time equivalents of labor. Dairy produces half as much economic activity\$486 million-as beef." The state's poultry industry accounts for 765 jobs in direct employment and slightly over \$81 million in direct output. Sheep account for 169 direct jobs and nearly \$6 million in direct output.

"One question of interest to the livestock industry is the question of new livestock investment scenarios and their impact on the rest of the economy," said Goldsmith. "To address this, we looked at three scenarios: a 2,400-sow farrow-to-finish operation, a 400-cow dairy, and a 2,400-head cattle-feeding operation." The analysis indicated that siting the 2,400 sow operation in Illinois would directly generate over \$5 million in sales and have significant impacts on wholesale trade, real estate, feed grains, and support enterprises. The figure for a 400-cow dairy is \$1.4 million. For siting a 2,400-head feeder operation the figure is about \$2.5 million.

Examining the state's livestock industry from a supply-demand perspective revealed some interesting facts. "Livestock producers outside the state and outside the country are mostly meeting the demands of the state," said Goldsmith. "While at first glance, this portends great opportunities for local producers, that would not be entirely correct. This is because the supply-demand matrix in the modern food industry is not dominated, as it once was, by location. "Competitiveness now is much more a function of intangible assets such as human, organizational, and social capital. Therefore, while opportunities abound in the meat industry, location and land are only two of many criteria for competitiveness in the new agricultural economy."

The study also identifies the economic impact of livestock production on Illinois counties. The leading counties in this category are Henry, Stephenson, DeKalb, and Clinton. Each contributes over \$100 million to the economy. Counties most dependent upon livestock agriculture are Carroll, Jasper, Greene, and Pike each comprising over 22 percent of their respective county's economy.

"The evidence is clear that based on economic data alone Illinois's livestock industry is not as vibrant as it once was," said Goldsmith. "However, livestock still has significant impact on certain regions within the state. "Two possible strategies face the Illinois livestock industry as it stands at a crossroads. One path would be to continue operating as in the past. The result would be a continuation of the current trends. The other path values livestock agriculture as an economic engine and seeks to reinvigorate the industry. Pursuing this strategy involves complex decisions, new tactics and business practices." Goldsmith recommends that the industry address two complementary issues-Illinois's livestock business environment and the livestock industry's legitimacy.

"The business environment issue involves policy development to create an environment hospitable to livestock enterprises as is done with other industries in the economy, i.e., tax incentives, infrastructure improvements, and access to State contracts," said Goldsmith. "Complementary to this, the industry needs to engage in a legitimizing process. "This process recognizes that stakeholders outside the industry are impacted directly and indirectly by the industry. Their needs, such as the environment, animal welfare, and food safety have to be addressed. Unless their needs are addressed probusiness policies will be difficult to formulate and, if formulated, difficult to implement."*

More Resources to Consider

Healthy Eating Information

www.nat.uiuc.edu

The Nutrition Analysis Tool (NAT) was conceived by nutritionists in the Food Science and Human Nutrition Department of the University of Illinois to help anyone who is trying to lose weight or eat a balanced diet. The NAT web site gives the consumer the Recommended Daily Requirement of foods considered part of a healthy eating plan. If deficient in a particular nutrient, such as vitamin C, or if you have too much of something in your diet, such as bad cholesterol, NAT will suggest other foods to incorporate into your daily diet. Another unique feature of NAT is the energy calculator which keeps track of the calories you burn in a day doing different activities.

USDA FOOD SAFETY WEBSITE

<http://www.nal.usda.gov/fsrio>

The searchable database provides information on nearly 500 food safety research projects dating from 1998 to the present. This website also includes:

- * program and planning information, as well as various food safety reports;
- * food safety news and information; and
- * more than 100 links to web-based food safety research information provided by U.S. and foreign governments, and educational and professional organizations.

