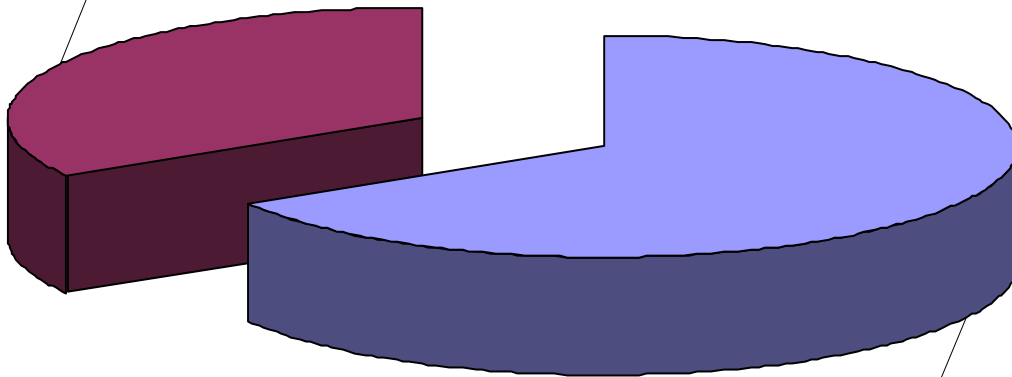


AGRICULTURAL CONSERVATION

2005 Expenditures

Pest & Weed
Control
33.48%



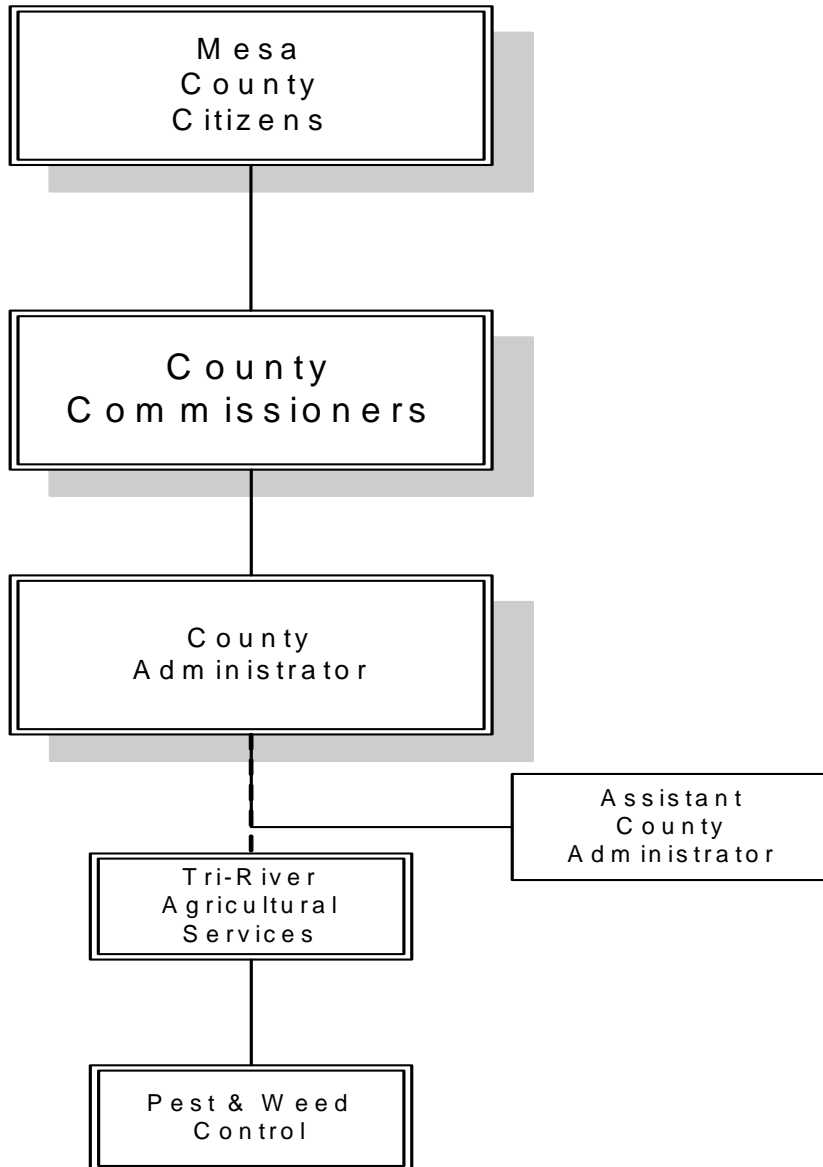
Tri-River
Agricultural
Services
66.52%

Functions

- Tri-River Agriculture Services
- Pest & Weed Control

COST PER CITIZEN: 1 CENT PER DAY

AGRICULTURAL CONSERVATION



AGRICULTURAL CONSERVATION

	Actual Audited			Projected 2004	Budget 2005
	2001	2002	2003		
<u>Revenues</u>					
Department Generated	\$38,352	\$66,275	\$63,684	\$29,185	\$25,819
General Support Required *	\$304,171	\$328,437	\$368,468	\$386,563	\$452,314
Total Revenues	\$342,523	\$394,712	\$432,152	\$415,748	\$478,133
* Taxes, Transfers or Fund Balance					
<u>Expenditures</u>					
Personnel	\$213,627	\$226,867	\$265,311	\$265,677	\$294,969
Operating	\$126,311	\$150,714	\$149,155	\$150,071	\$183,164
Capital Outlay	\$2,585	\$17,131	\$17,686	\$0	\$0
Total Expenditures	\$342,523	\$394,712	\$432,152	\$415,748	\$478,133
Authorized Personnel (FTE's)	5.00	5.75	6.00	6.00	6.00

Agricultural Conservation

Expenditure Summary

	Actual Audited			Projected 2004	Budget 2005
	2001	2002	2003		
Tri-River Agricultural Services	\$257,591	\$289,444	\$298,302	\$258,841	\$311,516
Pest & Weed Control	\$84,932	\$105,268	\$133,850	\$156,907	\$166,617
Total	\$342,523	\$394,712	\$432,152	\$415,748	\$478,133

TRI-RIVER AGRICULTURAL SERVICES

~Our Mission~

To provide information and education,, and encourage the application of research-based knowledge in response to local, state and national issues affecting individuals, youth, families, agricultural enterprises and communities of Colorado.

Organizational Functions

Four counties (Mesa, Montrose, Delta and Ouray) partner with the Colorado State University Cooperative Extension to form the Tri-River Area Extension. Mesa County's portion of this partnership is reported as a department for budgeting and accounting purposes. This department serves as the outreach component of the Colorado State University, which provides educational programs, manages the Master Gardener Program, directs the 4-H and other youth programs, disseminates information on commercial agriculture , food science, human nutrition and provides agricultural marketing and business expertise.

