Contact: Andrew Sharpley Phone Number: 479-575-5721 Email: sharpley@uark.edu

Category: Multi-purpose projects that serve more than one of the above
Applied Research: Yes
Pilot Project: No
Title: Watershed Research and Education Center
City: Fayetteville
State: AR
Description: Input of phosphorus (P), nitrogen (N), and other nutrients are essential for profitable crop and livestock production in the Ozark Highlands; however, offsite nutrient movement in surface runoff, subsurface water and gas emissions can impair the quality of receiving water resources. While some regional conservation measures have helped to reduce the movement of nutrients, there needs to be an integrated farm-based strategy using BMPs for both N and P, to provide socio-economic sustainable production of agricultural commodities. These practices need to focus on farm inputs, manures, and land use selection. Manure BMPs involve evaluating litter incorporation and decreased nutrient loss in water and gas flows. Land-use BMPs involve assessing the efficacy of multi-stage riparian buffers that include harvestable biofuel or cellulosic plants and wetlands to trap sediment and nutrient laden urban and farm land runoff. Grazing BMPs evaluate exclusion of cattle from streams by fencing alternative feed and water source location. Although many BMPs have been adopted through voluntary and regulatory channels, historically there has been limited on-farm demonstration of water quality improvements from implemented BMPs at regional and national levels. Demonstration activities outlined in this proposal will be conducted on a water quantity and quality monitored watershed (200+ ha) impacted by urban runoff, broiler production, and beef grazing systems typical to Northwest AR and much of the Southeast U.S. The watershed is comprised of a beef grazing, poultry broiler, and agroforestry farm operating under the auspices of the Watershed Research and Education Center at the University of Arkansas, Division of Agriculture, Agricultural Research and Extension Center in Fayetteville, AR. The farm is at the agricultural and urban interface of a rapidly growing population center, with runoff entering the farm from an adjacent high density residential development. The Watershed and Stakeholder Education Center (WSEC) will be created to specifically target a variety of stakeholder groups from cow/broiler/pasture producers to urban dwellers and stakeholder from ages K-12 to adult. The Center will serve as a forum to transfer evolving and innovative sustainable management strategies to these r groups. A key component of the Center will involve a stakeholder Executive Council to ensure stakeholder input to WSEC activities. The Council will include Arkansas (AR) Farm Bureau, Poultry Producers, NRCS Conservation Districts, Agriculture Industry, regional watershed groups, and the City of Fayetteville; this Council will advise the project director and co-investigators on which BMPs should be implemented, demonstrated and educated. Once BMPs are established, the Council will guide the focus of field days, walking tours, educational activities, and demonstrations. This involvement will facilitate stakeholder ownership in evolving WSEC as a nationally recognized forum for technology transfer to this underserved clientele. The Center will also provide a unique opportunity to demonstrate to EQIP-eligible farmers how BMPs can reduce the delivery of storm water, sediments, nutrients and other contaminants to streams, showing how integrated whole-farm BMP strategies can work along side urban development and encroachment into rural areas.

Category: Water Quality
Applied Research: Yes
Pilot Project: No
Title: Verification of Sustainable Farming in Arkansas: The Discovery Farm Project

City: Fayetteville
State: AR
Description: Farming in Arkansas is under increasing pressures to manage nutrients in an environmentally sustainable manner. In many sectors of the farming community, this has created severe constraints to remaining economically viable. For instance, beef grazers are at an economic disadvantage by not being able to apply available poultry litter to provide nutrients and organic matter essential for optimum forage production.

The most widely accepted approach to reducing nutrient losses from livestock operations within a watershed is developing and implementing nutrient management plans on a farm-by-farm basis. Nutrient management plans are prepared by trained professionals to tailor manure application rates and conservation practices to individual field and farms. Nutrient management planning must be an integral part of today's livestock operations, however two simple questions remain: How effective is the planning process and how can livestock operations most efficiently, economically, and effectively implement their plans?

As most CP verification has been done at a small plot or field scale, little information is available (regionally or nationally) on how effective these practices are at reducing nutrient loss, how they may work synergistically, (i.e., the combined benefits of several CPs is greater than their individual benefit), where they may be most effective, and how long it will be before reduction efficiencies are observable and maximized in a whole-farm setting. While there are excellent programs in place such as NMP guidelines and nutrient loss risk assessment tools (P Index), there are no whole-farm studies quantifying their overall effectiveness.
Because P-based plans are already mandatory for many livestock producers, the use of logical temporal land-grant progression of research and development to education and technology transfer must be modified to be conducted simultaneously with a more continuous exchange where researchers, extension specialists and agents, plan writers, natural resource professionals and livestock producers work together so that research information and needs can be identified and solved in a timely and efficient manner. Finally, with the potential development of nutrient crediting programs that will involve point and nonpoint sources within any given watershed, on-farm verification is a critical need to document environmentally sound stewardship of Arkansas farming and accountability within multi-land use watersheds, particularly with increasing urban encroachment of agricultural lands.

Through on-farm research, demonstration, and verification programs, the overall objective is to help increase the profitable implementation of nutrient management plans while increasing their effectiveness to minimize nutrient losses from livestock operations in Arkansas. Specific objectives are to:
1. Conduct on-farm research, monitoring, and assessment of conservation practice (CP / Best Management Practice) adoption to determine their nutrient loss reduction efficiencies within in the given economic constraints of current representative farming systems in Arkansas
2. ..Provide on-farm verification and documentation of Nutrient Management Plan (NMP) adoption and implementation, nutrient loss reductions in support of sound environmental farm stewardship.
3. Develop and deliver educational programs from information gathered on these farms that will assist agricultural producers in implementing nutrient management plans.

Category: Water Quality
Applied Research: Yes
Pilot Project: No
Title:

City:	Fayetteville
State:	AR
Description:	Phosphorus is the primary limiting nutrient in the eutrophication of freshwater in many areas (e.g., rivers and lakes of the South Island of New Zealand and USA). Recent work has highlighted the lack of knowledge connecting primary sources of P loss such as effluent treated fields and downstream sites of eutrophication. Project researchers found that transfer of P in highly mobile carriers called flocs mediates much of this connection. These, low-density, light laminar particles are prevalent in effluent treated fields due to enhanced microbial activity. During a runoff event on these soils up to 80% of P lost can be mediated by flocs. Thus, P transport can occur over much larger distances ever thought possible compared to P associated with aggregates of distinct particle size. This has major implications for the location and management of effluent blocks and may also negate or dwarf other P loss pathways. Our objectives are to take advantage of research facilities at the University of Arkansas, Fayetteville, Arkansas in studying recently established swine systems modeled on the New Zealand dairy system, where liquid manure or slurry is land applied to pastures. Specifically, this will involve the treatment of slurry or manure reduce P content (solid/liquid separation) and P solubility (treatment with P sequestering by-products), biological and chemical analysis of effluent and their changes from algal-available and non-available forms during runoff and whilst in the stream. This will use facilities such as solid state Nuclear Magnetic Resonance, large-scale rainfall simulation, 60Co gamma irradiation (for cessation of microbial activity) by a nuclear facility and the use of dedicated large- scale fluvial simulators. The number of facilities and expertise offered at this one site is the worlds best. Collaboration will be primarily with Profs B E. Haggard and A.N. Sharpley of the University of Arkansas, recognised experts in P transport in agricultural and fluvial systems.The outcome of the proposed research is to produce a set of guidelines and best management practices to mitigate the impact of phosphorus on surface water quality while maintaining pasture production and economic goals.This research provides us with a quantum leap in mitigation practices well researched by scientists at the University of Arkansas. These include the use of soil amendments to decrease phosphorus solubility. AgResearch, New Zealand brings to the table world-leading knowledge concerning the sources of phosphorus losses from pastoral systems on a farm scale. Scientists at the University of Arkansas require knowledge to better target where on the farm the use of mitigation strategies, like soil amendments.
Category:	Water Quality
Applied Research:	Yes
Pilot Project:	No
Title:	Investigating Flow Pathways and Phosphorus Loss at Landscape and Watershed Scales in Northwest Arkansas
City:	Fayetteville
State:	AR

Description: Overall objectives are to identify critical surface and subsurface flow pathways that act to connect and transport phosphorus (P) from source areas to streams and thereby determine P export at a watershed scale, as a function of landscape position. Specifically,
1.Identify major surface and subsurface flow pathways and determine surface runoff potential at various landscape positions in a watershed.
2.Determine how different landscape positions are hydrologically connected and how this influences P movement to streams.
3.Quantify the loss of P as a function of pasture management, manure application, and landscape position.
This research will evaluate the magnitude and importance of spatially and temporally variable source area hydrology in watersheds typical of Northwest Arkansas and will allow more accurate representation of landscape hydrology, as it determines P transport in P Indices, and enable more reliable selection and placement of P-based conservation measures (Best Management Practices, BMPs) within watershed to most cost-effectively mitigate P loss from agricultural landscapes. In all approaches used, nitrogen (N) transport will also be determined to evaluate any potential tradeoffs in proposed BMP implementation strategies.

Contact: Anita Thompson Phone Number: 608-262-0604 Email: amthompson2@wisc.edu

Category: Grazing / Range Management
Applied Research: Yes
Pilot Project: No
Title: Surface Water Quality Impacts of Management Intensive Rotational Grazing
City: Madison
State: WI
Description: To install surface water quality monitoring stations on various farms on different types of soil to provide information on the water quality impacts of over wintering areas on MIRG farms over a range of soil and physiographic settings

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Contact: Anne Lynn Phone Number: 443-482-2908 Email: anne.lynn@md.usda.gov

Category: Water Quality
Applied Research: Yes
Pilot Project: No
Title: CEAP Choptank River Watershed Project
City:
State: MD
Description: Multi-agency effort to quantify the environmental benefits of conservation practices, especially those practices that protect and improve water quality.

Contact: Brian Gardner Phone Number: 208-882-4960 Email: Brian.Garder@id.usda.gov

Category: Forestry
Applied Research: No
Pilot Project: Yes
Title: Dynamic Forested Soil Properties Study
City: Moscow
State: ID

Description: A national USDA-NRCS pilot study on the effects of logging practices on soil quality. Sampling and analysis on ash-capped forest soils in northern ID on both mature and extensively harvested sites. This is a cooperative effort with USDA-NRCS, USDA-USFS, the University of ID, and the Intermountain Forest Nutrition Cooperative.