Keeping Nutrients in Manure

Lupe Chavez, ARS News Service, 301-504-1627,
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Manure-treating practices that reduce ammonia emissions and preserve nitrogen in the manure for plant use have been developed by Agricultural Research Service scientists. The treatments reduced ammonia release by more than 55 percent overall. Nitrogen is lost from manure when ammonia, a nitrogen-containing compound in the manure, escapes to the atmosphere through a process called volatilization. The loss of nitrogen makes the manure less useful as a fertilizer.

Alan Lefcourt and John Meisinger, colleagues at the ARS Animal and Natural Resources Institute in Beltsville, Md. (<http://www.anri.barc.usda.gov/>), conducted tests to improve the retention of manure nitrogen for organic use. They found that adding 2.5 percent alum or 6.25 percent zeolite to manure slurry by wet weight reduced ammonia loss by 60 and 55 percent, respectively.

Alum and zeolite, acidifying and sequestering agents, helped reduce the formation of ammonia gas and its volatilization, or release, into the air. Alum lowered the pH level of the tested dairy slurry below 5, a level that limits the amount of ammonia released from the manure. Zeolite, commonly used in kitty litter, acted as a cation-exchange medium, binding with the chemicals that would form ammonia and preventing volatilization. To measure ammonia loss, the researchers utilized a canopy and wind-tunnel system. A variable-speed fan pulled air over the manure samples and ammonia gases were trapped in acid bottles as they passed through the system. Ammonia losses were measured over a period of 96 hours.

Lefcourt and Meisinger initiated their research in response to problems created by increased animal production on farms and dwindling land available for spreading manure as fertilizer. Crop plants can take up and use the nitrogen and phosphorus in the manure. However, when too much nitrogen escapes into the air, excess phosphorus is left in the manure and soil. By limiting ammonia losses from manure, the team of scientists can create better ratios of nitrogen to phosphorus for farm crops. Moreover, zeolite-treated slurries are also a nitrogen-rich, slow-release,

Internet Resources

▶
▶
▶
▶ **Web Page Available on Bt Corn Risk to Monarch Butterflies**

www.ars.usda.gov/is/br/btcorn

Information and research about Bt corn's impact on monarch butterflies and other insects.

▶ **Agricultural Management Effects on Earthworm Populations**

<http://www.statlab.iastate.edu/survey/SQI/agronomy.shtml>

This note on the Soil Quality Institute webpage describes the effects of earthworms on soil, what factors determine earthworm abundance, and how agricultural management practices affect earthworm populations.

▶ **Illinois Electric Council**

<http://www.iecouncil.org/>,

click on Fact Sheets

Factsheets are available for printing or purchase on the following topics:

- Low Temperature Grain Drying (12-page circular)
- Home Appliances: Control Your Operating Costs
- What to Do During an Electrical Outage
- Geothermal Closed-Loop Heat Pump
- Add-On Heat Pump
- Safe Use of Emergency Generators
- The Safe Way
- Electrical Surge Protection for Electrical and Electronic Equipment
- Blinking Lights and Electronic Appliances



fertilizer. Treating dairy slurry with either alum or zeolite is cost-effective and safe. Slurries treated with alum would cost less than 50 cents a day per lactating cow. Zeolite costs should be similar, although volume pricing is not currently available.

At the ARS Animal and Natural Resources Institute, Lefcourt works in the Instrumentation and Sensing Laboratory (<http://www.barc.usda.gov/anri/isl/index.htm>). Meisinger works in the institute's Environmental Quality Laboratory (<http://www.barc.usda.gov/anri/eql/>).✳

Resources to Consider

The New American Farmer: Profiles of Agricultural Innovation

<http://www.sare.org/newfarmer/>

USDA's Sustainable Agriculture Research and Education (SARE) program has announced publication of a new book. "The New American Farmer" (p. 160) is a collection of in-depth interviews with farmers and ranchers across America. The book's diverse profiles in detail the effects of farming practices on profitability, quality of life, rural communities and the environment. To order a book (\$10) or CD-ROM (\$5), download a printer-friendly form and fax to (802) 656-4656. To pay by credit card, contact (802) 656-0484 or e-mail sanpubs@uvm.edu ✳

