NEBRASKA
Sustainable Agriculture Society

"Building healthy land, people, communities and quality of life, for present and future generations."

The Key to Rural Economic Development, Sustainable Agriculture

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In This Issue

The NSAS Newsletter is a bimonthly publication of Nebraska Sustainable Agriculture Society, a private, non-profit organization. Our mission is *to promote agriculture & food systems that build healthy land, people, communities & quality of life, for present & future generations*. The purpose of this newsletter is to inform its readers about sustainable agriculture issues, resources & activities. Members receive this newsletter as a benefit.

Rural areas across the country have seen steady population declines over the last 70-80 years. Census reports of most rural Nebraska counties substantiate this and in many cases this decline has been drastic.

Much of this population loss can be attributed to a shift in agricultural practices that moved us towards an industrial model. This took both people and animals off the land. Industrialization created an environment in the farm sector where it became more desirable to own your neighbors land rather than have the neighbor and his family around.

For years leaders in rural America have worked to reverse this trend or at the very least, slow it down. Many different strategies and incentives have been implemented. Ironically many rural economic development plans center around the recruitment of large entities to develop industrial sites as a way to generate more jobs and bring more people to the community. Examples in recent years here in Nebraska include the development of ethanol plants and large CAFO's in or near our rural communities. But is this really the best strategy? Why do we promote more large industry in small rural communities when this led to our demise in the first place? Does the boom to bust cycle that many of these industries go through create a stable economic base for rural communities that are conducive to long term growth? We have also seen many communities torn apart by the dissension that is created when bringing in certain types of industry that have a history of negative consequences such as creating environmental contamination and odor problems. Many times this actually hinders the development of balanced long term economic growth.

The best solution to this problem is to bring both people and animals back onto the land. This will create prosperity for farmers and the communities around them. Is this really a practical solution? We are already seeing this happen in some areas with great success, But can it work on a widespread scale? The answer is YES. Not only would this improve economic welfare in rural areas, but it would also alleviate many of the environmental problems associated with industrial agriculture, improve animal welfare, and rebuild trust with the consumer. Sustainable farming and food production systems represent the model that will lead us down this path to prosperity for rural communities and provide a healthy food supply for the population.

Critics say this would not only be impractical but also disastrous, claiming that it would lead to massive food shortages and starvation. These scare tactics simply have no foundation. To the contrary, if we do not move in a different direction, our industrial food system will lead us down a path of self destruction. The warning signs are already present as we are currently moving down that pathway.

I hope you will join us at the 2010 Healthy Farms Conference as I will be discussing these issues along with providing real solutions on how and why we must continue to create sustainable farming systems that will allow us to eat better, improve the environment and revive rural economies.

Kevin Fulton

Mr. Fulton is full time farmer with a 2800 acre organic grass fed beef operation near Litchfield, in Sherman County. He has been passionately promoting sustainable agriculture for the last 7-8 years now after converting his land base from a conventional crop farm to an organic grass based operation. He is in the process of expanding the farm enterprises to include a diversity of livestock and food products along with ag/eco tourism. He will be speaking at the annual conference in Lincoln on February 5th and 6th 2010! He is also a proud NSAS Member!

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USDA LAUNCHES "KNOW YOUR FARMER, KNOW YOUR FOOD" INITIATIVE TO CONNECT CONSUMERS WITH LOCAL PRODUCERS TO CREATE NEW ECONOMIC OPPORTUNITIES FOR COMMUNITIES

WASHINGTON, September 15, 2009 - Agriculture Secretary Tom Vilsack and Deputy Secretary Kathleen Merrigan today announced a new initiative - "Know Your Farmer, Know Your Food" - to begin a national conversation to help develop local and regional food systems and spur economic opportunity. To launch the initiative, Sevretary Vilsack recorded a video to invite Americans to join the discussion and share their ideas for ways to support local agriculture. The videl, one of many means by which USDA will engage in this conversation, can be viewed at USDA's YouTube channel, www.youtube.com/usda Producers and consumers can comment on the "Know Your Farmer, Know Your Food" YouTube playlist, mailing KnowYourFarmer@usda.gov.

"An American people that is more engaged with their food supply will create new income opportunities for American agriculture," said Vilsack. "Reconnecting consumers and institutions with local producers will stimulate economies in rural communities, improve access to healthy, nutritious food for our families, and decrease the amount of resources to transport our food."

The "Know Your Farmer, Know Your Food" initiative, chaired by Deputy Secretary Merrigan, is the focus of a task force with representatives from agencies across USDA who will help better align the Department's efforts to build stronger local and regional food systems. This week alone, USDA will announce approximately $65 million in funding for "Know Your Farmer, Know Your Food" initiatives.

"Americans are more interested in food and agriculture than at any other time since most families left the farm," said Merrigan. "Know Your Farmer, Know Your Fiid" seeks to focus that conversation on supporting local and regional food systems to strengthen American agriculture by promoting sustainable agricultural practices and spurring economic opportunity in rural communities."