Category: Forestry
Applied Research: No
Pilot Project: Yes
Title: Dynamic Soil Properties - Forested Soils Pilot
City: Moscow
State: ID
Description: This is part of the initial pilot for looking at changes in soil quality through different forest management practices. Both vegetative and soil characteristics were examined for ten sites, both recently logged and mature stands, in northern ID on soils high in volcanic ash. This is a cooperative effort with NRCS-ID, USFS Rocky Mountain Research Station, University of ID, the Intermountain Forest Tree Nutrition Cooperative, the NRCS-Soil Quality Team, and NRCS-Soil Survey Division.

Contact: Bud Malone Phone Number: 302-856-2585 Email: malone@udel.edu

Category: Water Quality
Applied Research: Yes
Pilot Project: No
Title: Catastrophic Poultry Mortality Composting Management
City:
State: DE
Description: To demonstrate and educate producers on procedures for catastrophic mortality composting management to reduce potential water, soil and air quality environmental impact.

Contact: Carey Williams Phone Number: 732-932-5529 Email: cwilliams@aesop.rutgers.edu

Category: Grazing / Range Management
Applied Research: Yes
Pilot Project: No
Title: BMP Showcase for Equine Grazing
City: New Brunswick
State: NJ
Description: Implement and demonstrate on-farm best management practices for small animal and equine operations. The activities will: 1) establish varying equine pasture management systems for demonstration purposes, 2) establish manure handling and storage practices and protocols for control of polluted runoff, 3) address clean water runoff around the barnyard and surrounding areas, and 4) provide numerous opportunities to transfer knowledge to small animal operators throughout New Jersey.

Contact: Carrie Laboski Phone Number: 608-263-2795 Email: laboski@wisc.edu

Category: Nutrient management

Applied Research: Yes
Pilot Project: No
Title: On-farm Demonstration/Verification of Phosphorus Recommendations in Potato and Leaching Potential in Sandy Soils
City: Hancock
State: WI
Description: Verify university phosphorus recommendations for potato on production fields. Determine potential P loss to groundwater in sandy soils under potato production.

Contact: Chad Ellis Phone Number: 352-338-9532 Email: chad.ellis@fl.usda.gov

Category: Grazing / Range Management
Applied Research: No
Pilot Project: Yes
Title: Cattle Behavior on Florida Rangelands
City: Sarasota
State: FL
Description: This project is looking at beef cattle behavior on Florida native rangelands with use of GPS-Tracking Collars. USDA-NRCS Range Management Specialists are using this information to assist in developing grazing systems and to address water quality concerns.

Contact: Christopher Baxter Phone Number: 608-342-1388 Email: baxterch@uwplatt.edu

Category: Nutrient Management
Applied Research: Yes
Pilot Project: No
Title: Sediment, N & P in Runoff from Single Crop Watersheds
City: Platteville
State: WI
Description: Determine the runoff water quality implications of field level nutrient and tillage management on a livestock operation in Southwest Wisconsin.

Contact: Christopher C. Obropta Phone Number: 732-932-4917 Email: obropta@envsci.rutgers.edu

Category: Nutrient Management
Applied Research: Yes
Pilot Project: No
Title: Equine BMP Project
City: New Brunswick
State: NJ
Description: Implementing Equine BMP's at the Rutgers University Equine Science Center to Demonstrate Equine BMP's

Category: Soil Quantity / Erosion
Applied Research: No
Pilot Project: Yes

Title: Vegetated Tailwater Recovery System
City: New Brunswick
State: NJ
Description: Implement a vegetated channel system to encourage uptake of nutrients and improve infiltration of irrigation runoff into the soil. The activities will: 1) incorporate turf grass and native warm season grasses into the runoff conveyance system, 2) use a water and nutrient budget as a basis for monitoring results, 3) test the recovered water for disease-causing fungus and bacteria, and 4) recommend changes to the NRCS technical standard for tailwater recovery.

Contact: Dan Shaw Phone Number: 651-296-0644 Email: dan.shaw@bwsr.state.mn.us

Category: Invasive Species Control
Applied Research: No
Pilot Project: Yes
Title: Invasive Species Management CIG
City:
State: MN
Description: Investigate invasive species management techniques (on TNC lands), with goal to develop a conservation practice standard.

Contact: Daniel Gimenez Phone Number: 732-932-9477 Email: gimenez@envsci.rutgers.edu

Category: Soil Quantity / Erosion
Applied Research: Yes
Pilot Project: No
Title: Soil Quality Management Practices on Ag Land
City: New Brunswick
State: NJ
Description: Implement the soil management techniques in real-crop situations to determine the effectiveness and applicability of the recommended measures. The activities will: 1) establish the recommended practices on several crop fields, 2) monitor the crop response and changes in soil quality indicators, 3) develop outreach materials and results reports, and 4) recommend a draft NRCS technical standard for soil management.

Contact: David Eigenberg Phone Number: 229.995.6001 Email: deigenberg@gaswcc.org

Category: Irrigation
Applied Research: No
Pilot Project: Yes
Title: Protecting Agricultural Water Rights by Quantifying Use.
City: Dawson
State: GA
Description: Place measuring devise (meters) on EPD permitted agricultural water withdrawal sites. Record annual water use for policy decisions and assist with training irrigators on using the provided meter as a management tool.

Contact: Dennis Frame Phone Number: 715-983-2257 Email: drframe@facstaff.wisc.edu

Category: Nutrient Management
Applied Research: Yes
Pilot Project: No
Title: Impacts of Production Agriculture on the Evironment
City: Pigeon Falls
State: WI
Description: Conduct water quality monitoring on working farms to determine impact of BMPs. Provide research-based information to public policy formation processes in areas related to agricultural production and natural resource management.

Contact: Dennis Potter Phone Number: 573-876-0907 Email: dennis.potter@mo.usda.gov

Category: Other category / fill in the blank
Applied Research: No
Pilot Project: Yes
Title: Use of EM Technology to Supplement Soil Surveys
City: Columbia
State: MO
Description: The Missouri NRCS soils staff has been using the EM-38 tool to provide additional definition in the soil profile to find sand deposits, fragipans, changes in soil texture and other unique features not visible from the soil surface. These aspects can have major impacts on how crop fields are managed.

Contact: Dewey Caron Phone Number: 302-831-8883 Email: dmcaron@udel.edu

Category: Other category / fill in the blank
Applied Research: Yes
Pilot Project: No
Title: Native Pollinator Brochures
City:
State: DE
Description: Research and produce two color brochures detailing native plantings and BMPs to benefit native insect pollinators. The information will be used to educate farmers, landowners, and agencies on methods of providing habitat and forage plants for native insect pollinators.

Contact: Doug Martin Phone Number: 775-586-1610 x22 Email: dmartin@ntcd.org

Category: Multi-purpose projects that serve more than one of the above
Applied Research: No
Pilot Project: Yes
Title: Utilizing Forest Sash for Bio-fuels/erosion Control
City: Lake Tahoe
State: NV
Description: Exploration of different opportunities to utilize slash created within the environmentally sensitive Tahoe Basin.

Category: Water Quality
Applied Research: Yes
Pilot Project: No
Title: Improving Lake Tahoe Clarity
City: Lake Tahoe
State: NV
Description: Multi-task effort to reduce erosion, capture sediment and nutrients prior to entering Lake Tahoe, forest fuel management, homeowner BMP's, etc.

Contact: Douglas Witte Phone Number: 602-542-2696 Email: dwitte@land.az.gov

Category: Drainage / Water Management
Applied Research: No
Pilot Project: Yes
Title: Wilcox / San Simon Flood Control Project
City:
State: AZ
Description: Construction of several spreader dikes and erosion control structures to reduce risk of down stream flooding. Also serves as open range livestock water containment

Category: Invasive Species Control
Applied Research: Yes
Pilot Project: No
Title: Governors Invasive Species Council
City:
State: AZ
Description: Council appointed by the Governor. 21 appointee's from various industries and state/federal agencies will develop a strategic plan by June 30, 2008

Category: Watershed Planning
Applied Research: Yes
Pilot Project: No
Title: Rapid Watershed Assessment
City:
State: AZ
Description: NRCS sponsored assessments of various watersheds throughout the state. Seven watersheds completed. Four slated for completion in 2007

Contact: Dr Henry Lin Phone Number: 814-865-6726 Email: henrylin@psu.edu

Category: Water Quantity
Applied Research: Yes
Pilot Project: No
Title: Modeling Soil Hydraulic Properties
City: University Park
State: PA

Description: Collecting Soil Hydraulic Conductivity Data for Soils in Different Land Uses.

Contact: Dr. Charles Gresham Phone Number: 843-546-1013 Email: cgrshm@clemson.edu

Category: Invasive Species Control
Applied Research: Yes
Pilot Project: No
Title: Control of Beach Vitex with Native Coastal Grasses
City: Clemson
State: SC
Description: This research is directed at resorting coastal beach dunes invaded with beach vitex with native coastal grasses. Project is in coordination with Clemson University and USDA-NRCS Brooksville Plant Materials Center.

Category: Wildlife Habitat
Applied Research: Yes
Pilot Project: No
Title: Coastal Dune Restoration with Cultural Benefits
City: Sullivan Island
State: SC
Description: This project centers on restoring coastal habitats with Muhlenbergia capillaries, i.e., "sweetgrass" on sites where it is native, and that can uesd for coiled basketry by the Gullah/Geechee communities around Mt. Pleasent, SC. This project is being conducted by Clemson University & USDA-NRCS Brooksville Plant Materials Center.

Contact: Dr. Erin P. Myers Phone Number: 352-338-9547 Email: erin.p.myers@fl.usda.gov

Category: Invasive Species Control
Applied Research: No
Pilot Project: Yes
Title: Incentive Program Matrix for Control of Invasive Species
City: Gainesville
State: FL
Description: This project is a joint effort among federal and state agencies and NGO's to provide an informational database to assist landowners seeking information and program assistance to combat invasive species on private lands in Florida.

Contact: Dr. Greg Binford Phone Number: 302-831-2146 Email: binfordg@udel.edu

Category: Water Quality
Applied Research: Yes
Pilot Project: No
Title: Minimizing Nutrient Losses from Temporary Storage of Poultry Litter
City:
State: DE
Description: To demonstrate and educate crop producers who use poultry litter on how to use applicable conservation practices when using temporary in-field stockpiling of poultry litter.

Category: Water Quality
Applied Research: Yes
Pilot Project: No
Title: Minimizing Nutrient Losses from Temporary Storage of Poultry Litter
City:
State: DE
Description: To demonstrate and educate crop producers who use poultry litter on how to use applicable conservation practices when using temporary in-field stockpiling of poultry litter.

