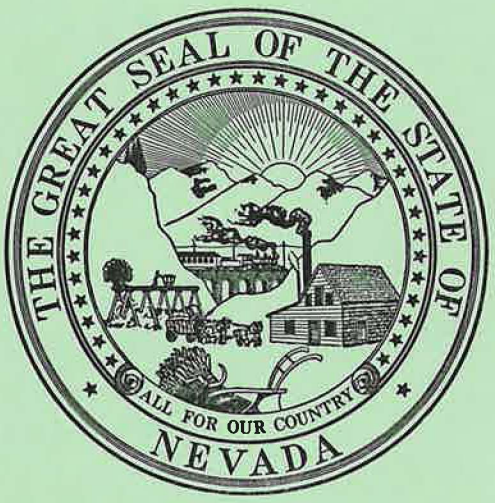
BIENNIAL REPORT

OF THE

NEVADA STATE DEPARTMENT OF AGRICULTURE



FOR THE FISCAL YEARS ENDING JUNE 30
1973—1974

STATE OF NEVADA

BIENNIAL REPORT

OF THE

STATE DEPARTMENT OF AGRICULTURE

THOMAS W. BALLOW
Executive Director

For the Fiscal Years Ending
June 30, 1973 and 1974

SPO, Carson City, Nevada, 1976

LETTER OF TRANSMITTAL

THE HONORABLE MIKE O'CALLAGHAN, Governor of Nevada
THE STATE BOARD OF AGRICULTURE
THE NEVADA STATE LEGISLATURE

This 30th Biennial Report for the period of July 1, 1972-June 30, 1974 has been prepared and is hereby respectfully submitted.

The reports of activities of the Department were prepared by the Division Directors and by supervisory personnel.

We appreciate your sincere interest in agriculture and the considerable time and effort you have expended on behalf of agriculture and the consumers of agricultural products.

Thomas W. Ballow

THOMAS W. BALLOW
Executive Director

EXECUTIVE DIRECTOR'S COMMENTS

Thomas W. Ballow

As I see it, the main job of agriculture in society is to produce food to feed the entire population, including farm people, other rural people and city people alike. The farmers and ranchers of the United States carry out the job of food production with admirable efficiency. Farmers and ranchers feel that they have done their job if they produce large quantities of high quality food and are happy if they receive reasonable prices for it. Consumers of food, of course, are interested in the exact same things. They want adequate supplies of high quality food at reasonable prices. Producers of food and consumers of food are in the same boat, so to speak; all dependent on abundance, quality and price of food.

Congress and State Legislatures recognize the need for a healthy agriculture to produce food for urban constituents. The job in government, as I see it, is to assist farmers and ranchers where needed in the production of adequate supplies of high quality food, while interfering as little as possible with the freedom and flexibility a producer needs to maintain high efficiency.

The demand for food is increasing as the world population grows past the four billion mark at an ever increasing rate. We expect another billion people or so by the year 2,000. Can farmers continue indefinitely to supply the necessary quantity and quality of food for an ever increasing population? The answer obviously is no. People have already reached the starvation point in some countries. Famine will undoubtedly occur in other areas in the future.

As for this country, I feel optimistic. Wheat and soybean hybrids, improved breeds of livestock, double cropping, supplemental irrigation, desalination of water, aquaculture, and many other exciting developments will allow farmers to feed us well and to export food for years to come.

I'm proud of our farmers and ranchers and feel fortunate to be a part of agriculture.

PERSONNEL

STATE BOARD OF AGRICULTURE		Appointment Expires
CHARLES P. FREY, Chairman, Dairying	Fallon	*
RALPH HALL, Chairman, Apiary	Yerington	July 1, 1975
EYER H. BOIES, Vice Chairman, Livestock	Wells	April 22, 1977
LOUIE A. GUAZZINI, JR. Dairying	Fallon	April 22, 1978
THOMAS J. MARVEL, Livestock	Battle Mountain	April 22, 1976
JOHN RAETZ, General Farming	Pahrump Valley	April 22, 1975
DONNELL J. RICHARDS, Livestock	Paradise Valley	April 22, 1977

* Retired April 22, 1974

DEPARTMENT OF AGRICULTURE	Location
THOMAS W. BALLOW, Executive Director	Reno
HARRY E. GALLAWAY, Deputy Director	Reno
JOHN L. O'HARRA, D.V.M., Deputy Director	Reno
ALICE M. HANSSEN, Program Specialist	Reno

DIVISION OF PLANT INDUSTRY	
HARRY E. GALLAWAY, Administrator	Reno
JACK E. HAMPTON, Plant Pathology and Programs Coordinator	Reno
PHILLIP C. MARTINELLI, Agricultural District Coordinator	Reno
DUDLEY F. ZOLLER, Agricultural District Coordinator	Las Vegas
KNUTE PENNINGTON, Supervisor, Weights and Measures	Reno
ROBERT C. BECHTEL, Survey and Systematic Entomologist	Reno
FLOYD HILBIG, Chief Apiary Inspector and Agricultural Supervisor	Reno
SYLVAN D. PETERS, Agricultural Supervisor	Elko
JACK R. ADAMS, Agriculturist	Reno
LAWRENCE BLALOCK, Agriculturist	Reno
RANDALL BRADLEY, Agriculturist and Seed Analyst	Reno
WILLIAM F. HOFF, Agriculturist	Las Vegas
RICHARD L. ROWE, Agriculturist	Winnemucca
LEONARD L. JOY, Agriculturist	Las Vegas
C. W. (BILL) CLARK, Agricultural Inspector	Reno
GREGORY WILLER, Agricultural Inspector	Winnemucca
HARLAN K. SPECHT, Chief Chemist	Reno
ELLA A. KNOLL, Chemist	Reno
ROBERT M. SPETH, Chemist	Reno