In the months to come, cross-cutting efforts at USDA will seek to use existing USDA programs to break down structural barriers that have inhibited local food systems from thriving. Today, USDA announced a small initial group of moves that seek to connect local production and consumption and promote local-scale sustainable operations:

- USDA's Risk Management Agency announced $3.4 million in funding for collaborative outreach and assistance programs to socially disadvantaged and underserved farmers. These programs will support "Know Your Farmer" goals by helping producers adopt new and direct marketing practices. For example, nearly $10,000 in funding for the University of Minnesota will bring together experts on food safety and regulations for a discussion of marketing to institutions like K-12 schools, colleges, iniversities, hospitals and other health care facilities.
- USDA's Food Safety and Inspection Service proposed regulations to implement a new voluntary cooperative program under which select state-inspected establishments will be eligible to ship meat and poultry products to interstate commerce. The new program was created in the 2008 Farm Bill and will provide new economic opportunities for small meat and poultry establishments, whose markets are currently limited.
- USDA's Rural Development announced $4.4 million in grants to help 23 local business cooperatives in 19 states. The member-driven and member-owned cooperative business model has been successful for rural enterprises, and bring rural communities closer to the process of moving from production-to-consumption as they work to improve their products and expand their appeal in the marketplace.
- USDA's Rural Development will also announce a Rural Business Opportunity Grant in the amount of $150,000 to the Northwest Food Processors Association. The grant will strengthen the relationship between local food processors and customers in parts of Idaho, Oregon and Washington, and will also help the group reduce energy consumption, a major cost for food processors.

Press Releases

SECRETARY VILSACK ANNOUNCES MILES McEVOY WILL SERVE AS DEPUTY ADMINISTRATOR OF NATIONAL ORGANIC PROGRAM

WASHINGTON, Sept. 17, 2009 – Agriculture Secretary Tom Vilsack today announced that Miles McEvoy has been hired to serve as Deputy Administrator of the National Organic Program (NOP). McEvoy assumes his position on Oct. 1. Vilsack also announced that the NOP will become an independent program area within AMS because of the increased visibility and emphasis on organic agriculture throughout the farming community, evolving consumer preferences, and the enhanced need for governmental oversight of this widely expanded program. Organically grown and marketed agricultural products are of key interest to the Obama Administration, and the NOP will be receiving increased funding and staffing in the new fiscal year.

"Miles McEvoy has worked in the field of organic agriculture for more than two decades and has a solid understanding of the challenges and opportunities facing the organic community," Vilsack said.

For more than 20 years, McEvoy led the Washington State Department of Agriculture's (WSDA) Organic Food Program, one of the nation's first state organic certification programs. In 2001, he helped establish the WSDA Small Farm and Direct Marketing Program. From 1993 until 1995, McEvoy was the founding Director of The Food Alliance, a program that blends sustainable farming practices and social welfare components into an eco-label program.

McEvoy helped establish the National Association of State Organic Programs in 1998 and currently serves as its President. He also assisted the Montana Department of Agriculture to develop the state's organic certification program and has been helping the Oregon Department of Agriculture in developing its own organic certification program.

The NOP is responsible for regulating the fastest growing segment of U.S. agriculture, the organic industry. U.S. sales of organic foods have grown from $1 billion in 1990, when the Organic Foods Production Act established the NOP, to a projected $23.6 billion in 2009. Congress increased NOP funding to $2.6 million in FY08 and to $3.2 million in FY09.

RURAL ADVANTAGE/HEALTHY FARMS CONFERENCE!
The Nebraska Sustainable Agriculture Society and the University of Nebraska Extension Announce Details for Upcoming Conference.

Congressman Jeff Fortenberry to keynote! Capstone by John Ikerd, Full Youth Program!

February 5-6, 2010 Plan to attend the Rural Advantage/Healthy Farms Conference in Lincoln, Nebraska at the Holiday Inn-Downtown. Our keynote this year is by Congressman **Jeff Fortenberry**. The Congressman is on the House Agriculture Committee and serves as the Ranking Minority Member on the Subcommittee on Department Operations, Oversight, Nutrition, and Forestry. He is also an ardent supporter of local foods in Nebraska! There will also be a capstone session by **John Ikerd**. Aswell as several other sessions including: **Kevin Fulton** on Sustaianable Agriculture as the Key Ingredient for Rural Economical Development; **Dr. Marion Ellis** who is a Professor and Extension Apiculture Specialist and Beekeeping Expert; **Jill Gifford**, Food Processing Center at the University of Nebraska-Lincoln; **Bill Weida** on Economics of Sustainable Agriculture, and **Paul Rohrbaugh** on the Family Farm. With sessions on Holistic Management, Hops Production, Alternative Crops and many more!

We will also have our annual All-Nebraska Foods dinner and Live Auction, with all the funds raised going towards the Nebraska Sustainable Agriculture Society - NSAS and their efforts!!!

We encourage the entire family to attend as there are Youth workshops offered at each session that kids can attend and explore sustainable agricultural opportunities they can develop on their farms. Tours of UNL East Campus greenhouses, dairy store and food processing will be offered. The youth programming will include hands-on demonstrations, youth-lead sessions, tours of the campus greenhouses and much more. Scholarships are available.

Silent and Live Auctions We are now accepting donations for the Auctions to be held in conjunction with the All Nebraska meal. Please send inquiries and donations to William at healthyfarms@gmail.com or call 402-525-7794. Thank you!

