

# Sustainable Agriculture Innovations Lead to Rural Success

## Final Report for CS03-012

Project Type: Sustainable Community Innovation

Funds awarded in 2003: \$10,000.00

Projected End Date: 12/31/2004

Region: Southern

State: Texas

Principal Investigator:

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Canutillo Independent School

## Project Information

### Abstract:

The Canutillo Independent School District has taken bold steps in community economic development; identifying agriculture, specifically sustainable agriculture, as an asset that has historically served this rural border community and has the potential to continue to serve this community through creating jobs, generating wealth, and improving each resident's quality of life.

### Introduction

The Canutillo Independent School District (CISD) has stepped forward in a leadership role to solicit community input in the development of a strategy that links sound farm and non-farm economic development with sustainable agricultural and natural resource development: Project SAILS: Sustainable Agriculture Innovations Lead to rural Success.

In 2003, the District requested \$10,000 from USDA-Sustainable Agriculture Southern Region SARE and Southern Rural Development Center (SRDC) for a Sustainable Community Innovation Grant to develop an economic strategy with a series of community outreach sessions. A convened Advisory Group collected input on activities, to include the creation of an agriculture magnet center at CISD that recognizes and promotes the economic, environmental, and social interdependence between agriculture production and rural communities. The agriculture magnet center was proposed as the focal point to educate and train youth and producers, develop and incubate entrepreneurial businesses related to agriculture in the community, and create a county-wide awareness about sustainable agriculture through identified activities. This plan has been developed from the collected information and presented to the community and the CISD Board of Trustees for adoption. This "blueprint" for economic development through sustainable agriculture will be disseminated across Texas and rural southern New Mexico for duplication in other rural communities.

This economic development plan identifies the future visions, resources, and proposed activities for economic development through sustainable agriculture

within the boundaries of Canutillo Independent School District, Canutillo, Texas. Agriculture is much more than a starting point on the economic development scale. It represents a fundamental economic opportunity that also pays dividends in cultural, environmental and social gains for Canutillo, Texas. Consider the following: Agricultural enterprises represent a business investment of \$86,600,000 in the Canutillo region.

Agriculture provides year-round business for other Canutillo area enterprises with a total economic impact of \$163 million.

Income from agriculture goes further than other sectors in helping the economy.

Agriculture produces much higher economic multipliers than any other sector of the area economy. Top commodities in southern New Mexico and west Texas are milk at \$31 million; cotton and cottonseed at \$22 million; pecans at \$13.2 million; cattle, vegetables, ensilage, and alfalfa. With estimated economic multipliers above 2.0, agriculture outpaces retail and wholesale, construction and manufacturing for the area. Agricultural opportunities can actually increase with development of an area. While development can obviously create conflicts for farmers, farming and urbanization can co-exist, with the local demand for agricultural products increasing with the latter and raises the value of farming as an economic enterprise.

Successful farming limits suburban sprawl.

Preserving farmland discourages expensive suburban sprawl, steering development toward areas with existing services. Farms preserve natural environments.

Farmland is an invaluable resource for future generations.

Top five commodity land uses: cotton, orchards, hay, vegetables, and sorghum for silage, covers 7% of the total acreage of southern New Mexico and west Texas.

Farmland is a valuable future resource for the southwest portion of the USA in providing for a healthy and plentiful local supply of food and animal products and generating new sources of farm income. Urban residents of the southwest, as well as visitors, are seeking locally grown fresh fruits, vegetables and nuts, both organic and non-organic. Likewise, the base of both small and mid-sized farms provides a foundation for exploring of new opportunities for added-value ventures and development of still more niche businesses. These resources offer tremendous economic potential for the future.

## Project Objectives:

With an established vision, objectives were developed with action items. The five economic development objectives are: Improved Community Awareness, Agriculture Business Retention and Expansion, Workforce Development Components, Infusion of Capital, and a Community Development Mechanism.

