2009 District 12 Food Safety GAPs Initiative
Outcome Summary
South Region Food Safety Team Report

Impact Statement
With the California spinach outbreak in September of 2006, the California leafy greens industry has initiated a Good Agricultural Practices (GAPs) requirement for the industry to regain consumer confidence in leafy greens. This document has been used by the retail industry such as HEB to be a standard for all growers in the United States growing fresh produce crops. While GAPs practices have existed for years, this document has added documentation and thresholds (metrics) for water quality, documentation/land metrics for animal encroachment (cattle, hogs, goats, sheep, and deer) and manure based amendments and sprays. The outbreak of Salmonella sp. on peppers/tomatoes in 2008 continued to keep food safety concerns on the forefront of Texas production and Texas retail vegetable industry throughout the 2009 year since the source of the outbreak originated in Mexico but the products were distributed by a produce company in South Texas. Several factors may contribute to microbial contamination of produce but water quality of irrigation water is often blamed for these outbreaks as it was in the pepper/tomato outbreak in 2008. Producers practicing Good Agricultural Practices (GAPs) address these concerns at the farm level thereby decreasing these risks. Currently, there are very few producers that are GAPs certified in Texas. Part of being certified is that the water quality of the irrigation water is acceptable and documented. Irrigation water quality has been something very few producers have documented on their farms in Texas. The water testing results in a private lab is quite costly ($30 per sample) and collection of the water samples is largely time consuming in terms of coordination of when the produce crops were being irrigated. This water quality test is also different from what producers and county extension agents are accustomed when it comes to the procedure for collecting samples and sending promptly for the 24 hour testing requirements. Many factors can contribute to microbial contamination throughout the fresh produce process but water quality has been identified as an important step where implementation of educational practices and knowledge would impact or decrease the risk of contamination of produce.

In 2009, the irrigation water quality study that was conducted in District 12 by eight county extension agents including vegetable specialist Juan Anciso in eight counties came to a completion. Irrigation water quality data was collected from 90 sites using various water sources to include surface and well water. The agents that participated included Barbara Storz, Omar Montemayor, Rolando Zamora, Marcel Valdez, Jaime Lopez, Richard Griffin, Joe Taylor, and Omar Gonzales. Most (85 out of 90 or 94.4%) of the irrigation water samples from sources in District 12 are adequate for furrow or sprinkler irrigation in vegetable crops under the guidelines for generic E. coli of the California Leafy Greens GAPs Agreement (see graphs below). Of the 5 water samples that could not be used under furrow or sprinkler irrigation, 3 samples or fields could be used for irrigating crops if drip irrigation were used. Therefore, 88 out of the 90 samples or 97.8% could meet the California GAPs Agreement. With this better understanding of the microbial levels in the irrigation water sources in District
12, this information should help curtail speculation from media and consumers that irrigation water quality in South Texas may not be adequate for vegetable production. This database which will be located in the National GAPs Program website (www.gaps.cornell.edu/) will encourage more vegetable producers in South Texas to become GAPs certified since the results show no problem with the water quality whether surface or well. These irrigation water collection demonstrations have increased the knowledge of producers and county extension agents in irrigation water quality testing and collection. Food safety training for producers, middle buyers and entry level workers continued to be another important area for GAPs certification in 2009 and the educational efforts in District 12. Entry level worker training in hand washing and hygiene were conducted in District 12 in Spanish by county agents. These county agents included Marcel Valdez, Jaime Lopez, Omar Gonzales and GAPs food safety program assistant Ashley Gregory and they helped coordinate these meetings and employ the training material. Over 120 individuals were trained in hand washing and hygiene through this effort in Spanish in 5 separate training. The HEB Produce Safety Training for producers and middle buyers continued in 2009 with 4 training in San Antonio. Over 70 individuals were trained in the new GAP metrics and 95.6% were mostly or completed satisfied with the course and training. These individuals represented over 105,000 acres of produce production in the United States and Mexico. Economic impacts based on one of the training indicated that median costs to implement GAPs practices on the farm to be $239 per acre. Adopting GAPs practices on the farm could be very expensive on a per acre basis but if not implemented 65% of the median average of the total acres would be impacted either by reduction or elimination because GAPs was not implemented as a result of buyers making it mandatory. Other outcomes from the HEB food safety training included test averages of 82.6 and 78.9 in two of the four training with the first class having 50% believing that they had an above average understanding of GAPs before the training and then 77.3% having an above average understanding of GAPs after the training. The second class, respectively, had 36.8% believing that they had an above average understanding of GAPs before the training and then 93.8% having an above average understanding of GAPs after the training.
Output Program Summary for Maverick County

