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Unit Accomplishments for 2007

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University of Nebraska-Lincoln Extension

SOUTHEAST RESEARCH & EXTENSION CENTER Unit Accomplishments for 2007

Diversified agriculture enterprises and successfully direct market or niche market.

- Rural Advantage Conference
 Approximately 190 people attended the fifth annual conference. Three tracts included; alternative agriculture enterprises, alternative energy sources and healthy foods. 50% of persons responding to the program evaluation indicated the information would increase profitability, help them to diversify and expand markets.
- Kimmel Entrepreneurship programs include; Technology Training, After Hours Networking, Southeast Nebraska Regional Economic Development Summit, Youth Entrepreneurship Summit and the establishment of an Inventors, Investors and Entrepreneurs Club (I2E). Faculty coordinated the installation of a large outdoor garden as a Diversified Agriculture Classroom project. Kimmel reported 1036 growers, potential growers and interested public attended educational programs. Resulting in 5 new growers of woody florals, 2 growers of aronia and 3 new ornamental corn producers. 175 individuals toured Kimmel and learned about alternative agriculture.
- Alternative Ag Festivals In Dodge and Washington counties a group of 15 producers formed an Alternative Growers Group and hosted the Harvest Moon Festival where over 500 participants learned about local alternative agricultural enterprises. The Kimmel Education and Research Center hosted the third annual Wild Fruit and Nut Jam for 2500 persons and 15 vendors. Vendors such as Ely Farms networked with Whole Foods on product distribution.
- Youth 225 youth ages 12-16 also participated in educational programs on alternative agriculture opportunities at Kimmel. Four FFA projects were based on alternative

- agriculture opportunities with three winning awards. Conestoga School is planting an extensive outdoor classroom in woody florals and grapes.
- **Diversified Ag Tours** In Washington, Burt, Dodge Saunders counties over 100 people participated and in Richardson, Nemaha, Pawnee Otoe counties over 40 area producers participated in local tours to learn about enterprises, direct marketing and consumer demand.
- SARE professional development programs included; the Nebraska Food Cooperative, Sheep and Goat Professional Improvement Workshop, Sustainable Farming and Grazing Tour and a Multi-State Organic Conference.
- Farm Beginnings Program plans are underway for a class in the Fall of 2008. Continued to work with participants in the 2006 class include support of food cooperatives, farmers markets, 4 tours and 12 classroom activities. Work continued with Community Crops Program in Lincoln to educate ethnic community on vegetable production and market. Nemaha producer converted 80 acres to organic and raises grass fed beef and sells organic eggs.
- Wine Analysis 25 learners from several states learned how to use wine analysis equipment through demonstrations and hands on activities at in the Kimmel labs.

Strategies to protect water, soil, and natural resources.

- Irrigation and Energy Conservation Workshop in February in Norfolk, Cozad and Geneva were attended by 142 irrigated corn growers and crop consultants. 72% indicated they planned on making changes in irrigated production based on what they learned.
- **Irrigation Management Field Day** at North Platte, 61 irrigated corn growers and crop



consultants attended. "As a crop consultant, I will attempt to change some of my grower's habits." 79% indicated they planned to make changes in irrigated corn production. The ET gages program 81% indicated they would make changes.

- The Nebraska Agricultural Water Management Demonstration Network (NAWMDN) has 120 cooperators (double over 2006). Corn and soybean growth and irrigation quick charts were developed and given to producers and crop consultants. Participants surveyed indicated they reduced irrigation applications by 2-3 inches per acre. One producer stated, "Those moisture sensors have paid for themselves about 10 times over for one pivot."
- **Solution Days** -330 producers/consultants observed three different populations and four irrigation treatments.

Reducing early season water stress and surface crusting, eliminating one irrigation pass.

- **Nebraska No-Till Conference** Two day program at Holdrege and ARDC with 502 producers. International speaker Rolf Derpsch.
- National No-till Conference in Des Moines Iowa - 13 farmers who manage 14,250 acres traveled with two educators. They estimated an average savings of \$5/acre or \$71,250. 9 operations identified in writing 44 changes. A 9 month follow-up showed 50% of goals achieved with 4 producers saving 10-20% in soybean seed.
- Carbon payments Farmers enrolled 248,326 no-till acres and 6,716 new grassland acres for 225 contracts for carbon offset, adding 1.275 million to income with the extension to 2010 another 1.8 million.
- No Till on the Plains drew 161 producers near Bladen. 60% intended to change irrigation management practices and fertilizer recommendations and no-tilling corn on corn.
- Four no-till programs in the Upper Big Blue NRD focus on a switch to ridge till.
- **Farm Management Tools** 4 seminars in South central reached 119 producers with 251,585 acres. Saved 11\$/acre or \$2,767,435.