Contact: Dr. Jeffrey Strock Phone Number: 507-752-5064 Email: jstrock@umn.edu

Category: Water Quality
Applied Research: Yes
Pilot Project: No
Title: Soil and Water Management Solutions for Crop and Livestock Producers
City: Lamberton
State: MN
Description: The goals of this research program focus on developing integrated soil and water management solutions for crop and livestock producers that improve the quality of life for all citizens in Minnesota. The research program combines agronomic, ecological, and engineering approaches in order to guide soil and water resource management decisions that consider all three factors. Research consists of integrated research projects that focus on optimizing agricultural production and profitability while reducing environmental degradation. Research project themes include:
1.Nitrogen management and the soil's capacity to supply plant-available nitrogen through mineralization;
2.Nitrogen and carbon dynamics, storage, and losses under natural and managed systems;
3.Diversified cropping system for profitability and environmental quality;
4.Soil physical and hydraulic properties under natural and managed systems;
5.Soil water management and conservation;
6.Vegetated open-channel drainage systems (ditches);
7.Nutrient retention basins (engineered wetlands).

Contact: Dr. John Ball Phone Number: 605-688-4737 Email:

Category: Air Quality
Applied Research: Yes
Pilot Project: Yes
Title: Odor Control of Confinement Operations
City: Brookings
State: SD
Description: This project will study the effects of various windbreak size trees and densities on H2S concentrations downwind from animal feeding operations. Once the data has been completed a model will be developed so producers can determine the benefit of planting, both in terms of density and placement, on reduction of odor to their neighbors.

Contact: Dr. John Lory Phone Number: 573-884-7815 Email: LoryJ@missouri.edu

Category:	Nutrient management
Applied Research:	Yes
Pilot Project:	No
Title:	Spatial Nutrient Management Planner Software
City:	Columbia
State:	MO
Description:	NRCS provided funding to the University of Missouri-Columbia for Dr. John Lory to update and improve his SNMP software and convert the coding from an ArcView format to ArcGIS making it compatible with USDA CCE computer systems. This program works in conjunction with the Manure Management Planner (MMP) program developed at Purdue to assist in developing comprehensive nutrient management plans.

Contact: Dr. O. Onokpise Phone Number: 850-412-7045 Email: o.onokpise@worldnet.att.net

Category:	Invasive Species Control
Applied Research:	Yes
Pilot Project:	No
Title:	Bio-Control of Cogongrass with Native Grasses
City:	Tallahassee
State:	FL
Description:	This research is looking at the allelopathy effects of native grasses such as Muhlenbergia spps., as a control on cogongrass, a joint project between Fla. A&M Univ. & USDA-NRCS Brooksville Plant Materials Center.

Contact: Dr. Vulinec Phone Number: 302-857-6457 Email: kvulinec@desu.edu

Category:	Other category / fill in the blank
Applied Research:	Yes
Pilot Project:	No
Title:	Bat Habitat Restoration Project
City:	Smyrna
State:	DE
Description:	Examining bat activity, behavior, species, occurrence, habitat acoustical complexity and habitat use. Combined research/teaching project to enhance foraging habitat and roosting sites for bats.

Contact: Frank Clearfield Phone Number: 336-370-3336 Email: frank.clearfield@gnb.usda.gov

Category:	Multi-purpose projects that serve more than one of the above
Applied Research:	Yes
Pilot Project:	No
Title:	Producer Survey on BMP Adoption
City:	
State:	National

Description: National survey of producers on adoption of BMP's and identification of potential obstacles toward adoption. CTIC is the sponsoring organization and we are working with Fertilizer Institute, media organizations, and commodity groups.

Contact: Frank Easter Phone Number: 509-323-2961 Email: Frank. Easter@wa.usda.gov

Category: Air Quality
Applied Research: No
Pilot Project: Yes
Title: Horse Heaven Hills Field Border Trial
City: Prosser
State: WA
Description: Demonstrate the establishment and function of grass field borders to reduce wind erosion from turning tillage equipment next to highways

Category: Air Quality
Applied Research: No
Pilot Project: Yes
Title: Horse Heaven Hills Vegetative Wind Strip Trials
City: Prosser
State: WA
Description: Determine what woody and tall grass species would survive and function in a 6 inch rainfall area as a wind strip and not collect mustard and Russian thistles.

Category: Other category / fill in the blank
Applied Research: No
Pilot Project: Yes
Title: Anatone Living Snow Fence
City: Anatone
State: WA
Description: Cooperative project with producer, CD, county roads department and state highways to demonstrate the use of a vegetative snow fence in reducing dangerous drifting snow across highways.

Category: Other category / fill in the blank
Applied Research: No
Pilot Project: Yes
Title: Lincoln County Living Snow Fences
City: Davenport
State: WA
Description: Cooperative pilot with DOT, CD and producer to test use of vegetative snow fence to reduce dangerous drifting snow across highways.

Category: Other category / fill in the blank
Applied Research: No
Pilot Project: Yes
Title: Anatone Living Snow Fence
City: Anatone

State: WA
Description: Cooperative effort with DOT, CD and producer to test the use of living snow fences to reduce drifting snow across highways.

Category: Other category / fill in the blank
Applied Research: No
Pilot Project: Yes
Title: Lincoln County Living Snow Fence
City: Davenport
State: WA
Description: Cooperative demonstration project with producer, CD, county roads department and state highways demonstrating the use of a well-designed vegetative snow fence to reduce dangerous drifting snow across highways.

Category: Soil Quantity / Erosion
Applied Research: No
Pilot Project: Yes
Title: Horse Heaven Hills Vegetative Wind Strips
City: Prosser
State: WA
Description: Compare both woody and tall grass species for use in wind strips in a 6-inch rainfall area. Also test how they collect mustard and Russian thistles.

Category: Soil Quantity / Erosion
Applied Research: No
Pilot Project: Yes
Title: Horse Heaven Hills Field Border trial
City: Prosser
State: WA
Description: Demonstrate that a grass field border could survive and function in a 6 inch rainfall area and reduce wind erosion caused by turning tillage equipment adjacent to highways.

Contact: Frank Pinto Phone Number: 908-735-0733 Email: ddicheck@northjerseyrcd.org

Category: Water Quantity
Applied Research: No
Pilot Project: Yes
Title: River Friendly Farms for the Neshanic River Watershed
City: Clinton
State: NJ
Description: Implement a conservation practice adoption recognition program in the Neshanic River watershed. The activities will: 1) provide a means for farmers to assess their farming operations for impacts to water quality, 2) provide technical information and resources for farmers to understand and adopt best management practices that relate to water quality, 3) provide peer recognition of farmers who adopt best management practices through local awards programs, and 4) provide public recognition of farmers who adopt best management practices through media coverage and signage.

Contact: Frank Schindler Phone Number: 605-688-4278 Email: Frank.Schindler@sdstate.edu

Category: Water Quality
Applied Research: Yes
Pilot Project: No
Title: Relationship between Soil Test P and Runoff P
City: Brookings
State: SD
Description: Project will be used to establish a relationship between soil test P and runoff P for selected SD soils using simulated rainfall.

Contact: Gary Back Phone Number: 775-753-4151 Email: elko@srk.com

Category: Grazing / Range Management
Applied Research: Yes
Pilot Project: No
Title: Brush Management Demonstration Plots
City: Elko
State: NV
Description: Disked, burned and aerated plots comparing the effectiveness of controlling brush for the regeneration of native grasses and forbs.

Contact: Gary Timberman Phone Number: 856-451-2422 Email: bonhammj@yahoo.com

Category: Water Quality
Applied Research: No
Pilot Project: Yes
Title: Use of Precision Ag to Enhance Water Quality
City: Deerfield
State: NJ
Description: Educate the agricultural community about the benefits of implementing precision agriculture techniques while at the same time reducing inputs and protecting water quality. The activities will: 1) provide precision agriculture products (EZ-Guide Plus and EZ-Guide 500) to up to 50 (fifty) agricultural producers, 2) monitor the effectiveness of the technology through producer records of fertilizer and pesticide use, and 3) and develop results reports for use by the conservation partnership.

Contact: Gene Mack Phone Number: 308-236-5015 Email: Gene_Mack@fws.gov

Category: Grazing / Range Management
Applied Research: No
Pilot Project: Yes
Title: Implementation and Evaluation of the Grazing Manager Software
City: Kearney
State: NE

Description: To restore and enhance rangeland health while sustaining profitable cattle ranching through implementation and evaluation of the newly developed The Grazing Manager software. TGM will be used as a catalyst to install complimentary conservation practices and foster long-term implementation of ecologically sound grazing systems. TGM is computer based decision tool for ranchers and range managers. This unique and innovative decision tool has been designed to assist ranchers to inventory forage and animal resources, and plan, monitor and adjust grazing management in response to current year's forage growth conditions.

Contact: George Kraft Phone Number: 715-346-2984 Email: gkraft@uwsp.edu

Category: Water Quality
Applied Research: Yes
Pilot Project: No
Title: Nitrate and Pesticide Groundwater Conditions Beneath the WASI Platteville Pioneer Farm
City: Platteville
State: WI
Description: This proposed study will investigate nitrate and pesticide impacts on groundwater at the University of Wisconsin - Platteville Pioneer Farm, as well as provide insight into the groundwater hydrology there. The Pioneer Farm is largely representative of the physical and agricultural conditions occurring in the more intensively cultivated part of the Northern Mississippi Valley Loess Hills (NMVLH; Major Land Resource Area 105; NRCS, 2000)

Category: Water Quantity
Applied Research: Yes
Pilot Project: No
Title: Effects of Groundwater Pumping on Lake Levels
City: Stevens Point
State: WI
Description: The goal of this project is to develop an understanding of how modern groundwater pumping practices affect groundwater levels and surface water resources in a portion of central Wisconsin. The project will (1) gather new stream flow and water elevation data to supplement the existing meager record; (2) examine the new and historical flow and water level record to determine if pumping-induced changes are discernable; and (3) combine an improved landscape water balance with a groundwater flow model to infer past and predict future effects of groundwater consumption on lake levels, groundwater levels, and stream flows.

Contact: Hans Kok Phone Number: 208-885-5971 Email: hanskok@uidaho.edu

Category: Soil Quantity / Erosion
Applied Research: Yes
Pilot Project: No
Title: Mike Thomas Direct Seed
City: Prescott

State: WA
Description: Test home-made chisel direct seed drill and chemical fallow

Category: Soil Quantity / Erosion
Applied Research: Yes
Pilot Project: No
Title: Jack Ensley Direct Seed
City: Colfax
State: WA
Description: Test home-made no till air drill on steep slopes and alternative crops

Category: Soil Quantity / Erosion
Applied Research: Yes
Pilot Project: No
Title: Frank Lang Direct Seed
City: Garfield
State: WA
Description: Test direct seed, burning crop residues, three-year rotations on high residue crops.