2004 Goals & Accomplishments

- **Evaluate alternative corn earworm controls that are effective and affordable for sweet corn growers.** A \$10,000 grant from EPA/IR-4 was received to evaluate Gemstar, a biological insecticide for use against corn earworm. An aerially applied insecticide trial was conducted on California Mesa, near Delta. Gemstar performed almost as well as the standard treatments in sweet corn, but both were less than perfect. A second grant has been applied for to cover the cost of further research to refine application techniques to improve control to a commercially acceptable level.
- **Develop a source of bindweed mites so widespread distribution can begin in 2005.** Develop a source of bindweed mite so widespread distribution can begin in 2005. Several bindweed mite collection sites were discovered in 2004, and widespread distribution began in the Tri River area. More than 1000 individuals received bindweed mites, and another are on the waiting list for 2005. Bindweed mites impacted field bindweed populations significantly in several areas. We received a second grant of \$24,000 from EPA to continue distribution of bindweed mites statewide.
- **Meet educational needs of clientele regarding emerging insect problems.** Numerous presentations were given to homeowners, agricultural producers, small acreage owners and other groups regarding insect related issues. Web pages were made available regarding pesticides for seed production, newly arrived insect pests in the Tri River Area, bindweed mites, pinyon ips, and other subjects. Numerous radio and television interviews were broadcast, and monthly insect related newspaper articles were printed.