Sponsorship, exhibitorship, donor, and scholarship opportunities are available. Questions and inquiries to healthfarms@gmail.com or

USDA LAUNCHES NEW WEB PAGES AND ON-LINE TOOLS TO HELP CONSUMERS MAKE HEALTHIER FOOD CHOICES
New Nutritional Tools Part of "Know Your Farmer, Know Your Food"

WASHINGTON, Sept. 23 2009-Agriculture Secretary Tom Vilsack today launched three new online tools that will help consumers make healthier food choices and gain a better

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appreciation of the role of American agriculture in food production from the farm to the table.

"Because more than 80 percent of our population lives in suburban and metropolitan areas, when we think of food, we more often think of the grocery store than the farm," said Vilsack. "There is a dosconnect between the farmer and the food that consumers buy and we want to re-connect these long standing ties between the people who produce the food and those who purchase and prepare it. These new online tools will help do that."

Vilsack launched a broad new "Know Your Farmer, Know Your Food" initiative on Sept. 15 to begin a national conversation about food and to help connect people more closely with the farmers who supply their food and increase the production, marketing, and consumption of fresh, nutritious food that is grown locally in a sustainable manner. These three new online applications were designed by USDA's Center for Nuitrition Polic and Promotion (CNPP) to help consumers make healthier food choices and are part of that initiative.

They are: Growing a Healthier You: Nutrition From the Farm to the Table-Known for its MyPyramid food guidance system and the Dietary Guidelines for Americans, USDA's CNPP has designed a companion initiative, "Growing a Healthier You: Nutrition From the Farm to the Table," with the launch of a new web-page. This new web-page links garden and farm produce to the nutritional well-being of the public and the significance of locally grown fruits and vegetables. The web-page located at www.cnpp.usda.gov/KnowYourFarmer.htm will promote national initiatives, such as National Nutrition Month and feature interesting facts about specific fruits, vegetables and other foods. It will also feature: What's for Dinner (or Breakfast or Lunch); Your Garden, Your Produce, Your Menus; and From Garden to Plate, Safety Matters.

MyFood-a-pedia, the much anticipated is a new online tool that gives consumers quick access to nutrition information for over 1,000 foods. The MyFood-a-pedia provides calorie information on the food to the five food groups people need to be healthy. MyFood-a-pedia, located at www.MyFoodapedia.gov also provides the number of "extra" calories in foods from solid fats, added sugars, and alcohol.

10 Tips Series will feature a variety of topics under CNPP's Nutrition Education Series. The "10 Tips" begins with cutting back on salt and sodium, followed by tips for setting good examples to be a healthy role model for children, tips for following a vegetarian diet, and tips for making more environmentally friendly food choices. Other tips will be added regularly, and can be downloaded at www.MyPyramid.gov

Neighbors

Part 1 of 3: Grazing to Control Invasive Species

by Rita Brhel, P & D Correspondent

KEARNEY, Neb. – Leafy spurge, purple loosestrife, Canadian thistle, saltcedar – livestock producers know these weeds well. Regulations mandate that landowners eradicate these and other noxious plant species on their property, or risk law enforcement. But beyond avoiding having to pay a fine and court costs, why should producers care? If there were no laws regarding weed control, would there be a reason to get rid of these weeds?

It can be easy to forget that weed control has more benefit to producers than to avoid breaking a law, but the fact is, invasive weeds – noxious weeds, as well as other unlisted, usually non-native, species with few or no natural enemies – pose a real threat to the livelihood of the livestock producer. Because of their lack of natural control, invasive weeds spread aggressively, choking off desirable, native plants and quickly rendering a previously lush pasture into a useless plot of unpalatable weeds.

“Forty percent of species that have gone extinct did so because of invasives,” said Karie Decker, coordinator for the Invasive Species Project through the University of Nebraska-Lincoln’s Nebraska Cooperative Fish and Wildlife Research Unit, during a presentation at the 2009 Nebraska Grazing Conference in August in Kearney, Neb. The impact of invasive weeds is more than that of wildlife habitat and ecosystem stability – terms that may not resonate with agricultural landowners: invasive weed species are also dangerous in that they are likely to cause economic harm by replacing plants that otherwise make inexpensive feed for livestock. And reclaiming a pasture from invasive weeds, as anyone who has battled red cedar infestations can attest, is no easy task.

In all, the more than 500,000 invasive plant, animal, and microbe species worldwide cost $1.4 trillion in environmental and economic damage, $120 billion of which belongs to the United States, Decker said. That’s more money than is spent on all natural disasters combined, she added.

There are a variety of ways that invasive plants can alter ecosystems enough to cause major environmental damage. Some plants, like cheatgrass, crowd out other plant species but is not grazed well by livestock. Cedar trees endanger grazing by physically taking over areas that would otherwise be in grass. Saltcedar and phragmites reduce water flow in streams, affecting not only wildlife habitat but also agricultural irrigation and livestock watering. Leafy spurge takes over pastures and can’t be grazed by cattle because of its toxic alkaloids. Eurasian water milfoil increases the risk for algae blooms in water, also fatal to livestock.