Environmentally friendly management practices.

• Golden Triangle Meeting -90 producers from 10 counties and two states attended on the use of by-products in cattle rations. They managed 40,000 head of cattle. 90% of participants indicating they would make changes in their

operation. Value of program \$13.85/head for impact of \$550,000.

- Eastern Nebraska Cattlemen's Expo Sessions included heifer development using distiller's grains, handling and storage of distiller's grain, benefits and challenges of using distiller's grains in feedlot diets and updates on ethanol production, bio-diesel productions. 75 producers managing 14,000 head of beef cattle estimated the value of the workshop at \$850/head for a potential impact of over \$120,000.
- Cow/Calf College held at MARC on feedlot regulations, animal ID pasture and ethanol. 125 producers attended manage who 25,000 head of cattle.
- 4-State Beef Conference addressed government regulations, quality food supply, environmental issues and feeding coproduces 92% of survey respondents (n=23) were very likely to make management changes and valued the change at over \$500.00.

Water quality testing, water treatment, well head protection and waste handling systems.

- Onsite Wastewater follow up surveys indicated 70% of installers changed the way they installed systems on nearly 300 sites they encounter annually. Participants agreed that they had a better understanding of alternative technologies that might be suitable for the limiting conditions they encounter, and that they would discuss alternative options with homeowners. This change may result in fewer marginal and possibly illegal systems being installed at sites with limiting conditions.
- **Drinking Water 58** water samples collected with 1/3 testing above public standards.
- Storm Water education programs in the metro reached 322 industry professionals. 6 month follow-up evaluated reported 93% used knowledge gained to control erosion. OPWD indicates new knowledge is reflected in developers permit requests.
- Acreage Expo at ARDC reached 50 owners focusing on wastewater and drinking water. Participants identified 20 adopted behaviors related to the environment.
- Toxic Algae in-service for 19 educators on helping lake owners reduce algae risks.

 Sustainable landscape techniques, reduce water usage and urban environment.

- Sustainable Landscape Demonstration Gardens Fourteen gardens are in place throughout two metro counties to provide information about sustainable landscaping to residents. A 3,000 square-foot garden at west Omaha's Village Pointe Mall identifies newly planted trees, shrubs, perennials and annuals which are drought tolerant and need watering only every three to four weeks.
- The Hospice House Garden and the Douglas County Health Center Garden provide physical and mental health benefits. Pre-post visit surveys mirrored research by Dr. R. Mattson (KSU). 88% of the visitors found the gardens relaxing and 53% reported a renewed energy level.
- Termite Professional Training 87 attendees for a two day hands on workshop. 84% made changes in applications and 96% were better able to handle equipment.
- **Biosolids Program** in Fremont with 25 producers and Lincoln with 73 producers saved Fremont \$10,000 this year and Lincoln 4 million dollars since 1992. Grants total \$47,000.
- Rural Living Clinics offered each month on acreage issues 548 persons. Acreage e-News a monthly newsletter for acreage owners has 900 subscribers. Average reported savings \$2,134.
- Lead Education 150 real estate professionals changed the way they represent older homes. Train the trainer Community Health workers reached 14,400 parents and 75 households changed landscaping and housekeeping practices. Grant \$364,794.00 from HUD, \$37,750 Health Dept. and NRD \$60,000.

Addressing emerging issues related production technologies, maximizing profits and protecting the environment.

• The Nebraska Soybean Feed Grain
Profitability Project: Replicated Plots included:
Corn Rootworm Control Options, Chelated Iron
as a Soil Amendment in Corn Production,
Fungicide Post Applications in the Production of
Corn and Soybeans, Soybean Seed Treatments,
Biosolids as a Nutrient Source for Corn and
Soybean Production, Evaluating Starter Fertilizer
Sources in the Production of Soybeans, Soybean
Maturity Groups for Eastern Nebraska Rainfed
Conditions, Tillage Impact on Yield of Rainfed