PERSONNEL--Continued

Location

WALTER F. HEADRICK, Weights & Measures Metrologist.....Reno
MERLE B. FORST, Weights & Measures Inspector II....Las Vegas
FRANK W. JONES, JR., Weights & Measures
Inspector I .....Reno
THEODORE M. OLSEN, JR., Weights & Measures
Inspector I .....Reno
MAURICE RICHESON, Weights & Measures
Inspector I .....Las Vegas
BARTOLO B. RIVERS, Weights & Measures
Inspector I .....Las Vegas
ELDYN L. SMITH, Weights & Measures Inspector I .....Reno
GARY R. VAN NESS, Weights & Measures Inspector I.....Reno
CHARLES R. WEBB, Weights & Measures Inspector I....Las Vegas
STANLEY ZUNINO, Weights & Measures Inspector I.....Elko
JOHN M. ALDERDYCE, General Building Tradesman .....Reno

DIVISION OF ANIMAL INDUSTRY

JOHN L. O'HARRA, D.V.M.,
Administrator .....Reno
CHARLES R. ADAMS, D.V.M., Deputy Administrator .....Reno
JACK R. ARMSTRONG, D.V.M., Supervisor, Animal
Disease Laboratory .....Reno
*GARY L. COOK, D.V.M., Veterinary Diagnostician .....Reno
AGNES C. LAPHAM, Microbiologist II.....Reno
MARIE H. ROBERTS, Microbiologist.....Reno
L. LUCILLE WAHRENBROCK, Veterinary Laboratory
Technician .....Reno
GLENDA S. HAYES, Building Custodian, Part-Time .....Reno

* Resigned July 27, 1973

DIVISION OF BRAND INSPECTION

W. FRED WARREN, Director .....Reno
GEORGE T. HIGH, Livestock Investigator .....Reno
ARSHAL A. LEE, District Brand Inspector II .....Austin
GEORGE L. GIACOMETTO, District Brand Inspector I..Winnemucca
RALPH B. (JIM) HAHN, District Brand Inspector I.....Reno
SHIRLEY GEORGE ROBISON, District Brand Inspector I .....Ely
ED CATON, Brand Inspector .....Las Vegas
EDWARD J. GIACOMETTO, Brand Inspector .....Yerington
WARNER MITCHELL, Brand Inspector .....Elko
FRANK SICKING, District Brand Inspector .....Fallon

CLERICAL STAFF

BETTY J. BROWN, Senior Clerk-Stenographer .....Reno
ELIZABETH A. DEADY, Senior Clerk-Typist .....Reno

Location

JACQUELYNN A. GARRA, Senior Clerk-Stenographer .....Reno
ALICE M. GEDWILL, Principal Clerk-Typist .....Las Vegas
JO ANNE B. GONDA, Senior Clerk-Typist .....Reno
BETTY M. GREEN, Senior Clerk-Stenographer.....Reno
LA VERNE A. HOWARD, Senior Clerk-Stenographer .....Reno
ROBERTA SALCEDO, Senior Clerk-Typist .....Reno
JANEE WILLSEY, Senior Clerk-Typist .....Reno
NANCY A. MILLARD, Senior Account Clerk .....Reno
PAULINE POLLMAN, Senior Clerk-Typist .....Reno
SANDRA L. STONIER, Senior Clerk-Stenographer,
Part-Time .....Elko
ISABELLE E. WINDER, Senior Clerk, Part-Time .....Fallon

PER DIEM VETERINARIANS

JOHN S. LEWIS, D.V.M. ..... Fallon
G. T. WOODWARD, D.V.M. ..... Fallon

STATEMENT OF EXPENDITURES, JULY 1, 1972-JUNE 30, 1973

	Personnel Services	Travel	Operating Costs	Equipment	Special Investi-gations	Statistical Reporting Service	Training	Weed & Insect Control	Total Expenditures
Livestock Inspection Fund	192,657.10	52,630.15	41,278.60	4,324.39	4,364.71	.....	504.07	.....	295,759.02
Veterinary Medical Services	110,939.44	7,595.42	34,435.46	1,500.00	.....	.....	.....	.....	154,470.32
Plant Industry Fund	412,583.61	31,128.41	73,564.48	5,850.83	.....	6,500.00	503.00	18,448.60	548,578.93
Weights and Measures Vehicles	.....	.....	.....	68,300.00	.....	.....	.....	.....	68,300.00
Noxious Weed and Insect Control Fund	.....	.....	11,763.19	.....	.....	.....	.....	.....	11,763.19
Agric. Registration and Enforcement Fund	24,799.28	642.40	8,465.50	81.07	.....	.....	.....	.....	33,988.25
Apiary Inspection Fund	4,628.19	.....	4,106.16	.....	.....	.....	.....	.....	8,734.35
TOTALS $	745,607.62	91,996.38	173,613.39	80,056.29	4,364.71	6,500.00	1,007.07	18,448.60	1,121,594.06