Landowners are most concerned with losing grazing potential in their pastures, which can be significant. And so they spray

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herbicide and chop and dig up their weeds, but these control measures are often time consuming, labor intensive, and expensive. It may come as a surprise that just what is being threatened by invasive weeds – grazing – can also be used to control that threat.

Jim Carr, a cattle rancher from Atkinson, Neb., and chairman of the Nebraska Grazing Lands Coalition, has successfully used grazing as a means of invasive weed control on his property. He purchased a property near Burwell, Neb., in 1999 that had about 20 percent of it infested by leafy spurge.

"I knew we needed to make some changes, but I knew we needed to keep it simple," Carr said. He came across the idea of targeted grazing -- or using grazing to control weeds. "My neighbor first told me that yearlings will eat spurge," he said.

Carr begins grazing every year between April 20 and April 25. He puts a high stock density on a small area for a blast of intense grazing pressure, otherwise known as mob grazing. "They (cattle) will only eat spurge before blooming," he said, after which he relies on spot-spraying herbicide or, in limited cases, using bio insect control. He also monitors the diversity in his leafy spurge plots through GPS, photographs, and written records.

The key to targeted grazing is knowing not only how to graze to control invasive weeds, but to monoculture, so the wider array of plant species found, the more likely that an invasive weed plot is losing its hold.

"Manage your land for what you want to be there, what could be there, what should be there - not what is there now," said Dana Larsen, a cattle rancher and Nebraska's state rangeland management specialist through the Natural Resources Conservation Service in Ord, NE. "The best key to success is awareness of the problem. Another key is collaboratio. You can't be successful without help - leafy spurge doesn't just stop at the fence line. And finally, action - you have to be willing to take the time."

The best control is prevention, Larsen said: "All of you who have mature cedar canopies have an idea of how much it would've saved to have prevented them."

She suggested producers us targeted grazing as part of an Integrated Pest Management program, such as incorporating grazing with herbicides or fire treatments.

Larsen also emphasized the need for continued monitoring and control efforts by producers, rather than seeing a producer do a big push in weed control but without continued monitoring of the property: "Invasive plant control is only a control, not a treatment," she said. "Once you address the concern, you just can't drop it from your business plan. Even if you only have a couple cedar trees, you got to keep following up."

Third Annual Western Sustainable Ag Crops and Livestock Conference

Grey Goose Lodge 308-284-3623
Ogallala, Nebraska
December 11th and 12th, 2009

Attendees will learn:

- How organic wheat production can be a marketing opportunity for you
- Varieties that are sought and that are avoided by grain buyers, miller, baker and cereal companies
- Nutritional values, including antioxidant levels and dietary fiber in Organic State Wheat Variety Trial samples
- How to produce and market wheat from the farmer's perspective
- New ways to develop a sustainable system of managing crops and livestock
- How to monitor the range for sustainability
- Wheat research and resources are available for organic and transitioning farmers
- Keith Berns - SARE Farmer/Rancher Grant "Cover Crop Water Usage and Effect on Yield in No-Till Dryland Cropping Systems"
- Latest USDA-ARS Research on dry land Grasspea and Admiral Pea as forage alternatives in the Great Plains
- High Tunnels: sustainable, low-cost technology for adding value to your operation and family's income

Workshop daily rate is $30.00 and $50.00 for both days

To register or for more information, contact:
Karen DeBoer, Extension Educator
University of Nebraska - Lincoln Extension
Cheyenne County
http://ckb.unl.edu/home
Phone: (308)254-4455 or toll-free (866)865-1703

To reserve a room for the **"Western Sustainable Ag Conference"** contact the Grey Goose Godge at: (308)284-3623

For exhibitor and sponsor information please contact:
William Powers at 402-525-7794 or healthyfarms@gmail.com

OCIA News

Organic Crop Improvement Association, Nebraska Chapter #1 Newsletter

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Conservation Stewardship Program has Incentives for Organic Farmers

by Liz Sarno

I just signed up my farm for the Conservation Stewardship Program (http://www.ne.nrcs.usda.gov/programs/CSP.html) at my Natural Resource Conservation Service (NRCS) and I urge you to consider doing the same. Acreage owners, you may qualify if your land has agricultural land production records at your Farm Service Agency. You can do it!

Conservation Stewardship Program (CSP) is available nationwide. The sign-up is continuous. You can go on-line and take the Producer Self-Screening Checklist. You must be willing to record and maintain your conservation activities and production system and to be able to enter into a five-year contract.

The Conservation Stewardship Program (CSP) is a voluntary conservation program that encourages producers to address natural resource concerns in a wide-ranging manner. Farmers can try new conservation activities; and improve, maintain, and manage existing conservation activities.

If you are thinking about transitioning to an Organic Production System check out the Organic Crosswalk to see what enhancements you would qualify for: http://www.nrcs.usda.gov/programs/new_csp/special_pdfs/Organic_Crosswalk_091009_dl.pdf There are 80 enhancements a producer can select and 39 of these can be applied by an organic producer or if you're thinking about transitioning to organic. There are an additional 25 enhancements that can be applied during the transition period.

