

Annual Report
of
Accomplishments & Results
for
Colorado's FY1999-FY2006
Plan of Work

Colorado State University
Cooperative Extension

(Year-Six)

FY 2004-2005

The 2004-05 fiscal year marked Colorado's transition to full implementation of the strategic plan for Cooperative Extension completed in April 2004. Programmatically, Colorado Cooperative Extension committed to six core competency areas of Strong Families, Healthy Homes; Nutrition, Health and Food Safety; 4-H and Youth Development; Community Resource Development; Natural Resources and the Environment; and Competitive and Sustainable Agriculture Systems, plus representing the entire university to Colorado communities as the "front door" to the broad range of university expertise. Cooperative Extension units across the nation are adopting the theme of taking the whole university to the people, the broadest definition of the land-grant university envisioned since the Smith-Lever Act was passed in 1914. Over a period of 2-3 years numerous implementation steps have been and will be taken to turn plans into actions:

- Define, clarify, and establish structures to implement the notion of "Front Door"
- Train County and Area Directors in community engagement
- Establish secure knowledge brokerage with clear contact information and response coordination
- Build incentives for "front door" participation
- Establish clear, common pricing structures for program participation
- Fulfill staffing plans with additional hiring
- Build pilot programs with the Division of Continuing Education and departments
- Explore multi-county group program coordination to permit agent specialization and access to all programs by all citizens
- Determine career options for specialized and generalist agents
- Assess electronic delivery investments for travel minimization and program impact maximization
- Examine Cooperative Extension's general identity and promotion strategies, including brand name review, signage and office identity, and a media relations plan
- Develop formal relationships between specialized agents and departments
- Develop and implement plans for revenue enhancement
- Manage to meet citizen expectations, e.g., secretary training for welcoming and redirecting clients

On October 17, a university reorganization plan was announced. Under the new organization, the position of Vice Provost for Agriculture and Outreach will be abolished and the three related outreach agencies will be aligned with different administrative units. The Agricultural Experiment Station will be part of the College of Agricultural Sciences. The Colorado State Forest Service will be part of the Warner College of Natural Resources. Cooperative Extension will report to a new position of Vice Provost for Outreach and Strategic Partnerships (VPOSP). The new Vice Provost will be responsible for coordinating the activities of Cooperative Extension, the Office of Economic Development, the Division of Continuing Education, the Colorado Institute of Public Policy, the Colorado Water Resources Research Institute, and the Office of International Programs. The position of Vice Provost for Outreach and Strategic Partnerships will be filled with a national search. After the VPOSP is in place, a search will begin for a permanent Director of Cooperative Extension. Until a permanent director is named, Dr. Marc Johnson serves as Interim Director of Cooperative Extension.

The new organizational structure shows the President's interest in Cooperative Extension as the "front door" to Colorado State University. During this time of transition, it will be important to maintain strong relationships with County Commissioners and local constituents to assure them that change will be evolutionary, that the county-university partnership will be honored with programs customized to local educational needs, and that Cooperative Extension continues to be defined by the six core competency areas augmented by access to the broad spectrum of knowledge available across Colorado State University.

In November, 2005, Colorado voters approved Referendum C which provides some likelihood that Cooperative Extension will receive an annual budget near the purchasing power of the past year's budget. The budget position of Cooperative Extension is not expected to return to the level of fiscal year 2003 (prior to the large budget reduction). Thus, revenue generation will remain a major objective of Cooperative Extension management. Passage of Referendum C has allowed Extension to move forward with staffing and marketing plans.

Despite all the structural changes that have occurred, Cooperative Extension agents and specialists continue to deliver research based information and education to the citizens of Colorado. Following is a summary of some of the major impacts CSUCE has had in FY05 organized by the Goals and Objectives in our original Five-Year Plan of Work

GOAL I: An agricultural system that is highly competitive in a global economy.

Objectives:

- A. Enhance the profitability of Colorado agriculture producers with an emphasis on increased business management skills through the development and adoption of: 1) risk management tools; and, 2) comprehensive business plans including integrated resource management.
- B. Enhance the diversification of income for Colorado agriculture producers by increasing the production of alternative and niche market crops: 1) crops not currently grown or in low production in Colorado; 2) increase production and value-added facilities in Colorado.

CSU Core Competency Area: Competitive and Sustainable Agriculture Systems

Key Theme – Agriculture and Business Management Team

Inputs

Table 1. Colorado State University Agriculture and Business Management Team.

ABM Economist	Extension Appointment	Primary Interests
Jeff Tranel Pueblo	100% Extension programming ABM team coordinator DARE Faculty Affiliate	Financial analysis, record keeping, leasing, budgeting, labor, income taxes, risk management, cost of production estimates
Rod Sharp Grand Junction	100% Extension programming DARE Faculty Affiliate	Financial analysis, leasing, investment analysis, value added, risk management, small acreage, cost of production estimates
Dennis Kaan Akron	50% Extension programming 50% Extension Area Director DARE Faculty Affiliate	Risk management, dryland cropping systems, cost of production estimates
John Deering Akron	100% Extension programming Grant funded	Risk management, enterprise budgets
Norm Dalsted Fort Collins	6 months Extension programming DARE Professor	Bankruptcy, crop insurance, estate planning, farm/ranch management, IRM

James Pritchett Fort Collins	3 months Extension programming DARE Assistant Professor	Financial implications of farm and ranch water allocations.
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Other members of the ABM Team are faculty in the Department of Agricultural and Resource Economics and include Steve Koontz, Sue Hine, Andy Seidl, Wendy Umberger, Marshall Frasier, and Dawn Thilmany. These people have different Extension appointments and bring an extensive and diverse expertise to the Team’s Extension programming efforts.

Three members of the ABM Team were members of the RightRisk Team receiving national recognition by Epsilon Sigma Phi. Tranel, Sharp, and Kaan joined with Dana Hoag and Jay Parsons to received the 2005 ESP Team Award.

Team members are involved in many university and other activities.

Tranel

- Co-chair of Epsilon Sigma Phi’s 2005 National Conference steering committee.
- Colorado Water Availability Task Force.
- Western Representative to the National Risk Management Education Conference.
- Chairperson of Invited Papers Selection Committee to the National Risk Management Education Conference.
- Colorado State University liaison to the Arkansas Basin Water Roundtable.

Sharp

- Colorado State University liaison to the Colorado River Basin Water Roundtable.
- CSU Cooperative Extension User Fees Committee.

Kaan

- Member of County/Area Directors Annual Meeting planning committee.
- Colorado Conservation Tillage Association Board of Directors.
- Morgan County Economic Development Corporation Business Accelerator Steering Committee.
- Northeast Colorado Citizen Corps Regional Council.
- Alternative Enterprise and Rural Tourism Conference Planning Committee.
- Republican River Basin Compact Compliance.

Dalsted

- Western Center for Risk Management Education – Member of Advisory Board.
- Colorado State University Rodeo Team – Faculty Advisor.

The ABM Team received no Work Team startup funds. Operating dollars are generated by the annual Ag Lender Meetings and grant-funded projects. Revenues generated from Ag Lender Meeting registration fees were used to cover meeting costs, provide travel monies for team members to attend the Western Farm Management Extension Committee meetings, and generate some “user fees” for the counties in which the meetings are held. ABM Team members are involved in numerous grant funded projects totaling \$571,644. A number of grant proposals were written, submitted, and not approved.

Outputs

The ABM Team presented information and education at more than 45 workshops, meetings, seminars, and trainings in Colorado and across the United States in 2005 (please see Table 2 for more details). A plethora of educational methodologies were used to meet the needs of clientele: workshops, train-the-

trainer workshops, fact sheets, resource manuals, publications and bulletins, web sites, simulation models, expos, field days, leadership schools, videos, etc.

Publications/Articles/Templates (most fact sheets are printed and web based)

- Crop Enterprise Budgets for Northern Colorado, 2003. (Dalsted)
- “Herd Replacement – How Much Can I Afford to Pay.” (Dalsted)
- “Estate Planning—Why is it Important to Your Insurance Clients.” (Dalsted)
- “Bankruptcy – Chapter 12 Changes.” (Dalsted)
- “Energy Impacts on Production Agriculture.” (Dalsted)
- Notebook of Articles and Presentations for Agricultural Lenders (Tranel, Sharp, Kaan, Dalsted, Pritchett, Koontz, Deering, Sprague, Frasier, Thilmany, Umberger)
- “Reinvestment in Beef Cattle Replacements.” (Dalsted)
- “Analyzing Your Beef Cow Replacement Investment.” (Dalsted)
- “Growing Organic Milk Demand Drives Organic Hay Market.” (Dalsted)
- EHAY Weekly contribution, December, 2005.
- “Economic Impacts of Reduced Acres: Example of the Republican River Basin.” (Pritchett, others)
- Colorado Water, February 4-6.
- Agriculture and Business Management Update, Volume 2, No. 1 (Pritchett, editor)
- “Profile of the Republican River Basin.” (Pritchett, other)
- Economic Development Report. EDR 05-03.
- “Profile of the Arkansas River Basin.” (Pritchett, other)
- Economic Development Report. EDR 05-04.
- “Profile of the Rio Grande River Basin.” (Pritchett, other)
- Economic Development Report. EDR 05-05.
- “Profile of the Republican River Basin.” (Pritchett, other)
- Economic Development Report. EDR 05-06.
- “Managing for the Right Risks in Your Operation: An Action Plan.” (Kaan, Tranel, others)
- *RightRisk* Publication #RR-B-2.
- “Custom Rates for Colorado Farms and Ranches.” (Tranel, Sharp, Kaan, Dalsted, Deering)
- “Crop Enterprise Budgets for Selected Colorado Crops.” (Sharp, Kaan, Deering, Dalsted, Tranel)
- “How Much Can You Pay For Cows? A Decision Tool.” (Dalsted, Sharp, Tranel)

Refereed Journal Articles

- “Animal Disease Economic Impacts: A Survey of Literature and Typology of Research Approaches.” (Pritchett, J., D. Thilmany and K. Johnson) International Food and Agribusiness Management Review. Vol 8. Issue 1: 23-45.
- "Vertical Integration in Produce Markets: A Colorado Cooperative's Strategic Response to Change," (Hine, S., J. Pritchett, M. Loureiro, and S. Meyer) Journal of Agribusiness. pp. 93-108.
- “Retail Meat Feature Pricing: Enhancing Meat Case Revenues?” (Pritchett, J. and K. Johnson) Journal of Food Distribution Research. Vol. 36. no. 1: 144-158.
- “Cooperative Director Training: Changing the Way Extension Programs.” (Hine, S., J. Fulton and J. Pritchett) Journal of Extension. Vol. 43. No. 3.

Impacts

It is difficult to measure impacts during a single year. According to post workshop evaluations, participants in RightRisk workshops did gain a greater understanding of risks faced by producers, risk

management strategies, and personal risk preferences. Demand for annual “Custom Rates” survey results and enterprise budgets by producers, lenders, investors, and researchers indicate need and use in decision making.

Table 2. Workshops and Presentations by ABM Economists in 2005.

Workshop/Conference	Audience	Presentation Title	Location & Participants	ABM Economist
December				
NE Colorado Economic Development Corporation Regional Meeting	Executive Directors and County Commissioners	<i>Economic Impact Compliance with the Republican River Compact</i>	Yuma (20)	Kaan
CSU Water Dialogue Conference	Producers, researchers, Extension personnel, government agency personnel	<i>CSU Water Dialogue: Themes and Opportunities</i>	Fort Collins ()	Pritchett
Wheat Based Cropping Systems Crop Clinic	Producers and Crop Consultants	<i>Risk and Returns for Central Great Plains Dryland Crop Rotations</i>	Akron (50)	Kaan
Tri-River Planning and Development Board Meeting	Board members	<i>Feasibility of Cheese Processing in Western Colorado</i>	Grand Junction (20)	Dalsted
November				
Western Hay Conference	Producers	<i>Importance of Alfalfa Production in Colorado's Organic Market</i>	The Ranch (200)	Dalsted
Crop Insurance Workshops	Crop Insurance Agents	<i>Bankruptcy – Chapter 12 Changes Estate Planning—Why is it Important to Your Insurance Clients</i>	Brush, Salina, KS, Grand Island, NE (300)	Dalsted
Colorado Cattlemen's Association Winter Meetings	Producers	<i>Analyzing Your Beef Cow Replacement Investment</i>	CO Springs (50)	Dalsted
Larimer County Farm Bureau Annual Meeting	Producers	<i>Colorado Water: Issues and Opportunities</i>	Fort Collins ()	Pritchett

Law and Order Conference	Producers and Green Industry Entrepreneurs	<i>Labor Management Issues</i>	Firestone (39)	Tranel
Central Colorado Water Conservancy District's Agriculture with Less Water - Facing Drier Realities in the South Platte Basin Conference	Producers and Water Users	<i>Agriculture With Less Water – Economic Considerations Limited Irrigation Spreadsheet Agriculture With Less Water and Crop Insurance Implications</i>	Greeley (100)	Kaan, Pritchett, Dalsted
Epsilon Sigma Phi National Professional Development Conference	Extension Professionals	<i>Welcome to Colorado and ESP's 2005 National Conference RightRisk - the Genesis of an Award Winning Educational Program</i>	CO Springs (256)	Tranel
October				
Water Issues in the South Platte Symposium	Producers, water users, elected officials	<i>Broader Economic Impacts of Reduced Irrigated Acres: Colorado's South Platte River Basin</i>	Sterling ()	Pritchett
Career Day at Fruita Monument High School	High school students	<i>Careers in Agriculture</i>	Fruita (60)	Sharp
"Surviving in Ag" Workshop	Producers	<i>Surviving in Agriculture Livestock Risk Protection</i>	Sterling (12)	Kaan, Deering, Sprague
2005 Ag Lender Meetings	Colorado's Ag Lenders	Topics: cattle market outlook, livestock risk protection, herd replacement, trade issues, Colorado's animal ID policy and producer implications, crop (wheat, hay, oilseeds, corn, potatoes) outlook, financial consideration for "surviving in agriculture"	Alamosa (11) La Junta (29) Akron (20) Greeley (21) Meeker (10)	Tranel, Sharp, Kaan, Deering, Dalsted, Frasier, Koontz, Pritchett, Umberger, Thilmany, Sprague

September				
Agricultural Risk & Financial Health Conference	Producers, ag lenders, Extension personnel, government agency personnel	<i>Identifying Risk Management Alternatives Market Planning</i>	Jackson Hole, WY (75)	Pritchett
Farm Bureau High Plains Aquifer Summit	Producers, lobbyists, water users	<i>Response to Reduced Agricultural Water Supplies: CSU's Research and Outreach</i>	Kansas City, MO (75)	Pritchett
August				
“Surviving in Ag” Workshop	Producers	<i>Surviving in Agriculture</i>	Limon (0) Burlington (4)	Tranel, Kaan, Deering, Sprague
Colorado Math & Science Institute	High school students	<i>Math and Business Management</i>	Grand Junction (12)	Sharp
“Living with the Compact: Past, Present, and Future” hosted by Republican River Watershed Association	Producers, community leaders, water users	<i>Economic Impact Compliance with the Republican River Compact</i>	Yuma (120)	Kaan, Pritchett, Deering
July				
NRCS Irrigated Water Management Training	NRCS personnel	<i>Deficit Irrigation - Does That Mean Only Adjusting Water Supply and Accepting a Lower Yield?</i>	Fort Collins (49)	Pritchett
Four States Irrigation Council Demonstration Meeting	Producers and water users	<i>Economics of Limited Irrigation Research</i>	Fort Collins (50)	Pritchett
June				

ARS Field Day	Producers and Researchers	<i>Costs of Producing Wheat</i>	Akron (160)	Kaan, Deering
May				
Farm Credit Administration Regional Retreat	Ag loan officers, producers	<i>Commodity Price Outlook US Agriculture's Farm Bill: Issues and Discussion Points Colorado Water Outlook: Illustration of the Republican River Basin</i>	Denver (18)	Pritchett
April				
National Risk Management Education Conference	Extension Educators, government agency personnel, producers	<i>RightRisk - The Genesis of a Multi-State Educational Program RightRisk - The King Family Ranch</i>	Kansas City, MO (119)	Tranel, Sharp
RMAVV Economic and Marketing Seminar	Producers and investors	<i>Economics of Establishing and Operating a Vineyard</i>	Grand Junction (50)	Sharp
SW Water Conservation District Annual Meeting	Producers, water users, government personnel, elected officials	<i>Broad Economic Impacts of Irrigated Agriculture</i>	Cortez (200)	Pritchett
March				
Elbert County Hay Symposium	Producers and NRCS personnel	<i>Evaluating the Economics of Hay Production</i>	Kiowa (34)	Tranel
Lone Star Young Farmers	Producers	<i>Crop Insurance Program Update</i>	Lone Star (12)	Kaan
February				

Financial Management Workshop in Kiowa County	Producers	<i>Analyzing Your Financial Information</i> <i>Income Taxes – Changes for 2005</i> <i>How Much Can You Afford to Pay for Cows</i> <i>An Overview of Risk & Risk Management</i> <i>RightRisk</i> <i>Analysis of Leasing Strategies</i>	Sheridan Lake (14)	Tranel, Deering
Four Corners Beef Symposium	Producers	<i>Cow/Calf Management 101</i>	Hesperus (60)	Sharp
Bio Energy Conference	Producers		Montrose (35)	Sharp
Livestock Enterprise Budgets	Cattle Producers	A discussion of costs and returns for cow herds calving in three different seasons	Kim (6)	Tranel
January				
Workshop Series – Increasing Profits: Developing Risk Management Skills Using Experiential Learning	Producers	Topics included: risk management, financial risks, financial statements, RightRisk, record keeping, non-farm investing, commodity marketing, and futures and options trading.	Alamosa (11)	Tranel, Koontz, Hine
Animal ID Workshop	Producers	<i>Animal ID: Economic Impacts</i>	Montrose (8)	Sharp
Plainsman Agri-Search Foundation Annual Meeting	Producers, Extension personnel, researchers	<i>The Financial Condition of Plainsman</i>	Walsh (42)	Tranel
Colorado Water Congress	Government personnel, elected officials, water users, researchers	<i>Broad Economic Impacts of Reduced Agricultural Irrigation: The Case for the Republican River</i>	Denver (75)	Pritchett

Colorado Farm Show	Producers	<i>Profitability of Alfalfa Hay in Colorado</i>	Greeley (80)	Dalsted
Olathe Cooperative Board of Directors Meeting		<i>Feasibility of Relocating/Merging Delta, Montrose, and Olathe Coops</i>	Olathe (16)	Dalsted
Western Farm Management Extension Committee	Extension personnel and researchers	<i>Importance of Estate Planning</i>	Albuquerque, NM (30)	Dalsted

Table 3. Grant Funded Projects, ABM Team Member Involvement, and Monies Generated.