Research was conducted on onion thrips and iris yellow spot virus control in commercial onions. Results were presented at local, regional and national meetings of onion producers and pest management professionals.

TRI-RIVER AGRICULTURAL SERVICES

2004 Goals & Accomplishments

Bob Hammon identified more than 350 samples in 2004, and gave control recommendations when needed. One significant pest new to the state, the tomato bug, was identified from specimens brought to the diagnostic laboratory. One species of army ant, a new state record, was recorded from within a house. It was the first confirmed record of this ant invading a home.

The spray guides for insect and disease pests of apples, peaches and other fruit trees were updated and distributed state-wide. Links to these guides are on the TRA web site and used as handouts at workshops and by the Pest Management Division.

A grasshopper control program for the Collbran area was initiated in late 2004. The program, administered through the Tri River Cooperative Extension office, currently has 8000 acres committed for control efforts in 2005.

- **Continue research efforts on disease and insect pests of onions and develop yield data on onion varieties for commercial onion producers.** Research on yield, Fusarium basal plate rot, and pinkroot was conducted in Delta and Montrose counties. Data was evaluated and provided to growers to assist them in their variety selection and increase their income.
- **Conduct a national Onion Research Conference in Grand Junction. This will host researchers from around the world. Growers from Colorado and surrounding states will attend.** The National Allium Research Conference, coordinated by Cooperative Extension, was held in Grand Junction in December 2004. The 90 participants (university and USDA researchers, extension specialists, growers, processors and others) converged on the western slope onion production area from France, Italy, the Netherlands, Senegal and 16 USA states (Arizona, California, Colorado, Georgia, Idaho, Illinois, Indiana, Nevada, New Mexico, New York, Oklahoma, Oregon, Texas, Utah, Washington, and Wisconsin).
- **Conduct the First Annual Western Colorado Nutrition Conference.** Over 130 people attended the conference, and the feedback was very positive. Participants mentioned that the conference was well organized, presenters were of high caliber and exhibits were interesting and relevant. Featured speakers from CSU and CU as well as exhibitors were also enthusiastic about the turnout and interest in nutrition topics on the Western Slope.
- **Continue to educate the residents of the Tri River Area through web pages, TV, and radio programs, print media, workshops and seminars.** Over 970 web pages are accessible to the public with 226,498 hits recorded. An additional server was purchased and installed at CSU to provide additional space for web pages and Master Gardener information. Hits recorded on this Tri River Area Horticulture Web Server between July and December = 34,491, for a total of 260,989 hits during the year. New domain names were purchased and publicized to permit easier access. Eighty nine additional web pages were added to the Tri River Area web site during 2004.

16,923 e-mails were sent out by Dr. Swift regarding horticultural information during 2004; 271 additional e-mails were answered through CSU's web-based AnswerLink program.

Weekly newspaper articles were written and printed by the Grand Junction Free Press. This cooperative effort involved Susan Rose, Horticulture Technician, and Bob Hammon and Curtis Swift, Extension Agents. Monthly articles were submitted to the Daily Sentinel and news releases were submitted to media throughout the Tri River Area.

Twenty-nine Tri River Area Master Gardeners made 424 house calls during 2004, serving over 500 clients in the four counties; information on 2362 plant, soil, water and insect samples received was provided.