The Organic Crosswalk helps you look at a National Organic Program standard and then matches enhancement for transitioning or organic farmers. For example **NOP §205.202 Land Requirement Standard** - states "Any field or farm parcel from which harvested crops are intended to be sold, labeled, or represented as "organic," **must:** (a) Have been managed in accordance with the provisions of §§205.203 through 205.206; (b) Have had no prohibited substances, as listed in §205.105, applied to it for a period of 3 years immediately preceding harvest of the crop; and (c) Have distinct, defined boundaries and buffer zones such as runoff diversions to prevent the unintended application of a prohibited substance to the crop or contact with a prohibited substance applied to adjoining land that is not under organic management."

Your Resource Conservationist will schedule an appointment to sit down with you to discuss which enhancements would work for you. If you are planning to transition to an organic farming system or already are certified organic you can receive economic compensation to help offset the cost of transition and organic production. For example, **PLT01 - Establish pollinator habitat**, you can receive some compensation to help develop your buffers zones and establish a habitat to encourage beneficial insects which you will need in a healthy organic system. CSP- enhancements SQL04 - Use of cover crop mixes that contain two (2) or more different species of cover crops and WQL20 - Transition to organic cropping system will help you develop an organic production system that will be in compliance with the NOP Standards.

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Crop Improvement Workshop
OCIA NE Chapter #1 and University of Nebraska - Lincoln
Saturday – January 9th 2010 from Noon to 3:30 pm
East Campus - Lincoln

"Weed Control with Flaming Research and Results"

There is an increased interest in organic production among farmers and industry in the United States and especially in our state, Nebraska. This interest is based on the strong consumer demand for environmentally friendly food. Weed control ranks as the number one problem limiting crop production.

Stevan Knezevic- UNL Associate Professor, Integrated Weed Management and George Gogos, Professor of Mechanical Engineering at UNL and their research team: Santiago Ulloa, Chris Bruening, Avishek Datta will share the most current findings about our custom designed flamers as well as weed and crop tolerance to broadcast flaming. We will share information on broadleaf and grassy weed control in field corn, sweet corn, popcorn, soybean, and wheat.

Farmer Panel: In 2009, four organic farmers from Butler County, NE participated in a project "Reducing Soil Erosion through Thermal Pest Control" and worked with Dr. Knezevic to compare controlling weeds in their corn crop using a flamer verses cultivation. They will share their thoughts on how the experiment worked – followed by a discussion on how to improve the use of flaming to control weeds in corn and soybeans.

East Campus - Plant Science building - Room 280 go to the northwest entrance, up the stairs, toward the department office. You may park outside the building (avoid meters and handicapped stalls).
Lunch will be provided free. To make a reservation call Pat: 402-584-3837. For more information about the conference call Liz: 402-309-0944.

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My farm ground was classified as rangeland because I have transitioned my entire operation to grass-finished cattle and will not have any row crops. I will graze my entire farm and would like to set-up my farm so I am not hauling water to cattle. I have investigated the possibility of a solar pump and under this program I can put one in. Farmers considering grazing livestock can qualify for ANM03 – Incorporate native grasses and/or legumes into 15% or more of the forage base; PLT02 – Monitor key grazing areas to improve grazing management and PLT10 – Intensive management of rotational grazing.

This winter I will sit down and come up with a written plan on how I am going to carry out these activities. This program helps me reach a personal goal of improving my farm's biodiversity and making my operation more sustainable. I will continue to be more accountable of what natural resources I use on my farm thus preserving them for future generations.

Nebraska Herbalist Brings Natural Medicine to Goat and Sheep Producers

By Rita Brhel

Not even the season's first snow could keep more than 60 of Nebraska's sheep and goat producers from descending upon Wahoo in early October 2009, for the first-ever joint convention between the Nebraska Sheep and Goat Producers and the Nebraska Dairy Goat Association. Among the anticipated speakers was Amy Jeanroy, a goat producer from Ravenna, who uses herbal remedies to complement her on-farm veterinary medicine practices.

While only a Nebraskan for a couple years, Jeanroy's experience in herbalism dates back to 20 years ago when she lived in the wilderness, living off the land, alone except for her dog. Today, she relies mostly on herbs for their healing powers in not only her goats but also poultry dogs, cats, and herself and her children.

She's quick to say, however, that herbal care is a complement to conventional veterinary medicine: "I don't think, if you are treating your animals with herbs and you, all of the sudden, need antibiotics, that you don't give them. You don't want a dead animal."

Jeanroy's number-one tip? Find a good veterinarian, one that you're comfortable with calling on when the situation requires it and one that is knowledgeable about your species of animal.

Where herbalism fits in is providing sound preventative and non-emergency veterinary care. There are three reasons why herbal care works for any sustainable farm:

- **It's good management** - Herbal care lowers veterniary costs and time spent on treatments by focusing veterinary care on the individual animal, rather than the whole herd or flock. Heanroy related this concept to the idea of treating individual animals for worm problems, rather than worming the entire goat herd or sheep flock: "Just because one of my kids is sick, I don't treat all of them; just because one has a scrape, everyone doesn't have to be bathed in salve."
- **It's proactive care** - Herbal care focuses on prevention of illness or medical complications from minor injuries.
- **It's good stewardship** - Herbal care requires the producer to be more attuned to each of their animals, which translates into better judgment when making treatment decisions.