Maverick County General ANR Contacts

Maverick County Agriculture Plan Provided a number of programs for the Producers of Dimmit County. Programs consisted of the following:

Private Applicator Training
Last chance CEU training
Site Visits
Individual Consultations
Texas Fever Tick Meeting

2009 Maverick County General ANR Plan: This plan was conducted in order to assist landowners and home owners in the county with horticulture questions.

Relevance: Due to our geographical location, and distance from nurseries and landscaping maintenance companies, numerous questions are fielded by the County Extension Agent for the Clientele of Maverick County.

Response: This agent assisted landowners and home owners by answering questions via telephone, office visits, and making numerous site visits in order to assist clientele with questions on trees, shrubs, lawns, and insects. Agent was able to assist individuals with numerous problems, many of which were caused by drought. Agent conducted Private Applicator training, in order to assist both homeowners and producers with the need for gaining a private applicator license to assist them in purchasing the needed herbicides needed to maintain their desired botanicals. Agent offers opportunities for individual to attend CEU trainings Three times a yea, in order to assist licensed individuals with their credits needed.

Future Plans: Agent will continue to offer private applicator trainings, along with CEU opportunities in the county. Site visits and phone calls will be answered in order to assist clientele with problems as they arise.
South Texas Brigades

Relevance

More than ever, today's youth are the future of tomorrow and need to develop an understanding, an appreciation, and a true desire to conserve our renewable natural resources. The world only has so many acres of land for which we, as humans, can live. We must also be stewards of our natural resources and protect them for use for future generations.

Response

The Texas Brigades were formed as a dream by Dr. Dale Rollins. Several county extension agents, and wildlife enthusiasts provide a week long summer education experience to promote wildlife conservation in Texas. The South Texas Buckskin and Bobwhite Brigades are camps that have survived the test of time and endure as two of the five most prestigious, state-recognized, natural resource youth camps in Texas. This agent has served on the South Texas Brigades Committee for the past six years to plan, implement and evaluate the South Texas Brigade camps. Four meetings were held in Pearsall Texas to develop the camp schedule, plan fund-raising, coordinate responsibilities, and review camp participant applications.

Results

This year marks the 10th anniversary of the South Texas Buckskin Brigade and the 12th anniversary of the South Texas Bobwhite Brigade camps. During the two camps this agent responsibilities were helping cook for all camp participants, help with judging campers projects such as tri-folds, recordbooks, etc., This agent also helps with one presentation title "Special Presentations/Mock Educational Programs". This year Frio County 4-H had one member at South Texas Buckskin Brigade and one assistant herd leader, one member at South Texas Bobwhite Brigade and one covey leader and one member at Bass Brigade. Each member indicated that the brigades camp they attended was the best educational camp they have ever been involve with. Also a pre-test and post-test were given to each of the thirty cadets attending camps each year. Questions on the test include plant identification, scoring antlers, jaw aging, plant pressing, photography, wildlife ethics, wildlife legislation, predator tracks, nutrition, anatomy and physiology, census techniques, and population dynamics. Pre and post-test scores at the two camps are as follow:
Texas AgriLife Extension Agents and Specialists providing leadership to South Texas Buckskin and South Texas Bobwhite Brigades include Sally Allen, Chris Boileman, Dale Rankin, Jim Gallagher, Omar Gonzales, Richie Griffin, Jeff Hanselka, Jaime Lopez, Larry Perez, Larry Pierce, Dale Rollins, and Joe Taylor.