STATEMENT OF EXPENDITURES, JULY 1, 1973-JUNE 30, 1974

	Personnel Services	Travel	Operating Costs	Equipment	Special Investi-gations	Statistical Reporting Service	Training	Feed Labeling	Expenditures
Livestock Inspection Fund	230,311.17	54,625.83	32,894.96	369.24	4,490.54	.....	393.69	.....	323,085.43
Veterinary Medical Services	108,972.83	9,406.85	38,078.69	2,330.36	.....	.....	403.30	.....	159,192.03
Plant Industry Fund	451,251.19	30,190.66	101,600.08	24,323.08	.....	6,500.00	1,300.00	1,731.71	616,896.72
Noxious Weed and Insect Control Fund	.....	.....	2,630.00	.....	.....	.....	.....	.....	2,630.00
Agric. Registration and Enforcement Fund	36,188.46	1,670.75	9,098.28	1,798.13	.....	.....	208.00	.....	48,963.62
Apiary Inspection Fund	4,555.74	.....	4,527.45	.....	.....	.....	.....	.....	9,083.19
Rural Rehabilitation Fund	.....	.....	100.00	.....	.....	.....	.....	.....	100.00
TOTALS $	831,279.39	95,894.09	188,929.46	28,820.41	4,490.54	6,500.00	2,304.99	1,731.71	1,159,950.99

REPORT OF STATE DEPARTMENT OF AGRICULTURE

TAX LEVIES

Each year, the Board, at its first regular meeting, sets the special tax rate for the Livestock Inspection Tax, Apiary Inspection Tax and Beef Promotion Tax for the next tax year.

At the January 3, 1972 meeting, the Board set the tax rates for the tax year 1972-73 as follows:

LIVESTOCK INSPECTION TAX

Class	Tax Rate per Head
Stock Cattle	$ .28
Milk Cows	.53
Bulls	.75
Horses	.36
Mules	.36
Burros or Asses	.07
Stallions	.75
Jacks	.75
Hogs	.07
Pigs	.035
Goats	.06
Poultry	.003

APIARY INSPECTION TAX

Class	Tax Rate per Stand
Bees	$ .25

BEEF PROMOTION TAX

Class	Tax Rate per Head
All Classes of Cattle	$ .04

At the March 14, 1973 meeting, the Board set the tax rates for the Livestock Inspection Tax and Apiary Inspection Tax the same as above for the tax year 1973-74.

The Beef Promotion Tax was set as follows:

Class	Tax Rate Per Head
All Classes of Cattle	$ .05

DIVISION OF ANIMAL INDUSTRY

JOHN L. O'HARRA, D.V.M., DIRECTOR

ADMINISTRATIVE COMMENTS

The Division of Animal Industry is vested by statute with the responsibility to manage activities of the department pertaining to the protection and promotion of the livestock industry of the state of Nevada. The activities of the Division are categorized under Animal Health Programs and the Animal Disease Laboratory. The Animal Health Programs deal with the diagnosis, control and eradication of infectious, contagious and parasitic diseases of livestock and poultry in the field. Cooperation and consultation with the practicing veterinarians of the state of Nevada is a responsible and productive activity carried out on a continuing basis. Animal Health Programs work closely with the United States Department of Agriculture, Animal Plant Health Inspection Service in carrying out the cooperative responsibility of the two agencies. Educational and advisory activities of the livestock industry in cooperation with the Agricultural Extension Service of the University of Nevada, the various livestock associations and other agencies maintains a high priority.

The Animal Disease Laboratory offers facilities for the diagnosis of infectious, contagious and parasitic diseases of livestock, cooperates with other divisional veterinary personnel in offering consultation and diagnostic service in the field, and does minor investigation and research into diseases of livestock as time and finances permit. This Laboratory is the official laboratory for the State-Federal Programs, which require regulatory activities and possible indemnities to compensate owners for diseased animals.

The Division personnel have become stabilized during this biennium with the professional and technical staff made up of career employees, who are dedicated to their work and responsibilities. This Division also appreciates the excellent cooperation and interest in its work as evidenced by the veterinary practitioners, public health agencies and other medical professions, and the livestock industry of the state.

As the population of the state of Nevada and the world continues to increase with continuing higher standards of living, the importance of animal agriculture continues to increase to produce the necessary food and fibre vital to our welfare. Environmental protection has offered a challenge to economical production of livestock and protection from animal diseases due to the various restrictions on the use of chemical products that are so vital to this activity. Veterinary medical advice in regard to use of drugs is continually necessary to avoid residues in the end products and to offer disease protection to the ultimate with the products that are safely available.

Division activities are divided between the Reno office and the district offices in Elko and Las Vegas. In response to a request from

The Nevada Cattlemen's Association, plans are being formulated for the possible establishment of a Branch Diagnostic Laboratory and departmental offices in the Elko area in the near future.

A brief review of the more important activities of the Division for the period, July 1, 1972 to June 30, 1974, follows.

ANIMAL HEALTH PROGRAMS

During the past biennium, Nevada livestock remained relatively free from any specific disease outbreaks. The policy of this Division continues to be that of bringing to the aid of an individual modern scientific service to meet his problem of animal disease. Owners of livestock and veterinarians are encouraged to report promptly every outbreak of disease among their animals which would appear to be infectious. The Division may then respond by cooperating and assisting the livestock owner to rid himself of this disease problem and return the animals to normal in the shortest period of time. Adequate veterinary service is mandatory in the control and eradication of contagious and infectious diseases of livestock. The private veterinary practitioner is the first line of defense against all animal diseases. Nevada practitioners and the staff of the Division of Animal Industry maintain excellent communication and liaison to insure a constant surveillance of disease conditions statewide.