<p><i>Building Decision Making Skills for Beef Cattle Producers</i> (\$4,999) Funding Agency: Western Center for Risk Management Education for 01 Jul 2005 - 30 Jun 2006 PI: Tranel & Sharp Others: Dalsted, Kaan, Deering, Bastian (UW)</p>
<p><i>Defining New Rural Clientele for Extension in the West</i> (\$59,997) Funding Agency: Western Center for Risk Management Education for 01 Sep 2005 - 28 Feb 2007 PI: Tranel Others: Hewlett (UW), Weigel (UW), Rahman (UA), Teegerstrom (UA)</p>
<p><i>Increasing Farm Profits: Developing Risk Management Skills Using Experiential Learning Methodologies</i> (\$9,000) Funding Agency: Western Center for Risk Management Education for 01 Jul 2003 – 30 Jun 2005 PI: Tranel Others: Hine</p>
<p><i>A Risk Management Education Partnership with Colorado Sheep Producers</i> (\$97,965) Funding Agency: USDA-RMA for 01 Oct 2004 – 30 Sep 2005 PI: Hoag & Parsons Others: Sharp, Tranel, Deering, LeValley, Kimberling, Bastian (UW), Hewlett (UW), Godfrey (USU), Jenkins (WSU)</p>
<p><i>Drought Management Risk Simulation for Research and Education</i> (\$88,596) Funding Agency: USDA-CSREES for 01 Oct 2003 – 30 Sep 2006 PI: Hoag & Parsons Others: Sharp, Tranel, Kaan, Bastian (UW), Hewlett (UW), Godfrey (USU), Jenkins (WSU), Tronstad (UA), Gray (UI), Riggs (UN-Reno), Griffith (MSU)</p>
<p><i>Education, Training and Outreach on Risky Decisions</i> (\$99,600) Funding Agency: Western Region SARE for 01 Oct 2002 – 30 Sep 2005 PI: Hoag & Hewlett (UW) Others: Parson, Sharp, Tranel, Koontz, Kaan, Bastian (UW), Godfrey (USU), Bailey (USU), Tronstad (UA), Teegerstrom (UA), Gray (UI), Riggs (UN-Reno)</p>
<p><i>Cost of Production Studies for Sweetcorn, Peaches, and Onions</i> (\$19,990) Funding Agency: University of California for 01 Jan 2004 - 31 Jan 2005 PI: Sharp Others: Cooley</p>
<p><i>A Commodity Partnership Risk Management Education Project in Colorado</i> (\$113,395) Funding Agency: USDA-CSREES for 01 Nov 2003 – 30 Sep 2006 PI: Kaan Others: Hoag, Parsons, Tranel, Sharp, Bastian (UW), Hewlett (UW)</p>

<i>Using “Surviving in Agriculture” to Teach Equity Management to Ag Producers in Western States (\$39,237)</i> Funding Agency: Western Center for Risk Management Education for 01 Jul 2003 – 30 Jun 2005 PI: Kaan Bastian (UW), Others: Deering, Tranel, Sharp, Hoag, Parsons, Hewlett (UW), Godfrey (USU), Teegerstrom (UA), Griffith (MSU)	
<i>Livestock Risk Protection, Data Management, and Education for Colorado Producers and Agribusiness Professionals (\$38,865)</i> Funding Agency: Western Center for Risk Management Education for 01 Jul 2005 – 30 Jun 2006 PI: Kaan (Premier Farm Credit), Fankhauser (Colorado Livestock Association), Others: Tranel, Sharp, Deering, Koontz, Umberger, Luft Thompson (Colorado Farm Bureau), Robb (LMIC), Cattleman’s Association), Hammerich (Colorado	
Total Grant Funds = \$571,644	

Key Theme – Beef Team

Inputs

CSU Project or Fund No.	Title of Project	Sponsor	Funding Amount, \$	P.I.	Co-PIs	Start/End Dates
536080	Applications of novel approaches to animal traceability	Optibrand LTD, LLC	\$29,237	Whittier		5/01/05 to 6/30/06
171250	Animal ID Pilot Project Town Hall Meetings	Colorado Department of Agriculture	\$3,459	Whittier	Steve LeValley	Oct 2004 through April 2005
In Process	Train the Trainer Animal and Premises Identification meetings	Colorado Department of Agriculture	\$8,000	Whittier	Steve LeValley	Oct 2005 through May 2006
	Colorado Nutrition Roundtable Support of speaker travel, etc. 25 Sponsors	Various Industry Sponsors @ \$200 each	\$5,000	Whittier	ARPAS Chapter	March and September
	Range Beef Cow Symposium	Allied Industry Exhibitors, and Symposium Attendees	Total =\$78,213 Colorado share= \$19,553	Whittier	Julie Walker, SD; Ivan Rush, NE; Steve Paisley, WY	Fall 2005
		Total Funded	\$65,249			

Outputs

- Town Hall and Train the Trainer Meetings to provided education on the National Animal Identification System (NAIS). (15 meeting, 650 total attendees)
- Range Beef Cow Symposium – Held jointly with SD, NE, WY – 2.5 day educational program; included a written proceedings and web-access to presentations following live symposium. (675 attendees)

Impacts

- Livestock producers became aware of the purpose and objectives of a national animal identification system to protect their investment in livestock.
- Beef cattle producers were provided current updates on areas of beef cattle management related to nutrition, genetics, reproduction and industry issues.

Key Theme – Small Ruminant Work Team

Inputs

Team Leaders: Steve LeValley, Tom McBride

Team Members:	Marvin Reynolds,	Roger Ellis,	Robbie
LeValley,	Bill Ekstrom,	Marlin Eisenach,	Rod Sharp,
	Leonard Pruett,	Tony Knight,	Jeri Parsons,
	John Scanga		

Funds received

- \$1100 – Colorado Sheep and Wool Authority; Tour & Field Day
- \$2000 – Colorado Dept of Agriculture; EID
- \$36,500 – Sheep Quality Assurance; National Sheep Center
- \$36,000 – National Sheep Quality Audit; National Sheep Center
- \$3,000 – Organic Livestock Production; WSARE
- \$419,000 – Pending USDA Grant on 9-county Junior Livestock EID

Outputs

- **Goat 101:** 80 participants/2 days/proceedings
- **Senior College Wool Contest:** 11 teams; 50 participants
- **Colorado Junior Sheep Field Day:** 300 participants/250 youth/judging of wool and live evaluation
- **Northern Colorado Sheep Tour:** 30 participants
- **Routt, Rio Blanco & Moffat County Wool Growers:** 45 participants
- **Sheep AI School; Wool Evaluation:** 25 participants
- **Mountain States Lamb Coop:** 80 participants, impacted 200,000 sheep; 6 states
- **Colorado Woolgrowers:** Wool classes; Premises ID workshop for 40
- **Front Range Sheep Day:** 25 participants

- **Applied Research Projects:** Electronic Identification in Sheep
Herbicide Withdrawal/Grass Clippings
- **Educational Publications:** Sheep Safety and Quality Assurance – Peer Reviewed and distributed nationally to 60,000 producers/DVD and Brochure on Youth Premises ID – used by all Colorado counties

Impacts

- Changes in lambing practices
- Improved wool evaluation skills
- Improved growth and development in rams
- Improved ram breeding soundness
- Increase knowledge in Premises ID
- Increase awareness of Sheep Safety and Quality Assurance
- Improved sheep fertility with ultrasound

Key Theme – Dairy, Forages and Feedgrain Ag Systems

Inputs

Team Members

Leaders: Bruce Bosley & Joe Brummer,
Members: Merlin Dillon, Keith Maxey, William Wailes

Productive relationships work team has developed

- Colorado Hay and Forage Association
- Colorado Dairy Association
- Grass and Forage Seed Companies (Pawnee Buttes Seed Co. Inc, Sharps Brothers Seed company, Arkansas Valley Seeds, Barenbrug UK)
- CSU Soil and Crop Science Department: Gary Peterson and Neil Hansen are focused on forage production in their research on dryland and limited irrigation cropping systems. Neil Hansen has partnered with Northern Water Conservancy District in a study of the affect of seasonal withholding of irrigation water on Alfalfa. Bosley and Brummer have provided their expertise on the design and implementation of these research activities

Grants received

- \$2,700 CSU Work Team Grant
- \$6,777.50 Western SARE Grant (2005)
- NRCS Drip Irrigation Initiative = \$75,000
Involves barley and potatoes.

Outputs

- Dairy Day at Colorado Farm Show – January 26th, Greeley CO, Weld County Event Center. **William Wailes & Keith Maxey** Co-Hosted this program

- Irrigated Grass Field Day – August 12th, Pawnee Buttes Seed Company presented, **Bruce Bosley** participated and presented information during discussions
- Western Hay Business Conference & Expo Program – Nov 29th & 30th 2005, The Ranch, Larimer County Fairgrounds – put on by the Hay and Forage Magazine – **Bruce Bosley** helped develop the Agenda, recruited and coached speakers, and moderated many of the program sessions.
- Produced 14 news columns and one newsletter in 2005 on forage production and grazed pastures
- Completed the report for the **Western SARE grant: FW04-318 Using Irrigated Forage Pastures to Enhance Livestock Production Sustainability** By Bruce Bosley and Gene Schmitz with Ken Amen, Eric Christensen, Russ Steward, Gordon Schuppe, and Mike Cure cooperating. –
- Published Colorado State Agricultural Experiment Station Technical Report: **TR05-05; Northeast Colorado Forage Comparisons**
- Made farm/field visits with 29 individuals in 2005 regarding forage & grazing
- Answered 76 phone or internet questions regarding forages and grazing pastures
- I have emphasized education programming on alfalfa production directed at specific markets during the 18 years of my Extension work in Morgan & Logan counties. During my program activities I've demonstrated economic advantages to producing alfalfa for hay compared to that of other common irrigated crops.
- Research Center Field Day had 88 attendees. Growers saw varieties of barley and oats they have not grown. Growers heard agronomic characteristics for each variety.
- Forage Conference with 112 attendees. Growers were taught these topics:
Weed Management; irrigation mgmt; alfalfa testing; Roundup Ready alfalfa; fertility mgmt.
- Small grain Conference with 170 attendees. Growers were taught these topics:
Weed management, Conservation Tillage and green manure crops; barley management.

Newspaper Columns written = 11

- Newsletter distributed = 1.
- Developed a presentation on: “The Economics of Meadow Fertilization” -2 workshops to a total audience of about 100.

Impacts

- **Irrigated Pasture Grazing** – Too early in program to determine
- **Alfalfa Production for Specified Markets** – Alfalfa produced in Morgan and Logan Counties has increased by the following factors from the mid 1980's to the early 2000's even despite the drought and water challenges of those later years:
 - alfalfa acres harvested - 136% (46,600 acres to 63,300 acres)
 - alfalfa yield -107% (46.5 to 4.96 tons per acre)
 - alfalfa sale price – 142% (\$306 to \$458 per ton sale price)
 - Gross sales value for alfalfa hay – 208% (\$14 to \$29 million dollars)
- Growers at the Forage Conference indicated a change in practices regarding:
 - use less tillage,
 - improve nitrogen management,

- use more green manures
- use less water late application on barley.
- use less fertilizer N.
- use more narrow borders when ditch water is short.
- use more soil samples.
- use soil samples to apply proper nitrogen rate on mountain meadows.

- San Luis Valley alfalfa growers improved income by using improved varieties and management practices; income improved about \$41 million on 132,000 acres of irrigated alfalfa production. Over 20 years of improvement, at least 70,000 acres had improved varieties and improved management to improve alfalfa yields by 0.7 ton/acre with alfalfa price averaging \$85/ton. This average improvement is \$2 million per year on 132,000 acres or \$15 per acre higher value production.

- San Luis Valley barley growers improved crop income by using improved varieties and management practices: income improved on at least 40,000 acres of irrigated barley production. Over the last 10 years of improvement, at least 40,000 acres had improved barley and improved management practices which improved yields by 70 bu/acre at an average value of \$6.50/cwt. This improved barley production is worth \$9.1 million or an increase of \$227 per acre.

Those attending the Ag Conference indicated they have increased their acreage of green manure cover crops from 1804 in 2004 to 3092 acres in 2005. 15 of 16 growers grew green manure crops on the same or on a larger acreage in 2005.

- Those attending the Ag Conference indicated they have increase the acreage of compost application. Compost was used on 5317 acres in 2004 and increased to 7325 acres in 2005. Fourteen of seventeen growers indicated the same or larger acreage of compost application in 2005.

Key Theme – Wheat-Based Cropping Systems

Inputs

Team Members – Jerry Johnson, Ron Meyer, Sandra McDonald, Bruce Bosley, Brad Erker, Scott Haley, Frank Peairs.

Grants and Service Revenue Received

- Variety Trials for Corn and Sunflower - \$53,000
- Oilseed development and extension - \$21,200
- Winter Wheat Variety, Date of Planting, and Quality Testing and Research - \$28,900
- Agricultural Experiment Station Projects - *On-farm Testing: a Tool for Sustainable Cropping Systems Research* - \$40,000
- 4 grants totaling approximately \$5,000.
- CIG grant - Limited Irrigation and Crop Rotation Demonstration in the Republican Basin (\$59,986.00). Research designed to include wheat, soybean, corn, and sunflower in limited irrigation rotations.

- Republican River Water Conservation District - Crop Rotations and Limited Irrigation (\$29,016.00). In-kind donation from RRWCD for Limited Irrigation and Crop Rotation Demonstration in the Republican Basin.
- Department of Energy Grant - Evaluation of Indian Brown Mustard for High Plains Agricultural Production (\$40,000.00). Research designed to evaluate irrigation response, fertility, economics and weed management in brassica crops for use in conjunction with wheat based rotations.