"Herbal care can be the first line of defense in an emergancy, supportive care for healing, and provide extra nutrition," Jeanroy said. "Herbal care gives you more control over your animal's health: You take care of the small things instead of just waiting to see if a medicine works."

"I generally use herbs that grow locally wherever I'm living," Jeanroy said, although herbalists can also purchase their plants at greenhouse and stores if they are careful to seek out herbs that are labeled for healing or that do not receive chemical applications. Below are a variety of herbs that can be used by anyone and are found in nearly every lawn, ditch, or pasture, and some of the, in the backyard garden. "I generally work with 25 to 35 herbs, but these are my go-to herbs," Jeanroy said.

Dandelion is a common lawn weed. It's an appetite stimulant, a laxative, a liver stimulant, and a diuretic. It is high in potassium, which balances the diuretic qualities and prevents dehydration, and it soothes inflammation. It's also good for skin issues, such as rashes and eczema. And dandelion blossoms provide pain relief.

- *How to use:* Give three to five drops orally until improvement in health.
- *Interesting fact for humans:* Dandelion wine does give herbal benefits to consumers.

Plantain is a common lawn weed that soothes dry, raspy coughs, relieves urinary tract pain, and relieves pain and inflammation. It is high in vitamins A, C, and K. It is also good for skin problems.

- *How to use:* For wounds, use plantain in a salve. Store as liquid (before adding wax) or in freezer cubes for easy access. Or, for coughing and urinary tract pain, give one teaspoon of the herb per 20 pounds of animal twice daily until improvement in health.
- *Interesting fact for humans:* Chew up a piece of plantain leaf and put a glob on your wound to soothe pain.

Nettle is a common weed found in ditches. It's high in protein, calcium, iron, and vitamins A,C,B complex, and D. It is good for recovery from worms, as well as after birthing, as nettle is an effective blood-builder.

- *How to use:* It's important to harvest nettle while it is young, before it begins producing the oil on its leaves that causes pain upon skin contact, as older netties contain crystals that irritate the kidneys. Top-dress (sprinkle on top of feed) one tablespoon daily for one week on, one week off until improvement in ehalth.
- *Interesting fact for humans:* If you get the painful leaf oil on your skin, break nettle to get juice and use this as a neutralizer on the oil.

Echiacea is a common ornamental flower that has received a lot of media attention lately about it's immune "strengthing" abilities. In actuality, echinacea stimulates the immune response.

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It is especially good for supportive care in respiratory illness and recovery.

- *How to use:* Dry and crush the whole planat. At the first sign of infection, top-dress 1/4 to 1/2 two times daily for five days, two off, and repeat for two weeks. Or, make into a tincture and put half a dropper full into an herbal ball, as the tincture will numb the mouth and the animal will refuse to swallow it.

Calendula is a common ornamental flower. It soothes skin irritations, such as rashes and stitches. It also has an antibacterial effect.

- *How to use:* Pick flowers as they bloom, and dry. Use in salves and washes for wounds to the skin. For bacterial conjunctivitis, double-strain the wash to ensure there is no debris that will irritate the eye.
- *Interesting fact for humans:* this flower can be eaten in a salad.

Yarrow is a common weed found in pastures and ditches. It encourages blood clotting, repels flies and mosquitoes, and has antiseptic effects.

- *How to use:* Use fresh, or dry and crush into a powder stored out of the sunlight. Use as a skin wash or in hydrotherapy for skin wounds and irritations. Use as tincture for insect repellent. For pneumonia, mix one ounce dried into the feed once daily.

Fennel is a culinary herb often found in Italian foods or dishes with fish. It boosts milk supply and relieves intenstinal gas.

- *How to use:* Use fresh or dried leaves, or as a tea. At the first sign of overeating, while waiting for the veterinarian to arrive, top-dress one teaspoon of the seed on each feeding daily.

Catnip is a common weed found in lawns. It relieves stomach upset and calms anxiety.

- *How to use:* Dry leaves. Begin with putting handful in the drinking water. For a more powerful dose, use in a tincture but mix with vegetable glycerin to counteract the bitter taste.

Mint is a common culinary herb. It is used to make other herbs more palatable.

- *How to use:* Use fresh or dried. Mix with other herbal preparations.

Dill is a common culinary herb often found in pickled and cured foods, or in cheese. It relieves intestinal gas and boosts milk supply, and strengthens other herbs used as insect replelents.

- *How to use:* Use fresh or dried seeds in a tea. Give at the first sign of stomach upset. Do not use in pregnant animals.

Other Useful Natural Substances

Clay, powdered clay is sold through health food stores and other specialty shops, and is often used as the basis of facial and body masks at spas. It is drying, which is useful for slivers, and is cooling, which soothes bee stings and bites.

- *How to use:* Make apaste with water. Do not use with cuts because it's not sterile.

Aloe Vera is a common houseplant whose creamy white juice soothes skin irritations, such as sunburn.

- *How to use:* Mix with salves and tinctures.

For You - Humans

Violets are a common lawn weed and are useful to soothe sore throats. It can be dried and used in a tea, or it can be eaten fresh in a salad.