### 1. IMPROVED COMMUNITY AWARENES

Community awareness will be developed and enhanced utilizing the following eight action items. Residents from elementary age children through the elderly will be exposed, through various venues, to the importance of agriculture in this region. The residents will also be educated on the aspects of sustainable agriculture and how this production methodology can impact the region.

a. Develop a marketing plan for commodities that are indicated as having a high and secondary interest from community input sessions. An economic analysis may be conducted to determine 1) those agricultural commodities that have a demand that exceeds the supply and 2) those agricultural commodities from which the region is importing larger amounts than they produce. Using this data set a matrix can be developed that overlaps with the community resident's interests for further development of agriculture commodities and a secondary overlay for those commodities that can be further developed utilizing sustainable agriculture

methodologies.

b. The subsequent marketing plan that will be developed should include the identified data sets from the economic commodity analysis and also include the community's suggested use of displays in high traffic areas to educate public and various media advertisement venues to educate and promote sustainable agriculture in those identified commodities.

c. Establish an outreach program for the local and regional area elementary students about agriculture and its importance to the community and the region. An outreach program will be developed that works to improve community awareness of agriculture starting with elementary grade students. Utilizing regional agriculture industry and academic professionals, a Speakers Bureau will be developed and speaking engagements secured for K-8 grade students. Additionally, career days and job shadowing days will emphasize agriculture production and processing in the region as viable career pathways.

d. Utilize FFA and 4-H to encourage youth engagement and activities. The community expressed an interest in broadening outreach into both rural and urban areas for 4-H and FFA. 4-H programs include membership from 6 years old to 18 years old and FFA encompasses secondary students. Activities will include increasing the range of offerings in both program areas to emphasize the high-tech nature of modern agriculture. Efforts to promote the different forms of membership will be accomplished through the outreach for membership. Three recruitment nights will be held at the elementary, middle and high school levels for these programs and students and parents will be encouraged to attend and participate. Current FFA and 4-H students will host the recruitment nights, having displays, presentations, demonstrations, and refreshments that outline the opportunity that students have to gain knowledge, develop leadership skills, acquire technical skill sets and give back to the community through these two programs.

e. Demonstrate the available technology in agriculture and the transferability of this technology to residents. Modern agriculture, and specifically sustainable agriculture, is a highly technical industry with requirements from the scientific, environmental, economic, and cultural sectors. To maintain profitability and sustain agriculture as an economic sector, technology must be utilized. As a foundation for understanding agriculture and its use of technology farm and production facility tours will be promoted for community residents, utilizing videos and conducting educational sessions. A farm three-day week-end may be held in the summer that allows residents to tour, sample agriculture products, observe the technology that is used in this industry sector. As a follow-up, more in-depth on-farm demonstrations will be scheduled to emphasize the high-tech nature of modern agriculture, promoting these to both the farm and non-farm communities as a means of demonstrating the science involved in agriculture. Each commodity sector will conduct a set number of on-farm demonstrations through-out the year, secondarily creating farm tourism opportunities for visitors to the area who are seeking to fill out their day with events.

f. Promote instruction in agriculture policy. Canutillo ISD will take the lead in including agriculture policy as a part of the secondary agriculture curriculum. Canutillo ISD will advocate the inclusion of agriculture policy at the post-secondary level.

g. Utilize available teacher in-service time to instruct all educators on pertinent and relevant agricultural policy issues.

h. Develop and implement a countywide educational program/process which leads to engage community leaders, relative to key agricultural economic issues facing the area. Community leaders may not have a foundation of understanding of the

agriculture economic sector. To develop and ensure a basic understanding of agriculture economic issues, a countywide educational program will be developed. Community leaders, through a developed Memorandum of Understanding with elected officials and other community organizations, will attend 16 hours/year of education.

i. Develop a sustained internal marketing campaign to promote a positive image of the agricultural economic sector. Within Canutillo ISD, a marketing plan will be developed that integrates agriculture and sustainable agriculture practices into activities, classroom instruction, nutrition programs, and all other aspects of the school district.

## 2. AGRICULTURE BUSINESS RETENTION AND EXPANSION

Promote and implement strategies that encourage agriculture business retention and expansion.