Colorado Seed Growers Association:

- Inspections for wheat seed certification: 25,818 acres @ average \$4.38 = \$113,000
- Inspections for millet seed certification: \$7,000
- Advertising fees collected: \$2000
- Total CSGA = \$122,000
- Colorado Seed Laboratory: Performs germination, purity, seed count, and Clearfield Confirm™ tests on dryland wheat seed samples (Certified and non-certified); also germination and purity tests on Certified and non-certified millet seed samples.
- Total CSL revenue: \$16,860
- Agronomy Foundation Seed: Produces Foundation seed of varieties released by Colorado State University and performs contract production services of other wheat varieties.
- Foundation Seed Sales: \$55,465
- Contract wheat production: \$19,177
- Total AFS revenue: \$74,642
- Total revenue through Colorado Seed Programs: \$213,500
- Wheat-based cropping systems professional relationships developed or maintained during 2005 to provide information, updates, or research summaries
 - Colorado Seed Growers Association*
 - Colorado Wheat Administrative Committee*
 - Colorado Wheat Growers Association*
 - Colorado Wheat Research Foundation*
 - National Sunflower Association*
 - Colorado Sunflower Administrative Committee*
 - Monsanto corn breeder for skip row x corn root worm resistant hybrid study*
 - Plant Health Research for Myconate study on four crop studies*
 - Blue Sun Biodiesel, Inc.*
 - Mountain View Harvest Cooperative*
 - BASF CLEARFIELD wheat group*

Twenty corn seed companies
Eleven sunflower seed companies
Three wheat seed companies
Great Plains Canola Improvement project (KSU)
USDA-ARS Central Great Plains Research Station, Akron

Outputs

Presentations, Workshops, and Demonstrations

- The 2005 Colorado Wheat Field Days were better attended and more successful than in previous years. This field workshop is for wheat producers, input providers, and wheat industry representatives. They also serve as in-service training for field agents and collaborators. A full two-hour wheat education program is presented in eleven eastern Colorado locations by CSU specialists, wheat commodity leaders and private wheat experts covering topics ranging from wheat variety selection to wheat disease and insect pests. Wheat Field Days are a collaborative effort involving extension agents and specialists, research station personnel, the Colorado Wheat Administrative Committee, Colorado Association of Wheat Growers, private companies, and many wheat producers themselves. We came closer to our goal of 1000 attendees, in 2005 with over 850 attendees.
- A poster at the CWAC Research Committee meetings of the Colorado Wheat Administrative Committee in April 2005 in Fort Collins based on a novel approach to determine the latest possible date of planting for consideration by RMA.
- Slide presentation with discussion to the Colorado Wheat Day participants, primarily wheat producers, on using GIS weather data analyses to predict optimum seeding rates for Colorado wheat production areas.
- Wheat-Based Cropping Systems Program presentation on using regressions and probabilities to compare expected variety performance at higher and lower yield levels than average yields, and History of Sunflowers at the Sterling, CO program
- ARDEC Open House - a four board poster highlighting all crops tested by our program and important results
- Blue Sun Producers-Shareholders meeting presentation on oilseed agronomy at Eaton, CO.
- A Whirlwind Tour of Wheat Variety Trials – Where Am I? Oral presentation to the Colorado Wheat Administrative Committee.
- Determining the Latest Day of Planting Using Growing Degree-Days. Poster presentation to the Colorado Wheat Administrative Committee.
- Field Days – Irrigated Field Day, Sunflower Field Day with KSU, Dryland Cropping Field Day, Burlington Wheat Field Day
- Wheat Based Cropping System Program
- Wheat Educational Program
- Intensive Wheat Management Seminar
- Brown Mustard Programs (2)
- High Plains No-Till Conference
- Wheat Based Cropping Systems Field Days
Julesburg: Wheat Field Day

Wickstrom's Orchard: Wheat Field Day
Central Great Plains Research Station Field Day
Central Great Plains RS – Skip Row Field Day
Wager's Woodrow – Skip Row Field Day

- Research was conducted at the USDA ARS Research Station in Akron CO on brassica weed management, irrigation management, and fertility management to establish Best Management Practices for brassica production in Colorado, Nebraska, Kansas, and Wyoming
- Meetings were conducted to disseminate research based results for brassica planting, irrigation, insect management, and weed management were conducted in 2005 to approximately 500 producers and researchers in Colorado, Nebraska, and Kansas.
- Results of weed management trials in short-stature Clearfield sunflower was presented to approximately 50 research and industry personnel and Western Society of Weed Science in 2005, approximately 30 producers at the High Plains No-Till Conference in Greeley Colorado in 2005, and approximately 50 producers and crop advisors at the Wheat Based Cropping Systems Clinic in Sterling Colorado in 2005. These results were also published in the National Sunflower Magazine in 2005.
- There have been two wheat variety trials (Collaborative On-Farm Trials) planted in Yuma and Phillips Counties in 2005 that will be harvested in July of 2006. These trial results are distributed state-wide and in Nebraska and Kansas.
- Research has also been conducted in Northeastern Colorado to evaluate herbicide options in chemical-fallow systems to prolong the usability of glyphosate and 2,4-D, as well as encouraging producers to use residual herbicides to eliminate multiple applications per year. The results of these projects have been presented at the Wheat Based Cropping Systems Clinic in Sterling Colorado.
- There was also a dry edible bean variety trial planted at Yuma Colorado to evaluate the possibility of including these crops in dryland cropping systems.
- Peairs, F. B. and T. O. Holtzer. Constraints on IPM in rain-fed western Great Plains cropping systems. ESA Section E Symposium, Areawide Pest Management for Rain-fed Cropping Systems on the Western Great Plains. Fort Lauderdale, Dec. 16, 2005.
- Randolph, T. L., S. Merrill, and F. B. Peairs. Survey for Russian wheat aphid biotypes. Poster, Entomological Society of America National Meeting, Fort Lauderdale, FL. December 14-18, 2005.
- Irrigated Crop Problem Diagnostics (7 brief talks)
- CWAC (Research update), Fort Collins

Colorado Comprehensive Worker Protection Standard Compliance Awareness
Project
Grower / Agricultural Establishment Education

Project Goal: To increase the overall awareness of the Colorado grower community regarding the Worker Protection Standard (WPS) and thus increase compliance.

Objective 1. Conduct 25 grower workshops about WPS using either existing materials or the proposed new materials developed as part of the “Development of WPS Training Materials and Educational Outreach in Colorado” portion of the proposed project to be coordinated by Colorado Farm Bureau

Completed trainings:

Date	Location	Co-Sponsor	Target Audience	Attendees	Comments
February 1-2, 2005 (2 sessions)	Greeley	Colorado Conservation Tillage Association	Grower / Ag Establishments	20	distributed WPS posters, worker & handler training books & CEPEP fact sheets
February 17, 2005	Denver	CO Nursery & Greenhouse Association / Pinnacol	Greenhouse & Nursery / Ag Establishments	37	distributed WPS posters, worker & handler training books and CEPEP fact sheets and Ag Center Packet
February 22, 2005	Yuma	Irrigation Research foundation	Dealers / Crop Consultants / Commercial Applicators	150	distributed WPS posters, worker & handler training books and CEPEP fact sheets and Ag Center Packet
February 23, 2005	Eads	Kiowa County Extension / Saffer Spray Service	Grower / Ag Establishments	31	distributed WPS posters, worker & handler training books and CEPEP fact sheets and Ag Center Packet

The previously outlined trainings have been conducted by Colorado State University’s Environmental and Pesticide Education Program (CEPEP) personal. The trainings targeting the Agricultural Establishment community address the following WPS agricultural establishments requirements to:

- train or verify training of handlers and workers
- restrict entry to treated areas
- provide notification of applications
- post specific information regarding applications at a central location
- post safety information at a central location
- provide decontamination supplies
- provide access to emergency medical assistance
- employer/commercial applicator information exchange

Additional trainings

Date	Locations	Co-Sponsor	Target
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April 4, 2005	Fort Morgan	grower sponsored	Grower / Ag Establishments / WPS workers & handlers
April 17, 2005	Haxton	Haxton Young Farmers / Pinnacol	Grower / Ag Establishments
June 6, 2005	Akron	USDA Research Center	WPS worker
August 17, 2005	Yuma	Irrigation Research Foundation / Pinnacol	Grower / Ag Establishments
September 7, 2005	Breckenridge	Rocky Mountain Agri-Business Association	Dealers / Crop Consultants / Commercial Applicators
February 7, 2006	Greeley	Colorado Conservation Tillage Association	Grower / Ag Establishments

Publications and Websites

Relevant Publications

Jerry J. Johnson and Scott D. Haley. Variety Selection chapter. In the Colorado Wheat Production handbook.

Johnson, J.J., R. Bruns, B. Hammon, J. Rudolph, T. Randolph, S.D. Haley, D. Hanavan, M. Koch, F. Peairs, C. Pearson, R. Sears, S. Nissen, B. Henry, T. Walker, and P. Westra. 2005. Making Better Decisions, 2004 Colorado Winter Wheat Variety Performance Trials. Colorado State University Agric. Exp. Stn. Technical Report TR 05-09.

Johnson J. J., H.F. Schwartz., M.A Brick., C. Pearson, K. Otto, M. Stack, C. Johnson, J. Hain, and M. McMillan. 2005. Making Better Decisions, 2005 Colorado Dry Bean Variety Performance. Colorado State University Agric. Exp. Stn. Technical Report TR 05-11.

Crop Variety Performance Websites for Colorado Crops (note: for all crops, over 11,000 hits from Nov 2005 to Jan 2006)

2005 Making Better Decisions, Colorado Winter Wheat Variety Performance Trials

2005 Making Better Decisions, Colorado Hybrid Corn Performance Results

2005 Oilseeds Information Page

2005 Making Better Decisions, Hybrid Sunflower Performance Results

2005 Spring Wheat, Barley, and Oats Variety Performance Results

Extension publications

J. Johnson, J. Hain, and C. Johnson. 2005. 2004 COLORADO WINTER WHEAT TRIALS. Colorado State University Cooperative Extension Golden Plains Area Agricultural Handbook 2005. Vol. VII, p.10.

J. Johnson, J. Hain, and C. Johnson. 2005. 2004 COLORADO SUNFLOWER PERFORMANCE TRIAL RESULTS, including Dryland sunflower on-farm strip test at Brandon in 2004 and

Dryland sunflower on-farm strip test at Julesburg in 2004. Colorado State University Cooperative Extension Golden Plains Area Agricultural Handbook 2005. Vol. VII, p.13.

J. Johnson, J. Hain, and C. Johnson. 2005. 2004 COLORADO CORN PERFORMANCE TRIAL RESULTS. Colorado State University Cooperative Extension Golden Plains Area Agricultural Handbook 2005. Vol. VII, p.18.

B. Fickenscher, R.F. Meyer, T. Macklin¹, T. Burton, K. Larson, J. Johnson, Burle and Cathy Scherler. 2005. DRYLAND SORGHUM VARIETY TRIAL IN 2004. . Colorado State University Cooperative Extension. Golden Plains Area Agricultural Handbook 2005. Vol. VII, p.28.

Popular and magazine articles

Johnson, J.J. 2005. CSU Bean Variety Trial Summaries. Colorado Bean News. Winter 2005. Vol. 18, Issue 1.

Johnson, J.J., and S.D. Haley. 2005. 2005 Colorado Winter Wheat Variety Performance Trial Results. Performance trial results help Colorado wheat producers make better variety decisions. Colorado Wheat Farmer. Vol. 45 (4):3.

Johnson, J.J., and S.D. Haley. 2005. 2005 Winter Wheat Variety Selection in Colorado. Colorado Wheat Farmer. Vol. 45 (4):6.

L. Dreilling (based on J.Johnson). 2005. Crop Trials Make Seed Decisions Easier, Better. High Plains Journal. 19 September 2005.

R. Buhler (based on J. Johnson). 2005. Answer to variety question lies in probability. High Plains Journal. 20 December 2005.

Newsletters

Johnson J.J., and S.D. Haley. 2005. Colorado winter wheat variety performance trials. Agronomy News, From the Ground Up Extension Newsletter, Vol.25, Issue 1. Soil and Crop Sciences Department, Colorado State University.

Johnson J.J., and S.D. Haley. 2005. Winter Wheat Variety Selection in Colorado for Fall 2005. Agronomy News, From the Ground Up Extension Newsletter, Vol.25, Issue 1. Soil and Crop Sciences Department, Colorado State University.

Siftings, Newsletter of the Colorado Seed Industry, was published in May, September, and November in 2005. Each issue is distributed to approximately 150 seed growers, extension agents, and state certification personnel across the U.S. Siftings contained information related to dryland wheat-based cropping systems this year on the following topics:

- Percent Certified Wheat Seed Usage in Colorado
- Worker Protection Standard update – regulations to reduce pesticide exposure
- Online survey of herbicide resistant/insect resistant crops
- Agronomy Foundation Seed – release of new feed barleys
- Karnal Bunt- update on seed moving into Kansas
- Worker Protection Standard – Contact numbers for owners of ag establishments
- Agronomy Foundation Seed – Fall sales report
- Colorado Seed Lab – Fall wheat seed testing report

- Notification of Certified Wheat Seed Standard change to be voted on at Annual Meeting
- Colorado Ag Classic meeting schedule announcement
- Landmark agreement reached in wheat seed piracy case

Collins, M. B., S. D. Haley, T. L. Randolph, F. B. Peairs, J. B. Rudolph, 2005. Comparison of Dn4- and Dn7-carrying spring wheat genotypes artificially infested with Russian wheat aphid (Homoptera: Aphididae) Biotype 1. J. Econ. Entomol. 98: 1698 - 1703.

Collins, M. B., S. D. Haley, F. B. Peairs, and J. B. Rudolph. 2005. Biotype 2 Russian wheat aphid resistance among wheat germplasm accessions. Crop Sci. 45: 1877-1880

Randolph, T. L., F. B. Peairs, M. Koch, C. B. Walker, and J. S. Quick. 2005. Influence of three resistance sources in winter wheat derived from TAM 107 on yield response to Russian wheat aphid. J. Econ. Entomol. 98: 389 - 394.

Randolph, T. L., F. B. Peairs, M. Koch, C. B. Walker, J. R. Stubbs, J. S. Quick, and S. D. Haley. 2005. Yield response and categories of resistance to Russian wheat aphid in four Dn4 hard red winter wheat cultivars. J. Econ. Entomol. 98: 588 - 594.

Peairs, F. B., B. Bean, and B. D. Gossen. 2005. Pest management implications of reduced fallow periods in dryland cropping systems in the Great Plains. Agron. J. 97: 373 - 377.

Rudolph, J. B., T. L. Randolph, S. M. Walters, F. B. Peairs, and A. Gebre-Amlak. 2005. 2004 Colorado field crop insect management research and demonstration trials. Colorado State Univ. Agric. Exp. Sta. Tech. Rep. TR03-01, 43 pp.

Peairs, F., T. Randolph, S. Haley, J. Johnson, J. Rudolph, T. Walker, M. Koch, and R. Hammon. 2005. Managing new Russian wheat aphid biotypes. Pp. 23 - 26 in Johnson, J. J., ed. 2005. Making better decisions: 2004 Colorado wheat variety performance trials. Colorado State Univ. Agric. Exp. Sta. Tech. Rep. TR05-09, 28 pp.

Peairs, F. 2005. Insect and mite pests of wheat. Pp. 63 - 78 in 2005 Colorado Wheat Handbook. Colorado Association of Wheat Growers, Centennial, CO.

Gebre-Amlak, A., J.P. Michaud, F. B. Peairs, G. L. Hein, P. E. Sloderbeck, R. A. Higgins. 2005. Insect pest identification and control. Pp. 16 - 23 in R. Meyer et al., eds. High Plains Sunflower Production Handbook. Kansas State University, Manhattan, KS.

Web or other Electronic Media

Colorado State University Wheat Breeding Program Home Page and Wheat Variety Database (<http://wheat.colostate.edu>)

Popular and Magazine Articles

Haley, S.D. 2005. CSU Wheat Breeder Visits Key Hard White Wheat Markets in Asia. Colorado Wheat Farmer. Vol. 46.

Wheat Production Handbook

Sunflower Production Handbook – (Involved 4 universities and ARS. Paid for by Sunflower Commodity commissions in Kansas and Colorado.)

The following previously developed fact sheets were revised:

- Federal Worker Protection Standards
- WPS Training for Agricultural Workers and Pesticide Handlers
- Federal Worker Protection Standard Notification of Applications
- Federal Worker Protection Standard Information at a Central Location
- Federal Worker Protection Standard Emergency Medical Assistance
- Federal Worker Protection Standard Decontamination Sites
- Federal Worker Protection Standard Resources
- Federal Worker Protection Standard Key Definitions

The following fact sheets were developed:

- EPA National Agricultural Center Materials for WPS
- References and Resources: WPS Contact Information
- Restricted Entry Interval
- WPS Fact Sheets for Agricultural Workers
- WPS Fact Sheets for Commercial Pesticide Handlers
- WPS Fact Sheets for Private Pesticide Handlers
- WPS Information for Employers of Agricultural Establishment
- WPS Regulations for Notification about Applications
- WPS Regulations for Posting Pesticide Application Records
- WPS Required Measurements for Field Signs
- WPS Regulations for Posting in a Central Location
- WPS Early-Entry Workers
- WPS Pesticide Safety Training
- WPS Farmers and Their Families
-

An eight article series targeting producers was submitted to the participating organization's newsletters. Articles submitted to the newsletters:

- Introduction to WPS and the Comprehensive Awareness Project
- WPS Contacts for Owners of Agricultural Establishments
- WPS Regulations for Notification and Posting in a Central Location
- Posting Notification of Applications and Restricted Entry Interval
- Providing Decontamination Supplies
- Safety Training
- Reading and Understanding a Label
- Personal Protective Equipment

In addition three Spanish articles were developed:

- What is the Worker Protection Standard (WPS)?
- WPS Training for Agricultural Workers

- WPS - The Importance of the Central Location on Agricultural Establishments

The following grower organization newsletters were utilized:

Organization	Distribution
Colorado Association of Wheat Growers (Colorado Wheat Administrative Committee)	600 Newsletters; 450 wheat growers
Colorado Conservation Tillage Association	300 Newsletters; 70% growers
Colorado Corn Growers Association	5,000 Newsletters; 550 growers
Colorado Farm Bureau	28,000 Magazines; 7-10,000 Producers
Colorado Seed Growers	150 Newsletters; 75% Producers
Rocky Mountain Farmer's Union	7,000 Newsletters; ? growers

Newsletters – 4, One dedicated to Wheat Variety Trial reports

Wheat based news-columns = 25

Impacts

- Of the 500 producers attending with an average of 1100 acres each farmed in three states approximately 40% indicated that they would change cropping practices or include the information in their operation.
- One hundred percent of attendees at dryland cropping systems programs indicated an increase in knowledge, 92-96% planned to use the information in their operation and estimated an increased profit of \$4-10/acre for a total of \$1,392,645 total program impact.
- One hundred percent of attendees at no-till/reduced tillage conferences indicated an increase in knowledge and planned to use the information in their operation. Average benefit was estimated at \$20+/acre for a total impact of over \$2,198,000.

GOAL II: A safe and secure food and fiber system.