Elderberry isan ornamental whose fruit is often used in jams and other foods. It prevents the influenza virus from replicating. Take it at the first sign of the flu: one dropper full twice daily for adults and continue for 48 hours after becoming well; half a dropper for children and continue for 48 hours after becoming well.

Basic Wound Treatment:

- **Scrapes/abrasions**-Clean well. Protect them from flies.
- **Cuts (less than 1/8-1/4 inch deep)**-Clean well with an antiseptic solution. Protect from flies.
- **Deep cuts**-Call a veterinarian. Conventional treatment is needed to prevent tetanus and infection, or to do stitches, or stop bleeding.
- **Punctures**-Call a veterinarian. Conventional treatment is needed to prevent tetanus and infection.
- **Fly Bites**-Clean well. Soothe. Protect from flies.

Rules of Thumb in Herbal Care:

- **Do your homework**-You can learn a lot from reading a book about herbal care, but make sure to cross-reference your findings with other books. At least three sources should agree with the use of an herb for medicinal purposes before you can consider it safe for an animal, or human, to ingest.
- **Start small**-When reaching for an herbal remedy, start with the simplest remedies first. These have the lowest chance of toxicity. If the simplest remedies don't work, move yp to a slightly more powerful remedy. And so on. Always use the least-powerful herbal remedy possible for any treatment.
- **Slow and steady is best**-Effective healing is a slow and stead improvement in health. A quick fix with a big punch often causes more problems than it solves.

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"In The Vault"

The Rotation Effect - It's For Real
Jane Sooby

How can you reduce erosion, control weeds, improve the soil, and increase yields?

Use a crop rotation. Farmers have been using rotations for centuries; researchers have been studying the "rotation effect" for decades. The rotation effect is the increase in yield that crops grown in rotation show compared with crops grown in monoculture.

A classical rotation involves alternating a legume like alfalfa or clover with a grass crop like corn or wheat. In a study done in Minnesota, continuous corn yielded 103 bu/acre while corn in rotation with alfalfa yielded 150 bu/acre. This rotation adds N to the soil (from the nitrogen-fixing legume), disrupts weed cycles, breaks pest and disease cycles by introducing a non-host species, and reduces erosion during fallow.

Despite extensive studies that have attempted to isolate what causes the rotation effect, no one factor (like soil nutrient levels or disease persistence) can definitively be held responsible for it. Instead, the rotation effect seems to result from a synergistic interrelationship of many factors, including improved soil structure and increased water-holding capacity.

Farmers who have experimented with rotations in western Nebraska have a lot to say about them. Scott Easterly, who farms west of Lorenzo, uses a 3-year dryland rotation of winter wheat-millet-fallow, a winter crop-spring crop-fallow rotation. He gets 2 crops in 3 years instead of the 1 crop in 2 years that wheat-fallow brings in. Using this rotation, he is successful in controlling winter annual weeds like downy brome and jointed goatgrass that become serious problems in the winter wheat-fallow system. Says Easterly, "If I vary my crops, I get rid of the weeds that have the same cycle." Growing millet allows him to control the winter annuals with tillage, while growing winter wheat similarly enables him to control late-season weeds.

Ken Disney, an organic farmer in Lodgepole, says, "Rotations are probably the most important thing we're doing." Disney elaborates on the winter wheat-millet-fallow rotation that Easterly uses by varying the spring crop, and using a legume cover crop during fallow. Millet, oats, amaranth, sunflower (both confectionery and oil), barley, and a current experiment with fall-planted peas are some of the spring crops Disney has grown. He has interseeded yellow clover and red crimson clover into the wheat stubble and then incorporated it the following year, with long-term benefits to soil fertility. His successful use of a legume cover during fallow contradicts popular opinion that there isn't enough precipitation in the region to support clover or other legume growth.

Disney feels that rotation is his best strategy for getting rid of grassy weeds like cheat, downy brome, and jointed goatgrass without the use of chemicals. He has also noticed that his ground is mellower and less hard than before he started rotating.

Dennis Demmel farms south of Ogallala and has experimented with rotations on his irrigated and dryland ground for a number of years. Demmel has made a number of observations about his rotations.

On his irrigated land, Demmel has considered a winter wheat-corn-sunflower-soybean rotation, but his experience indicates that winter wheat-sunflower-corn soybeans may be a better sequence for a number of reasons:

1. Wheat stubble is wet in early spring when corn needs to be planted. Sunflower is planted later, giving the ground more time to dry out. Also, he has more time to control volunteer winter wheat before planting sunflowers into wheat stubble.

2. Sclerotinia mold is a problem on sunflower and soybean back-to-back, especially on his low areas that tend to hold water.

3. The typical corn-soybean rotation, which Demmel started out using, required him to irrigate most of the summer. His lower ground never dried out. Sunflower uses a lot less water and wheat is only irrigated until July, so "using these two crops helps bring the ground out of an anaerobic state."

On Demmel's dryland acres, he uses a 4-year rotation of winter wheat-corn-sunflower-fallow with legume cover, as Disney does. Demmel plants the legume into the sunflowers during the last cultivation, then allows it to grow until the following June, when he destroys it by tillage (discing or sweeps).