Category: Soil Quantity / Erosion
Applied Research: Yes
Pilot Project: No
Title: Barker/Shoun Direct Seed
City: Dayton
State: WA
Description: Test direct seed, three year rotations with peas and burning crop residue.

Category: Soil Quantity / Erosion
Applied Research: Yes
Pilot Project: No
Title: Schultheis Frams Direct Seed
City: Colton
State: WA
Description: Test direct seed comparing two different drills in a five-year crop rotation with grass seed in the rotation.

Category: Soil Quantity / Erosion
Applied Research: Yes
Pilot Project: No
Title: John Rea Direct Seed
City: Ritzville
State: WA
Description: Test the use of direct seed system including crop rotation, nutrient management, pest management and erosion control

Category: Soil Quantity / Erosion
Applied Research: Yes
Pilot Project: No

Title: Ron Jirava Direct Seed
City: Ritzville
State: WA
Description: Test the effectiveness of direct seed system and annual cropping

Category: Soil Quantity / Erosion
Applied Research: Yes
Pilot Project: No
Title: Paul Williams Direct Seed
City: Davenport
State: WA
Description: Test the effectiveness of using three different no-till drills and alternative crops

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Contact: Henry Miller Phone Number: 402-857-2434 Email: hanksmiller@yahoo.com

Category: Multi-purpose projects that serve more than one of the above
Applied Research: No
Pilot Project: Yes
Title: Riparian Buffer Development
City: Niobrara
State: NE
Description: To establish value-added riparian buffers and native prairie restoration on the Omaha Nation and Santee Nation Reservations. These models will be used as educational and functional examples of innovative conservation for other tribal lands and the greater community. The following products will be established for production and marketing in addition to their use in riparian buffers: Native Wildflowers, Woody Florals, Native Fruit and Nut Trees and Native Grasses. Given the complementary nature of such practices to tribal traditions, this project not only addresses environmental health, but also the health and economic challenges of the people within current tribal conditions.

Contact: Hans Kok Phone Number: 208-885-5971 Email: hanskok@uidaho.edu

Category: Soil Quantity / Erosion
Applied Research: Yes
Pilot Project: No
Title: John Aeschelmen Direct Seed
City: Pullman
State: WA
Description: Test the impact of using direct seed systems on reducing runoff and improving soil quality.

Contact: Isaac Wolford Phone Number: 304-284-7580 Email: Isaac.Wolford@wv.usda.gov

Category: Nutrient management
Applied Research: Yes
Pilot Project: No
Title: Nutrient Management Software
City: Morgantown

State: WV
Description: Development of a nutrient management database for the preparation of nutrient management plans using the existing Virginia Nutrient Management (NUT_MAN) software

Category: Soil Quantity / Erosion
Applied Research: Yes
Pilot Project: No
Title: Cover Crops Value for Vegetable Production
City: Morgantown
State: WV
Description: Demonstrate the value for nutrient uptake and soil quality on strawberry production sites. A series of successive plantings are being made (Aug15-Nov1, 2007).

Contact: J. Mark Powell Phone Number: 608-264-5044 Email: jmpowel2@wisc.edu

Category: Air Quality
Applied Research: Yes
Pilot Project: No
Title: Air Emissions from Dairy Farms
City: Madison
State: WI
Description: The purpose of these studies is to obtain representative and accurate NH3 emission data from dairy production.

Contact: Jay Springer Phone Number: 973-903-0412 Email:

Category: Nutrient management
Applied Research: No
Pilot Project: Yes
Title: Animal Waste Composting Demo Project
City: Green Township, Sussex Co
State: NJ
Description: A small commercial facility will compost animal waste and produce a saleable product utilizing specific commercial technology and turning equipment. Ag Choice

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Contact: Jeff Knight Phone Number: 775-688-1180 Email: jknight@agri.state.nv.us

Category: Invasive Species Control
Applied Research: Yes
Pilot Project: No
Title: Tamarisk Control in Northern Nevada
City: Reno
State: NV
Description: Using Diorhabda elongata species to control tamarisk growth.

Contact: Jeff Porter Phone Number: 336-370-3342 Email: Jeffrey.Porter@gnb.usda.gov

Category: Energy
Applied Research: No
Pilot Project: Yes
Title: Burning Manure for Energy Production
City: Greenleaf
State: WI
Description: Funding for this project was provided by Farm Pilot Project Coordination, Inc. This operation utilizes waste heat to bio-dry and dewater dairy manure. The combustion of the manure produces steam, which is used to generate electricity to sell on the power grid. The original burner design was not able to effectively handle the silica deposits and ash generated from the burning process. The silica deposits caused the breeching tube to plug and interrupted operations because the tube had to be frequently cleaned. This part of the project was to investigate different burner technologies and install an improved burner design for this operation.

Category: Nutrient management
Applied Research: No
Pilot Project: Yes
Title: Capturing Nutrients Through Solid Separation, Biological Treatment and Composting Technologies
City: High Springs
State: FL
Description: Funding by Farm Pilot Project Coordination, Inc. is being used to look at a treatment system which will capture nutrients (focusing on nitrogen) from the waste stream of a 2500 dairy cows operation by combining solid separation, nitrification & denitrification and composting methodologies. Sand will be removed in a settling basin and large solids will be separated out with a double inclined screen. With chemical and polymer addition, further solid separation occurs as the effluent flows through a tangential flow separator. Biological treatment through nitrification and denitrification will follow. Solids will be further processed in two in-vessel drum composters. The remaining liquid effluent will be spray irrigated and/or recycled in the flush dairy.

Category: Nutrient Management
Applied Research: No
Pilot Project: Yes
Title: Use of an Induced Blanket Reactor and Electro-Coagulation to Treat Dairy Manure
City: Ogden
State: UT
Description: The Farm Pilot Project Coordination, Inc. is funding this project that will utilize an existing induced blanket reactor (IBR) type of anaerobic digester which converts organic carbon in the manure to methane and carbon dioxide. Effluent from the IBR will be treated by a new electro-coagulation unit. Nutrient reduction will be evaluated and quantified at the screw press, settling basin and the electro-coagulator unit. Tests will also be performed to assess the effectiveness of a Houle 2 stage solid manure separator.

Category: Nutrient Management

Applied Research: No
Pilot Project: Yes
Title: Processing Dairy Manure for a Composting Operation
City: Mercersburg
State: PA
Description: In this project, which is funded by Farm Pilot Project Coordination, Inc., the existing nutrient management system will be upgraded, making waste treatment of manure more operationally friendly and cost effective. Specific components of the operation include: fine sand removal, added solids separation capability and a conveyor, blower & controls, building expansion, windrow turner and curing pad to support a composting operation.

Category: Nutrient Management
Applied Research: No
Pilot Project: Yes
Title: Use of Chemical Lime to Remove Nutrients from the Animal Waste Stream
City: Riverview and High Springs
State: FL
Description: Through funding from Farm Pilot Project Coordination, Inc., the use of chemical lime and metal salts is being evaluated to measure the effectiveness of removing nutrients from dairy waste. Economic analysis of this approach is also an integral part of this project.

Category: Nutrient management
Applied Research: No
Pilot Project: Yes
Title: Use of Brucitic Marble to Remove Nutrients from a Dairy Waste Stream
City: Platteville
State: CO
Description: This project, with funding from Farm Pilot Project Coordination, Inc., will look at the capabilities of an inexpensive, milled brucitic marble to extract between 75% - 90% of most nutrients. This magnesium source will react with nitrogen and phosphorous to form a crystal precipitate. A series of reaction tanks, a hydro-cyclone separator and drying screen will be used to recover the precipitate. This precipitate will be stored and used as a slow release fertilizer. Comparative results for the effectiveness of nutrient removal between brucitic marble and struvite will be performed.

Category: Other category / fill in the blank
Applied Research: No
Pilot Project: Yes
Title: Geotextile/Chemical Swine Manure Dewatering & Containment
City: New Douglas
State: IL

Description: Through funding from the Farm Pilot Project Coordination, Inc., this project will investigate the effectiveness of dewatering solids from a swine operation utilizing a geotextile bag. Waste streams evaluated will include an existing lagoon, under building tank, and holding pond. Each bag will be filled multiple times and allowed to dewater before removing the solids from the bags. A weir will be used to measure the effluent outflow. Fill rate for each geotextile bag is estimated at 250 gallons per minute. Separation will be enhanced with the addition of a metal salt and polymer. It is estimated that greater than 75% phosphorus and a large percentage of the nitrogen will be retained in the solids.

Category: Other category / fill in the blank
Applied Research: No
Pilot Project: Yes
Title: Bolt-On Technology for Solid Separation and Value Added Project
City: Overisel
State: MI
Description: Through funding from Farm Pilot Project Coordination, Inc., effluent from a complete mix anaerobic digester on a swine operation will be processed with a screw press for initial solid separation. The liquid effluent will be treated with a metal salt and polymer to form solid flocculates. These solids will be separated with a proprietary dissolved air flotation process. The solid component will be pelletized for sale as a commercial fertilizer. Laboratory and prototype data have shown that a separation of greater than 90% of total solids and nutrients (N, P, and K) can be achieved.

Category: Other category / fill in the blank
Applied Research: No
Pilot Project: Yes
Title: Global Resource Recovery Organization (GRRO) Tempest Second Generation Dryer
City: Eldora
State: MI
Description: Funding from Farm Pilot Project Coordination, Inc., will be used to test the effectiveness of a modified (second generation) cyclonic dryer in drying various waste streams (dairy, poultry, and swine). Acceptable moisture levels along with overall system efficiency will be evaluated. Nutrient retention within the solid fraction and air emissions will also be characterized.

Category: Other category / fill in the blank
Applied Research: No
Pilot Project: Yes
Title: Physical, Chemical and Biological Processing of Dairy Manure
City: Williston
State: VT
Description: Funding from Farm Pilot Project Coordination, Inc., will be used to test a newly designed and highly efficient belt press as the primary solid separation method for this dairy operation. A polymer will be used to enhance the separation process. The fine suspended solids remaining in the liquid effluent will be treated biologically in a series of bio-filter towers. The solids from the belt press will be used for bedding and compost.

Category: Other category / fill in the blank
Applied Research: No
Pilot Project: Yes
Title: Processing of Anaerobically Digested Manure
City: Linwood
State: NY
Description: Farm Pilot Project Coordination, Inc. has provided funding for a comparison between a commercially available screw press and a newly designed belt press with polymer assist. The evaluation of the solid separation efficiency is for dairy manure that has been processed through an anaerobic digester. The evaluation will look at total solid removal, nutrient (N, P, K) capture and operational cost.