Objectives:

- A. Promote food safety across the food chain from production through consumption.
- B. Provide certification training for food handlers.

CSU Core Competency Area: Nutrition, Health, and Food Safety

Key Theme – Food Safety Education

Objective 1: Increase the proportion of consumers who follow key food safety practices.

- Activities in this area include training of volunteers to assist in disseminating accurate food preservation and food safety information to consumers. Two Colorado counties have strong volunteer programs.
 - In 2005, 11 new volunteer Food Safety Advisors were trained and 41 current Food Safety Advisors provided over 1,000 hours of community service, reaching over 2,000 consumers through these volunteer efforts.
 - 20 classes were conducted in the area of food safety and food preservation to current Food Safety Advisors and interested consumers with a total of 200 participants.
- A new logo design is being developed for the volunteer food preservation and safety advisor program. This design will be used on education materials, aprons, t-shirts, banners, etc. used for food safety-related outreach efforts.
- The volunteer training curriculum is being revised and standardized (based on review of materials used in other states.) The purchase of a training curriculum produced by the University of Georgia National Center for Home Food Preservation is being considered.
- *USDA's Is it Done Yet* Thermometer Education kits are being dispersed for Extension teams to teach consumers about foodborne illness prevention.
- The *Project Handwashing* program was used to teach 79 preschool and 35 youth (ages 9-16) about the importance of handwashing for prevention of foodborne illness.

Objective 2: Improve food employee behaviors and food preparation practices that directly relate to foodborne illnesses in retail food establishments.

- Currently, there are 3 food safety education programs being offered on ongoing basis:
 - **ServSafe Trainings-2005:** 7 food service manager certification trainings were conducted among 5 counties for a total of 65 participants trained.
 - **Food Safety Works for Retail Food Establishments-2005:** 22 trainings were conducted in English, 2 trainings in Spanish and 1 training in Chinese, for a total of 343 participants trained.
 - **Food Safety Works for Food Bank Member Agencies-2005:** 8 trainings were conducted with a total of 219 participants trained.
- Two Extension agents have been newly certified as ServSafe instructors, with goals to continue offering ServSafe instructor certification/Recertification opportunities in the coming year.
- Development of marketing flyers for the ServSafe and Food Bank Agencies training programs is underway.
- Revision of the food bank training materials is underway. These will be distributed to team members who will be offering these trainings.

Objective 3: Increase the proportion of high risk consumers and their caregivers who follow key food safety practices.

- A food safety class (English and Spanish) for pregnant women is being developed and will be pilot tested in March/April 2006. After revisions to the material, a Train-the-Trainer workshop will be conducted for Extension agents interested in teaching this curriculum.

- CCA team members will present food safety education program outcomes at the upcoming USDA Food Safety Education Conference- Reaching At-Risk Audiences to be held Sept. 25th and 26th in Denver.
- A “Food Safety for Seniors” class was developed and piloted with 15 senior citizens in Fort Collins, Colorado. A desk-top train-the-trainer program on “Food Safety for Seniors” is planned for Extension Agents on March 7, 2006.

GOAL III: A healthy, well-nourished population.

Objectives:

- A. Coloradans will increase their knowledge and adoption of practices which promote healthy lifestyles.
- B. Communities will improve their capacity to address health and nutrition related needs.

CSU Core Competency Area: Nutrition, Health, and Food Safety

Key Theme – Health Promotion/Chronic Disease Prevention

StrongWomen™ Program

The Strong Women, Strong Bones training was held in June 2005. The cost of this workshop was \$250 per person. However, agents were charged a reduced fee of \$200. The reduced fee to the agents was made possible by the Lillian Fountain Smith endowment. Scholarship money was given to 10 agents in the amount of \$100 per agent in 2005. The additional \$100 per agent will be paid in 2006 upon completion of the first series of classes. Eight agents have met this goal to date teaching a total of 10 sessions of StrongWomen™ classes reaching a total of 80 participants. Additional training materials from other funding sources have been purchased for use by the campus specialist.

“Children and Weight”

The “Children and Weight: What Health Professionals Can Do About It” kit was not purchased. Agents requested the “Children and Weight: What Communities Can Do” kit which they felt was more suitable for their needs. Three manuals @ \$100 each were purchased for three regions. This kit helps Extension Agents establish a community coalition with ideas of how to keep it going and what to do to get started to address the issue of childhood overweight.

“Self-Care for a Healthy Heart”

Self-Care was adapted as a web-based program in 2005-2006. The web site was developed by Dina Griffin, a graduate student, using a purchased computer software program, Dreamweaver, at a cost of \$100. Janet Benavente will initiate recruitment for Self-Care beginning in February 2006. Evaluation will be completed by May 2006.

Diabetes Education

Agents are successfully teaching “Dining with Diabetes. A marketing flyer for agents to use for individual Dining with Diabetes classes was developed and funded through remaining grant

money from CDC/CDPHE. This program is currently being evaluated for effectiveness by Janet Benavente who is funded by CDC/CDPHE.

Small Changes Make a Big Difference has reached 330 participants with pre/post test assessments completed. Favorable outcomes were noted in the areas of knowledge and attitudes.

“Workable Wellness”

This worksite program was evaluated by campus specialists in the Department of Food Science and Human Nutrition, Human Development and Family Resource Management and by one field agent, Elisa Shackelton. This agent has elected to implement the program in NW Colorado and will provide evaluation as to its use and effectiveness in work sites. Revision to topic areas will be made by the agent and specialists. A complementary copy was received from North Carolina State University Extension.

Additional Activities in Support of this Work Team

In addition to the outcomes noted above, training was conducted at the 2005 Extension Forum. CSU faculty joined the FSHN specialists and addressed all areas of the CCA. The Dietary Guidelines and MyPyramid were supplemented with a research presentation by Henry Thompson, Department of Horticulture. Chris Melby, FSHN, added to the Health Promotion/Disease Prevention CCA with a talk on Strength Training. The Food Safety topic was enhanced with a presentation by John Sofos in Animal Science. The Food Security Work Team included a presentation by Garry Auld in FSHN.

Key Theme – Promoting Food Security for Limited Resource Audiences

- **Community Food Security Assessment – toolkit:**

Plan: The first step in food security programming is to conduct a local community food security assessment. The toolkit will also include resources outlining a process for gathering assessment data, and sharing assessment outcomes with community stakeholders

Progress: *A small work team was formed to identify and review existing resources. Specifically, the USDA Community Food Security Assessment toolkit was distributed to team members, and individual team members reviewed the notebook. Several meetings of the work team were held to discuss the USDA toolkit and potential modifications for use in Colorado. This process was put on hold when we learned that USDA was planning to revise the toolkit. We are collaborating with Wisconsin CE and USDA and anticipate our work team being actively involved in USDA’s revision. Sarah Morales will be meeting with Wisconsin CE colleagues and USDA representatives, leading the revision, during February to develop the timeline for revision of the toolkit. While waiting for notification about revisions, we are in the process of piloting components of the existing toolkit in Adams county and the Tri-River area, to determine use and feasibility through Colorado CE.*

- **Food Insecurity Awareness Program:**

Plan: Raising awareness of the prevalence of food insecurity at the local level is a critical step in reducing hunger through community engagement. The work team will develop and produce table-top display visuals and handouts to be used by Extension Agents at local events. The goal of this activity is to raise community awareness of the prevalence of local food insecurity.

Progress: *The work team developed a food security/hunger awareness program to be delivered by Extension Agents. The program entitled “Hunger in Our Neighborhood” consists of a PowerPoint slide presentation, facilitator’s guide, participant handout, table-top display and participant evaluation. This program is intended to increase hunger awareness among community citizens and leaders. Our target audience is volunteer service clubs (Kiwanis, Rotary, 4H, Scouts, etc.), faith-based organizations, county advisory boards, local public officials and decision makers, and community/human service organizations. Program materials were introduced at the CE Annual Forum, Fall 2005, and a statewide desk-top training was developed and conducted in October 2005 by team leaders, Susan Baker and Sarah Morales. Preliminary feedback and program evaluations have been positive and the program has been well received by CE Agents and community members. Program materials may be accessed online at the following website: <http://www.fshn.caahs.colostate.edu/extensionccaworkteams.asp>*

- **Food Access/Hunger Prevention Program:**

Plan: Extension Agents will use a PowerPoint presentation and accompanying handouts in programs targeting community groups such as service-organizations like Kiwanis, Rotary, youth groups, faith-based, and other. The goal of this program is to mobilize community groups to participate in activities aimed at increasing food access and reducing hunger through food drives, gleaning projects, etc.

Progress: *While EFNEP and FSNE have been working with limited resource audiences in the direct delivery of nutrition education, community food security awareness and assessment has not been addressed by Colorado Cooperative Extension previously. As a result, we needed to invest time and generate interest in putting together a work team to address this priority area. Consequently, we decided to focus on raising awareness in our first year. We see hunger prevention/food access as logical steps following increased awareness and assessment of community food security.*

- **Poverty Simulation:**

Plan: Food insecurity is closely linked to poverty. Participating in a poverty simulation can provide an invaluable opportunity for community members to “experience” poverty and increase awareness of available programs and the barriers to accessing these programs by families living in poverty. This single experience can be the catalyst in mobilizing communities to action. Four CE Specialists will provide statewide “train the trainer” programs (at CE Forum or CE Regional trainings in 2006). The four specialists will represent a multi-disciplinary team with members from departments /units such as Nutrition, 4-H/Youth Development, Ag. Economics, and/or Social Work.

Progress: *The work team leaders, Susan Baker and Sarah Morales, attended a 2 day “Bridges out of Poverty” training in the Fall of 2005. Information gleaned from this*

training will be incorporated into the modification of the Community Food Security Assessment Toolkit and training materials.

GOAL IV: Greater harmony between agriculture and the environment.

Objectives:

- A.** Increase the adoption of research based best management practices to control weeds, insects, disease and nematodes for wise use of agriculture chemicals and for ground water protection.
- B.** Increase the effective management of pests in agriculture systems and landscapes.
- C.** Enhance wise soil management decision making.
- D.** Enhance adoption of research based management practices in the green industry of Colorado.
- E.** Improve the rangeland management skills of Coloradans who manage public and private land.

CSU Core Competency Area: Natural Resources and the Environment

Key Theme – Environmental Horticulture

Diagnostics and Pest Management: Team Leaders, Mary Small and Carol O’Meara

Programs and Projects: Advanced Master Gardener Diagnostic/First Detector Training

Programs and Projects completed:

Phase 1 training completed in August 2005. Phase 1 included development of the classroom curriculum in spring 2005 with six instructors training. Total of 5 counties participated in training. Classes started on May 4th with 55 students trained over two days each week of the session.

Student skills assessment held in August following practice and further mentoring in diagnosis by local county staff. Skill levels tested at 68% success on lab diagnosis. Two counties had no local staff to provide follow up support of diagnostician skills, resulting in lower scores for participants in those counties.

Programs and Projects in progress:

- Advanced Master Gardener Diagnostic Training – Phase 2. Expansion of training to southern Front Range counties and new topic development for northern Front Range counties. Total of 8 counties

participating. Southern Front Range training will present entire program from Phase 1: Abiotic Disorders, Herbaceous disorders, First Detector training, Woody Plant Diagnostics, and Turf Diagnostics.

- New topic development for Northern Front Range (year 2):

Week 1: Advanced Insect/Arthropod ID will be presented by Carol O'Meara, and Insects of Importance will be presented by Whitney Cranshaw. Topic will include insects that were moderate to severe pests in 2005, projected concerns for 2006, ID training in spiders, bedbugs, ticks, and general gardening pests.

Week 2: Herbicide Injury Symptoms will be presented – speaker TBA – and Eriophyid Mite Damage will be presented by Curtis Utley. Topics will include eriophyid mite symptoms, potential hosts, and control, plus herbicide injury, mode of actions.

Week 3: Turfgrass Identification will be presented by Tony Koski, and Advanced Turf Disease Diagnosis will be presented by Ned Tisserat. Topics will include practice in identifying turf and other grasses, plus advanced techniques for identifying biotic pathogens on turf.

Week 4: Tree Diagnosis from Lab Samples will be presented by Mary Small, and Tree Diagnosis in the Field will be presented by David Whiting. These two sessions will compliment each other by providing diagnosis skills from limited samples to entire tree inspection.

- Turfgrass Diagnostics Training. Planning for May 2006 and July 2006 staff training sessions has begun. Extension staff will be trained in turfgrass diagnostics in order to provide on-site inspections for homeowners, schools and municipalities. This new service will generate user fees for staff members and fill a void in need for these services. Draft versions of on-site inspection forms and diagnosis forms will be available for use during the May training.

Plant Introduction and Invasive Species: Team Leaders, Kerrie Badertscher and Jim Klett

Russian olive Project:

A database was developed and over 391,000 trees have been located within or near Boulder County. Some of these have been GIS mapped – others all reside in an excel spreadsheet. This number does account for most of all the public land in Boulder County but only 1% of the private population.

Key Theme-Pest Management

Inputs

Team Leaders, Thaddeus Gourd and Howard Schwartz

Grants funded

- Various Pest-Crop-Other Projects funded by commodity groups, agrichemical co. (all team members)
- BSPM 6-Year Academic Program Review - \$491,000 generated by Specialists during 2003-2004 for 17 Projects
- Onion and alfalfa insecticide trials – various manufacturers, IR4 (B. Hammon)
- Lost Canyon Tamarisk Control Project - \$34,000 from CCC, NRCS, USDA (T. Hooten)
- \$10,000 from USFS for Youth Eradicating Weeds Threatening Habitat in Boulder & Gilpin Counties (I. Shonle et al.)
- \$15,600 from USFS for management of Chinese clematis (I. Shonle et al.)

Grants applied for or under consideration

Web based database of home-use pesticides (B. Hammon) USDA-IPM, -PMAP, -CAR, -EPA to study the biology and management of onion thrips and IYSV (H. Schwartz et al.)

Outputs

Programs and Projects completed

- Onion insecticide evaluation for IR4; Plateau Valley grasshopper control
- 150 Commercial Pesticide Applicators attended a Training Workshop
- No Cereal Leaf Beetles detected during the 2005 survey in SW Colorado
- Dolores River Tamarisk Action Group completed treatment for Tamarisk around McPhee Reservoir & Lost Canyon
- More than 20 presentations in Colorado and nationally on IPM and Russian Wheat Aphid Management
- Plant Pest & Disease Diagnostic Workshop for the Rocky Mountain Turf Association
- Commercial Pesticide Applicator Exam Preparation Classes at Front Range Community College & others
- Phase 1 Advanced Master Gardener Diagnostic training by 6 instructors for 5 counties and 55 students Noxious weed educational booths & other projects attended by more than 300 people
- Master Gardener Training Outputs:
 - New CMG volunteers trained -- 350
 - Non volunteers trained (Colorado Gardener Certificate students) -- 100
 - Percent of CMG/CGC students employed in the Green Industry -- 20%
 - Total active CMG volunteers -- 1,700
 - Volunteer hours reported -- 63,000
 - Value of volunteer hours reported -- \$1.1 million
 - Hours of continuing education per volunteer -- 14 hours per volunteer
 - Percent of CMG volunteers employed in the Green Industry -- 12%
 - Direct one-to-one contacts reported -- 60,000

Programs and Projects in progress

- National Elm Trial established 2005- coordinated out of CSU, local planting in Fort Collins and 13 other states
- Field Bindweed Mite Distribution Statewide; Management of insects in native plant seed production; Late-season alfalfa harvest schedules impact on stand persistence; Onion thrips management; and Database of home-use pesticides
- Pest Management Record Keeping and Worker Safety Broadcasts via DCTV & automated video/CD library
- Screening Pythium species associated with greenhouse crops for Mefenoxam resistance
- Phase 2 Advanced Master Gardener Diagnostic training by 6 instructors for 8 counties and 55 students
- Turfgrass Diagnostics Training for extension staff on-site inspections for clientele
- Programs and Projects planned
- Biology and control of an alfalfa crown borer
- Demonstration plots for tamarisk control were established in McElmo Canyon
- Weed and Wildflower Symposium on weed ID and Management

Publications (distributed to 25 – 3000 clientele, depending on targeted audience)

New publications released

- BSPM 6-Year Academic Program Review – average of 1.6 refereed and 2.4 non-refereed Journal Articles/FTE/year
- 9 research and extension publications on Russian Wheat Aphid and dry land pest management results (F. Peairs et al.)
- Web Pages at tririverarea.org; Pesticides for Native Plant Seed Production; Twig Beetle Biology and Control; 2005 IR4 Onion Insecticide Trials (R. Hammon)
- The High Plains Sunflower Production Guide, produced by 4 universities and USDA-ARS; financed by the Kansas Sunflower Commission, Colorado Sunflower Administrative Committee, and the High Plains Sunflower Committee. (R. Meyer)

Publications under revision

- Compendium of Onion & Garlic Diseases and Pests – 2nd ed. (H. Schwartz & S. K. Mohan – senior editors)

Impacts-Success Stories

- BSPM 6-Year Academic Program Review – 100% of PhD Pest Management graduates are working in their chosen field; and up to 67% of MSc Pest Management graduates are working in and 34% are continuing their education in their chosen field
- More than 3000 releases of the bindweed mite were coordinated by the Bindweed Mite Distribution Program funded by EPA and coordinated out of the Tri River Area Grand Junction Office. A fall 2005 survey showed that the mite is established in 25 of 29 counties, and was making significant impacts on field bindweed populations in some areas of the west slope.
- The 2005 Plateau Valley Grasshopper Control Program saved growers more than \$500,000 in lost hay crops. It was entirely funded by hay producers at a cost of \$1.82/ acre; with over 20,000 acres entered in the program
- The Commercial Pesticide Applicator Preparation improved passing test scores from 43% (pre-) to 92% (post-class)
- Native Plant Master Program improved the abilities of 167 participants to identify and appreciate the value of native and non-native plants, and awareness of weeds and the need to manage them

Key Theme-Water Resource Management

Inputs - Team Leaders, Troy Bauder and Joel Schneekloth

Participating Team Members:

Reagan Waskom – Water Resources Specialist, Colo. Water Resources Research Institute

Matt Neibauer – Research Associate, Soil and Crop Sciences

Loretta Lohman – NPS Information and Education Coordinator, Cooperative Extension

Luis Garcia – Associate Professor, Department of Civil Engineering

Neil Hansen – Associate Professor, Department of Soil and Crop Sciences

Outputs

The Water Resources Work Team developed several educational programs in the past year for agricultural producers, small acreage owners, and State agency personnel.