The communities of southwest New Mexico and west Texas, led by Canutillo ISD will work to identify existing primary and secondary agriculture businesses, assess the companies' needs and partner with provider organizations to address their needs with regard to business retention and expansion. Agriculture businesses will in turn, provide skill and educational requirements to Canutillo ISD and other educational partners to assist in the development of a workforce for the region that is globally competitive.

a. Create new economic incentives for the development of agricultural enterprises, particularly local suppliers in need of support services. Working with the communities of southern New Mexico and west Texas, develop economic incentive language that will assist and promote agriculture enterprises in the county.

b. On a more local level, adopt school policy that encourages the purchase of locally grown produce to use in meals served to the students and faculty at breakfast and lunch. Incorporate the use of these fresh commodities to the students and faculty into curriculum, school papers and bulletins, as a further means of educating on the nutritional value and economic impact.

c. Work to promote local farmer's markets to students and their parents as a source of healthy produce that is grown locally. Again, making the connection to the local economic impact of purchasing locally grown commodities should be included in the announcement and promotion of the local farmer's markets.

d. Develop and market the Agronomics Center on the Rio Grande (ACRG) as a business incubator for agricultural start-ups. Canutillo ISD will solicit funds through the Small Business Development Center to fund a business incubator, directed to the agriculture industry. The proposed facilities in ASRC; Metal Fabrications Shop, Floral Design Lab, Welding Instruction Shop, Greenhouse, Agricultural Mechanics Shop, Horse Stables, Meat Science Working Area & Storage will be utilized as the initial incubator providing technical assistance centers for agribusiness expansion and retention in the area.

e. Partner organizations, such as extension, agricultural science centers at NMSU and TAMU, and SBDC will be engaged to staff the incubator, providing services to existing businesses and start-up businesses. Sustainable agriculture practices will be promoted within the technical assistance component of the incubator.

f. Engage area farmers and residents in a unified approach to the declining available water issue. Canutillo ISD will assist regional organizations who are addressing the water issue within the Rio Grande basin. The District will assist current organizations in hosting an annual forum on water use and draft language that will be implemented within the school on water conservation use.

g. Promote the development of new specialty crops, the establishment of new markets for area agricultural product, and the general diversification of all agriculture within west Texas and southern New Mexico. Working with the partner

organizations, ensure that information from the New Mexico and Texas Agriculture Experiment Stations is provided to area farmers on new specialty crops. Working with NMSU and TAMU Agriculture Economics Department, identify new markets for currently produced commodities. Additionally, survey current commodities for value-added opportunities. NMSU and TAMU Extension departments are valuable partners in this endeavor.

h. Work with farmers to encourage greater use of economical and environmentally friendly practices such as rotational grazing as well as complementary management practices, including fertilization programs, crop rotation, specialty crops and similar strategies aimed at reducing costs and increasing yields, as an economic retention strategy. Again, the partnership with NMSU and TAMU is requisite in assisting farmers with obtaining relevant and timely information.

i. Utilize the Canutillo ISD ASRC to develop more strategic alliances among farmers and agri-businesses to expand markets, decrease costs and increase the profitability of farm operations. With the creation of the ASRC as an Incubator, the district becoming pro active in policy and convening partners, the necessary strategic alliances will be developed with industry.

j. Develop more broad-based public education efforts, promotional materials and other programs designed to specifically increase public awareness of the value of agriculture as an industry. Through partner organizations and internal publications inclusion of information on agriculture as an important economic sector will assist in broadening the public's knowledge on agriculture.

k. Maintain Agricultural Districts throughout the prime farming areas as a means of both protecting farms and highlighting the value of agriculture to the area. Working with the New Mexico and Texas legislature to identify and promote the creation of agriculture districts.

l. Strongly encourage the streamlining of procedures for obtaining USDA Rural Development loans and grants for new agricultural ventures so as to reduce the time and paperwork involved in securing such assistance. Develop a relationship with the State USDA Rural Development Director and provide language on specific changes to procedures that will assist industry in securing loans and grants. Also work with federal Senators and Representatives on legislation to streamline funding and lessen the burden of paperwork.