TRI-RIVER AGRICULTURAL SERVICES

2004 Goals & Accomplishments

- **Increase the active Tri River Area Master Gardener enrollment to 300.** The Master Gardener program was two short of its goal of 300 in 2004. Fifty one members of the 298 member Tri River Area Master Gardener program are employed by the Green Industry.
- **Increase the Landscapes West Conference and Garden Show attendance to 1500 +.** The Landscapes West Garden show was attended by an estimated 3000 people. Attendance at the Friday Conference was 216; 417 attended the educational sessions held on Saturday and Sunday. The demand for additional exhibits at the Garden Show and expected increase in attendance at the 2004 Conference resulted in a move to the Two River Convention Center in Grand Junction. This facility more than doubled the space available for the garden show and conference. The conference and garden show had previously been held in local hotels filling the space available.
- **Develop a Xeriscape Demonstration Garden at 1st and Grand in cooperation with the City of Grand Junction.** A drought research garden was developed south of Quiznos at 1st and Grand Avenue in Grand Junction to promote water-wise gardening. The City of Grand Junction estimates that over 10,000 vehicles pass this prominent intersection every day. A popular restaurant overlooks the site. This garden, which has been a joint project of the Master Gardener Program, the City of Grand Junction, and Mesa County, has served to demonstrate how varied and attractive low-water using plants can be and provided high visibility for the Tri River Area Master Gardener Program and Cooperative Extension.
- **Continue expansion of existing demonstration gardens at the Mesa County office and at the Visitors Center on Grand Mesa.** Additional plantings were made at the research/educational gardens at the Extension site and at the wildflower gardens at the Visitors Center on Grand Mesa. A shade structure was installed over one of the parking lot gardens and efforts made to track down grants for the installation of a shade structure on the north side of the office complex. A shade structure and irrigation system was also installed in the fenced area to protect plant materials maintained for various planting.

Data collected at the ET drought-research project is providing invaluable information about the actual water needs of the plants. Most of the plants, including Kentucky bluegrass, did well on 50% of ET. The information generated will help garden centers, landscapers, and the public make wise plant selections. On August 11, 2004, a dinner meeting of the Associated Landscape Contractors of Colorado was held at the Gardens, and ET Research Garden information presented at that time.

A patio and garden wall was installed on the south end of the office complex. Classes were conducted and attendees were responsible for the completion of this project.

- **Continue to provide assistance with the Japanese beetle eradication program in Palisade.** The Pest Management Division was instrumental in the successful implementation and completion of the Palisade Japanese Beetle Eradication program in 2004. This included the education of Palisade residents and the treatment of all turf areas with the target area. This program will be conducted again in 2005 to ensure this pest is eradicated from the area.

Other members of the Tri River Area Cooperative Extension participated in an advisory and administrative role in the Palisade Japanese Beetle Eradication Committee. More than 750 yards within the city limit of Palisade were treated with insecticide to eradicate Japanese Beetle from the area. The office helped write grants, provided printing, mailing and other administrative services as well as publicizing the project. Elimination of Japanese beetles from western Colorado will have significant economic benefits to agriculture, horticulture and the environment.

TRI-RIVER AGRICULTURAL SERVICES

2004 Goals & Accomplishments

- **Conduct Drip Irrigation research in onions in the Tri River Area.** In 2004 was the second year for onion demonstration projects evaluating furrow and drip irrigation in the Tri River Area. Although the drip irrigated onions costs approximately \$500 more per acre to produce when compared to furrow irrigation, the drip irrigated onions in 2003 and 2004 provided a net return per acre of \$5700 to \$8300 on white and red onions as compared to a net return per acre of \$2200 for the furrow irrigated onions. A twenty page report was prepared on the 2003 and 2004 data and distributed to the onion producers in the Tri River Area. The project will continue in 2005 with new onion growers.
- **Conduct forage research projects for extending grazing plans for livestock producers.** The primary goal of our project is to develop forage production systems that extend the grazing season in the fall and provide more forage in the spring for livestock. The project includes overseeding annual crops, drilling annual crops, and windrow grazing. The project has involved five different locations throughout the Tri River Area. The annual crops included turnips, grazing corn, brown mid rib forage sorghum, field peas, soybeans, forage chicory, rye, and triticale. Based on three years of field trials, turnips are a viable crop to overseed or drill in August and graze well into December and January for livestock. Triticale and rye can successfully be planted following the harvesting of sweet corn. Triticale and rye can be grazed by livestock late fall and early winter. In addition, planting rye or triticale after sweet corn helps break the insect life cycle and reduces pest populations and threats. Cost savings realized by producers by grazing in December and January are \$1.25 per head per day.
- **Complete the project of determining the feasibility of growing sugar beets on the Western Slope.** A feasibility study was conducted and then a formal survey of producers in the Grand and Uncompahgre Valleys. The feasibility study required at least 12,000 acres of sugar beets to be grown in the Uncompahgre and Grand Valleys in order to place a minimal processing plant to convert the sugar beets to a thick juice for transporting to a final processing plant in Greeley, Fort Morgan, or Scottsbluff, Nebraska. The results of the producer survey only provided approximately a 3300 acre commitment to growing sugar beets. We are losing farm land to development and producers are retiring with very few young people going into farming. Even though we have the acreage available, the older producers are not willing to commit to sugar beets since it would require purchasing equipment that they no longer have since the last time sugar beets were grown was 1975.
- Alfalfa cutting schedule research and extension efforts have caused more than 100 alfalfa producers to consider the impact of the timing of the final harvest on yield and stand life. Eight alfalfa producers in the Tri River have participated with on-farm demonstrations regarding the impact of fall harvest timing