Category: Other category / fill in the blank
Applied Research: No
Pilot Project: Yes
Title: Composting of Poultry Manure and Mortality Carcasses
City: Lake Mills
State: WI
Description: Farm Pilot Project Coordination, Inc., is funding a project that utilizes chicken manure and mortality carcasses, along with a carbon source for conversion into a stable, organic fertilizer derived from a laying hen facility. A bio-filter acts as a scrubbing mechanism to take out noxious odors associated with the composting process. During this process ammonia is captured and re-introduction into the final composting step. Leachate is collected in tanks and is re-used during the composting process. The net effect is compost yielding higher nitrogen values than typical composting operations.

Category: Other category / fill in the blank
Applied Research: No
Pilot Project: Yes
Title: Centrifugal Separation Followed by Gasification of Manure Solids
City: Chino
State: CA
Description: This project, which is funded by Farm Pilot Project Coordination, Inc., utilizes a regional model and a centralized location at the Inland Empire Utilities Agency site in Chino, California. Key elements of the pilot demonstration include the solid separating centrifuge and gasification unit. The one-year testing program will test dairy, swine, beef, poultry, horse, digested sludge, food waste and mixes of wastes for their produced energy value. The demonstrations and tests will simulate a large range of farm waste systems, from high-volume flush systems to dry-lot manure systems, in order to evaluate energy production, efficiency, costs, automation and maintainability. The improved centrifuge will remove moisture and is designed to uniformly condition the feedstock entering the gasifier. The system consists of a skid-mounted centrifuge, a skid-mounted gasifier, an intermediate solids hopper, augers from the centrifuge to the hopper and from the hopper to the gasifier. All equipment sits on a 25 by 35 foot concrete pad, with a gas compressor and storage tank. Gasification is initiated with either natural gas or propane until sufficient thermo-chemical reactions occur and can sustain the gasification process.

Category: Other category / fill in the blank

Applied Research: No
Pilot Project: Yes
Title: Processing of Dairy Manure for Potential Discharge of the Liquid Waste Stream
City: Louisville and Sugarcreek
State: OH
Description: Farm Pilot Project Coordination, Inc. is providing funding for a project that will address the ban on winter spreading by utilizing dewatering, solid separation and microbial enhancement unit processes in treating the waste stream from both dry scrape and flush dairy operations. The goal is to remove solids and nutrient loads from the effluent so that the resulting water quality levels are acceptable for discharge.

Category: Other category / fill in the blank
Applied Research: No
Pilot Project: Yes
Title: Use of a Vacuum Dewatering Bed
City: Bell
State: FL
Description: Funding from Farm Pilot Project Coordination, Inc will go toward evaluating a vacuum dewatering bed used to separate solids from a dairy waste stream. Polymer treatment of the effluent will enhance the solid separation process. The goal of experimenting with process variables is to produce a cost effective equivalent of this municipal waste treatment practice.

Category: Water Quantity
Applied Research: No
Pilot Project: Yes
Title: Capture of Nutrients to Improve Water Quality in the Lake Okeechobee Watershed
City: Lorida
State: FL
Description: Description: This dairy project, with funding from Farm Pilot Project Coordination, Inc., seeks to capture solids and nutrients (focusing on phosphorus) in an effort to reduce the nutrient load to Lake Okeechobee. Solids are to be collected in a vat separator. Effluent is then decanted and treated chemically to enhance solid separation. During the rainy season, the removal of additional solids will be accomplished with a screw press before solids will be placed in an in-vessel composter for further processing. This compost will be marketed as a peat substitute by the South Dade Soil and Water Conservation District.

Contact: Jill Fischer Phone Number: 973-903-5176 Email: agchoice@tellurian.com

Category: Nutrient Management
Applied Research: No
Pilot Project: Yes
Title: Regional Composting Facility
City: Andover
State: NJ

Description: Study the economic feasibility and environmental benefits of a regional composting facility for agricultural waste. The activities will: 1) evaluate the economic efficiency of a collecting agricultural wastes from small scale and concentrated animal operations, 2) determine the environmental benefits of an aerobic covered pile composting process, 3) provide hands-on opportunities for others to learn how the facility was developed and operates, and 4) provide a summary report of the lessons learned.

Contact: Jim Ayen Phone Number: 515-284-4769 Email:

Category: Multi-purpose projects that serve more than one of the above
Applied Research: No
Pilot Project: Yes
Title: Iowa Learning Farm
City: Dallas (County)
State: IA
Description: Conservation tillage, residue levels, late spring nitrate testing and fall stalk nitrate testing

Category: Soil Quantity / Erosion
Applied Research: Yes
Pilot Project: No
Title: Crop Disease
City: Plymouth (County)
State: IA
Description: Topics include soybean rust, bean leaf beetles, soybean aphids, corn rootworms, evaluating corn root systems (root ratings), and western bean cutworm.

Contact: Joel Douglas Phone Number: 817-509-3419 Email: joel.douglas@ftw.usda.gov

Category: Energy
Applied Research: Yes
Pilot Project: No
Title: Harvest Management for Biofuels for Specific Species
City: Fort Worth
State: TX
Description: Location
Knox City, TX
Elsberry, MO
Contacts:
Ray Cragar: Knox City
Elsberry: Steve Bruckerhoff

Harvest management to improve biofuel quality of miscanthus, switchgrass, big bluestem and Indiangrass are being evaluated at Starkville, MS, Temple, TX, Knox City, TX, and Elsberry, MO

Category: Multi-purpose projects that serve more than one of the above
Applied Research: Yes

Pilot Project: No
Title: Growth Pattern Curves of Selected Species
City: Fort Worth
State: TX
Description: Locations:Knox City, TX
Booneville, AR
Kingsville, TX
Manhattan, KS

Contacts:Ray Cragar: Knox City
Booneville: Randy King
Kingsville: John Reilley
Manhattan: Rich Wynia

Forage production, nutritive quality and growth patterns of warm season grasses. Cultivars of switchgrass, Indiangrass, sideoats grama, eastern gamagrass, sand bluestem, big bluestem, little bluestem, big and alkali sacaton, windmillgrass and kleingrass are included in the study.

Category: Wildlife Habitat
Applied Research: No
Pilot Project: Yes
Title: Demonstration Wildlife Mixes for Northern Bobwhite Quail Recovery
City: Fort Worth
State: TX
Description: Location
Americus, GA
Coffeeville, MS
Booneville, AR
Alexandria, LA
Nacogdoches, TX

Contact Person:
Americus: Mike Owsley
Coffeeville: Sherry Surrette
Booneville: Randy King
Alexandria: Morris Houck
Nacogdoches: Jim Stevens

Demonstration plantings of native warm season grasses, forbs and legumes mixtures are intended to serve as educational opportunities to support the northern bobwhite quail recovery effort. The aforementioned PMCs, along with NRCS biologists and other wildlife entities, will be working with Don McKenzie, Northern Bobwhite Conservation Initiative Coordinator to install native warm season grass plantings in 6 states in the southeastern U.S. including TX, LA, AR, MS, AL, GA.

Category: Multi-purpose projects that serve more than one of the above
Applied Research: No
Pilot Project: Yes
Title: Permacrop System
City: Columbus
State: NE
Description: Permacrop is a coined word for a system that has a goal of managing crops and soils by maximizing the portion of the year that ground is covered with growing plants or their residue. 1. To examine, demonstrate and promote permacrop potential to increase soil and water quality, improve air quality through carbon sequestration, and to provide wildlife benefits. 2. To provide educational opportunities showing that permacrop will work quite naturally and easily with the farming methods and equipment used in the watershed (farmer friendly). 3. To determine major effects on the crop as a result of the permacrop.

Contact: John Smith Phone Number: 308-632-1247 Email: jsmith5@unl.edu

Category: Soil Quantity / Erosion
Applied Research: Yes
Pilot Project: No
Title: Zone Tillage
City: Scottsbluff
State: NE
Description: Field strips of the zone tillage-planting and direct harvest dry edible bean production system will be demonstrated beside the conventional tillage and harvesting production system in several grower fields for three years. One field tour schedule for after planting to will be held to demonstrate increased surface residue, and improved plant growth from conservation of soil, water, and alleviation of any soil compaction. A second tour will be held during harvest. Data will be collected for the two systems for surface residue after planting and after harvest, for soil moisture after planting, and for general plant health.

Contact: Joy Giffin Phone Number: 775-861-6344 Email: joy_giffin@fws.gov

Category: Watershed Planning
Applied Research: No
Pilot Project: Yes
Title: Walker River Basin Restoration
City: Reno
State: NV
Description: In depth research and eventually applied project to enhance stream environment to the benefit of the river's terminus, Walker Lake.

Contact: Kevin Kuehner Phone Number: Email:

Category: Multi-purpose projects that serve more than one of the above
Applied Research: No

Pilot Project: Yes
Title: County Ditch 58 Wetland Restoration
City: Nicollet County
State:
Description: Conservation Reserve Enhancement Program enabled wetland restoration for wildlife habitat improvement, water quality improvement and flood damage reduction.

Contact: Larry Krom Phone Number: 608-588-7231 Email: LK@solarelectric.com

Category: Energy
Applied Research: Yes
Pilot Project: No
Title: Evaluation of Environmental and Economic Impacts of Anaerobic Digesters
City: Madison
State: WI
Description: This project will measure air emissions and other environmental parameters associated with anaerobic digesters on Wisconsin livestock operations. Also, it will determine the economics of operating anaerobic digesters including energy production.

Contact: Laura Ward Good Phone Number: 608-262-9894 Email: lwgood@wisc.edu

Category: Nutrient management
Applied Research: Yes
Pilot Project: No
Title: Development and Refinement of a Phoshorus Runoff Index (P-Index) for Wisconsin Agriculture
City: Madison
State: WI
Description: Develop, refine, and maintain a phosphorus delivery model for use in nutrient management planning in Wisconsin. Incorporate RUSLE2 into the P-Index so that RUSLE2 soil loss is calculated along with the risk of phosphorus delivery to surface waters.

Contact: Lauren Cartwright Phone Number: 573-876-0912 Email: lauren.cartwright@mo.usda.gov

Category: Grazing / Range Management
Applied Research: No
Pilot Project: Yes
Title: The Economics of Pasture Renovation on Cow Calf and Beef Stocker Operations
City: Columbia
State: MO

Description: An MS Excel based tool has been developed entitled "The Economics of Pasture Renovation on Cow Calf and Beef Stocker Operations". This tool is the first in a series of interactive economics of conservation planning decision-making tools that Missouri will be releasing. This tool provides 4 different scenarios that the cow-calf or beef stocker operator can utilize to assist in pasture conversion decisions. The cost inputs are compared with the expected improvements in animal performance as a result of the pasture conversion. A default scenario is provided as a starting point based upon literature research, which is provided in a references section. All inputs are variables that can be adjusted for the landowner's specific situation. The results of the model provide an economic cost/benefit assessment and a financial assessment of the break even timeline.