### 3. WORKFORCE DEVELOPMENT COMPONENTS

Promote the education and training of youth and incumbent workers for a globally competitive economy in agriculture.

A critical component of any economic development plan is the development of the workforce, to include both skill set and educational level development.

a. To promote the education and training of youth utilizing the ASRC, Canutillo ISD proposes to enlist various methodologies. These include, developing the agriculture industry and occupations as a valued career path, providing a supervised and formal Agricultural Experiences Program for youth, providing real life application through place-based learning. Students will be prepared for the academics of higher education, including the Distinguished Achievement Program and will graduate technologically proficient, biliterate in English and Spanish, and functioning on the cutting edge of science and technology.

Graduates will also possess documented marketable employment skills as identified by industry standards, allowing graduates to compete in today's global society. Canutillo administrators will work with schools and their guidance counselors as well as work force development program leaders to add agriculturist training tracks wherever possible and promote the "Ag in the Classroom" curriculum. Programs will be developed to expand and train the supply of high tech agricultural employees for the global marketplace.

b. Market incumbent worker and producer training utilizing the ASRC. Canutillo ISD proposes to utilize the ASRC facilities and personnel to develop and conduct incumbent worker and producer training, in conjunction with extension and workforce partners. The ASRC will be utilized for demonstrations on sustainable agricultural practices, dry-land farming, irrigation methodologies, drought tolerant plants, and integrated pest management projects. Additionally, training will be conducted on current practices and advances in sustainable agriculture.

c. Build a tri-partner foundation based on a producer, community and consumer relationship that supports the continued development of the local agriculture system. Canutillo ISD, will again convene the partners, open dialogue and develop a strategy for the continued development and sustainment of the local agriculture system.

#### 4. INFUSION OF CAPITAL

Develop and sustain the infusion of capital.

The outlined plan can only become a reality through the identification and obtainment of financial resources.

a. Create a community center focal point (ACRG) for attraction of capital. When people can see and touch a portion of an idea it becomes real and the funding necessary to continue the development of the idea also becomes a reality. With a "real" building and equipment, programs, and training, albeit small, funders will have something to see and touch. This will provide the basis to secure additional funds which can be used to develop secondary components of the program, and expand existing components.

b. Identify available resources to develop ASRC plan. Some work has already been done in this venue, such as securing the SARE Planning Grant and requesting \$121,500.00 for fiscal year 2005 from US HUD. Additional resources should be identified and applied for.

c. Identify available resources to fund new curriculum for youth and incumbent worker and producer training. Some of the identified resources include the Service Learning grant, Carl Perkins funding and WIA funds.

d. Develop a financing plan to build and operate the ASRC. The District CFO will work with the Career and Technology Department to explore Corporate Contributions and District Capital outlay to build and operate the ASRC.

#### 5. COMMUNITY DEVELOPMENT MECHANISM

Create a sustainable Community Development Mechanism that addresses nutrition and improved quality of life

A broader aspect of the region's economic development is the creation of a sustainable community development strategy. The community has determined that it wishes to emphasize nutrition resulting in an improved quality of life for its residents as its community development strategy. Producers who use sustainable agriculture practices will be promoted as a part of this strategy.

a. Promote appropriate nutrition to area residents. Several partner organizations have existing nutrition and health programs, i.e. Texas A&M and NMSU Extension, area hospitals, Diabetes and Heart Association and El Paso County Health Department. Linking with these programs and promoting healthy eating habits and food choices by offering courses in the community and integrating into the existing school curriculum will help to combat childhood obesity. Given the geographic location, diabetes and heart disease have a higher than average incidence in the community's population. Courses that address nutrition will also assist in educating the population on appropriate nutrition for these diseases. Sustainable agriculture and its practices will be included as a part of all instruction and promotional materials, indicating health benefits.