**2009 Quality Counts in Maverick County:**

Quality Counts Program for Quality Assurance and Character Education was conducted at the CC Winn High School in Eagle Pass TX.

**Relevance:**

In 2008 the Maverick County Junior Livestock Show had 14 market steers, 83 market hogs, 64 market lambs and 35 market goats exhibited. These animals alone produced over 30,000 lbs of edible product that entered the red meat industry that was intended for human consumption. If just a fraction of these animal owners do not follow the withdraw period guidelines on medication, someone may become extremely ill due to residues left in the meat. With this issue as an ever looming concern we implemented the “Quality Counts” program. With the use of the “Quality Counts” program participants should make more ethical decisions while raising a livestock project.

**Response:**

The Quality Counts program is designed to foster the development of good character in the youth who participate, and teach the importance of quality assurance in livestock projects. This will be accomplished by using these “Eight Core Concepts”.

- Six Pillars of Character
- Purpose of 4-H/FFA
- Purpose of livestock projects
- Making decisions/goal setting
- Impact of livestock projects on the red meat industry
- Responsibility of producing a safe product
- Medication use/Reading and following labels
Audience:
Youth enrolled in Freshman Ag Class and Animal Science (49 Total).

Results:
In comparing the pre- versus the post- test, 47 of the 49 participants (95.9%) showed a significant increase in their test scores, while two students (4.1%) received the same score on the post-test as on the pre-test. The average number of questions answered correctly on the pre-test was 19.76 out of 42 which resulted in a 47% average for the group. The average number of correctly answered questions on the post test was 30.28 out of 42 which resulted in a 72% average for the group. As a result, the average participant increased their post-versus pre-test scores by 10.44 questions which is a 53% increase in correctly answered questions.

Future Plans:
The results were interpreted to the MCJLS and were very well received. They have since asked be to continue the program outside of the school system. So we plan on implementing this program on all of the sheep and goat exhibitors next year with some alterations to the method of implementation.
Output Program Summary for Maverick County

2009 Maverick County 4-H, Expanding the Local Quality Experience: Expanding the Local Quality 4-H Experience in Maverick County was a top priority of Maverick County for 2008-2009

Relevance: Increasing not only enrollment, but youth participation was one of our key goals. Maverick County 4-H has 312 total members this year. Youth had the opportunity to take part in programs that were available in the county, such as Food and Nutrition, Photography, Livestock Judging, Record books, and serve as the voice of maverick County 4-H at the District level.

Response: In addressing the needs of the youth to participate at these events, the Maverick County Extension office held trainings/workshops for those individuals who wanted to participate in these events. This led to an increased number of 4-H members competing at the county level and following that up by advancing and competing at district.

Future Plans: Maverick County AgriLIFE Extension will continue finding new programs to bring into the county, in order to try to find niches for new clientele. Career days, and Meet the County Agent nights are planned for the upcoming year.
Output Program Summary For Dimmit County

2009 Maverick County Leadership and Volunteer Development: Leaders and youth gained leadership skills through trainings and events that were offered at county and district levels.

Relevance: In order to develop leaders of tomorrow, leadership training is key for our youth. The opportunity to empower youth to make decisions, delegate responsibilities, and follow through with commitments is essential in developing these leadership skills.

Response: Maverick County AgriLIFE Extension meet with Parent leaders group monthly in order to gather input on upcoming events such as awards nights, club meetings, county events, fundraising opportunities, and our Border Blowout Prospect Show. Leaders were able to voice opinions and concerns on these events and agents stepped back and took more of an advisor roll this year. Ownership of the programs was felt from the Parent Leaders whom assisted in planning and implementing programs. Maverick County Council meets in order to plan events such as the awards night and County 4-H Recreation day.