- A Water, Well & Septic System Training Package for CSUCE Agents was released The multi-media package includes: seven PowerPoint Presentations with accompanying learning objectives, notes and resource lists; A new Bulletin – Protecting Your Private Well XCM-179; Fact sheets – Supporting water, well, & water quality fact sheets; Recordkeeping folders/brochures for Wells & Septic Systems; Website resources – Includes the Water Quality Analysis Interpretation Tool; Well/septic presentation booth on loan; Video – DVD from American GW

Trust on private wells; Groundwater models & curriculum on loan. To date, fourteen counties have requested this package for programming in the coming year.

- A water education summer tour was held in the San Luis Valley from August 10-12, 2005. Five Extension water Specialists and one Colo. Dept. of Ag. employee participated. This year's tour included discussion with producers and local, state, and federal agencies regarding relevant water quantity and quality issues and activities.
- A summer USDA-NRCS and Extension Agent Summer Irrigation Workshop trained 20 NRCS field staff and three Extension Educators from across Colorado with interest or responsibilities in water resources was held July 11 – 15, 2005. The workshop included field demonstrations and classroom teaching. The trained staff interact with hundred of agricultural producers who manage thousands of acres across Colorado. The training will be repeated this coming summer.
- A statewide Agricultural Water Summit was to explore how the irrigated agricultural community can come together and better address water issues as an entity.
- The Water Team Co-organized one-day seminar in cooperation with The Central Colorado Water Conservancy District – Agriculture with Less Water? Facing Drier Realities in the South Platte River Basin. Over 200 producers attended.
- The annual S. Platte Forum conference was held October 26-27 and brought together diverse interests in water to communicate and get the latest information on water quantity and quality science and policy in the basin. This year's forum had over 200 attendees.
- The Ogallala Symposium was held and explored policy, technology, and conservation solutions to water issues impacting the aquifer.
- Two NRCS Conservation Initiative Grants were awarded to Water Team staff and fieldwork will begin in 2006. This research and extension project will target irrigated producers, state and local agency personnel, municipalities and water policy makers.

GOAL V: Enhanced economic opportunity and quality of life for Americans.

Objectives:

- A.** To integrate the Youth as Assets framework into all youth development programs with an emphasis on developing life long skills.
- B.** Enhance the ability of Colorado parents to control their own anger and react with appropriate guidance to their young persons.
- C.** Enhance the ability of Colorado communities and citizens to prevent youth violence.
- D.** Enhance the quality of youth and family serving programs in Colorado and create more supportive policies in areas affecting youth and families.
- E.** Increase rural economic diversification with special emphasis on existing business retention/expansion, small and home-based business emphasizing value-added agriculture, eco-tourism, forestry, and appropriate technologies and business/community mutual support.
- F.** Enhance the ability of Colorado citizens to ensure financial security in later life.

CSU Core Competency Areas: (1) 4-H and Youth Development; (2) Strong Families, Healthy Homes; (3) Sustainable Community Development

Key Theme- 4-H Youth Development

4-H Club Program

Outputs

Organized Clubs- 14,997
Special Interest/Short-term Programs/Day Camps – 2,207
Overnight Camping – 185
School Enrichment Programs – 69,462
School Age Child Care Programs – 12,854
Total 4-H Enrollment – 99,705

K-12

Outputs:

Activity Sheets

- Increase number
 - 24 posted at <http://www.4h.colostate.edu/schoolenrichment/activity.shtml>.
 - 13,198 hits through 2/05
 - 10,862 hits 3/05 – 12/05
 - 24,060 total hits
- Standards
 - All Activity Sheets are now aligned with CDOE Model Content Standards for Learning

Web Page

- Update with current availability in counties
- Done 12/05

Colorado Afterschool Network (CAN)

- Steering committee participation
- Donated \$500/year with 3-year commitment
- Appear on Website as partner with logo and text
- Mott Foundation grantees' conference
- Also joined CAQSAP and CACE as institutional members (\$100/organization)

National Afterschool Association (NAA)

- Presented a workshop in 2005 Participated in 4-H Afterschool Workshop

Lights on Afterschool!

- State wide participation

After School Clubs, Military 4-H Clubs

- Reported now on ES237

21st Century Learning Centers

- Partner – Arapahoe, Montrose, Huerfano Counties

Develop promotional materials, showcase efforts to stakeholders, share success

- Interviews presented on three information sheets
- On line distribution through RamPoint
- E-mail distribution to Adminbb

Train volunteers

- Recognize & reward volunteers
- Kit Carson volunteer won award from National 4-H Council – one of 25 in US

Leadership and Volunteer Development

Outputs

- “Prevention and Procedures: Possession and Use of Controlled Substances at 4-H Events and Activities” publication developed for youth, volunteers and agents.
- Proposal submitted for 2006 NAE4-HA conference on “Youth and Alcohol at 4-H Events: Lessons Learned.”
- Proposal accepted on “Youth and Alcohol at 4-H Events: Lessons Learned.” for 2006 WRLF in Salt Lake City.
- Standardized Volunteer and Youth Enrollment Form:
 - designed to follow the Blue Ribbon sequence of information fields
 - includes a waiver of liability
 - statement of “at will” nature of volunteer appointment
 - electronic availability
- Adult Code of Conduct - committee is working on form specifically for adults
- Publication in development on chaperon responsibilities, qualifications, duties, discipline of children, problem solving, etc.
- Exploring implications of evolving National 4-H Volunteer Competency Study, needs of volunteers and extension staff and resources needed to support those needs.

- Full day track for Leadership Development Conference attendees on Youth-Adult Partnerships.
- Training on Youth-Adult Partnerships for county commissioners and appointed board and committee members in Westcliffe.
- Citizen Corps training program (part of Colorado Homeland Security programming) on increasing volunteer effectiveness in Fort Morgan
- Exploring periodic Youth Development Training conference dates as method of
- Ordering DVD 4-H volunteer orientation/training for Colorado Counties. Self-study method of orientation for new volunteers.
- On-line volunteer training model under development utilizing campus servers and WebCT format.

Impacts

The 4-H Youth Development program completed an impact assessment this year. Details and results of the assessment follow.

The purpose of this study was to measure the impact that the 4-H Youth Development experience has had on Colorado's young people. As state and county budgets become tighter and tighter, the 4-H Youth Development program must demonstrate its effectiveness with sound data to enhance the rich anecdotal information more easily available. Research-based information is critical to future 4-H Youth Development programs. Also examined were students who were active in out-of-school-time activities other than 4-H and their involvement in at-risk behaviors.

Data were collected from 5th, 7th, and 9th grade students in Colorado. Students were selected from up to four randomly selected schools in each of the 15 counties selected in a statewide stratified random sample. There were 1,906 useable surveys returned. The data were entered, coded and analyzed by the spring 2005 BK 410 Marketing Research class in the College of Business at Colorado State University. The data were reviewed by the university's Department of Statistics for data entry accuracy and additional data analysis.

Results confirm that youth who participate in any organized out-of-school activities are less likely to engage in a variety of at-risk behaviors. 4-H Youth Development members were less likely than their non-4-H Youth Development classmates to use drugs, or smoke. 4-H Youth Development members also had a significantly more positive outlook on life and the world around them than did non-4-H Youth Development members.

Performance in school -- 4-H and non-4-H

4-H Youth: Making Contributions... Being Successful

4-H members are more likely than other youth to report that they:

- Succeed in school, getting more A's than other students
- Are more involved as leaders in their school and community

Grades	4-H **	Non-4-H
Mostly A's	38.2 %	26.0 %
A's and B's	36.2 %	32.3 %
Mostly B's	5.5 %	6.1 %
B's and C's	11.4 %	18.8 %
Mostly C's	2.5 %	3.1 %
C's and D's	4.7 %	8.8 %
Mostly D's	0.5 %	2.4 %
Less than D's	1.0 %	2.5 %

- Are looked up to as role models
- Help others in the community

4-H Youth: Confident

Colorado 4-H members have a positive self-identity that gives them confidence to succeed in life. These members are more likely to report that they:

- *Have control over the things that happen to them* **
- *Like themselves* **
- *Have much to be proud of* **
- *Have a sense of purpose in their life* **
- *Are glad they are who they are* *

The study also revealed that 4-H members feel more self-assured than other youth and are able to do things on their own.

Percentage of youth agreeing with leadership statements

Statements	4-H	Non-4-H
I volunteer in class to lead activities	45.9%**	34.1%
I feel other kids look up to me and follow my example	53.5%**	40.6%
I can meet and greet new people easily	64.2%*	58.1%

4-H Youth: Competent

Research shows that Colorado 4-H youth are more socially competent and more likely than other youth to develop practical skills needed to become capable and contributing adults. They are more likely, for example:

- *To be able to speak with ease in front of others* **
- *To set goals* **
- *To plan ahead* *
- *To manage money wisely* **

4-H'ers are more likely to take on leadership roles in their school and community.

Percentage of youth holding leadership positions

Variable	4-H	Non-4-H
Elected leadership	30.6%**	20.6%
Held leadership position	27.0%*	20.6%
Committee member	22.2%**	13.8%

4-H Youth: Connected

Colorado 4-H'ers are more likely to view their role in the community and the future more positively than youth who have not been involved in the program. 4-H members were more likely to report that adults look at them as valuable assets to the community. Members credit the program with making a significant difference in their own lives, in the quality of their family life and in the quality of their community.

* Represents a significant difference (95 percent confidence level) from the values or groups to which they are compared.

4-H members were more likely to report:

- *Adults in their town make them feel important* **
- *Adults in their town or city listen to what they have to say* *
- *In their hometown, they feel like they matter to people* **
- *Within their own family, they feel useful and important* *
- *They are given lots of chances to help make their own town or city a better place to live* **

4-H Youth: Caring and Compassionate

Colorado 4-H'ers are more likely to develop a deep sense of compassion and caring for others. Research shows that 4-H members are more likely to empathize with others in difficult circumstances and significantly differ from their peers in how much they care about others' feelings. 4-H members in the study were more likely to report that they care about other people's feelings than non-4-H members.

4-H'ers also report that they were more likely to be involved in a project to make life better for other people; give money or time to a charity or other organization that helps people; and to have spent time helping people who are poor, hungry, sick or unable to care for themselves.

Percentage of youth who helped others

Variable	4-H	Non 4-H
Involved in a project to help others	64.3%**	47.0%
Given money or time to charity	67.7%**	53.4%
Helped poor, sick or others	52.8%**	44.9%

** Represents a highly significant difference (99 percent confidence level) from the values or groups to which they are compared.

DARE to be You Program – Adolescent Family Life Project

The goal of the DARE to be YOU program is to promote abstinence in teen by enhancing individual resiliency factors – particularly self-efficacy, decision making, and peer refusal skills – and strengthening their families - notably communication about intimacy and sex, nurturant relationships, and monitoring. Youth (12 to 14 year olds) and their families are recruited in Denver and Montezuma County, Colorado, and then are randomly assigned to the DARE to be You (DTBY) intervention or a control group. The DTBY participants (parents and their 12-14 year old children) complete 20-24 hours of workshops that involve hands-on activities, discussion, role plays, and home work. Portions of each workshop are devoted to joint parent-child activities, but much of the curriculum is delivered to separate groups of youth and family members.

Data have so far been analyzed from 179 family members and 125 youth at baseline; 112 family members and 95 youth at the 6-month follow-up; and 75 adults and 40 youth at the 12-month follow-up. Analyses have focused on whether the various measures are correlated in ways that are consistent with the impact model, and on changes in the intervention and control groups. Several key measures of intermediate outcomes are correlated with social desirability, which may make interpretation of intervention effects problematic. Regarding tests of our impact model, a strong peer orientation is significantly related to a number of other risk factors and negatively to many of the resiliency factors in our model, indicating that peer refusal skills may be a key mechanism of change. On the other hand, self-efficacy, future orientation, and especially strong family relationships are inversely related to sexual risk taking as indicated by attitudes about sex and intentions about sexual behavior. Again, these data support an emphasis on resiliency and family factors in the DTBY curriculum. In terms of program impact, parents in the DTBY group, compared to controls, reported higher levels of parent self-efficacy, an intervention effect that was specific to the Denver site; improved more in the quality of their relationship with their youth; talked to their teens more often about intimacy and sex; and were more likely to monitor their teens' activities. Program effects from teen self-reports include: Youth in the intervention group showed significant improvements in their ability to deal with peer pressure and their confidence that they would do so and they showed lower rates of initiation of sex than the control group, as well as higher rates of "secondary virginity."

DARE to by You – Bridges Program

Target Population. The DTBY Bridges program targets children grades K-2, his/her parents and teachers. Siblings are encouraged to attend with the rest of the family. The program is being tested in two markedly different socio-economic and cultural settings: (a) small rural Navajo communities in Utah, Arizona, and New Mexico where the population is 99% Navajo families attending community based schools and (b) Southwestern Colorado, also rural with mixed ethnic cultures including Anglo, Hispanic and Native American. See evaluation plan for how the families are selected into the program

Description: The DARE to be You Bridges Program is an eleven week series of interactive workshops involving K-2 students, their parents or other adult family members and the child's teachers. Each week there is a 30 minute meal and social time, a parent-teacher-child activity (10-20 minutes) focusing on building the child's self esteem, responsibility or other key constructs. These are activities that are guided by trained facilitators at each session to enhance the skills of both the family members and the teachers as they work together with the child. Then adults (parents and teachers) work together while youth have separate but concurrent workshops. The weekly workshops last 2 ½ hours including the meal. Families and teachers must participate in a minimum of 20 hours of the activities to receive the workshop incentives. Data on dosage is collected by a time sign in sheet

monitored by staff. Siblings are encouraged to attend and have their own age-related curriculum drawn from the DARE to be You school and preschool curricula.¹

Content: Adults (parents and teachers) participate in interactive workshops to enhance self-efficacy and developmental levels (Session 1-3), family and classroom management skills thereby improving environments to promote, self-management skills, (Session 4-6) improved family relationships communication between the teachers and family members (Sessions 8-9) and skills for problem solving (Sessions 10-11). Parenting and teaching strategies are integrated into each session.

For children, the program focuses on self-efficacy development, self-responsibility, social and communication skills, problem solving, decision making, and empathy development. It also focuses on enhanced positive perceptions of the school and teachers. These intermediate resiliency factors are linked with reduced use of tobacco, alcohol and other drugs and violence.

Staff for the workshops includes an adult program facilitator, a child program coordinator and trained teens who assist in the child program as children educators.

Impacts Achieved.

Research Design. Teachers, parents and youth all complete self reports. In addition, parents and teachers complete surveys on youth. Teachers and families are recruited to participate in either control or experimental groups and are randomly selected into one of the two groups. Surveys are administered orally to parents, teachers and children with six-, 12- and 18-month follow-up surveys. The parents complete personal surveys on parental efficacy, child rearing practices, depression, social support and their perceptions of school and family school relationships, parent child relationships and communication, their children's self management skills and efficacy. Teachers complete surveys on their teaching efficacy and perceptions of families and surveys on individual youth to assess the child's behavior management and school adjustment and child efficacy. Youth complete surveys to assess their personal efficacy beliefs and their relationships and perceptions of school. These survey instruments are all previously validated instruments.

The data collection on the project is approximately 50% complete. In a preliminary evaluation 142 baseline surveys and 81 six month post tests from the parents were entered into the database. Statistically significant (at least $p < .01$) intervention effects are observed on eight outcome measures. Parent data shows increases in perceived children's social skills, parents limit letting and child centered rearing practices, their view of family/school communication, parents self-efficacy and the parents belief that they should be involved with the school. Parents' data also showed a reduction in children's aggression and parents' self reports of harsh punishment.

Analysis of teacher data reveals three areas of significant improvement. Participating teachers show they: are more likely to endorse parental involvement, believed both parents and teachers should encourage a child's success, and are more satisfied with being a teacher.