STATE-FEDERAL COOPERATIVE DISEASE ERADICATION PROGRAMS

In July 1973, the United States Department of Agriculture, Animal Plant Health Inspection Service underwent a complete nationwide reorganization. Federal Veterinarians in Charge located in each of the fifty states no longer remained in that capacity. Nevada now operates under an office located in Sacramento, California with liaison through a Federal District Veterinarian. Federal record keeping staff and federal records were moved to the State Department of Agriculture building, where we maintain an excellent working situation between the two agencies. Supervisory responsibilities for field activity are generally vested in the Division offices, resulting in somewhat greater responsibility from the State level. The end result of the reorganization from Nevada's standpoint appears to be highly successful.

BRUCELLOSIS

Nevada has been certified Brucellosis Free since June 10, 1966. We have maintained this status since inception. During the biennium, Brucellosis has appeared in a few herds over the state, due primarily to importing of diseased cattle. During recent years, Brucellosis vaccination has been de-emphasized by the Federal Government, therefore, leaving our herds in a more susceptible condition to this disease. State-Federal personnel maintain a constant surveillance on a statewide basis through ranch level testing, market cattle testing, and ring test procedures on the milk from all the dairies in the state. All suspicious tests are followed up with further testing and evaluation. One large dairy in Lincoln County did not respond to a continuous testing

and removal of reactor animals. This herd was depopulated in its entirety, and upon restocking, after a reasonable interim of time following a thorough clean-up, the dairy is now operating free of Brucellosis. Other troubled areas in the state have been responding well to the testing program. There is a need for strengthening and amendment of our livestock import regulations to require additional testing prior to movement on cattle being imported to Nevada and subsequent isolation and follow-up tests after arrival.

SWINE BRUCELLOSIS

Nevada was established as a validated Swine Brucellosis Free State in 1966. Our limited swine population allowed prompt eradication of Brucellosis and continued maintenance of Nevada as a Brucellosis Free State in regard to swine.

TUBERCULOSIS

Tuberculosis infection in Nevada cattle has not been evident for many years. A continuous testing program with post-mortem inspection on all slaughter cattle originating from Nevada have failed to disclose any infection.

HOG CHOLERA

Nevada has maintained its status as a Hog Cholera Free State since September 1965. A low swine population and strict import regulations along with rigid inspection of all garbage feeding establishments have insured this status. Hog cholera is now nearing eradication on a nationwide basis; therefore, lessening the danger of exposure to this disease.

SCABIES

All practicing veterinarians and Division personnel are maintaining a continuing Scabies Inspection Program. During the biennium, Sarcoptic Scabies was diagnosed in one herd in Elko County. This herd was promptly dipped under official inspection, resulting in prompt eradication of the disease. Exposed herds were also dipped and a continuing surveillance maintained in the area. Sarcoptic Scabies failed to reappear.

Psoroptic Scabies remains endemic to the southwestern portion of the United States. This insidious disease may be imported at any time through cattle arriving from this area. All import precautions are being maintained to keep Nevada cattle free of this disease.

MISCELLANEOUS DISEASES

The many diseases of livestock that are endemic in Nevada require constant surveillance and activity. Clostridial diseases as Red Water and Black Leg appear sporadically primarily due to faulty, or lack of, owner vaccination procedures. Anaplasmosis continues to be one of our most persistent and troublesome endemic diseases in the northern part

of the state. It is hoped that research findings in the future will develop a successful vaccine for the control of this disease. Anthrax in limited areas in the state is a constant threat to all livestock. Through a continuous warning and education program, we have maintained almost 100% vaccination of cattle in these dangerous areas. As a result, this vaccination program has aborted any serious outbreak of Anthrax during the biennium.

LIVESTOCK IMPORTS AND EXPORTS

In order to protect the livestock within the state of Nevada, this Division conducts an inspection and regulatory control service designed to prevent the introduction of livestock diseases into the state. Division staff may be required to quarantine livestock for testing or inspection under various circumstances before they are allowed to mingle with our native animals. During this past biennium, livestock imported into Nevada on interstate certificates are listed as follows:

Cattle	39,505
Horses	708
Swine	89

The Division certifies the health status of Nevada livestock shipments to other states and countries. Following inspection by accredited practicing veterinarians, the Division has certified to livestock health status for export to other states and nations listed as follows:

Cattle	40,277
Horses	1,185
Swine	238
Goats	71
Poultry	27

Further noting of animal diseases of significance, and additional services of this Division, will be referred to under the report of the Animal Disease Laboratory.

ANIMAL DISEASE LABORATORY

JACK ARMSTRONG, D.V.M., SUPERVISOR

The Animal Disease Laboratory continues to function as a facility providing service through disease diagnosis, consultation, and participation in activities related to the maintenance of both animal and human health.

Demands upon the laboratory for more complicated diagnostic procedures increase with each passing year. These demands are met by

laboratory staff participation in training programs to maintain knowledge of technical and diagnostic advancements and by the addition of scientific equipment when feasible.

Consultation and investigation is conducted on a daily basis into the causes and potentiality of diseases of animals and those diseases of animals transmissible to man. Laboratory data is provided other agencies to indicate research needs through identification of predominant disease syndromes. Disease survey activities and field investigational studies are done in cooperation with other state and federal organizations, private veterinarians, and livestock producers.

Accreditation of the Laboratory as a federally approved Equine Infectious Anemia testing facility for Nevada was achieved during this biennium. EIA is diagnosed by a procedure entitled the Coggins Test, or agar gel immunodiffusion method. Technical training for test performance was received at the United States Department of Agriculture National Disease Center, Ames Iowa, and certification is maintained by periodic test checks forwarded from that laboratory.