Major Uses of Land in the United States, 1997 (SB973)

<http://www.ers.usda.gov>

USDA's Economic Research Service

As the latest in the Major Land Use series, which started in 1945, this report summarizes cropland, forest, pasture and range, and miscellaneous and special uses such as urban and parkland. The annual cropland portion of the series has been consistently maintained since 1910. You can obtain printed copies of order number ERS-SB-973 from the USDA, 1-800-999-6779.✳

► Measuring Wheat Protein or Gluten Quality

<http://www.usda.gov/gipsa/newsroom/backgrounders/proqual.pdf>

A description of grain quality tests used by the USDA Grain Inspection, Packers and Stockyards Administration.

► Smart Growth: Implications for Agriculture in Urban Fringe Areas

<http://www.ers.usda.gov/publications/AgOutlook/April2001/AO280g.pdf>

A look at the future of agriculture production close to urban areas.

► Who Sprawls Most? How Growth Patterns Differ Across the U.S.

<http://www.brookings.org/es/urban/fulton-pendall.htm>

Illinois is not the only state dealing with a growing Rural-Urban interface. This report discusses this trend throughout the United States.

► History of Agriculture Chart 1776 - 1990

<http://www.usda.gov/history2/back.htm>

A pictorial review of major events in U. S. agriculture.

► BIO: Illinois Biotechnology Organization

<http://www.ibio.org/about.html>

The Illinois Biotechnology Organization was chartered in January 2000 to serve as a voice for biotechnology companies currently based in Illinois and those considering locating to Illinois. The council represents companies engaged in biopharmaceutical, biomedical, bio-agricultural and bioremedial endeavors.

Educational Opportunities

Soybean Cyst Nematode Screening Clinics

Dale Baird, Crop Systems Educator, Rockford Extension Center, 815-397-7714

Soybean cyst nematodes (SCN) are microscopic worm-like organisms, which parasitically attack and feed within soybean roots. Severe SCN plant infestation levels can be seen as field areas of yellow, stunted or wilted soybeans. However, quite often above ground SCN plant damage in high organic matter, north-central Illinois soils may not be noticeable but yield loss can still occur. The objective of the program is to provide area soybean growers precise information concerning the SCN infestation level in their suspect fields and provide SCN management recommendations.

Several Soybean Cyst Nematode Soil Screening Clinics sponsored by University of Illinois Extension will be held throughout northern Illinois during November. Specifically the screening clinics have been scheduled as follows:

November 5, sponsored by Grundy County Extension, 815-942-2725
Location: Wills Pioneer Seeds, located by going west of Coal City Illinois 2 miles on Rt 113 to Gorman Road, then south 1 mile to Spring Road, then ¼ mile west on Spring Road.

November 6, sponsored by Bureau County Extension, 815-875-2878
Location: Marquis Inc., located on Rt. 40, 5 miles south of Buda, IL.

November 13, sponsored by LaSalle County Extension, 815-433-0707
Location: Walter Seed & Fertilizer, located at the southeast corner of Grand Ridge, IL.

Producers are encouraged to bring soil samples from suspect 2001 soybean fields or from fields intended to be planted to soybeans in 2002 to the program location from 9:30 am to 11:00 am. Samples will be “screened” on site for SCN presence and infestation level. Participants are limited to a total of 3 composite soil samples. At 10:00 am, a short presentation will be held focusing on SCN management guidelines, the soil screening process and SCN identification. In addition, observations from 2001 soybean aphid infestations will be discussed. CEUs for Certified Crop Advisors have been applied for. Producers will have the opportunity to view SCNs under a microscope.✘

► Universities Water Resource Network

Universities Council on Water Resources

http://www.uwin.siu.edu/dir_directory/

Find information in the following areas.