Key Theme-Early Childhood and Out-of-School Age Care

A major focus of the Early Childhood and Out-of-School-Age Care (ECOSAC) work team was to collaborate with resident instructors, extension faculty, additional work teams, and others who are conducting child care initiatives at the federal, state, and local levels to seek out high quality training and curricula from areas such as child development, youth development, educational psychology, brain development, and adult learning strategies. Several successful collaborations with the above entities have occurred and several more are ongoing. The Team continues to seek out high quality training and curricula. There is a high degree of enthusiasm and support from Team members during conference calls and scheduled workshops as they move forward towards achieving their goals.

Ongoing

ECOSAC's most successful venture has been the Results Driven Training (RDT) from the University of Kentucky. Nine specialists and field staff were trained on this curriculum in May of 2005. Beginning in June of 2005, workshops were scheduled across the state so that these newly trained individuals could begin workshops for trainers who provide child care trainings in a wide variety of venues in Colorado. Revenue from this proposal brought in \$25,735.50 to Colorado State University. This training has been delivered across the state to 78 participants who train early childcare providers. Feedback from participants has been overwhelmingly positive. Additional trainings continue to be scheduled throughout the state.

Pending

ECOSAC is in the process of utilizing the above format to train specialists and field staff in a new curriculum called the Family Development Credential (FDC) out of Cornell University. Lois Illick and Janet Benavente have recently completed the training in New York. ECOSAC leaders have worked with Strengthening Youth Through Families (SYTF) work team as well as distance education and FDHS faculty to begin implementation of this program. The course will go through the Curriculum Approval Committee at Colorado State University. It is hoped that this course will be available as soon as Fall of 2006 at two different levels: college credit and certification.

Conversations are continuing between Brian Butki and Ann Bruce to implement a pilot summer camp, possibly in Broomfield. There is a high need for these camps across the state, especially in the rural areas. It is hoped a successful pilot camp will open the door to implementing similar camps throughout the state in the summer of 2007.

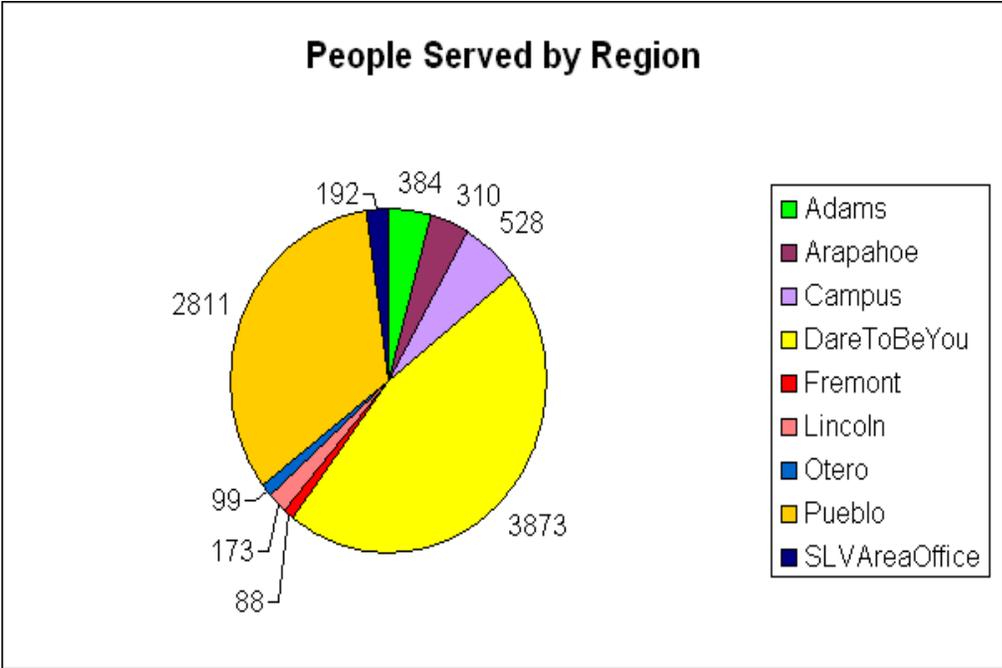
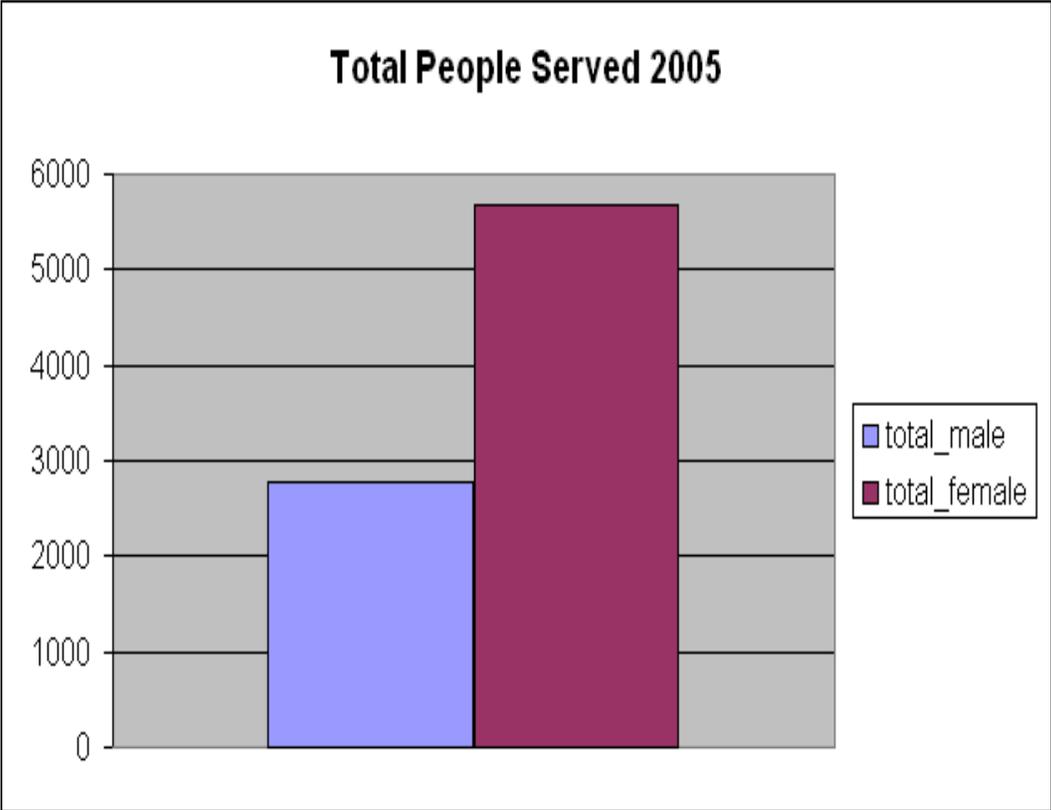
Work is continuing on Colorado State University offering a course for after-school-care providers. Ann Bruce, Sheila Gaines and David MacPhee (from HDFS) are collaborating on this project.

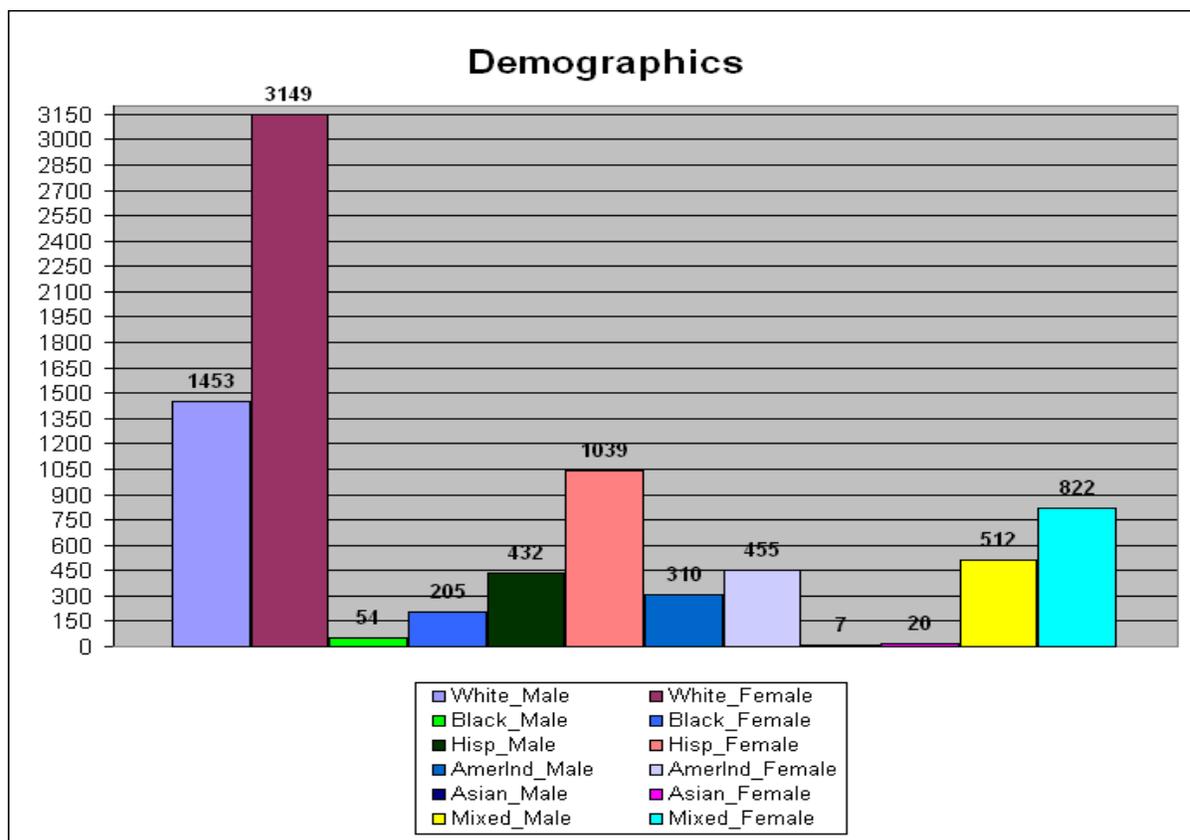
Ann Bruce, Christine Cerbana and Janet Benavente are pursuing the possibility of expanding the RDT training and opening it up to professionals who are not necessarily in the field of early child care. Conversations include the possibility of offering this course for college credit as well as offering it in an on-line format.

Key Theme – Strengthening Youth through Families

SYTF Work Accomplishments

Strategy	Activities	Number completed	Total number (resources disseminated, participants)
Information dissemination	<ol style="list-style-type: none"> 1. Parenting resources 2. Newsletters (Parenting Matters, Family Matters, Fastbreak for Fathers) 3. Exhibits & Conferences 	<ol style="list-style-type: none"> 2. 28 total newsletters produced 2b. 20 consumer connection articles by team leaders, members or affiliates 3. 14 (CFERT) 	<ol style="list-style-type: none"> 1. 35,762 disseminated through CFERT + 7,450 (others) = 43,212 total resources disseminated 2. 19,045 disseminated through CFERT + 14,910 (others) = 33,955 total newsletters disseminated
Training	<ol style="list-style-type: none"> 1. Curriculum TOT 2. Program Replication 3. Other workshops 	<ol style="list-style-type: none"> 1. 10 (CFERT) (DTBY) 2. 15 (DTBY) 3. 	Total combined for all training: 1826
Technical assistance	<ol style="list-style-type: none"> 1. Program implementation 2. Others 	<ol style="list-style-type: none"> 1. 13 (CFERT) 	
Education	<ol style="list-style-type: none"> 1. Dare To Be You 2. Partners in Parenting 3. Second time Around 	<ol style="list-style-type: none"> 1. 13 (Denver, Fremont, La Plata, Montezuma, Otero) & 8 Other states 2. 11 (Alamosa, Larimer, Morgan, Pueblo) 3. 4 (Adams, Fremont, Teller) <p>35 participant events in Adams County (support groups and annual conference)</p>	Total combined for all family education: 8458
Organization, Outreach, Research & Development	<ol style="list-style-type: none"> 1. Team Planning Conference 2. Evaluation Instruments & Youth Development Constructs 3. Model Programs 4. Adoption of FDC Program 5. Outreach to Diverse Audience 	<ol style="list-style-type: none"> 1. June 6-7,2005 2. Presented at June Plan Conference 3. Presented at June conference 4. In progress 5. See graphic report 	





Key Theme- Strengthening Families and Marriages

Inputs.

- 1) The SFM Work Team (Nancy Banman, Rich Batten, Christine Fruhauf, Donna Liess, Janet Benavente, Zeynep Biringen, Ann Bruce, Lois Illick, Karin Chapman/Neidfelt, Jacque Miller, Pam Neelan, Wendy Rice, Elisa Shackelton, Lisa Taylor, Ray Yang, and Bob Fetsch) met via teleconference approximately every 6 weeks to work with Dr. Zeynep Biringen to plan the *Raising a Secure Child* (RaSC) In-Service Training
- 2) Fetsch worked with Janet Benavente, Wayne Cooley, Bill Hancock, Tom Hooten, Robbie Baird-LeValley, Ernie Marx, Tom McBride, Dean Oatman, Marvin Reynolds, Wendy Rice, and Elisa Shackelton to plan, deliver, and evaluate the outcomes of the *Colorado AgrAbility Project's* 15 winter workshops each year with farmers and ranchers with disabilities and with professionals who work with them.
- 3) Fetsch worked with the SFM Work Team members Rich Batten, Karin Chapman/Neidfelt, Donna Liess, Pam Neelan, and Elisa Shackelton on ways to adapt/modify *The Great Marriage Tune-Up Book* for use with Extension audiences. Fetsch also consulted with the author (Jeffry Larson) to seek his ideas.
- 4) *Grandparents Raising Grandchildren: Second Time Around* is being led by Christine Fruhauf who is working with Janet Benavente and Ann Bruce.

Outputs.

- 1) Fetsch and Bruce worked closely with Zeynep Biringen to plan, develop, and prepare for e-mail distribution RaSC registrants a good draft of the *RaSC Leader's Guide and Parent's Manual*.

This is in preparation for the In-Service training on March 2-3 (Part 1). Registrants have agreed to present RaSC series workshops to at least one group by October , 2006 and to send videotapes of parents’ and children’s interactions to Dr. Biringen to support her research.

- 2) Fetsch worked closely with 11 CSUCE Agents to develop the *AgrAbility* curriculum and to offer 15 winter workshops to groups of farmers and ranchers with disabilities and their family members and to professionals who work with them in Durango, Cortez, Trinidad, Monte Vista, Fort Collins, Strasburg, Craig, and Delta and to complete this year’s workshops. “AgrAbility Help Us Help You 1 & 2” pre- and post-survey data is being collected and will be analyzed to ascertain workshop effectiveness.
- 3) The outputs for *The Great Marriage Tune-Up Book* consisted of mailing the books to the SFM Work Team Sub Committee and consulting with the author (Jeffrey Larson). At this time CSUCE Agents prefer to focus their energy on RaSC and wait with the *Great Marriage Tune-Up Book* until later.
- 4) Dr. Fruhauf continues to work with *Grandparents Raising Grandchildren*.

Outcomes.

- 1) Dr. Biringen is developing and refining the Emotional Availability assessment tool and other surveys for use during and after the March 2-3, 2006 (Part 1) In-Service Training for program outcome assessment.
- 2) The Colorado AgrAbility Project (CAP) has empirical outcomes with its winter workshops. Over the past seven years, based on surveys completed and returned by 123 farmers/ranchers and 128 professionals immediately after participating in three-hour workshops:

Ranchers/Farmers	Professionals	Outcomes
98% (120/123)	98% (126/128)	Reported increased knowledge.
98% (118/121)	100% (128/128)	Reported increased satisfaction levels with AgrAbility.
93% (114/123)	99% (127/128)	Plan to use the information.
97% (112/116)	100% (118/118)	Want their tax dollars to continue supporting AgrAbility.

CAP assesses not only immediate results, but also medium-range results 5-16 weeks following the educational workshops. CAP’s mail-out surveys identify enduring changes in attitudes and behaviors. Over the past seven years, based on the surveys completed by 87 ranchers/farmers and 105 professionals 5-16 weeks following the workshops:

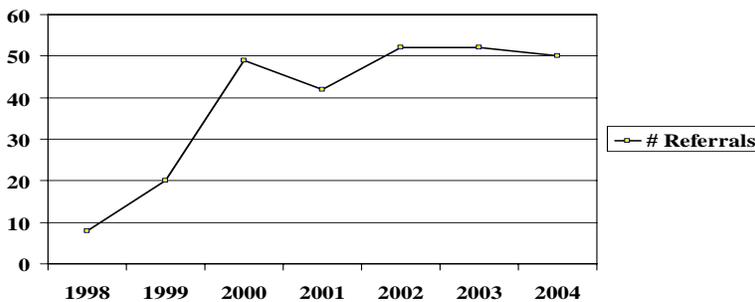
Farmers/Ranchers	Professionals	Outcomes
90% (78/87)	97% (102/105)	Reported increased knowledge.
85% (72/85)	93% (97/104)	Reported improved attitude/outlook.
84% (68/81)	84% (77/92)	Reported doing something to improve their lives.
92% (76/83)	96% (96/100)	Reported increased satisfaction levels with AgrAbility.
93% (81/87)	99% (101/102)	Want their tax dollars to continue supporting AgrAbility.