Results: County Council made a motion to conduct awards night in September this year, due to the lack of participation from the county in the traditional month of August. By conducting awards recognition in September, the event saw and increase number of attendees, youth were able to get recognized in front of their contemporaries' and 65% of the awards actually went home with the youth.

Leadership opportunities were marketed through the Maverick County 4-H News Letter, giving youth the opportunity to take part in such programs. As a result 1 youth registered for District 12 leadership lab, due to unforeseen circumstances he was unable to attend. Maverick County 4-H was also represented in the District 12 4-H Council Elections held in conjunction with Election Convention, as two members served as delegates for the elections.

Future Plans: Maverick County AgriLIFE Extension would like to continue to strengthen Maverick County Council and give them the tools to make them a productive group that thrives to make the best better.
Output Program Summary for Maverick County

2009 Maverick County 4-H Management: Conducted in Maverick County

Relevance: The management of a 4-H program in tells much consideration to details, organizing volunteers, and delegating job responsibilities to individuals that can follow through with the given tasks.

Response: This years management of the 4-H program consisted of numerous activities that included: monthly newsletters, news articles, news releases, marketing events, checking youths eligibility, livestock show committee meetings, project group meetings, fundraising, and most importantly interpreting event to key stake holders.

Results: Results from the management plan include the following: Newsletters were sent monthly to all youth enrolled in the Maverick County 4-H program, 4-H events were marketed through club meetings, newsletters, and newspaper, project groups and livestock associations meet as needed in order to plan and implement programs, fundraisers included: BBQ luncheon at County Livestock Show, Border Blowout Prospect Show. Interpretation has been conducted once a month to commissioners' court in written form. Fundraising efforts this year included $6,000 profit from the county show fundraisers and our recent Border Blowout prospect show. Monies from these fundraisers will be used to assist youth in paying entries for district and State 4-H events, registration fees for these events, and hotel accommodations to these events.

Future Plans: Maverick County AgriLIFE extension will continue marketing and interpreting highlights of programs in the county. Scholarship accounts will continue to build in order to assist graduating youth with financial assistance for higher learning. Volunteer involvement will continue to grow, as our ever-changing responses to emerging issues emerge.
Output Program Summary for Maverick County

2009 Maverick County Projects and Curriculum: The amount of projects and curriculum implemented in Maverick County is constantly growing. Youth have a wide array of different projects and activities to choose from.

Relevance: As time changes, so do youths interests. Keeping a blend of core programs and incorporating new programs can be a challenge with leaders that are set in their paradigms. Finding ways to evoke change and make it appealing to our volunteers is the key to success.

Response: Programs this year consisted of the following: photography, food and nutrition, clothing (New for 2010), horse, livestock (Sheep, Goat meat, Goat Dairy, Beef, Swine, Rabbit, poultry), *livestock Judging and Water. Youth were given the opportunity throughout the year to take part in these projects, in order to further their knowledge and gain valuable life skills.

Results: As a result of the following projects youth had the opportunity to compete at local level, district level, and some advanced to state competition. With the exception of Clothing Maverick County has been represented at all major contest offered by the District with youth competing and accomplishing great recognition. Youth have also participated in the following Major Livestock Shows: State Fair of Texas, San Antonio Livestock Show, Star of Texas Livestock Show, Houston Livestock Show, and Mercedes Livestock Show. Along with competition, youth have had the opportunity to attend clinics and workshops at the local level in order to help them achieve their goals.

Future Plans: Maverick County will continue to look for new programs to bring to youth, in order to find new niche markets for new clientele, along with retaining core programs that have been a staple in the 4-H Program.
Resource Development

Maverick County Junior Livestock Show:
The 2009 Maverick County Junior Livestock Show generated over $175,000 for the youth of Maverick County during the Livestock Show Sale. Youth had the opportunity to sell show projects prior to the show. Funds were generated from donors in and outside the county.

Border Blowout Prospect Show:
The Border Blowout Prospect show generated $1000 to the Maverick County 4-H program. More than $1500 in donations was received in the form of buckle donations and sponsors for awards.
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Maverick County

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