Demmel has gotten higher wheat yields from wheat after sunflower-fallow than from wheat after wheat-fallow.

Demmel observed that there were fewer early weeds in ground that was going through a second round of rotation compared to an adjacent field that had just undergone its first round. He feels that "with successive series of rotations, weed problems become successively less." He also thinks that two years of row crops, like wheat-corn-sunflower-fallow, help to reduce weed problems more than a single year of row crops like wheat-corn-sunflower-fallow. The

former rotation helps eliminate annual grasses much better than the latter.

With a rotation, Demmel gets better weed control and improved yields, and increases his total cropped acres by 50% (by reducing total winter wheat-fallow acres by 50%). He also feels that it reduces erosion because the ground is covered with a crop more of the time. Accompanying the reduction of acres in summer fallow, Demmel noticed a significant reduction in fuel consumption.

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Types of Herbal Preparations:

- **Hydrotherapy**- This treatment not only cleans the wound but is also soothing and promotes healing. Spray a full one-quart bottle with a solution of water and dried herbs, such as plantain, yarrow, or calendula, on the wound three times daily for the first 24 hours or until the beginning of healing. After this, do twice a day until the wound heals.
- **Salve/Balm**-This treatment is soothing, promotes healing, and protects wounds from flies. Soak herbs, such as calendula, in olive oil for four hours. Strain the herbs and put the oil in a pot. Add beeswax to the oil, at a ratio of two ounces of wax to two and one-quarter cup of salve. Warm to melt the wax. Apply the salve and use a bandage to prevent the animal from bothering the wound. Wash daily and reapply the salve daily. Refrigeration is not required to store the salve.
- **Wash/Tea/Infusion**-This treatment is appropriate for cleaning a wound. Teas are tonics, washes are diluted teas, and infusions are stronger teas in which the herb, often roots, is put in a pot of boiling water and allowed to steep overnight.
- **Herbal wrap**-This treatment is soothing and promotes healing of a lame area or burise. Make an infusion of herbs, such as dandelion blossoms or calendula, and soak a cloth in the infusion. Wrap the cloth on the sore spot.
- **Tinctures**-This treatment is a stronger preparation. In a quart jar, mix dried herbs or cover fresh herbs in cheap vodka. Cover and steep for two weeks. Store in a dark place and shake daily. Mix half a dropper full in with feed or give them orally through an herbal ball.
- **Herbal balls**-Mix dried herbs with oats and peanut better to make the treatment more palatable for the animal.

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Rotations can be as simple as the two-year wheat-fallow rotation, or as complex as 8- or 10-year rotations. Many factors need to be considered in designing a rotation for a farm. Neighbors who have tried different rotations may be the best source of information you can get. Extension educators can make a number of suggestions, too, The literature is crowded with information on rotations. If you would like to try it out, ask around and think about what crops would fit best on your farm.

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Upcoming Events

Buy Fresh Buy Local Nebraska: Local Foods Celebration!
November 12th at the Isles in Lincoln, Nebraska. Come join the celebration of local farmers and local foods with the Buy Fresh Buy Local annual gathering! The Isles is located at 6232 Havelock Ave., Lincoln, NE. Visit: www.buylocalnebraska.org for details.

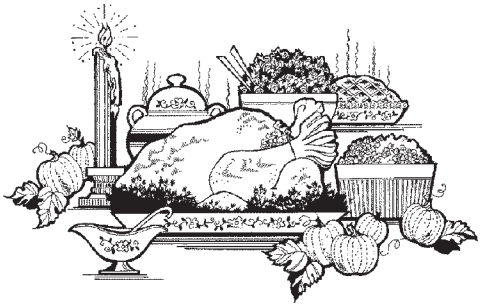
3rd Annual Western Sustainable Ag Crops and Livestock Conference and 2nd Annual Organic Wheat Conference
Grey Goose Lodge, Ogallala, Nebraska. **December 11-12, 2009.** Email Liz at esarno2@unlnotes.unl.edu for complete details. For sponsorship and exhibitor information email William at: healthyfarms@gmail.com

Center for Grassland Studies Fall 2009 Seminar
Free and open to the public. Contact: Pam Murray, 402-472-4101, pmurrary1@unl.edu

Monday, November 9, 2009 3:00 p.m. - 4:00 p.m. Karie Decker, Coordinator, Invasive Species Project at the Nebraska Cooperative Fish and Wildlife Research Unit based at UNL, will present ***"Nebraska Invasive Species Project: Monitoring, Mapping, Risk and Management."*** Refreshments Available. http://www.grassland.unl.edu East Campus Union, 35th St. and East Campus Loup, Lincoln, NE.

Monday, December 7, 2009 3:00 p.m. - 4:00 p.m. Tala Awada, Associate Professor, Schools of Natural Resources, UNL, "**Eastern Red Cedar: Ecophysiology and Ramifications of Its Invasion on Ecosystem Processes in Nebraska.**" Additional Public Info: Free and open to the public. http://www.grassland.edu/semf09.html East Campus Union, 35th and East Campus Loop, Lincoln, NE.

Happy Thanksgiving!



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