TRI-RIVER AGRICULTURAL SERVICES

2005 Goals

- Continue research on the water needs of landscape plants using the ET drought research gardens at the Extension facility.
- Develop an arboretum at the Mesa County Fairgrounds to enhance knowledge on the water needs of various plant materials and introduce new water-wise plants to Western Colorado and Eastern Utah. Conduct an extensive educational program to promote this project and raise the necessary funds.
- Increase the number of participants at the annual Landscapes West Garden Show and Conference.
- Install a shade structure on the North side of the office complex to be used as an outside classroom as well as a break area for county personnel at the fairgrounds complex.
- Increase visibility of the Master Gardener program through cooperative projects with Western Colorado Botanic Gardens, Grand Junction City Parks, Colorado State Forest Service, and various garden clubs throughout the area.
- Increase public awareness of our demonstration and research gardens through tours, workshops, and media presence.
- Continue research and extension efforts regarding onion insect control in cooperation with the Western Colorado Research Center, Colorado Onion Association and pesticide manufacturers.
- Distribute bindweed mites statewide and evaluate their establishment and impact on field bindweed populations.
- Assist with administering the Plateau Valley grasshopper control effort. Provide educational assistance to ensure the program is successful and has minimal environmental impacts.
- Continue to provide for the entomological educational needs of the Tri River community with the diagnostic lab and educational programs.
- 4-H training - 100% of leaders have volunteer applications on file, 75% of first year volunteer leaders have taken basic leader training, and 75% of 4-H clubs have taken officer training.
- 4-H Club management - hold at least two meetings per year with organizational leaders and 100% of 4-H clubs will have required paperwork submitted by the deadlines.
- 4-H safety - no accidents or serious incidents at 4-H events.
- 2005 Livestock and Range Program Goal - To provide Tri River Area producers viable options that is economically feasible to comply with national animal identification system requirements and to provide numerous educational venues for producers on the identification program.
- Continue the Drip Irrigation Onion project with additional onion producers.
- Initiate two grass species tests to evaluate their tolerances to salty soils.
- Evaluate the yield potential of canola for the potential of bio-diesel production in the Tri River Area.

TRI-RIVER AGRICULTURAL SERVICES

2005 Accomplishments

- Provide diabetes education to Tri River Area residents using a multiple prong approach. Activities include facilitating workshops such as Dining with Diabetes, media outreach, collaborating with other community agencies to provide social marketing messages.

Performance Measures

Objective One: Provide programs and information deemed beneficial by the citizens of Mesa County.

Performance Measurement: On an annual basis track the number of contacts the agency has with citizens of Mesa County.

Goal: While current funding and staffing levels are maintained the number of contacts with Mesa County residents should be within plus or minus 10% of last year's number of contacts.

Results:

- Mesa County - 83,287 contacts
- Delta County - 21,005 contacts
- Montrose County - 18,911 contacts
- Ouray County - 2,378

Objective Two: Provide programs and services that improve the health and welfare of citizens by addressing ongoing and emerging issues that negatively impact the quality of life in Mesa County.

Performance Measurement: On an annual basis, consolidate the information contained in impact statements and other reports to demonstrate the results of efforts to improve the quality of life in Mesa County. Examples of such impacts may include but not be limited to the following examples:

- Cost savings to farmers
- Acres of weeds cleared
- Increased income for agricultural producers
- Number of citizens who became certified Master Gardeners
- Number of certified Master Gardeners employed in the field
- Number of citizens who are certified in the Safe Food Program
- Acre feet of water saved

Goal: This data should be analyzed over several years in an effort to establish benchmarks that will be useful for establishing future goals.