Contact: Mark Dittrich Phone Number: Email:

Category: Multi-purpose projects that serve more than one of the above
Applied Research: Yes
Pilot Project: No
Title: Shallow and Controlled Drainage
City: Mower County
State:
Description: Research and demonstration of shallow and controlled tile drainage compared to conventional tile drainage.

Contact: Mark Jensen Phone Number: 515-284-4769 Email:

Category: Drainage / Water Management
Applied Research: Yes
Pilot Project: No
Title: Controlled Drainage Study
City: Stanhope
State: IA
Description: Controlled drainage study near Stanhope, Iowa. Evaluating the water quality effects of a stop log water control structure on drainage tile system.

Category: Drainage / Water Management
Applied Research: Yes
Pilot Project: No
Title: Controlled Drainage and Water Table Mgmt
City: Story (County)
State: IA
Description: Controlled drainage and water table management demonstration project

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Contact: Mark Nussbaum Phone Number: 573-243-1467 x6 Email: mark.nussbaum@mo.usda.gov

Category: Drainage / Water Management
Applied Research: No

Pilot Project: Yes
Title: Sub-Irrigation and Water Management Project
City: Cape Girardeau
State: MO
Description: Southeast Missouri State University, in collaboration with NRCS, is assisting an ag. producer in planning, installing and evaluating a sub-irrigation and water management system on cropland.

Category: Irrigation
Applied Research: No
Pilot Project: Yes
Title: Solar-Powered Irrigation System
City: Gordonville
State: MO
Description: Local farmer, Mark Wessell has been irrigating a 24-acre crop field using solar power from 10 two-foot-by-six-foot solar panels combined into one solar array. Rep. Jo Ann Emerson secured a $15,000 federal grant to buy the solar array. Since the system started in mid-June over 1.5 million gallons of water have been pumped ranging from 33,000 to 45,000 gallons per day. The price of the system today would be about $9,500.

Contact: Mark Stolt Phone Number: 401-874-2915 Email:

Category: Soil Quantity / Erosion
Applied Research: Yes
Pilot Project: No
Title: Interpretation and Recommendation for Addressing Soil Quality on Sod Farms
City: Kingston
State: RI
Description: To provide information to NRCS and Rhode Island sod farmers to identify and describe soil quality isses associated with the management of sod. Help NRCS understand the issues and provide better advice to sod landowners to improve soil quality management techniques.

Contact: Michael Robotham Phone Number: 808-956-8149 Email: michael.robotham@hi.usda.gov

Category: Nutrient Management
Applied Research: Yes
Pilot Project: No
Title: Improved P management in Tropical Vegetable Cropping Systems
City: Honolulu
State: HI

Description: The University of Hawaii at Manoa Cooperative Extension Service in cooperation with USDA-NRCS are conducting on-station and on-farm research to determine the appropriate soil phosphorus levels required for optimum vegetable growth and environmental protection on volcanic soils in Hawaii. Using nutrient applications based on research findings will allow growers to maintain production while lowering water pollution risks.

Category: Nutrient management
Applied Research: Yes
Pilot Project: No
Title: N Mineralization from Animal Manures in the Tropics
City: Honolulu
State: HI
Description: The University of Hawaii, Cooperative Extension Service, in cooperation with USDA-NRCS, are implementing a series of field experiments to estimate the rate of nitrogen mineralization from three common animal manure sources (chicken, swine and cattle) under tropical soil and climate conditions. These mineralization rates will be used in Comprehensive Nutrient Management Planning activities to determine appropriate manure application rates and timing.

Category: Nutrient Management
Applied Research: Yes
Pilot Project: No
Title: N Mineralization from Animal Manures in the Tropics -- Guam Verification Trials
City: Agana
State: GU
Description: This project will provide additional validation of the nitrogen mineralization results determined in the associated Hawaii-based project "N Mineralization from Animal Manures in the Tropics" for soil and climate conditions in Guam and by extension in the remainder of the Northern Marianas Islands.

Contact: Michelle Crook Phone Number: 517-241-0236 Email: crookm@MI.gov

Category: Energy
Applied Research: Yes
Pilot Project: No
Title: Characterization of Anaerobic Digester Output Using Various Waste Stream Inputs
City: Various
State: MI
Description: Sample analysis of both solids and liquid outputs of anaerobic digester for nutrient, metals, BOD, antibiotics, under various waste stream inputs.

Contact: Mike Gregg Phone Number: 517-373-9802 Email: greggm@MI.gov

Category: Water Quantity
Applied Research: Yes
Pilot Project: No
Title: Development of Water Allocation Model

City: Various
State: MI
Description: A water use allocation model is being developed which will allow for maintaining base to prevent over withdrawal of groundwater or surface water, to protect water resources flows in streams, and to detect areas of concern for high capacity water withdrawal.

Contact: Mike Sucik Phone Number: 515-284-4769 Email:

Category: Soil Quantity / Erosion
Applied Research: Yes
Pilot Project: No
Title: Evaluation
City: Iowa (County)
State: IA
Description: Evaluation of Water Infiltration on Different Tillage Systems in the Clear Creek Watershed

Category: Soil Quantity / Erosion
Applied Research: Yes
Pilot Project: No
Title: Evaluation of Hydrologic Soil Groups
City: Fayette (County)
State: IA
Description: Evaluation of Hydrologic Soil Group designations on six benchmark soils under three different tillage systems

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Contact: Mylo Hellickson Phone Number: 605-688-5610 Email:

Category: Air Quality
Applied Research: Yes
Pilot Project: No
Title: Reducing Swine Facility Dust and Odor
City: Brookings
State: SD
Description: This project will test the use of biofilters for reducing swine facility dust and odor problems and airborne diseases.

Contact: Pat Turman Phone Number: 573-624-7403 x5 Email: pat.turman@mo.usda.gov

Category: Nutrient management
Applied Research: No
Pilot Project: Yes
Title: Building Innovative Industry-Producer Partnerships to Reduce Hypoxia in the Gulf of Mexico
City: Dexter
State: MO

Description: By forming new partnerships between industry leaders and ag producers in the Mississippi River Basin, the Conservation Technology Information Center will bring innovative, effective approaches for addressing complex nutrient management challenges directly to the local level. This three-phase project will facilitate the identification of nutrient reduction strategies, the formation of local producer coalitions and the development of nutrient reduction management plans, using the best-available practices and methodologies, that will, ultimately, reduce the nutrient loads to the lower Mississippi River and reduce the size of the Gulf of Mexico hypoxic zone. At the conclusion of the final project phase, CTIC will produce a model approach for Mississippi River sub-basins to use industry-producer partnerships to implement locally led non-point source nutrient management solutions.

Contact: Patrick Farrell, Technical Assistance Biologist Phone Number: 828-456-6341x5 Email: patrick.farrell@nc.usda.gov

Category: Grazing / Range Management
Applied Research: No
Pilot Project: Yes
Title: Native Warm Season Grass on Steep Mountain Pastures
City: Waynesville
State: NC
Description: Small native warm season grass plantings will be seeded on pasture w/ slopes around 45% in order to demonstrate and evaluate this forage option as a management alternative to introduced grasses that require regular application of lime and fertilizer- which is very difficult considering the slopes steepness.

Contact: Peter Berthelsen Phone Number: 308-754-5339 Email: phasianus@aol.com

Category: Multi-purpose projects that serve more than one of the above
Applied Research: No
Pilot Project: Yes
Title: Grazing Land Health and Vigor
City: St. Paul
State: NE
Description: The objective of this application is to restore the grazing land health and vigor in a pilot area of Central Nebraska. The Greeley, Howard, Nance and Sherman counties area of Central Nebraska are represented by a rolling topography with a mixture of irrigated row crops, dryland row crops, small grains and pasture. In most cases, pastures in the area have been overgrazed, leading to invasion by eastern red cedar and cool-season grasses that diminish the overall health and quality of the pasture and are grazed with a single paddock system. This project will benefit: Grazing Land Health, Wildlife Habitat, Soil Resources and Water Resources.

Contact: Philip Moore Phone Number: 479-575-5724 Email: philipm@uark.edu

Category: Air Quality
Applied Research: Yes
Pilot Project: No

Title: Evaluation and Management of Ammonia Emissions from Poultry Litter
City: Fayetteville
State: AR
Description: Ammonia emissions are being evaluated from four broiler houses over a two-year period. Each of the houses is equipped with ammonia sensors, anemometers and data loggers; measurements are taken each minute. Gaseous (ammonia, methane, nitrous oxide and carbon dioxide) fluxes are also being taken on a weekly basis. A mass balance of nitrogen in the houses is being conducted. Best management practices for reducing ammonia emissions, such as alum-treatment of the litter and the use of an ammonia scrubber are being evaluated.

Category: Grazing / Range Management
Applied Research: Yes
Pilot Project: No
Title: Effects of Pasture Management on Phosphorus Runoff
City: Fayetteville
State: AR
Description: Fifteen small watersheds (0.35 acre) were constructed the USDA/ARS Small Family Farms Research Center near Booneville, AR in 2003. The watersheds are hydrologically isolated from each other and surrounding land by earthen berms and are equipped with flumes and automatic water samplers. There are five treatments being evaluated with three replications per treatment in a completely randomized design. The treatments are; (1) hayed only, (2) over-grazed, (3) rotational grazing, (4) rotational grazing with 50' buffer strip at the base of the watershed, and (5) rotational grazing with 50' riparian buffer that has been fenced to exclude cattle. This will be a 13 year study. The first year was for collection of background runoff data, the next 6 years the five treatments above will be evaluated and during the last 6 years all of the paddocks will be hayed, in order to see how long it takes for them to get back to the same hydrological condition. Runoff samples will be analyzed for pH, electrical conductivity, total P, SRP, total N, nitrate-N, ammonium-N, total solids, and total organic carbon. Soil samples will be analyzed for Mehlich III P, and SRP. Soil strength will be determined using a penetrometer. Bulk density for each plot will also be determined using the core method. Percent vegetative cover in each plot will be determined by evaluating bare soil to forage cover ratio using the grid panel quadrat method.