National attention is being given by animal health officials towards the ever increasing hazard of introduction of a foreign animal disease into our suseptible United States livestock population. By active participation of Departmental veterinarians in Emergency Programs, USDA, Animal and Plant Health Inspection Service, and by receiving training in the identification and diagnosis of foreign animal diseases, Nevada livestock producers are afforded protection against the potential of a devastating exotic animal disease through early recognition and reporting of such diseases.

A summary of the laboratory procedures conducted during the biennium follows.

ANIMAL DISEASE LABORATORY EXAMINATIONS
July 1, 1972 through June 30, 1975

SPECIES	NO. CASES	NO. SPECIMENS
Bovine	1,578	8,223
Equine	934	1,096
Ovine	45	95
Porcine	74	95
Caprine	75	134
Canine	2,636	2,808
Feline	907	924
Avian	138	190
Other	579	679
TOTALS	6,966	14,244

LABORATORY TESTS AND EXAMINATIONS
July 1, 1972 through June 30, 1974

Type of Examination	Number of Examinations
Bacteriological Cultures	2,042
Biochemical Identification	2,370
Antibiotic Sensitivity Tests	1,277
Fungus Cultures	111
Special Stains	97
Rabies Examination	641
Serological Tests:	
Viral	246
Bacterial	8,056
Urinalysis	1,491
Hematology	10,477
Biochemical Tests	1,545
Histopathology	702
Parasitological Examination	1,111
Toxicological Tests	96
Animal Innoculation	45
Virological Specimens	5
Post-Mortem Examination	1,086
Fluorescent Antibody Examination	12
Tissues	101
Body Fluid	9
Unsatisfactory Specimen	13
TOTAL	31,533

DIVISION OF BRAND INSPECTION
W. Fred Warren, Director

By the authority of the Nevada State Board of Agriculture, Brand Inspection Regulation #58 became effective September 1, 1972, resulting in many changes in operations, personnel, supervision, line of authority and procedures.

A category of Special Permits was created, which provides the cattle industry with the following benefits and regulations:

1. HORSE PERMITS - The Director may make available permits for movement of horses that may be used in lieu of a brand inspection.

2. RANCH PERMITS - The Director may issue annual permits to specific ranches permitting interstate and interdistrict movement of animals without brand inspection on a single contiguous or nearly contiguous ranching operation.

3. EXTRAORDINARY PERMIT - The Director, subject to the review of the State Board of Agriculture, may issue permits for the movement of livestock without brand inspection required by these regulations upon the showing of unique and extraordinary circumstances.

4. DAIRY CALF PERMIT - The Director may issue permits to dairy operators to sell specified unbranded dairy-type calves within two weeks of birth without a brand inspection.

5. SLAUGHTER PERMIT - The Director may issue permits to ranches for on-ranch slaughtering of animals for consumption on the ranch. The permit shall specify a reporting and brand inspection procedure whereby the Brand Inspector may inspect animals for slaughter, hides and carcasses after slaughter, or a combination thereof, and shall provide for the reporting of slaughter to the Department in order to provide effective control and identification of ownership of the animals as is mutually convenient for the operator and the Department.

6. The State Board of Agriculture may establish reasonable fees for the above permits.

7. The Director may issue annual permits to specific ranches permitting pasture-to-pasture movement of animals at a cost of 50% of the established brand inspection fee. Pasture-to-pasture means within the State of Nevada only.

Fee changes were also effected. Brand inspection for cattle was raised from $.10 to $.20 per head, and inspection of horses was set at $1.00 per head.

The State Board of Agriculture reserved the authority to amend these regulations as needed.

ESTRAY LIVESTOCK

During the biennium, 583 head of estray livestock were reported, with a value of $121,124.20. Of this number, 513 were returned to the owners; value $115,097.00. The remaining 70 head were advertised and sold by the Department.

The proceeds (less expenses) received from the sale of estrays are held for one year for owners, if found; if not claimed by the owner, they are placed in the Livestock Inspection Fund.

HIDE AND CARCASS INSPECTIONS

Periodic inspections were made of all cold storage lockers and meat processing establishments under The Hide and Carcass Act for the purpose of preventing illegal possession of meat. The Hide and Carcass Act was amended by the 1967 Legislature and gives considerable more protection to the livestock industry. The present Regulation #58 requires that all livestock be brand-inspected immediately prior to slaughter.

LIVESTOCK THEFT

The 1967 Legislature gave police authority in enforcement of Department responsibilities to Department inspectors designated by the Executive Director. This, plus the tightening up of brand inspection and closer supervision, together with closer cooperation with other law enforcement agencies and schooling in enforcement procedures, has resulted in 35 arrests during this biennium. Eight of these cases were dismissed by the courts; four are still pending, and 23 of those arrested were convicted.

Those offenders who were judged guilty were given sentences ranging from 30 days in the County Jail to four years in the Federal Penitentiary to six years in State Penitentiaries, with fines of $100.00 to $500.00, and in some cases, restitution was a part of the sentence.

LIVESTOCK KILLED ON RAILROAD RIGHTS-OF-WAY

There were 324 head of livestock reported killed by trains operated in Nevada, with a value of $75,962.00, which were identified for ownership. Claims were made to the railroads for remuneration of the owner's losses.

PUBLIC LIVESTOCK AUCTION MARKETS

There are presently two markets in operation: Nevada Auction Yard, Inc., Fallon, and Gallagher Livestock, Inc., of Fallon. Both

have operated during the period July 1, 1972 to June 30, 1974. A bond in the amount of $100,000 is required of each of these two operators.