TRI-RIVER AGRICULTURAL SERVICES

MANAGING DEPARTMENT: COLORADO STATE UNIVERSITY

Revenues

Department Generated
General Support Required *

Total Revenues

* Taxes, Transfers or Fund Balance

Expenditures

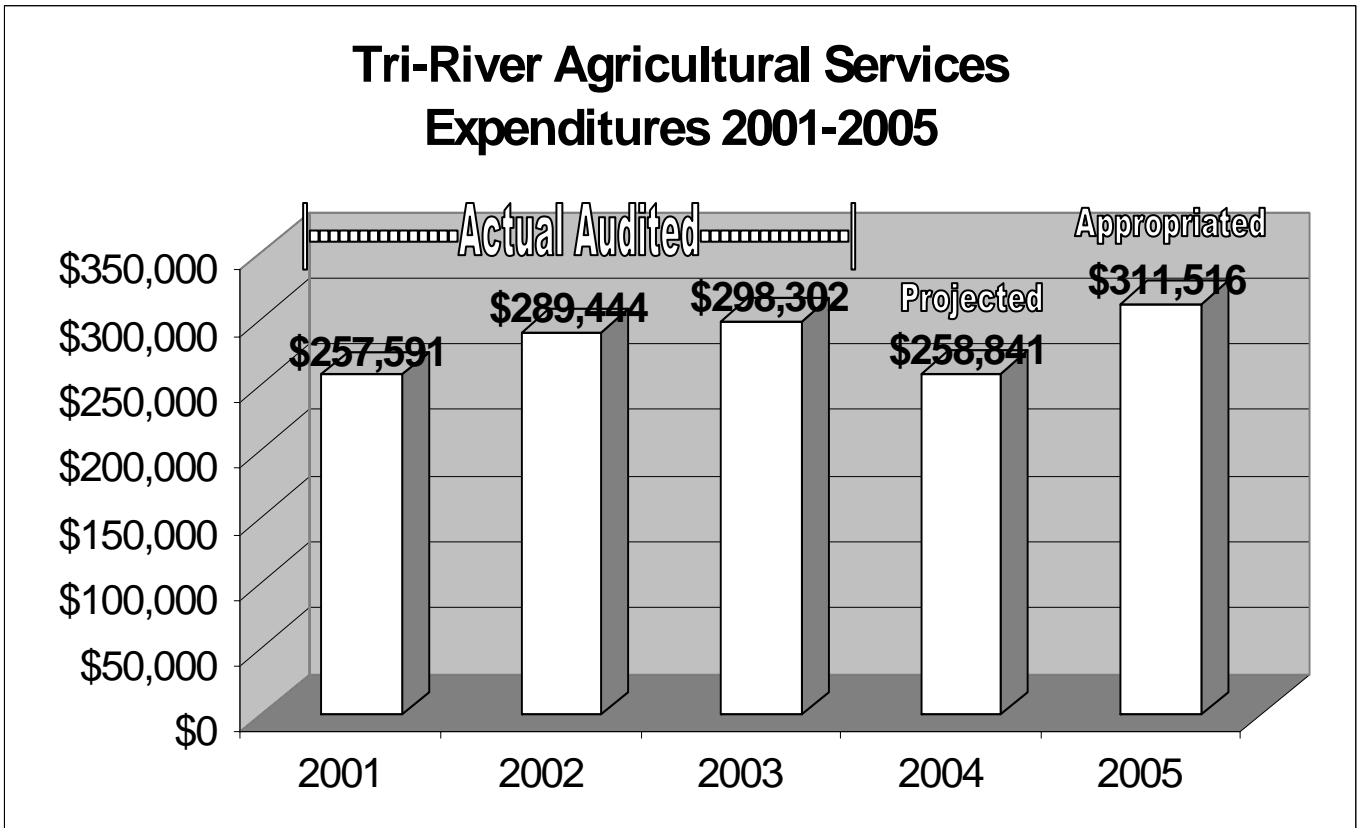
Personnel
Operating
Capital Outlay

Total Expenditures

	← 2001	Actual Audited 2002	2003 →	Projected 2004	Budget 2005
Department Generated	\$17,946	\$17,572	18,551	11,445	11,819
General Support Required *	\$239,645	\$271,872	\$279,751	\$247,396	\$299,697
Total Revenues	\$257,591	\$289,444	\$298,302	\$258,841	\$311,516
Personnel	\$140,644	\$150,612	162,336	149,617	179,929
Operating	\$114,362	\$130,994	130,757	109,224	131,587
Capital Outlay	\$2,585	\$7,838	5,209		
Total Expenditures	\$257,591	\$289,444	\$298,302	\$258,841	\$311,516

Authorized Personnel (FTE's)

4.00 4.00 4.00 4.00 4.00



PEST & WEED CONTROL

~Our Mission~

Promotes landowners' responsibility for caring for fruit trees and grape vines, and assists growers in the pest control efforts within the Upper Grand valley Pest Control District; identifies, maps and monitors pest and noxious weed infestations and enforces the Colorado Noxious Weed Act; educates the public about the impact of pests and weeds on our environment and economy and assists them in control efforts; and builds networks of public and private organizations and agencies to coordinate the control of pests and noxious weeds.

Organizational Function