Funding is crucial to support programs of high value, which impact the lives of farmers/ranchers with disabilities. It is an accomplishment to have 93-97% of ranchers/farmers with disabilities and 99-

100% of professionals who work with them and who participate in AgrAbility workshops say, “Yes, I want my tax dollars to continue to support AgrAbility.”

One of CAP’s primary objectives is to increase awareness of AgrAbility, ultimately resulting in an increase in referrals. Additionally, with awareness and use of AgrAbility, farmers/ranchers are able to regain, retain, or maintain their livelihood. The number of the CAP clients served has increased from a start-up program with 8 clients in 1998 to 50 clients receiving information, on-site visits, and/or full assessments in 2004.

Colorado AgrAbility Referrals



Over the past seven years, CAP has successfully increased and maintained both the number of referrals and the quality of its information, education, and service. In 2004, 56% ($n = 28/50$) of our clients were category III clients who received multiple visits, a full assessment, and complete services. 44% ($n = 22/50$) were category II clients who received one visit and some information. (Eight additional people received information only. We do not count information-only requests as clients.) Referrals have remained at 50 per year. To move past this marker, CAP plans to implement new marketing strategies and increase service capacity by providing Occupational Therapy (OT) internships and supervision.

CAP is committed to addressing the needs of its clients and providing high quality service. To evaluate CAP’s service, CAP employs and trains graduate students to conduct an exit interview via telephone with each client whose case has been closed. Below is a summary of the results of our telephone exit interviews since we began conducting them July 1, 2003. These results were reported by clients who received services from CAP.

- 62% ($n = 26/42$ respondents) reported gaining knowledge about AgrAbility.
- 55% ($n = 23/42$ respondents) reported increased satisfaction levels with AgrAbility.
- 71% ($n = 30/42$ respondents) said they want their tax dollars to continue supporting AgrAbility.
- 72% ($n = 30/42$ respondents) said yes, they would recommend CAP services to a friend.

(3) Additional resources generated.

Fetsch, R. J. (PI). (2005, March 31). *Colorado AgrAbility Project Award 2002-41590-01350* (FY2005). Funded by US Department of Agriculture, Cooperative State Research, Education, and Extension Service \$150,000 direct + \$73,432 non-federal match + 0 indirect for a total of \$223,432 during the fourth of four years, 5/15/2005-5/14/2006.

Key Theme – Healthy Colorado Homes

Situation Statement

Poor indoor air quality can be a serious health risk for Americans, all of whom should take the appropriate steps to protect themselves and their families, according to air quality and respiratory health experts. The Environmental Protection Agency (EPA) has reported research results that show indoor air is five times more polluted than outdoor air. Since most people spend as much as 90% of their time indoors, air quality conditions in homes, schools, and the workplace can greatly affect morale, productivity, and health. Health effects from indoor air pollutants may be experienced soon after exposure or even years later.

The purpose of this work team is to promote healthy indoor air quality in Colorado homes, with an initial focus on radon. It is the second leading cause of lung cancer next to cigarette smoke. As a result of the Indoor Radon Abatement Act of 1988 (IRAA), EPA issued the Map of Radon Zones in which it assigned each of the 3,141 counties in the United States to one of three zones based on radon potential. The majority of counties in Colorado fall into Zone 1, which means that these counties have a predicted average indoor radon screening level greater than 4 pCi/L (pico curies per liter), the level at which EPA recommends mitigation to reduce the risk of lung cancer.

Inputs

Several team members co-wrote the Healthy Colorado Homes plan of work, resulting in funding by Colorado State University Cooperative Extension of \$3,800. This amount is supplemented by Tremblay's funding from USDA/CSREES for the initiatives of Healthy Indoor Air for America's Homes (\$3,300) and Healthy Homes (\$6,600). After approval of the plan of work, two meetings facilitated by Jacque Miller were held in Frisco to flesh out the team's goals. This was followed by two conference calls, a short meeting during Extension Forum, and a meeting in the Department of Design and Merchandising.

Initial Outcomes

- Developed a monthly activity report form
- Developed a radon poster for display
- Developed a radon training manual
- Developed an outline for *Our House Records*
- Developed a logo for Healthy Colorado Homes

Outputs/Outcomes Meeting Short-Term Goals

Increase CSUCE agents' knowledge regarding health risks of radon and appropriate prevention measures.

1. Desktop training on radon delivered to approximately 10 agents.
2. Developed a radon manual that was made available to agents at Extension Forum to help them conduct training with the public. Approximately two dozen manuals have been distributed to agents. The manual includes the following.

- CD with educational PowerPoint and narrative
- Outline for a 20-30 minute educational session
- CD with promotional and media materials from EPA
- List of contact information for ordering resources
- Radon testing kit ordering information
- Radon testing kit tracking sheet
- Sample of printed resources
- List of residential mitigation providers servicing Colorado
- Information on working with the media
- Guidelines for pricing public programs

3. Developed portable radon awareness/testing display that has been distributed to interested agents.

4. Radon information included in *Housing and Design* newsletter, posted on the CSUCE Web site. Two radon posters were distributed to all county offices.

Increase Colorado homeowners' and renters' knowledge regarding health risks of radon and appropriate prevention measures.

Monthly activity report forms were submitted from four counties as well as the state housing specialist covering the October-December, 2005, time period. Radon efforts from the four counties were partially funded by radon mini-grants from the Colorado Division of Public Health and Environment. Below are the results.

Number Impacted	Activity
<u>205</u>	Delivered radon education programs to a group of residents
<u>703</u>	Presented a radon display in a public setting
<u>3,367</u>	Provided easy public access to EPA, CDPHE, CSU or other research-based radon education resources
<u>11,500</u>	Utilized local media sources to promote radon awareness and testing
<u>56</u>	Sold radon test kits
<u>55</u>	Consulted with an individual or group regarding specific radon questions
<u>18</u>	Assisted an individual or group with follow-up information following a radon test
<u>5</u>	Encouraged/assisted an individual with the re-testing process following an initial test indicating a high radon level
<u>23</u>	Assisted local residents with information related to building radon out during new home construction
<u>19</u>	Provided radon programs for local real estate professionals
<u>126</u>	Provided radon programs for local health professionals

16,077 Total

Increase CSUCE agents' knowledge of best-practice delivery modes for the Healthy Indoor Air for America's Homes curriculum.

1. Radon poster was displayed during Extension Forum and at the annual conference of the Housing Education and Research Association.

2. Inquiries have been directed to the national project headquarters on obtaining updated curriculum.

Increase knowledge of homeowners regarding the health of a house and its related history.

Improve record keeping regarding indoor air testing, appliance repair and service history, miscellaneous operating instructions, etc.

Our House Records is currently under development. It is a notebook to store and keep track of important homeownership facts about purchase, home systems, repairs, remodels, indoor air quality, and home safety. Brief explanations, resources, and forms to record house maintenance and upgrades help the consumer to customize and organize the history, plans, and various systems of a house. Sections provide places to store documents, receipts, warranties, indoor air quality test results, and contact records. The notebook allows consumers to keep their home records in one location, handy with records of dates, appliance purchases, maintenance contacts, and specific health features pertaining to children. Over the years a home needs regular upkeep along with repairs and additional improvements, often for safety reasons. From the day someone becomes a homeowner, this notebook binder will store the history of the home and its care.

Outcomes will be to increase knowledge of homeowners regarding the maintenance and health-related aspects of their home and its related history, and improve record keeping skills pertaining to indoor air testing, appliance repair, service history, safety features, and general maintenance of a home.

Other Outcomes

- Tremblay published the article “Educational efforts to reduce radon levels in the home” in *Journal of Family and Consumer Sciences Education*.
- Tremblay published the article “Using a poster contest to educate children about radon” in *Journal of Extension*.
- Tremblay co-coordinated the annual conference of the Housing Education and Research Association. He received a \$20,000 grant from USDA/CSREES to support a one-day program on Healthy Indoor Air for America’s Homes. He also co-edited the proceedings: *Healthy Home Environments*. Au-Yeung and Shackelton were awarded scholarships to attend the conference in Denver.
- Development of a children’s activity booklet focusing on safety in the home continues, and should be available this summer.

Key Theme – Family Economic Stability

Inputs

- **Human resources (staff, volunteers)**

Current Team Membership

Team Leaders:

Jacque Miller

Laurel Kubin

Team/Associate Members (Participated in training and/or expressed interest in programs):

Laura Au-Yeung

Gisselle Jefferson

Gale Miller

Sheila Barry

Pam Neelan

Jean Justice

Jane Frobose

Bonnie Sherman

Lois Illick

Wendy Rice

Janet Benavente

Ann Zander

Kay Kasza

Verla Noakes

Jan Sennhen

Shiela Gains

Linda Yoder

Patrick McCarty

Irene Shonle

LuAnn Boyer

Karin Niedfeldt

Donna Liess

Carol Kuhns

Bruce Fickenscher

Maureen Bergenfeld

Glenda Wentworth

- **Partners, Collaborators, Stakeholders**

State Partners:

Colorado Financial Planning Association

Colorado Saves Coalition

Colorado State Securities Administrator

Investor Protection Trust

Other CSUCE Work Teams:

-Health Promotion and Chronic Disease Prevention

-Strengthening Families and Marriages

-Sustainable Community Resource Development

Local Partners:

Eagle County Health and Human Services

Larimer County Workforce Center

Fort Collins Housing Authority

Larimer County Government

Crossroads Ministries of Estes Park

Denver County Health and Human Services

- **Expertise, knowledge**

Vickie Bajtelsmit, Dept. of Finance, College of Business

Celeste Kling, Dept. Human Development and Family Studies, College of Applied

Human Science and practicing Fort Collins Attorney

Outputs

Method	Original Timeline	Accomplishments
Format the presentation of selected curriculum to increase audience participation considering the multiple intelligences of learning	Mar. 2005 – Aug. 2005	Completed for LSYFF – Nov. 2005 In progress for IFYF
Develop promotional materials to use with employer recruitment	July 2005 – Sept. 2005	Completed for LSYFF – Nov. 2005 In Process for IFYF
Make all resources for workshops available via the web for CSUCE professionals	Sept. 2005	Completed for LSYFF - Jan. 2006 Established a Website with educational resources for CE professionals to conduct training: http://www.ext.colostate.edu/lsyff/index.html In Process for IFYF
Train CSUCE professionals in use of selected curricula via Internet and teleconference means and through on-site trainings	Sept. 2005 – Dec. 2005	Completed training for LSYFF – Jan. 2006 Conducted 4 hour training for 27 CE professionals via teleconference and internet. In-depth Training on Investing, Saving, Credit, etc. planned for May 2006
Seek funding to enhance affordability of Extension financial management workshops	Mar. 2005 Ongoing	Ongoing Completed: Colorado Saves Proposal Submitted in April 2005 for \$44,516 – No Award eXtension Community of Practice: Financial Security for All Proposal Submitted August 2005 – Subcontract awarded for \$5,000. IPT Funding Proposal Submitted September 2005 for \$140, 863 – No Award USDA/NASD Funding Proposal Submitted October 2005 for \$3,563,318 – No Award Provided training in LSYFF program a user fee based program with potential of local sponsorship for limited resource audiences.
Build relationships with identified human resource professionals and employers	Sept. 2005 - Ongoing	Ongoing Provided via LSYFF training and Website

for initial program offerings / pilot sites		resources for agents to use in building relationships with stakeholders. In progress for IFYF
Workshops conducted in workplace and community settings	Sept. 2005 Ongoing	Ongoing
Market CSUCE financial programs through a variety of organizations such as professional associations of human resource directors, local networks, community colleges, and workforce centers	Jan. 2006 Ongoing	Ongoing Partnership links established with: Colorado Financial Planning Association Colorado Saves Coalition Colorado State Patrol Colorado State Securities Administrator Investor Protection Trust Feb. 2006 - Target professional organization – Colorado Bar Association
Develop a web site for target audience that is user-friendly	October 2005 – December 2005	In progress. LSYFF consumer Website being developed by the LSYFF National Team as a component of eXtension’s Financial Security for All Community of Practice. IFYF consumer Website will require securing additional funds
Conduct workshop evaluations	September 2005 Ongoing	In progress and ongoing Human Subjects Approval for LSYFF – Jan. 2006 LSYFF Workshop evaluation begin April 2006
Conduct 3- 6 month follow-up outcome evaluations (on-line where possible)	January 2006 Ongoing	In progress and ongoing
Report program outcomes	July 2006 or as requested	Jan. 2007

Outcomes

Spend Some, Share Some, Save Some

Participants: 499

Learner Objective: Individuals and families have gained basic financial knowledge and skills.

Indicators: % who responded to survey

- 85% Developed a spending plan
- 70% Created a savings plan
- 49% Increase savings for specific goals
- 88 % Understand what part choice plays in making financial decisions
- 94% Set financial goals
- 95% Obtained and reviewed their credit report
- 67% Reduced consumer debt
- 89% Developed strategies to share personal resources with others
- 87% Set up a personal record-keeping system
- 87% Took steps to protect important papers
- 100 % Reduced personal information shared with others
- 86% Developed strategies to balance income and expenses
- 99% Reduced spending leaks
- 94% Found information provided through sessions beneficial

Late Savers Prepare for Retirement/Invest for Your Future

Participants: 62

Learner Objective: Individuals and families are better prepared to estimate their financial retirement needs and make adjustments to prepare for a satisfying retirement.

Indicators: As a result of this seminar, % of participants who have done or plan to do during the next twelve month.

- 23% plan to attend a retirement seminar at work or in community.
- 75 % had attended a retirement seminar at work or in community.

- 54% Plan to schedule an appointment with a financial planner regarding retirement planning.
- 36% Have scheduled an appointment with a financial planner regarding retirement planning.

- 73% Plan to start or increase savings / investments for retirement.
39% have started or increased savings/investment for retirement.

- 41% Plan to estimate when they will retire.
59% Have estimated when they will retire.
- 73% Plan to estimate all their source of money in retirement.
30% Have done an estimate of all their sources of money in retirement.

- 41% Plan to review their annual Social Security Benefit Estimate.
70% Have done a review of their annual Social Security Benefit Estimate.

- 77% Plan to do an estimate of their monthly living needs at retirement.
23% Have done an estimate of their monthly living needs in retirement.

- 75% Plan to use the Defined Benefit or Defined Contribution Excel Worksheet to estimate retirement savings needs.

- 11% Have used the Defined Benefit or Defined Contribution Excel Worksheet to estimate retirement savings needs.
- 73% Plan to meet with a retirement counselor at work to learn about pension and health care benefits in retirement.
- 20% have meet with a retirement counselor at work to learn about pension and health care benefits in retirement.
- 50% Plan to contact their employer about additional retirement plan choices.
39% Have contacted their employer about additional retirement plan choices.

Before this seminar, how prepared were you to make decisions about your retirement concerns?

Well Prepared – 11%
Somewhat Prepared – 73%
Not Prepared – 20%

After participating in this seminar, how well prepared are you to make decisions about your retirement concerns?

Well Prepared – 47%
Somewhat Prepared – 57%
Not Prepared – 0 %

What financial value do you think this seminar will bring to you over your lifetime?

\$0 - \$10,000 - 5%
\$10,001 - \$50,000 – 32%
\$50,001 - \$100,000 - 27%
\$100,001 - \$500,000 - 14%
\$500,001 - \$1,000,000 - 2%
over \$1,000,000 - 0%

Six Month Follow-up to a 2004 Late Savers class, conducted in January, 2005:

Respondents to web-based survey

Indicators: % of participants who responded actions taken since the workshop

50% Determined the amount needed to save each month for retirement
38% Increased their contributions to their individual retirement account
25% Increased their contributions to an employer sponsored retirement account or plan for the self-employed
13% Took other actions to increase their retirement savings
25% Made plans to decrease the amount of money required to live on during retirement
38% Plugged spending leaks
50% Took action to decrease their debt
75% Reviewed their Social Security benefit estimate statement
25% Talked with their spouse or partner about our retirement plans
38% Met with a financial advisor to discuss retirement planning

38% Read or used books, software, or other retirement planning resources

Invest for Your Future

Participants: 9

Learner Objective: Individuals and families with little or no savings will learn to balance spending and take steps to increase contributions to savings.

Learner Objective: Individuals and families will learn more about investment choices and say they are better prepared to make long-term diversified investment choices.

Indicators: As a result of this seminar, % of participants who have done or plan to do during the next twelve month.

- 57% Plan to establish an emergency reserve fund.
- 43% Have established an emergency reserve fund.

- 57% Plan to consult one or more financial professionals regarding investment planning.
43% Have consulted one or more financial professionals regarding investment planning.

- 26% Plan to develop an investment plan with short, medium, and long-term financial investment goals.
- 71% Have developed an investment plan with short, medium, and long-term financial investment goals.

- 43% Plan to determine amount of money needed to achieve investment goals.
57% Have determined the amount of money needed to achieve investment goals.

- 57% Plan to reduce expenditures to free up money to achieve financial investment goals.
43% Have reduced expenditures to free up money to achieve financial goals.

- 71% Plan to increase the amount of money invested monthly.
29% Have increased the amount of money invested monthly.

- 57% Plan to use one or more investor resources to investigate specific investments.
43% Have used one or more investor resources to investigate specific investments.

- 43% Plan to investigate investments available through employer.
57% Have investigated investments available through employer.

- 57% Plan to purchase one or more new investments.
43% Have purchased one or more new investments.