- Corn and Soybeans, Evaluating Soybean Seeding Rates, Nitrogen Management of Corn, Support Systems for Corn-Based Cropping Systems, Using Lime in the Production of Corn and Soybeans, Soil Conditioners in the Production of Irrigated Corn, Insecticide Seed Treatments, Soybean Planting Dates, Evaluating Starter Fertilizer in Dryland and Irrigated Corn.
- Quad County On-Farm Research 7 soybean population studies on seeding rates from 90,000 to 180,000. Past results of on-farm research were presented in seven counties reaching 395 producers.
- Research Projects Berseem Clovers with Teff, EB97 on Rain-Fed Corn and Soybeans, Growth Enhancements in Rainfed Soybeans and Irrigated Corn. BT Rootwork on Corn Blotch Leaf Miner, Wireworms in Corn, Poncho on Corn Blotch Leaf Miner.
- Southeast Eight Demonstrations-150 fields were sampled for Soybean Cyst Nematode and 1,300 farmers were educated on the impact. In southeast eight counties scouting for soybean rust meant that producers did not apply unneeded fungicides. Corn rootworm trapping trials resulted in 1/3 of producers not paying for rootworm control. Increased wheat production and weather conditions we recommended producers apply fungicides resulting in 10-20 bushels per acre or \$25-\$75 per acre more profit. Services Lespedeza a noxious weed in pasture demonstrations.
- NSFGPP a detailed focused group evaluation of this project is underway. Past evaluations value the project at \$7,000 per member or \$231,000. 12 growers have pooled some of their own grain and used different marketing strategies in the grain pool. Growers who attend the sessions enhance their marketing skills in a very neutral environment.
- Quad County On-farm Research Producers can reduce seeding rates by 40,000 seeds/acre with no effect on yield and a seed savings of \$9.00/acre on an estimated 270,000 acres saving \$2.5 million.
- Southeast Eight Demonstrations -50% of the samples tested positive for SCN with 75% of the bottomland fields testing positive. Potential dollar savings due to SCN awareness estimated at \$5,811,663 with the addition of SCN resistant variety selection. Corn rootworm trapping trials saving \$7.50 an acre or 1 million dollars. Planing

Population studies saves \$8.00 per acre at same yields if 25% of the acres reduced planting rates the savings would be 1.5 million dollars.

- Soybean Population Study (Cass) indicated no significant difference in yield and producers could save \$5/acre in seed cost when planting 130,000 seeds/acre compared to 170,000. Results crediting soybean for N indicated that there was not difference in corn yield and producers would save \$30.00/acre when applying 80 lbs of N/acre as compared to 160 lbs.
- Crop Management & Diagnostic Clinic (CMDC) program was expanded this year to 13 one day trainings reaching 800 agribusiness professionals and producers from 64 Nebraska counties and 13 states. The hands on CSI training engages the learner and is a very effective approach to training. CMDC impacts 57% of Nebraska's row crop acres with a value of \$8.64/acre or 65.2 million dollars. 86% of participants indicated they would make a change based on what they learned. An in-depth web based evaluation of practice change is scheduled for this January.
- Eastern Nebraska Wheat Growers conference -103 growers attended educational program at Hastings and the ARDC which focused on starter fertilizer, tiller counts, fungicide seed treatments and new varieties. 88% of the attendees agreed that they learned new ideas to implement in their operation. 74% indicated in a follow-up evaluation (n-14) that they actually changed their operations resulting in higher yields.
- Soybean Management Field Day taught 432 participants Making Crop Yield, Price and Financial Decisions, pest management and planting timing.. Grant \$80,000 Ne Soybean Board.
- **Soybean Expo** reached 363 growers and 53 exhibitors addressed grain marketing and the impact on the ethanol industry.
- Nebraska Agricultural Technologies
 Association (NeATA) annual conference reaches
 150 professionals on the latest in agricultural technologies.
- **Nitrogen Management** Four demonstration plots in three counties in "hot spots" where groundwater contains 40-50 ppm. Relay cropping methods(soybeans into wheat) were demonstrated. Over the last several years