LICENSING AND BONDING

At the close of this biennium, 104 livestock brokers, dealers and commission merchants were on record as being properly licensed and bonded, plus a total of 83 agents.

BRAND INSPECTION

The State of Nevada is divided into nine Point-of-Origin brand inspection districts. The enforcement of laws, rules and regulations applying to Livestock Identification activities by Department employees, consumes considerable time and expenditure of funds.

Personnel assigned to Livestock Identification activities on a full-time basis are a Director, one Senior Clerk Typist located in Reno; one part-time Senior Clerk-Stenographer in Elko; one part-time Clerk-Typist in Fallon. In addition, there are seven District Brand Inspectors located in Elko, Ely, Fallon, Reno, Yerington, Winnemucca, Tonopah and Las Vegas. A total of 63 Deputy Brand Inspectors are available throughout the state to serve the livestock industry in making brand inspections and other assigned duties. Their remuneration for service is paid at the rate of an average $3.20 per hour and $.14 per mile.

The number of brand inspections made during this past biennium was:

1972-73	Cattle	387,840 Head
1973-74	Cattle	427,510 Head
1972-74	Horses	16,910

LIVESTOCK BRANDS

During the biennium, 629 new brands were recorded; 133 brands were transferred. At the end of the biennium, a total of 4,763 brands were on record in the State of Nevada.

By statute, the Department of Agriculture is responsible for recording, re-recording and transferring all livestock brands, except for sheep and goats, with these transactions being handled by the Nevada State Sheep Commission and the County recorders. The fee for recording a new brand is $25.00; the fee for re-recording a brand is $25.00; and the fee for transferring a brand is $25.00. These revised rates were authorized by the State Board of Agriculture and became effective September 15, 1973.

Brands are re-recorded at five-year intervals, with the next

re-recording period being the last sixty days of 1975. At that time, a new brand book will be compiled.

PERSONNEL

In 1971, the Nevada State Legislature authorized the position of Livestock Theft Investigator. On July 10, 1972, George T. High was employed in this capacity. This marked the first time the Department has had a full-time Livestock Theft Investigator. His assigned duties are to work in all phases of livestock theft investigation, including any assistance requested by prosecuting attorneys.

Other Department personnel are as follows:

RENO	Fred Warren, Director
	Elizabeth Deady, Senior Clerk-Typist
	George T. High, Livestock Theft Investigator
	R. B. "Jim" Hahn, District Brand Inspector
	Wallace E. Adams, Deputy Brand Inspector
	John Azevedo
	Royal D. Crowell
	Louis L. Donathan
	George Fettic
	Melio Gaspari
	Andy Jackson
	Sam Lompa
	Elmo Pecetti
	Charles Pratt
	R. K. Goodspeed
WINNEMUCCA	George Giacometto, District Brand Inspector
	Alfonse Marcuerquiaga
	Stephen Ferraro
	Harold Woodward
	William Stephen
	John Landa
	Hank Angus
	Arlin Jones
ELKO	Warner Mitchell, Brand Inspector (Supervising)
	Sandra Stonier, Senior Clerk-Stenographer
	Kenneth Johns
	Kay Kimber
	Arthur Manning
	Harry Peters
	Guy Vega
	Calvin Wines
	Tom Gomes
	Verland Stowell
	Willis Premo
	Charles Van Norman
	Charles Eldon Westlund
	Wesley E. Bowlen

DIVISION OF PLANT INDUSTRY

HARRY E. GALLAWAY, Administrator

The Division of Plant Industry is charged by law with the responsibility of managing activities of the Department pertaining to the protection and promotion of the agricultural industries of the State of Nevada.

PROGRAM SUBJECT

The laws and programs administered by the division are:

1. Agricultural Produce Buyer Licensing
   NRS Chapter 576
2. Antifreeze Registration and Inspection
   NRS Chapter 590.340-590.450, inclusive
3. Apiary Registration and Disease Control
   NRS Chapter 552
4. Entomology (Insect Detection, Survey and Control)
   NRS 555.010-555.125, inclusive
5. Feed, Commercial Livestock, Inspection
   NRS 587.670-587.690, inclusive
6. Fertilizer and Agricultural Minerals Registration and Inspection
   NRS Chapter 588
7. Nursery Licensing and Inspection
   NRS 555.235-555.249, inclusive
8. Pest Control Operator Licensing and Inspection
   NRS 555.2605-555.460, inclusive
9. Pesticide Registration and Inspection
   NRS 586.010-586.450, inclusive
10. Petroleum Product Advertising
    NRS 590.160-590.330, inclusive
11. Petroleum Product Inspection
    NRS 590.010-590.150, inclusive
12. Plant Pathology (Plant Disease Detection, Survey and Control)
    NRS 555.010-555.125, inclusive
13. Plant Quarantine
    A. Interstate Quarantines
       NRS 554.010-554.090, inclusive
    B. Intrastate Quarantines
       NRS 554.100-554.240, inclusive
14. Seed (Laboratory Analysis, Regulatory Inspection and Seed Crop Certification)
    NRS 587.015-587.123, inclusive