This Department provides general plant and pest regulatory information to the public, enforces and implements the State Weed Management Act, directs the Upper Grand Valley Pest Control District activities and inspects and monitors fruit trees and grape nursery stock. Over the past few years the focus of the department has been to emphasize education and public outreach.

2004 Accomplishments

- Ballots for the continuation of the Upper Grand Valley Pest District were assembled and mailed to all eligible voters. The votes were counted and reported to the Board of County Commissioners who approved the continuation of this district.
- The Pest Management Division organized and coordinated two Tamarisk Demonstration Field days for the Tamarisk Coalition, a ditch weed management workshop was conducted for the Lands End Weed Management Area and on-site training was provided to Master Gardeners and others throughout Mesa County. Other weed related presentations were given to the 15 other groups in Mesa County.
- Noxious weeds were mapped and treated throughout Mesa County and grants to control noxious weeds and reduce fruit tree pests were pursued, received and used to strengthen the programs managed by the Pest Management Division.
- Agency lead for the Lands End Weed Management Area: hired an intern to work with landowners on weed management projects, develop educational materials and implement a seed experiment for non-irrigated land in conjunction with the Upper Colorado Environmental Plant Center.
- Began a dialog with and submitted application materials to the Planning Department on requirements for Weed Management Plan for subdivisions through the Planning Department.