- 240 fields have had plots for nitrogen with about 70% of producers testing. Soil ph variety plots help producers choose proper cultivars. Worked with specialists(Ferguson/Krull) on slow release nitrogen study 12 plots. Worked with Suat on water use under irrigated and dryland pastures.
- Farmer Rancher College Over 900 farmers, ranchers and agricultural industry representatives participated in the Farmer Rancher College series with 85% indicating they would make changes in grain marketing and risk management plans based on what they learned. They estimated the value of the workshop at \$7.43/acre annually for a potential impact of over \$4,600,000. Beef cow/calf producers estimated a savings of \$19.75 per head or a total of about \$493,750. Participants gained information on U.S. economic policy, macro economic environment, factors determining profitability, developing farm policy, crop marketing price outlook and strategies, selecting crop insurance tools based on risk level, basis and carry, understanding new generation grain contracts and implementing a marketing and risk management plan. The Marketing and Insurance program was delivered via satellite to 18 additional counties with over 200 viewers.
- Winning the Game/Launching
 Marketing Plan had 200 participants state-wide.
 The marketing simulation teaches producers how to increase income about 15 cents per bushel for corn and 25 cents per bushel for soybeans. 92% of the 512 participants said they would develop a pre-harvest marketing plan. Total impact of the program could increase income \$16,000 for the average participant or about \$8 million statewide.
- Computerized Farm Financial Recordkeeping six 5-hr workshops reaching 57 participants 91% indicated they learned to create reports to better manage their farming operation.
- Annie's Project was held in Southeast Nebraska to leach farm women risk management.
- Farming with Computer Technologies over 34 producers in Southeast NebraskaSEQ CHAPTER \h \r 1 learned to track financial risks, recordkeeping and information searches. Participants reported learning to keep a more complete set of financial records for management decisions.
- **Market Journal Toolbox** sessions used with 25 people breakfast series. Statewide impact

data indicate 70% indicated that they could determine how to appropriately use contracts and strategies.

Improving nutrition and health and food safety.

- Farmers Market program was used by 2,830 educators nationally and is cited on the USDA Women, Infant and Children's web resources. 99% of respondents found the materials helpful. They add to community economic development and educate persons on fresh and healthy food.
- 930 individuals participated in healthy living course learning about nutrition and exercise
- Food Reflections e-newsletter reaches 12,760 people in 81 countries
- Food Web site had 86,611 unique visits per month
- Cook it Quick e-newsletter has 9,702 people in 57 countries with subscriptions.
- Nebraska Correctional Center for Women
 since 2001 900 inmates reported making positive
 lifestyle changes including exercise and healthy
 eating.
- Workplace wellness reaches 200 adults 95% of participants set goals to increase physical activity.
- 823 persons participated in the Nutrition Education Program. 76% improved nutrition practices, 50% improved food safety behaviors and 70% food buying skills.
- 2,078 youth participated in NEP. 94% improved diet by eating a variety of foods.
- 2,575 families and 4,485 youth participated in EFNEP to improve nutrition
- 147 women participated in ABC's of Good Health 74% were able to reach their diet and exercise goals.
- 253 individuals took ServSafe managers class making the total in the Omaha area 2,000 individuals since 1997.
- 125 took employee ServSafe training. 84% increased their knowledge of using thermometers, 100% stated they increased their knowledge about sanitation. A 4-month follow-up 100% of respondents had started to implement food safety practices.
- Club Possible reached 849 children in the Omaha area learning about healthy eating and exercise during out of school programming. There was a statistically significant change in BMI as

the average BMI dropped from the 76th percentile to the 70th percentile.

Strong Families and Communities

- 743 Guardians were trained 85% had a better understanding of their responsibility to the court and 66% had a better understanding of their financial responsibilities.
- 300 high school students participated in Credit Card Blues to reduce risk of credit debt. 72% of the seniors reported understanding the risk factors of having a credit card, 66% understood interest charges
- 287 sixth grade students attended money camp at UNL. Seven financial education concepts were taught.
- 248 senior citizens were helped with changes to their Medicare Part D. The economic benefit to southeast Nebraska totaled 272,800 based on CMS's estimated \$1,100 per person.
- 70 learners attended Elder Fraud programs 79% indicated they would examine Medicare bills carefully.
- 1605 adults including parents, foster parents, teachers and child care providers and 286 youth attended one or more of the 17 workshops. Of the 292 Family Night participants, 40% increased in praising their children for positive behavior. 32% increased having a good time together and 28% increased talking to their children about important things. Research tells us these family strengths are critical to building strong families.
- Leadership Plenty 150 citizens in 6 counties report 76% increase in volunteer hours, 36% expected to run for office, 44% increased donations, 72% gained entrepreneurship skills and 100% were more confident in attracting new residents. They are contributing to their communities by renovating infrastructure, attracting new businesses and spearheading events to improve community vitality.
- The **2007 NACO Institute of Excellence** is a result of UNL Extensions collaboration with NACO and multiple NU campuses to assess needs, develop curricula and promote leadership training for public officials.