- ◆ Water Experts: a listing of water professionals and their areas of expertise
- ◆ Consulting Firms: a detailed listing of water related consulting firms
- ◆ Water Wetlist: Water related websites and their detailed description
- ◆ Water Project: learn more about innovative projects to protect watersheds
- ◆ Water Organizations: IWRN Directories of Water Resources Organizations/Institutions
- ◆ Water-related Utilities: a listing of companies for water and wastewater utilities.

► Natural Hazard Mitigation Insights

<http://www.ibhs.org/ibhs2/html/publications/Default.htm>

Check this website for information on many topics including:

- ◆ Freezing and Bursting Pipes
- ◆ Wind-Resistance of Roof Coverings
- ◆ Ice Dams
- ◆ Land Use Planning in Natural Hazard Mitigation
- ◆ Performance of Metal Buildings in High Winds
- ◆ Metal Edge Flashing

► A Farmers' Guide to Hosting Farm Visits for Children

Sibella Kraus and Karin Rosman, Center for Urban Education about Sustainable Agriculture

<http://www.sarep.ucdavis.edu/Grants/Reports/Kraus/97-36FarmersGuide.htm>

This is a practical guide for anyone providing farm tours to outside groups.

Spring 2001 Off-campus University of Illinois Courses

<http://www.outreach.uiuc.edu/>

Each semester the University of Illinois offers numerous courses on agriculture and many other topics around the state. Check out what is being offered in January (registrations usually due in late November) at the website or request a catalog from: Academic Outreach, All Ag, 302 E. John St., Suite 1405, Champaign, IL 61820

University of Illinois Agriculture Events Calendar

<http://www.crops.uiuc.edu/events/sept.html>

Check out our web-based Events Calendar. New programs are being confirmed every day. Keep in touch with your Extension Office for programs addressing the topics that interest you and are offered in your County. To find your counties website go to: <http://web.aces.uiuc.edu/ve/>

In-depth Soil and Water Management Workshops Set for November

University of Illinois Extension will be offering three in-depth Soil and Water Management workshops across the state this fall. Program dates and locations include: November 27 in Woodhull, November 28 in Decatur, and November 29 in Mt. Vernon. Five hours of certified crop adviser credits will be available for each workshop.

This year's theme is "Protecting Our Illinois Streams—From Big to Small". The increased regulations and the incentive opportunities regarding the protection of rivers and streams in Illinois continue to interest many landowners and agribusiness professionals. Those issues will be discussed at the workshops, including applied information regarding the establishment and maintenance of stream buffers, financial incentives for landowners, status of current regulations, and best management practices for stream protection beyond buffers, as well as related topics. There is a \$30 fee per person for materials and lunch for the workshops. Registration will be \$35 at the door. Advance reservations should be made one week prior to the meeting. Complete program and registration details are available from local county Extension offices. The workshops are co-sponsored by the Illinois Council on Best Management Practices.

Ag Facts

▶ Americans spend 11.4 percent of their personal income on food compared to 21 percent in Japan, 26 percent in Italy and 53 percent in China.
(SOURCE: Conservation Technology Information Center Newsletter)

▶ Honeybees pollinate some 90 different crops in the US, including melons, squash, broccoli, almonds, strawberries, blackberries and raspberries. An estimated one third of the world food supply depends on insect pollination either directly or indirectly.
(SOURCE: AgVentures Newsletter)



About the Ag Update Newsletter

The Ag Update Newsletter is a bi-monthly newsletter providing education and research support to the agricultural industry. Current and past issues may be found at the following website <http://www.urbanext.uiuc.edu/agupdate/index.html>

Contact your county Extension office and request to be put on their agricultural mailing list to receive the local agricultural newsletter and notices about upcoming agricultural events near you. To find your counties location, phone and website go to: <http://web.aces.uiuc.edu/ve/>

For further information about this newsletter, please contact:

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