PEST & WEED CONTROL

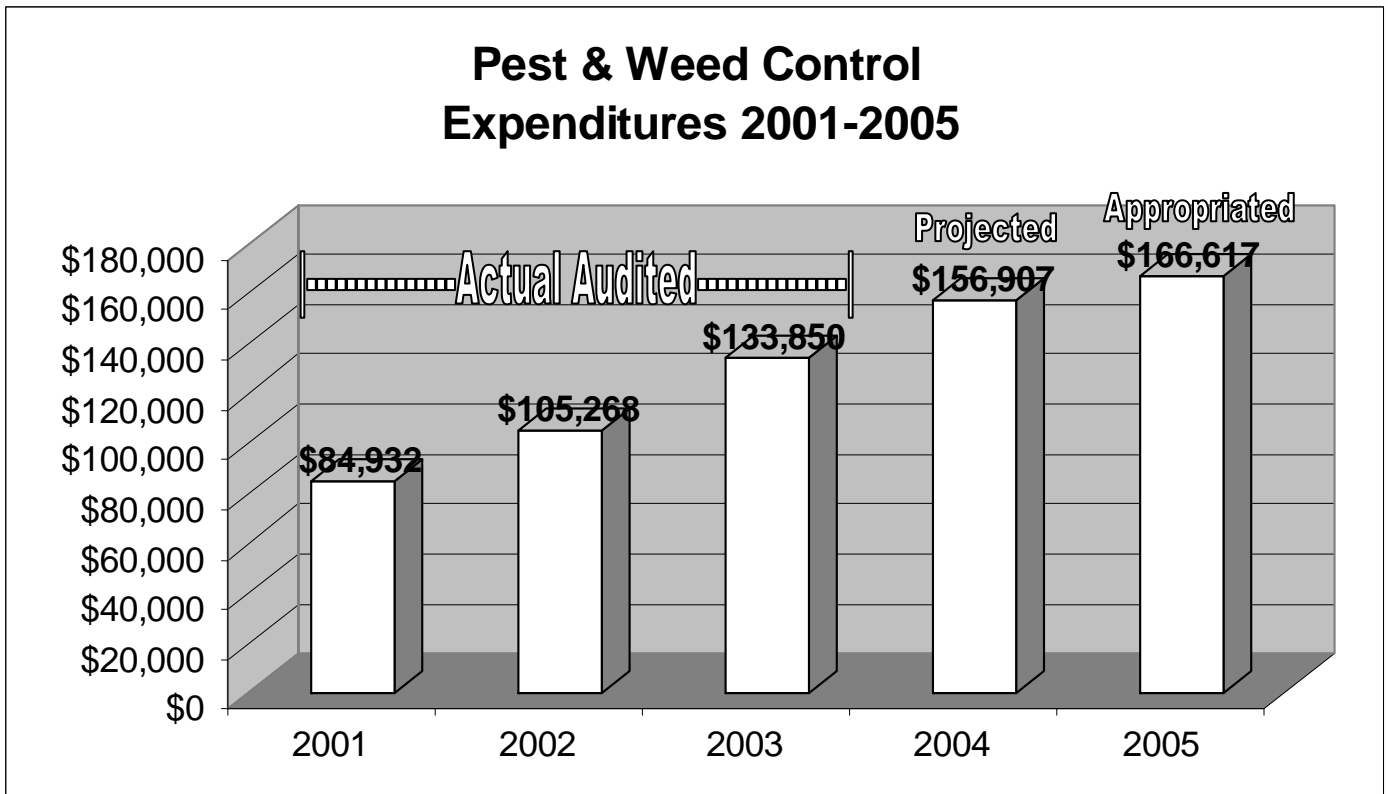
2005 Goals

- Establish a Purple Loosestrife Team to work with landowners and government agencies on scouting/mapping and eradication of purple loosestrife in conjunction with the partners of the Middle Colorado River Watershed Cooperative Weed Management Area
- Continue work on eradication of yellow starthistle in Mesa and on Glade Park
- Continue work on eradication of leafy spurge in Eastern Mesa County
- Continue to work with and improve interstate weed management projects with the Middle Colorado River Watershed Cooperative Weed Management Area
- Continue remapping noxious weeds on County roads to update roadside spraying contract
- Work with the Tamarisk Coalition and CSU Extension on the Tamarisk Symposium
- Implement Weed Management Plan requirements for subdivisions through the Planning Department
- Increase participation in the Cost Share Program for Noxious Weeds on Private Property
- Finish Dolores River East Project, scouting for weeds on BLM land south of Gateway

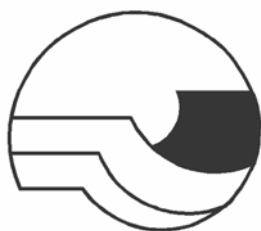
PEST & WEED CONTROL MANAGING DEPARTMENT: TRI-RIVER AGRICULTURAL SERVICES

	Actual Audited			Projected 2004	Budget 2005
	2001	2002	2003		
Revenues					
Department Generated	\$20,406	\$48,703	45,133	17,740	14,000
General Support Required *	\$64,526	\$56,565	\$88,717	\$139,167	\$152,617
Total Revenues	\$84,932	\$105,268	\$133,850	\$156,907	\$166,617
* Taxes, Transfers or Fund Balance					
Expenditures					
Personnel	\$72,983	\$76,255	102,975	116,060	115,040
Operating	\$11,949	\$19,720	18,398	40,847	51,577
Capital Outlay	\$0	\$9,293	12,477		
Total Expenditures	\$84,932	\$105,268	\$133,850	\$156,907	\$166,617

Authorized Personnel (FTE's)	1.00	1.75	2.00	2.00	2.00
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MESA COUNTY, COLORADO



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