Before you attended this seminar, how prepared were you to make decisions about your investment concerns?

- Well Prepared – 0%
- Somewhat Prepared – 57%
- Not Prepared – 43%

After participating in this seminar, how well prepared are you to make decisions about your investment concerns?

- Well Prepared – 57%
- Somewhat Prepared – 43%
- Not Prepared – 0%

What financial value do you think this seminar will bring to you over your lifetime?

- \$0 - \$10,000 - 0%
- \$10,001 - \$50,000 – 14%
- \$50,001 - \$100,000 - 14%
- \$100,001 - \$500,000 - 43%
- \$500,001 - \$1,000,000 - 29%
- over \$1,000,000 - 0 %

Comments from evaluations: “(These classes were) very valuable. It was what I needed to learn for investing. I had no idea where to begin, and now I feel comfortable doing so.”

Key Theme-Sustainable Community Development

1. Inputs and Outputs

- a. Colorado State Patrol project #1 includes the following partners: Colorado State Patrol, CSU Division of Continuing Education, CSU Department of Sociology and CSU School of Social Work. The phase one of the project, advanced communication training curriculum development, is in its final stage of revision as it was pilot tested in early December. Phase two will be to negotiate the potential for CSU to be the ongoing provider of this training to State Patrol Officers.

Income generated for CSUCE = **\$11,000.00**. Please note that this is the project that led to the exploration and development of CSU as the training provider of choice for the State of Colorado, which has long-term financial implications for CSU.

- b. Colorado State Patrol project #2 includes the following partners: Colorado State Patrol, CSUCE State Specialists, Jacque Miller, Pat Kendall, and Robert Fetsch and CSUCE County Director Kipp Nye. The focus of this project is to develop a comprehensive wellness program designed to help provide balance in the life of State Patrol Officers and their families (approximately 900 staff and families). Topics will range from food and nutrition to stress management to family financial management.

Income generated for CSUCE through this project is still under negotiation.

- c. A potential output from work with the State Patrol is the opportunity to conduct focus needs assessments with this population of State Patrol staff and their families.

2. Impacts – Formal evaluation of each of the curricula is being designed and will be reported against in the future.
 - a. The potential impact for Phase one will include:
 - Increased safety for state patrol officers and citizens through improved communication
 - Improved perception of State Patrol through improved relationship with citizens
 - b. Potential broadly stated impacts for Phase Two include:
 - Improve health of 900 State Patrol staff and their families through:
 - Decreased stress
 - Improved nutrition
 - Improved financial stability and health of 900 State Patrol staff and their families
 - Improved healthy communication within the families of 900 State Patrol staff

Community Mobilization

1. Inputs and Outcomes

- a. ToP (Technology of Participation) Facilitation Training
 - i. This training was provided to 21 participants representing three organizations: CSUCE, RC&D and NRCS. The training was provided through a partnership with Sangre de Cristo RC&D who secured funding support from the NRCS in the amount of \$1700.00 and provided in-kind services in the amount of \$450. The SCD Work Team provided \$1700.00 in-kind services primarily through Nancy Banman’s services as co-trainer. Participate income was \$1575.00. As a result, CSUCE now has 11 newly trained facilitators to serve CSUCE and 10 trained facilitators for USDA. Income generated for project = **\$3275.00**
 - ii. A second ToP Facilitation Training has been scheduled for February 28, March 2 & 3 to train additional CSUCE personnel and partners. To date there are seven CSUCE staff registered.
- b. The Hometown Security initiative was a partnership with the Colorado’s Governor’s Commission on Community Service, and Colorado Regional Community Policing Institute. Through this initiative, presentations were given at seven regional meetings throughout the State, two special trainings (Grand Junction Police Department & Directors of Volunteers in Agencies – Denver) in addition to the production of a training CD. The CD was provided to all Cooperative Extension staff and to over 300 emergency preparedness volunteers and professionals throughout the state of Colorado. This effort was funded in the amount of **\$130,000**. The CD contains three modules:
 1. Education and Awareness
 - a. The Effective Engagement of Citizens in Hometown Security & Community Policing
 - b. Hometown Security: Tools for Engaging Communities;
 2. Community Mobilization
 - a. Collaborations: Working Together For Community Solutions;
 - b. Communication and Relationships: Building Trust;
 - c. Shared Purpose, and Vision: Providing Direction;

- d. Action to Evaluation: Creating Plans and Demonstrating Accomplishments; and
- e. Find the Money: How to Write Successful Grant Proposals
- 3. Skill Development
 - a. Conducting Effective Meetings; A Volunteer Primer; and
 - b. Working with the Media
- c. The Drug Endangered Children: Tools for Engaging Communities CD was produced in partnership with Colorado Regional Community Policing Institute, Colorado Drug Endangered Children's (DEC) Alliance and CSUCE. This effort was funded in the amount of **\$18,000**. The CD is being made available to all communities working on providing services to Drug Endangered Children in Colorado. The CD was developed based upon the Hometown Security CD modules, modifying them to address the issue of DEC work which meant developing a new module entitled "From Education to Mobilization: Connecting the Dots."

2. Impacts

- a. ToP Facilitation training has the potential to improve outcomes for all projects where trained facilitators lead group efforts internal to CSUCE or within their counties and communities, to develop consensus, have meaningful dialogue regarding and increased shared understanding of reports, issues, goals, strategies etc.
- b. Hometown Security Initiative potential impacts include:
 - i. Citizens will gain awareness of the role they have in detecting, preventing and responding to terrorism. Through these roles they will achieve a greater sense of contributing to the security of their family, neighbors and community.
 - ii. Training participants will acquire an enhanced awareness of citizen potential and increase their skills in successfully engaging citizens in community safety and preparedness for acts of terrorism.
 - iii. Communities will expand public safety capabilities to detect, prevent, and respond to terrorism.
- c. Drug Endangered Children initiative potential impacts include:
 - i. Children from homes in which are producing methamphetamines will be provide safe environments, appropriate social/behavioral treatment, appropriate medical assessment and treatment, and advocacy within the court system.
 - ii. Multidisciplinary teams with communities will be inclusive of all appropriate partners at the outset of their planning process
 - iii. Citizens will know why their support and involvement in DEC is critical to the health of their community
 - iv. Citizens will understand what roles they can play to assist in the DEC efforts of their multidisciplinary teams.

Rural Tourism

1. Inputs and Outcomes

- a. Hosted Tourism Rally' V (April) and Rally VI (October). As a result have established a steering committee to help direct the planning of the coming Rallies. In addition two multi-county task groups have been formed to work on an events calendar to help in coordination of major events between counties and a shared website.

- b. As a result, in part, of the SCD multi-county tourism effort, Custer County and Huerfano County Boards of Commissioners have requested that the local CE Agents (Gary Hall and Jim Conley) facilitate the newly established County Economic Development Committees.
 - c. In partnership with the Department of Agriculture and Resource Economics (DARE), DARE student Josh Wilson developed the “Colorado Resources for Economic and Rural Development Directory”. The directory provides information regarding organizations and agencies that provide economic development information and services to rural areas with specific emphasis on rural tourism. This document is being finalized and will be made available to all CE staff.
Cost: \$1000.00
 - d. MOA signed for impact study of lodging tax for Huerfano and Custer Counties. DARE in cooperation with Cooperative Extension will conduct the studies and report the findings. The \$7500 fee will be covered as follows: **\$2500** will be paid by the two counties, **\$2500** paid by DOLA, and, as an investment in a pilot project to be used as marketing for future efforts in other communities \$2247.00 contributed by the SCD Work Team, \$352.00 by Nancy Banman and \$1500 contributed by Andy Seidl.
2. Potential Impacts
- a. Increased tourism dollars brought into Custer and Huerfano Counties with possibility of increased tourism dollars in Pueblo and Fort Garland aiding all communities in their economic health.
 - b. Informed electorate, who will be voting on the issue of creating a lodging tax in Huerfano and Custer Counties, based on education using the lodging tax impact study results.
 - c. Growing long-term multi-county partnership for the purpose of increasing the sustainable economic development of the area.

Community/Economic Development

3. Input/Outcomes
- a. MOA in final stages for the Huerfano Northland Development Impact Study regarding providing water and sewage services to this area north of Walsenburg. The County and the City of Walsenburg have each agreed to contribute \$4000 for a total of **\$8000.00**. This project will be done in partnership with DARE.
4. Potential Impacts
- a. A research based decision to move forward with providing water/sewer services by government officials, which will enhance and not undermine the economic development of both Huerfano County and the City of Walsenburg.
 - b. New business initiatives in Huerfano County
 - c. Improved working relationship between Town Council of Walsenburg and Huerfano County Commissioners.
-

Stakeholder Input Process

Annual critiques and input on our Plans of Work are provided from the State Extension Advisory Committee and from County Advisory Committees. This is an ongoing process whereby critiques and requests are funneled through county faculty to regional directors and discussed at regional meetings on an annual basis.

Actions taken to seek stakeholder input:

Every county/area is expected to have an Extension Advisory Committee made up of a broad representation of stakeholders from all programmatic and geographic areas, as well as representative of the diversity found in the county. Evidence of an active advisory committee must be documented in performance appraisals by county directors. The committee and its efforts are also documented during the regular affirmative action review conducted in each county/area. Counties frequently have programmatically oriented advisory committees as well. In addition, specialists frequently have advisory committees at the state level, comprised of commodity group representatives, cooperators, etc. An inventory of all advisory committees at the county and state level reveals more than 112 committees, currently involving over 2000 individuals throughout Colorado.

Process used to identify stakeholders and collect input:

Representatives from program recipient groups (4-H leaders, master gardeners, agricultural cooperators), as well as programmatic collaborators (community agencies, county departments, commodity groups) are expected to be a part of the advisory committee structure. In addition, county advisory committees must reflect the ethnic diversity of the county. Advisory committees are expected to meet on a regular basis as evidenced by minutes and recommendations regarding programming being forthcoming. Extension agents provide programmatic input to committees and receive feedback and suggestions for new programs and changes to existing programs.

How Input is used:

Programmatic suggestions are funneled from county advisory committees to the State Extension Advisory Committee for consideration, recommendation, and implementation

Program Review

The program review process has not changed since the submission in 1999. We continue to work with the Ag Experiment Station to develop joint program review processes based on our joint development of a program accountability system. In addition, all projects conducted by Extension Specialists are subject to the peer review process established by each College.

Evaluation of the Success of Multi & Joint Activities

Multistate Projects - As shown in the attached table, Colorado State University Extension faculty are engaged in a great variety of multistate and activities largely focused on the immediate high plains states or in the western region. The activities are organized around our ongoing work teams and provide additional resources and synergy in high quality programming and research.

Joint Projects – Successful joint programming continues to occur between Cooperative Extension and the Agricultural Experiment Station. The attached table details this work.

**U.S. Department of Agriculture
 Cooperative State Research, Education, and Extension Service
 Supplement to the Annual Report of Accomplishments and Results
 Actual Expenditures of Federal Funding for Multistate Extension and Integrated Activities**

(Attach Brief Summaries)

Fiscal Year: 2005

Select One: Interim Final

Colorado State

Institution: University

State: Colorado

	Integrated Activities (Hatch)	Multistate Extension Activities (Smith-Lever)	Integrated Activities (Smith-Lever)
<i>Established Target %</i>	0% %	15% %	15% %
<i>This FY Allocation (from 1088)</i>	\$ -	2,957,179	\$2,957,179
<i>This FY Target Amount</i>	\$ -	\$443,577	\$443,577
Title of Planned Program Activity			
Competitive Agricultural Systems	\$ -	\$ -	\$ -
Safe and Secure Food & Fiber System		224,580	426,621
Healthy and Well-Nourished Population		20,417	35,466
Greater Harmony Between Agriculture and the Environment		0	35,467
Enhanced Economic Opportunity and Quality of Life		91,872	93,716
		123,103	13,229
Total	\$ -	\$459,972	\$604,499
Carryover	\$ -	\$ -	\$ -

Certification: I certify to the best of my knowledge and belief that this report is correct and complete and that all outlays represented here accurately reflect allowable expenditures of Federal funds only in satisfying AREERA requirements.



Marc A . Johnson

6/29/06__

Director

Date

Multistate Extension Activities

Note: The funds shown identify ONLY CSU Smith-Lever dollars.

Program	States	FTE	Funds
Colorado Engaging Communities in Transition	Arizona, New Mexico, Utah	1.0	102,085
Certified Greenhouse Professional Program	Wyoming, Utah	.2	20,417
Colorado Water Outreach Program	Wyoming, Montana, North Dakota, South Dakota, Utah	.3	30,623
Veterinary Extension in the West	Nebraska, Wyoming, Utah	.3	30,623
Colorado Row and Vegetable Crop Foliar Disease Management	Nebraska, Wyoming	.2	20,417
LandHelp	New Mexico, Arizona, Wyoming	.1	10,209
Turf Production and Management in Colorado	Wyoming, Nebraska, Arizona	.2	20,417
Commercial Greenhouse Crops	Wyoming	.2	20,417
4-H Youth Life Skills Development in Archuleta County	New Mexico	.25	15,013
Sustainable Ag Using Alternative Methods in LaPlata and Archuleta Counties and San Juan County New Mexico	New Mexico	.2	20,417
4-H Youth Life Skills Development in La Plata County	New Mexico	.1	6,005
Living on the Land – Small Acreage Curriculum	Oregon, Nevada, Idaho, Washington, Utah, Montana, California	.3	30,623
Preserve Warhill Germplasm	Wyoming, Nebraska	.1	10,209
Southeast Colorado Dryland Cropping Systems	Kansas	.2	20,417
Northeast Colorado Dryland Cropping Systems	Kansas	.3	30,623
Food Safety	Wyoming, Minnesota	.2	20,417
Sunflowers	Nebraska, Kansas	.3	30,623
Irrigation	Nebraska	.2	20,417
	Total-FY 2005 Multistate		\$459,972

**Colorado State University Cooperative Extension/Agriculture Experiment Station
Integrated Activities
2004-2005**

Note: No new projects have been added for the 2005 program year due to budget restrictions.

Program	Funds	Description
Colorado Integrated Resource Management & Sustainable Agriculture (Koontz, Whittier, Scanga, Stanton)	101,001	Improve sustainability and profitability of livestock production systems in forage-based, natural resource environments. Improving quality composition and consistency of market livestock and meat products. Genetic screening for improved beef cutability and palatability.
Crops Testing and Alfalfa Variety Testing and Extension Education for Colorado (Byrne, Schwartz)	29,109	Testing of winter wheat varieties, corn (dryland and irrigated grain as well as silage) hybrids, sunflower hybrids, dry bean varieties. Genetic improvement of beans for yield, pest resistance and food value. Alfalfa variety testing and technology transfer.
Colorado Environmental Pesticide Education Program (Beck)	28,043	Pesticide safety education, pesticide use and needs assessment, crop pest management, pesticide information transfer. Ecology and management of invasive weeds.
Sustainable / Organic Integrated Fruit Production for Colorado (Larson)	9,589	Commercial fruit production – production techniques, pest control, pesticide selection and use, crop selection and management options.
Improving Certified Seed Potato Production and Management (Davidson)	26,998	New cultivars, seed related research, integrating management strategies for disease and pest problems. Management of diseases through improved certified seen production and management techniques.
Salinity Work in Colorado's Lower Arkansas River Basin (Garcia)	12,327	Detailed data-collection activities for soil salinity, depth to groundwater, groundwater quality, rainfall amounts, evapotranspiration, and crop yield.
Turf Production and Management in Colorado (Koski)	34,974	Sustainable turf grass production and management – lay and professional – water requirements, fertilizer, pesticides, energy. Water use, stress resistance and varietal evaluation
Nutrition and Food Safety (Kendall & Anderson)	70,933	Improving safety of food; seasonal patterns of food insecurity on diet and growth of children; nutrition technology transfer.
Horticulture and the Green Industry (Klett, Cranshaw)	41,240	Introduction, adaptability, production and survival of landscape plants. Improving management and technology transfer of insects affecting horticultural crops.
Precision Agriculture (Khosla)	14,170	Site specific management zones for farm profitability and environmental sustainability (GPS/GIS)
Colorado Water Program (Waskom)	6,060	Water quality and quantity issues related to agriculture, industry, wildlife, and economic vitality of the state. Ag.

		chemicals and ground water protection, nonpoint-source pollution, irrigation.
Rural Economic Development (Thilmany)	13,229	Rural communities, rural labor markets and public policy.
Colorado Field Crop Entomology (Peairs, Westra)	68,246	Biology and management of Russian wheat aphid
Southeast Colorado Dryland Cropping Systems (Nissen)	19,224	Dryland cropping – wheat, corn, field crops.
Northeast Colorado Dryland Cropping Systems (Pearson)	12,326	New and alternative crops.
Southeast Regional Range-Livestock (Brummer)	13,033	Biology of cheatgrass invasion in the Gunnison Basin
Commercial Vegetable Crop Production (Bartolo)	10,134	Weed management for onion, potato, dry bean, sugar beet production.
Technology Assessment, Applied Research and Information Delivery for Potato Production in Colorado (Zink)	32,704	Improved potato yields through suppression of disease.
Animal Manure and Waste (Davis, Seidl)	61,159	
Total – FY 2005	\$604,499	