Category: Water Quality
Applied Research: Yes
Pilot Project: No
Title: Revising the AR Phosphorus Index
City: Fayetteville
State: AR
Description: Phosphorus runoff data from small watersheds and from rainfall simulation studies is being used to revise the AR Phosphorus Index. The current AR P index was made specifically for poultry litter. The revised index will be expanded to also include liquid manure, commercial fertilizer, and biosolids.

Category: Water Quality
Applied Research: Yes
Pilot Project: No
Title: Long-term effects of alum-treated poultry litter on soil and water quality

City: Fayetteville

State: AR

Description: In 1995 a long-term (20 year) study on the effects of poultry litter, alum-treated litter, and ammonium nitrate was initiated at the University of Arkansas Agricultural Experiment Station in Fayetteville. The study is being conducted on 52 small plots on a Captina silt loam soil cropped to tall fescue. The plots are all on a 5% slope and are equipped with metal borders and runoff troughs. There are a total of 13 treatments in this study; an unfertilized control, four rates of normal poultry litter, four rates of alum-treated litter, and four rates of ammonium nitrate in a randomized block design. The four rates of litter (normal and alum-treated) are 1, 2, 3, and 4 tons/acre. Ammonium nitrate is being applied at rates roughly equivalent to the amount of N supplied by alum-treated litter (65, 130, 195, and 265 kg N/ha). The fertilizers are being applied each year in the spring. The objectives are to determine the effects of normal litter, alum-treated litter, and ammonium nitrate on soil chemical characteristics, yields, and nutrient uptake by tall fescue, and runoff water quality. Soil samples are taken annually for Mehlich III, water soluble P, pH and exchangeable Al. The plots are harvested, as fescue growth dictates. Plant samples are also collected from each harvest for chemical analysis. Large differences in soil test P were observed after only three years of annual applications. Water soluble P in the soil increased dramatically in the plots fertilized with normal litter, particularly at the higher rates, whereas soluble P in plots fertilized with alum-treated litter and ammonium nitrate was not different from that in the unfertilized control plots. Studies have shown that the pH of the plots fertilized with normal and alum-treated litter is increasing, whereas with ammonium nitrate the soils are being acidified. This has resulted in high levels of exchangeable Al in plots fertilized with ammonium nitrate, but not with normal or alum-treated litter. Results have also shown that P is leaching at a much greater rate from normal poultry litter than alum-treated litter.

Another long-term (20 year) alum study is being carried out in conjunction with the study described above at a commercial broiler farm in Madison County, AR. In 1994 two watersheds were constructed side-by-side using small earthern berms. The watersheds were equipped with flumes and automatic water samplers. Beginning in May, 1995 one watershed was fertilized with normal poultry litter and the other was fertilized with alum-treated litter. The litter is obtained from six broiler houses on this farm. Three of the houses have been treated with alum since May of 1994 and three have been controls. The alum is applied after each flock of broilers at a rate of two tons/house. When the houses are cleaned out each spring, litter is weighed out into a manure spreading truck using portable truck scales and applied to the watersheds. Rainfall data is being recorded, as is the hydrographs for each runoff event. The runoff water samples are being analyzed for pH, metals, SRP, and TP. Over the first 10 years P runoff from alum-treated litter was 75% lower than with normal poultry litter. Data from this study will be used to revise and validate the Arkansas P Index.

Category: Water Quantity

Applied Research: Yes

Pilot Project: No

Title: Reducing Nutrient Runoff and Ammonia Emissions from Poultry Litter with Pasture Renovation and Litter Incorporation

City: Fayetteville

State: AR

Description: The effect of pasture renovation and litter incorporation on phosphorus and nitrogen runoff is being evaluated using rainfall simulations on small plots and at the field scale. The effects of litter incorporation on ammonia emissions are also being investigated.

Contact: Rob Allen Phone Number: 802-951-6796 x231 Email: rob.allen@vt.usda.gov

Category: Multi-purpose projects that serve more than one of the above
Applied Research: No
Pilot Project: Yes
Title: Vemront Organics Reclamation
City: St. Albans
State: VT
Description: Vermont Organics Reclamation (VOR) of Williston, in conjunction with the Montagne Farm, St. Albans, will demonstrate an innovative at-farm manure management system (MMS). The objectives of this project are to demonstrate the capability of the VOR MMS to achieve such nutrient removal efficiencies in sustained farm scale operation and to establish a baseline of performance and cost for future such installations. Currently the Montagne Farm milks 600 dairy cows, farms 1,100 active acres, and its manure pit holds about 2 million gallons. The VOR system accepts raw dairy cow manure that is processed in a continuous operation into several useful components 1) nutrient depleted solid waste that is useful as a solid soil amendment or bedding, 2) nutrient depleted water that is useful for irrigation, barn wash, or infiltration, and 3) nutrient enriched sludges, that is useful as a constituent of crop fertilizer for at-farm or commercial applications. This technology is expected to enable the farm to avert the contamination of surface waters by removing more than 85% of the phosphorus and more than 80% of the nitrogen from its dairy manure. VOR's approach combines several conventional screening and dewatering processes with electrocoagulation processes into a novel system for extracting nutrients and recovering farm water and organic solids resources. Since the phosphorus and nitrogen bearing compounds are largely soluble in water the screening and screw press operations extract most of the nutrients in the form of an aqueous concentrate. The filter press, clarifier, and electrocoagulation processes extract phosphorus and other nutrients from this concentrate leaving grey water as a byproduct. VT-AMM funding has allowed my company to demonstrate how farmers can process their manure and receive cash instead of spreading manure and spending cash, Tim Camisa, VOR.

Category: Multi-purpose projects that serve more than one of the above
Applied Research: No
Pilot Project: Yes
Title: Digester/Growing System for the Small Farm
City: Charlotte
State: VT
Description: The Foote Farm, in Charlotte, milks about 150 dairy cows and has anywhere between 20-40 replacement calves. Their manure pit measures 200 x 100. Problems associated with their current manure management system have mostly to do with cost containment and reduction in volume: cost of spreading, hot water production, energy, and manure storage. The Foote Farm is now host site to Dr. Roberts' mission: to build an anaerobic digester system that is affordable and practical at the small farm level. To accomplish this he has designed modular components that can be manufactured in a factory and shipped to the farm site, where they can be assembled with a minimum of required labor and specialized contractors. The digesters will similarly be able to be disassembled with relative ease, for efficient clean-out of sediments and crust that may accumulate and potential relocation or reconfiguration. The pilot system, will be the first of its kind and will be a model for testing the function of the system for future production
Another significant goal of this project is to introduce a manure solids separator that will be affordable for small farms, priced at a fraction of the cost of currently available separators. The separated, digested solids are richer in phosphorus than the separated

liquid, and are valuable to the farmer as a source of fiber for soil amendment and as bedding. The partitioning of a significant fraction of the hosphorus in these solids provides a means of adjusting the amount of phosphorus that will be returned to the farmland. These solids may also be sold in order to export phosphorus from the farm. The liquids produced from the process will be substantially lower in phosphorus than the un-processed effluent. The post-trickling filter liquids will also carry the major fraction of the manure's nitrogen, largely in the form of nitrate. In liquid form this nutrient-rich material has several advantages over the manure slurry: it can be moved through pipes, trenches or gullies and it may be suitable for spray irrigation, which would allow fertigation of crops during dry periods and when the crop is too tall to receive manure. This liquid also lends itself to use as a greenhouse nutrient solution for intensive production of market crops or forage.

Category: Multi-purpose projects that serve more than one of the above
Applied Research: No
Pilot Project: Yes
Title: Hydroponic Production of Algae
City: Middlebury
State: VT
Description: Growing and harvesting algae remains one of the best ways to reduce phosphate levels (along with other excess nutrients) in water. The AlgeponicsTM system was developed to facilitate the onsite cultivation of algae to clean wastewater and to harvest a renewable source of energy. Benefits from algae: Algae are primitive, non-flowering plants that use photosynthesis to convert sunlight, water, carbon dioxide and nutrients into food. Algae produce well over 87% of the earth's atmospheric oxygen. Controlled algae growth offers unique opportunities to improve and restore the balance of nature that had been abused for centuries Benefits from AlgeponicsTM: Algeponics is a natural and cost effective way of growing algae onsite of pollution creators such as farms, wastewater facilities and power plants. By cultivating the right algae in an enclosed environment many beneficial byproducts of this growing process can be harnessed to transform excess CO2, phosphates, nitrates into oxygen, clean water, and algoil for biofuel or omega 3 supplements, animal feeds, fertilizers and other valuable products. There are no harmful end products of the system.
The AlgeponicsTM system is being developed to accelerate the onsite cultivation of algae and is ready for testing a pilot scale design, linked to an on-farm anaerobic digester. This project will specifically evaluate a variety of algae species to determine their productivity and optimal growing conditions, it will test the amount and rate of nutrients and carbon dioxide utilized by the algae, and the overall energy efficiency and design of the system will be tested and optimized. The first prototype, a scaled version of the commercial model, is to be constructed on a dairy farm in Middlebury, Vermont. The Foster Brothers Farm will host a research and demonstration site and provide available nutrients from the digester and/or leachate collection ponds for purposes of this project. Foster Brothers Farm, Inc., is a 5th generation family dairy farm located in the Champlain Valley just south of Middlebury. In 1982, the farm installed an anaerobic digester to add value to the animal residuals collected from their 350 dairy cows.

Category: Multi-purpose projects that serve more than one of the above
Applied Research: No
Pilot Project: Yes
Title: Solids Separator & In-Vessel Composter (Bedding Recovery Unit)
City: Braintree
State: VT

Description: Circle Saw Farms is a dairy farm located in west central Vermont, milking 425 cows with 150 other animals. A freestall barn is used to house the animals, using sawdust for bedding. Currently manure is collected from the barns and transferred via an underground pipe to a central collector. Manure then moves through another pipe to Slurrystore storage tank. Problems with the current system include:
-manure storage is not large enough, saw dust bedding is getting to costly and harder to purchase, operational growth is limited
- needs more manure storage and better control of nutrients.
Circle Saw Farm proposes to construct a manure solids separator system as a cost-effective and profitable way to separate and export excess nutrients and bring the farm's nutrient management plan into balance. The installation and operation of a FAN manure solids separator at Circle Saw Farm has the potential to address all of the issues and challenges listed above. The system will be engineered specifically for Circle Saw's site by Bannon Engineering and located between the main milking barn and the Slurrystore waste storage unit.
The various waste streams from the farm would be piped to a central collection pit above the existing Slurrystore storage unit. Here the waste influent would enter the FAN screw press where liquid and solid effluent would be separated. The liquid effluent would be pumped back to the 24" gravity pipe that feeds the Slurrystore while the solid effluent would enter a compost drum dryer (FAN calls this their Bedding Recovery Unit, BRU). The material would be in the dryer approximately 24 hours, to be subject to a heating process and a temperature of more than 150 degrees F. The resulting material would be automatically discharged into a pile, located under cover, after being subject to an intense aerobic process. The biological process is monitored by measuring the temperature and controlled by adjusting the air volume. The resulting solids will about 40-42% dry matter and should have an acceptably low bacteria count to enable the material to be utilized as bedding. At the 25% extraction rate shown in the Cornell study, approximately 9800 cubic yards of material would be produced per year. Circle Saw Farm would be able utilize about 1/3 of this amount for their own bedding needs (at the preferred higher rate than has been used the past couple of years) with the expectation for improved cow comfort and decreased mastitis and culling losses.
Finally, by exporting a high enough portion of the waste stream, what is currently an environmental challenge in the farm's nutrient management plan and a cost to the farm would be become a source of revenue and a path to balancing the excess nutrients that the farm currently produces.
By quantifying and documenting the effectiveness of this existing technology, the ability to recommend and apply it to other farm situations would be enhanced. It is a system that can easily be incorporated and sized to most any farm situation.