- b. A sustainable community garden will be planned, cultivated and maintained within the ASRC to educate youth and residents on the value of fresh vegetables and fruits, preparation and nutritional value of these food items.
- c. Develop and promote an enhanced Quality of Life for residents through the use of sustainable agriculture and its secondary benefits. Canutillo ISD will promote and encourage participation in an annual agricultural economic development and land use forum where the evolving aspects of agriculture can be discussed and participants can learn about the latest issues and the importance of protecting farmland and the application of farm practices. Identified issues and discussion points will be used as action items for the region and District for continuous improvement in the District's economic strategy and plan.
- d. Canutillo ISD will promote the fact that farms create rural character and attract tourism improving the quality of life of residents through economic vitality. Action steps will be discussed at the annual agricultural economic development and land use forum.
- e. Canutillo ISD will promote the abilities and rights of farmers to engage in all sound agricultural management practices by supporting their efforts with elected officials. Through the previously discussed Annual Forum on Water Issues area farmers and residents will be engaged in discussions to develop and support a unified approach to the declining available water issue.

## Research

### **Participation Summary**

## Project Outcomes

Project outcomes:

Canutillo ISD undertook a series of community input sessions to determine, through the resident's eyes, what the vision for a regional economic development plan should contain. These sessions invited ranchers, farmers, and residents from the following Texas and New Mexico communities: Texas: Alpine, Marfa, Ft. Davis, Canutillo, El Paso, Fabens, Clint, Socorro and New Mexico: Gadsden, Las Cruces, Hatch, Arrey, Derry, Garfield, and Truth or Consequences. When asked the following questions, the responses were:

What type of agriculture is most important to your community?

Areas of most interest included livestock, water, chili, pecans, alfalfa, and onions, dairy.

Secondary areas of interest included wildlife, hydroponics, and agricultural tourism.

Which of the stated agricultural areas should be expanded?

Irrigation methodologies, given the water issue in the area, economics of agriculture, farm management to include sustainable agricultural practices, integrated pest management, expansion of net gain crops and livestock commodities, dry land farming, marketing locally produced agricultural products, preservation of native plants and animals

Which areas of agricultural research are most important to your community?

Drought, water conservation, land preservation, agriculture public policy, crop rotation practices, urban-wildlife interaction.

What can we do to sustain agriculture for our children's future?

- Establish outreach program for local and regional area to speak to elementary students about agriculture and its importance to the community and the region
- Utilize schools to educate youth about agriculture, utilize FFA and 4-H to encourage youth engagement and activities
- Inform all residents about importance of agriculture and the impact it has on our lives
- Show technology available in agriculture and transferability; begin by educating those who live in urban areas.

Recommendations:

## Potential Contributions

Economic Development plans should be developed with the idea that the plans are to be shared. This project requires the dissemination of the plan to other rural Texas and New Mexico communities. In addition, it should be shared with economic development organizations (listed below) within the region. More than distributing the written plan to these organizations, a forum should be convened to ensure that the plan components and activities are incorporated into the broader strategy of the region for funding, implementation and assurance of non-duplication of efforts or activities. The depth that each piece can bring to a comprehensive plan creates a synergy for the region, which is only accomplished through sharing and continued dialogue.

Upper Rio Grande Council of Governments  
 City of El Paso  
 Regional Economic Development Corporation  
 Chambers of Commerce  
 Greater El Paso Chamber of Commerce  
 Hispano Chamber of Commerce  
 Black Chamber of Commerce  
 Upper Rio Grande Workforce Investment Board  
 4-H Clubs  
 Junior Achievement

## Future Recommendations

As Canutillo continues to develop and refine the plan that links sound farm and non-farm economic development with sustainable agricultural and natural resource development a more comprehensive economic development analysis should be undertaken. The Council of Governments is familiar with the Economic Development Administration template for economic analysis and might be used as a resource to conduct such a survey. The survey should include, but not be limited to: existing resources, with a subset for agriculture, human skill capital, infrastructure (transportation, utilities, water, telecommunications), education, land, growth, etc. Such an analysis will assist in continued development of resources and understanding of the community.



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