FALLON	Frank Sicking, District Brand Inspector Isabelle Winder, Clerk-Typist Ed Allyn Claude Hall
TONOPAH-AUSTIN	Arshal A. Lee, District Brand Inspector Roy Clifford W. Joe Streshley Leroy Streshley Tony Testolin Clarence M. Herring
ELY	Shirley George Robison, District Brand Inspector Robert S. Reid Monte Shangle A. J. Wadsworth Henry Yelland J. J. Salvi Urban Cole Dale Rice
YERINGTON	Ed Giacometto, Brand Inspector (Supervising) Paul Hagstrom Vernon Castello
LAS VEGAS	Ed Caton, Brand Inspector (Supervising) Roy B. Flippin Archie Hughes Win W. Marshall Robert Pearce Ed Siri Floyd Walch John Raetz

15. Standardization and Grading Agricultural Produce

    A. Shell Egg
    NRS 583.110-583.210, inclusive

    B. Fruit and Vegetable Inspection
    NRS 587.460-587.670

    C. Standards for Agricultural Produce and Containers
    NRS 587.290-587.450, inclusive

16. Weeds, Noxious (Detection, Survey and Control)
    NRS 555.100-555.220, inclusive

17. Weighmaster, Public (Licensing and Inspection)
    NRS Chapter 582

18. Weights and Measures (Approval, Inspection and Testing, Metrology, Pre-Package Weight Control) Consists of:

    A. Device Inspection and Testing

    B. Registration of Repairmen

    C. Maintenance of State Standards

    D. Metrology Certification of Accuracy

    E. Container Content (Weight, Measure, Count) Labeling

    F. Standards for Sale of Commodities

    NRS 581.001-581.400, inclusive

AGRIBUSINESS CONDITIONS

In general, the crop years of 1973 and 1974 were quite favorable to Nevada's agribusiness industries. Water supplies were adequate to complete irrigation practices in most areas. In 1974, the central and eastern counties of the state experienced severe drought conditions to the rangelands which greatly reduced feed, necessitating early gathering of livestock.

Other climatical conditions were normal with some late spring frost damage. However, fall harvest conditions were very favorable. Actual production yields of Nevada's principal crops - corn silage, small grains, alfalfa seed, cotton and seed, hay and row crops (other than potatoes) - remain constant with the dollar value increased greatly.

1971	$37,689,000
1972	$41,791,000
1973	$71,623,000
1974	Incomplete estimates in excess of $75,000,000

This increased value of production reflects the increased market value of agricultural products which were in turn offset by greatly increased production cost. Agribusinesses like other industries were caught in the production cost squeeze; shortages in steel (baling wire), agricultural chemicals (fertilizers and pesticides), availability of petroleum fuels, availability of transportion, both rail

and truck, and high interest rates.

Row crop production value during the period 1972 - 1974 increased substantially with the development of a potato industry in Humboldt County. Production acreage increased from 1000 acres in 1972 to approximately 10,000 acres in 1974. A modern fresh produce packing plant and a potato dehydration processing plant were constructed at Winnemucca to market this production.

The future of Humboldt County's potato industry is very bright with yearly production acreage expected to reach 15 to 17,000 acres.

Interest in alfalfa seed production is expanding into other counties of the state. Nevada ranks fourth in the United States in alfalfa seed with approximately one-third of our production produced under our certified seed program.

Agricultural areas near the population centers of Las Vegas and Reno continue to receive pressure from urban expansion. Considerable acreages have been lost from food production to recreation principally through pleasure horse ownership.

PROGRAM OPERATIONS

It has been necessary to make priority adjustments and changes in program operations in order for the Division staff to meet demands for service and to maintain a surveillance on enforcement activities.

Adjustments made were to extend the time interval between scheduled testing and inspection of weighing/measuring devices; redesign some enforcement programs from a routine maintenance schedule to surveillance inspections only, with investigation and follow up of complaints as the means of enforcement.

With these adjustments, the Division has been able to keep its head above water, so to speak, however, additional workloads, new programs or changes in agricultural production (i.e., the new potato industry) without additional staff capability will require drastic adjustments in the present program.

FUTURE PROGRAM REQUIREMENTS

PESTICIDES

Public Law 92-516, Federal Environmental Pesticide Control Act, requires specific action by the state in legislative authority, staffing, funding and programming for the licensing and certification of persons authorized to use restricted pesticides.

The time table established by this federal law is the state must submit and have approved its plan of examination, licensing or certification, supervision and enforcement of both private and commercial individuals using or supervising the use of pesticides classified as to restricted use by October 21, 1976.

It is estimated that 60% or more of the pesticides used in Nevada's agricultural production and 20% or more of those used in urban communities will come under the classification of restricted use.

Without a State plan approved by the Environmental Protection Agency, no person, including governmental entities, may purchase or apply a restricted use pesticide. The availability and controlled use of pesticides is necessary to protect the food, fiber and health of Nevada's citizenry.

This will require training in cooperation with the Cooperative Extension Service of the University of Nevada and the examination and certification of an estimated 1,000 or more individuals throughout the state. To meet the established time table and comply with the Environmental Protection Agency regulation, the approved State plan must contain:

1. Satisfactory State statutory authority.
2. Proof of adequate and qualified personnel for supervision and enforcement.
3. Satisfy EPA that adequate funding will be available.
4. Provide for the submission of reports.
5. Conform to and be at least equal to the minimum EPA standards of competence for both commercial and private applicators.
6. Satisfactory procedure of examination to test competency of applicants.
7. Examples of the written examination to be used in each category of pest control.
8. Plans for periodic review and re-examination of certified applicators.
9. Procedure for the certification of federal employees.
10. Provisions for enforcement through civil or criminal prosecution of unlawful acts.
11. Provisions for record maintenance of pesticide usage.