Contact: Robert Horton Phone Number: 919.873.2125 Email: robert.horton@nc.usda.gov

Category: Multi-purpose projects that serve more than one of the above
Applied Research: Yes
Pilot Project: No
Title: Agroforestry Agreement 68-4532-6-002
City: Raleigh
State: NC
Description: Agroforstry Research Agreement between NRCS-NC and NC State University to 1. Establish a long term agroforestry demonstration; 2. Evaluate Agroforestry Practices on the demo sites; 3. Provide Agroforestry training for NRCS and Others; and, 4. Prepare outreach and publicity to encourage adoption of agroforestry.

Contact: Ron Abramovich Phone Number: 208-378-5741 Email: Ron.Abramovich@id.usda.gov

Category: Water Quantity
Applied Research: Yes
Pilot Project: No
Title: Water Resources in the Pacific Northwest
City: Boise
State: ID
Description: The overall goal of this project is to provide needed decision support to watershed managers and streamflow forecasters, such as the NRCS, so that they can better support their end-users (reservoir operators, state fish and wildlife agencies, farmers, and recreation enthusiasts) in addressing water resource issues
Critical Goals and Products:
Operational tools for streamflow forecasting for use in rain or snow dominated basins
An expert system for estimation of model parameters
Downscaled meteorological forecasts
Snow cover extent products

This is a cooperative research project between USDA/NRCS ID and the University of ID.

Contact: Sandy Chenal Phone Number: 330-339-4517 Email: sandra.chenal@oh.usda.gov

Category: Water Quality
Applied Research: No
Pilot Project: Yes
Title: Ohio Dairy Waste Separation and Wastewater Treatment Project Proposal
City: Louisville
State: OH
Description: The Ohio Dairy Waste Separation and Wastewater Treatment Project will apply “water treatment package plant” technology on two farms. By using more effective commercial screens, more solids are removed before polymer treatment. The results are decreased treatment costs and increased nutrient removal.

Contact: Scott Josiah Phone Number: 402-472-1467 Email: sjosiah2@unl.edu

Category: Forestry
Applied Research: No
Pilot Project: Yes
Title: Restoring the Health & Utilization of Pine Ridge Forests
City: Chadron
State: NE
Description: To restore forest health by providing incentives for private forest landowners to contract with fuel treatment vendors to conduct thinning treatments of small diameter timber stands. Collaborate with the landowners and fuel treatment vendors to collect data on these thinning units to determine volume and yield for conversion to renewable, innovative forest biofuel. Reduce fuel loading in overstocked, stagnated forests as a step toward avoiding future catastrophic (i.e. stand-destroying) crown fire, insect/disease outbreaks and negative impacts of drought.

Contact: Sid Kite Phone Number: 308-537-3351 Email: jlkite@atcjet.net

Category: Invasive Species Control
Applied Research: No
Pilot Project: Yes
Title: Reducing Risk for Prescribed Burning to Control Eastern Red Cedar
City: Gothenburg
State: NE
Description: Introduce a pilot program to prescribed burning in Nebraska identifying risk management strategies in control of invasive eastern red cedar on 5000 acres by 2009. This project will impact five resource concerns: Water Resources, Soil Resources, Atmospheric Resources, Grazing Land, and Wildlife Habitat with the major emphasis on Grazing Land health. Land blocks will be identified as to risk, prioritized, and burn plans developed over a three year period with support to reduce landowner risk and liability, so that adoption of this practice becomes more attractive and feasible to local landowners.

Contact: Skip Mourglia Phone Number: 417-732-6485 Email: skip.mourglia@mo.usda.gov

Category: Forestry
Applied Research: No
Pilot Project: Yes
Title: Volunteers Work to Save Tree
City: Republic
State: MO
Description: Several Barry and Lawrence County landowners contacted me in 2005 asking for help to save the Ozark Chinquapin tree. Many MO foresters do not know what this species is because it's natural occurrence is limited to SW MO. A research grant was awarded to: SWMO RC&D, MU, SMU and the purpose of the grant is to address propagation of the Chinquapin. This is the first attempt to utilize the RPM (root pruned method) process for this species. MU and SMU will be playing with grafting OC on to Chinese Chestnut rootstock. I will be growing my 19 container trees in the forest where blight exists and comparing it to the growth from direct seeding additional trees. Methods to protect direct seeded trees will be tracked (especially to see if ANY are bear proof). I would like to get a Cubbyback motion-sensing camera to see exactly what is eating Ozark chinquapins. Bears are supposed to love them, as well as squirrels and quail.

Contact: Steve Bruckerhoff Phone Number: 573-898-2012 Email: steve.bruckerhoff@mo.usda.gov

Category: Forestry
Applied Research: Yes
Pilot Project: No
Title: Flood Tolerant Burr Oak
City: Ellsberry
State: MO

Description: Dr. Mark Coggeshall with the University of Missouri-Columbia's Agroforestry Center is conducting research at the NRCS Ellsberry Plant Materials Center to evaluate the flood tolerance of Burr Oak collections. The project is focusing on the effects to young seedlings from standing water consistent with flood frequencies and durations along the Mississippi River.

Contact: Suat Irmak Phone Number: 402-472-6338 Email: sirmak2@unl.edu

Category: Irrigation
Applied Research: Yes
Pilot Project: No
Title: Integration of Subsurface Drip Irrigation
City: Harvard
State: NE
Description: Many areas in Nebraska are involved in significant management changes to conserve irrigation water. Our project will integrate several cutting-edge technologies to determine water savings possibilities with innovative management of subsurface drip irrigation in combination with reduced tillage systems. We will also utilize improved irrigation scheduling techniques built on automation and instrumentation using the crop water stress index and other canopy temperature methods. Results will help producers adapt to limited water supplies and will assist the NRCS and other water management agencies in evaluating the potential of irrigation system changes to minimize economic impacts of water supply limitations. The results will be especially valuable to producers that have recently invested in subsurface drip irrigation.

Category: Irrigation
Applied Research: Yes
Pilot Project: No
Title: Irrigation Management and Water Conservation
City: York
State: NE
Description: Maximizing the net benefits of irrigated crop production through an appropriately designed agricultural water management program is of growing importance in Nebraska because many areas in the state are involved in significant management changes to conserve irrigation water. Growers are challenged to practice conservation practices, reduce runoff and other losses from irrigation, and increase crop water use efficiency while meeting the crop water requirements for maximum net return. This project is expected to increase the adoption of new technologies that will help farmers conserve water and energy resources associated with irrigated crop production. Our project will establish a system for testing cutting-edge technologies and create a network with farmers, UNL Extension, NRCS, NRDs, and crop consultants that will enable the adoption of water and energy conservation practices.

Contact: Susan Baggett, State Resource Conservationist, Temple, TX Phone Number: 254-742-9805
Email: susan.baggett@tx.usda.gov

Category: Multi-purpose projects that serve more than one of the above
Applied Research: No
Pilot Project: Yes

Title: Pilot Wetland Mitigation Project
City: Dallas
State: TX
Description: Resource: Wetlands, Wildlife habitat

Type: Pilot Demonstration

Project Info: Location

Southeast of Dallas, TX

Contact Person:

Darren Manthei, Wetland Specialist, Nacogdoches, TX

Susan Baggett, State Resource Conservationist, Temple TX

Project Description: The objective of the pilot is to monitor the results of a microtopography restoration and more specifically, the restoration of Gilgai landscape features common to wetlands with vertisols (prior to conversion of bottomland hardwoods and native wet prairie to agricultural lands). The pilot project will monitor the hydrology and plant response to re-construction of gilgai features.

Contact: Tanya Meyer-Dideriksen Phone Number: 319-668-8110 Email:

Category: Multi-purpose projects that serve more than one of the above
Applied Research: Yes
Pilot Project: No
Title: Women, Land and Legacy Research Project
City:
State: IA
Description: Develop techniques to serve the growing number of women landowners and operators. Assessing needs and fostering agricultural entrepreneurship among immigrants in several Iowa communities, is another valuable research project.

Contact: Todd P. Trooien Phone Number: 605-688-5677 Email: todd_trooien@sdstate.edu

Category: Water Quality
Applied Research: Yes
Pilot Project: No
Title: Vegetative Treatment Area
City: Claire City
State: SD
Description: This project involves the collection and distribution of runoff water from a beef feedlot operation (AFO) over a vegetated treatment area. The system consists of a sediment basin, pumping plant and gated pipe distribution system. Various species of plants will be evaluated for treatment of wastewater.

Category: Water Quality
Applied Research: Yes

Pilot Project: Yes
Title: Microbial Indices of Soil and Water Associated with Vegetative Treatment Areas from Animal Feeding Operations
City: Brookings
State: SD
Description: This project is testing the effectiveness of using vegetative treatment areas as a low cost alternative for animal feeding operation, as opposed to using an earthen lagoon.

Contact: Wilisha Daniels Phone Number: Email: wdaniels@co.clark.nv.us

Category: Air Quality
Applied Research: Yes
Pilot Project: No
Title: Las Vegas Valley Air Quality Improvement
City: Las Vegas
State: NV
Description: Protecting air quality in a rapidly growing urban environment in the desert southwest.

Contact: Phone Number: 687-9350 Email:

Category: Air Quality
Applied Research: No
Pilot Project: Yes
Title: Coal Fired Power Plants, Mercury, Mining
City: Carson City
State: NV
Description: The effects of coal-fired power plants that generate electricity and the mercury released in the process.