The development of the State plan and the preparation of examinations will require additional staff and clerical assistance to the Division. Requested legislation contains a fiscal note for one staff specialist and one clerical position.

The federal law places on the state and the department one additional pesticide responsibility. We must prepare and submit a State plan acceptable to EPA to enable the department to register pesticides for a local use need. Without this capability, pesticides for minor crops and special uses will not be available for use except through federally registered procedures. To use a pesticide for any purpose not authorized is an unlawful act carrying civil and criminal penalties

up to $1,000 and imprisonment up to 30 days for a private applicator and up to $25,000 or one year imprisonment for commercial applicators.

VERTEBRATE PEST CONTROL

There is need for an in-depth review of Nevada's problems relating to the control of vertebrate pests other than predatory animals. The present program on rodents and depredate birds is a limited extension program severely handicapped by federal executive orders.

For the past three years, there has been a damaging population of rodents in many agricultural areas of the state. Under present technology, the use of toxicants is the only practical means of control to reduce these damaging populations. We anticipate that most of the rodenticides and avicides will be classified as restricted use pesticides thus requiring their application by or under the supervision of a certified applicator.

There is need for legislative authority for the department to assume active leadership in the control of vertebrate pests, excluding predatory animals. To assume this responsibility, the department must have legislative authority and be staffed with a specialist in vertebrate pest control to plan, organize and supervise action programs in both the rural and urban communities.

AGRICULTURAL PRODUCE BUYERS

The licensing of agricultural produce buyers, other than livestock and livestock products, is administered by the Division of Plant Industry. Buyers are licensed as brokers, commission merchants, dealers or cash buyers, and all persons negotiating or soliciting the sale of produce on behalf of a licensed person must be licensed as an agent.

There was very little change in the number of persons licensed as brokers, dealers, commission merchants or cash buyers during the two years covered by this biennium, however, there was an increase in the number of persons licensed as agents, to a total of 41.

Due in part to the condition of the economy, very few complaints were received for non-payment for the agricultural produce received. In all instances, coming to the attention of the department, the overdue accounts were settled without court action.

ANTIFREEZE REGISTRATION AND INSPECTION

Substances and formulations for the purpose of lowering the freezing point of cooling liquids of internal combustion engines are required by the Nevada Antifreeze Act to be licensed before being offered for sale or sold in the state. Antifreeze

preparations intended solely for use in water systems of recreational vehicles are not covered by the Act; therefore, they do not require registration.

As it is the intent of the law to have available to the motorist a product that will not be injurious to the cooling system of his automobile, minimum standards of composition and chemical and physical properties for ethylene glycol type and alcohol type antifreezes were adopted during the biennium. Of particular interest are the maximum allowed for foaming and the minimum required for reserve alkalinity or anticorrosive additives. These standards also preclude the sale of pre-diluted preparations.

Samples submitted with the application are no longer tested in the chemistry laboratory on a routine basis but are kept for reference in those instances where field samples do not meet the minimum state standards or the minimum specifications established by the formulators themselves. An antifreeze preparation must meet the standard of quality under which it is sold as well as the state's minimum standards.

During the biennium, 135 brands were licensed for sale in Nevada. One brand was denied a permit because it did not meet the foam and reserve alkalinity standards. Two applications were not completed because the manufacturers failed to comply with all the requirements. Two lots were placed off-sale since the packagers did not want to register their product.

Forty-one samples were bought on the retail market for testing in the laboratory. With the exception of one sample, all met specifications. Lab tests showed it was not the product as labeled. Further investigation revealed that a dealer was repackaging bulk antifreeze into empty containers of another brand. He was requested to cease and desist until containers were properly labeled.

APIARY REGISTRATION AND DISEASE CONTROL

Honeybees, in both their larval and adult stages, are subject to various types of diseases. The most important are those affecting the developing larvae or brood. Certain adult bee diseases are not known to occur in the United States; however, vigilance by inspection of bee colonies must continue to prevent foreign diseases from becoming established. The most serious of the brood diseases is American foulbrood disease caused by a spore forming bacteria, *Bacillus larvae*. The inability to distinguish brood diseases from death of larvae caused by poisoning, starvation or natural causes has frequently resulted in greater financial loss than if they had been recognized and control measures applied.

In 1974, a program of apiary workshops for beginning beekeepers, novices and commercial beekeepers was established and conducted by the apiary inspection service to teach identification of bee diseases, control measures and management of honeybees. This program has been

very effective in reducing the incidence of bee diseases and manpower inspection hours previously required with sideline beekeepers.

During the biennium, 185 Nevada apiaries, consisting of 2,939 colonies, were inspected for diseases. Inspectors found 55 colonies infected with American foulbrood disease which were treated by burning. Treatment of AFB diseased colonies is done in accordance with regulations which set forth the procedures for destruction. Two abandoned apiaries, having a high incidence of AFB disease with dead diseased colonies, were located, quarantined and diseased colonies destroyed. The disease did not spread to other apiaries being in a remote area.

In 1974, ten apiaries in five counties were random sampled for the presence of nosema disease. A light infection was found in two apiaries -- one in Churchill County and one in Lyon County.

Insecticide applications to alfalfa hay and alfalfa seed resulted in continued honeybee mortality. The department cooperated with the Agricultural and Stabilization Service (ASCS) in the inspection of honeybee colonies for adult bee losses caused by pesticides. In 1973, inspections were made in 22 damaged apiaries consisting of 985 colonies. A total of 598 colonies was found damaged by pesticides: parathion, Furadan and Sevin. In 1974, a total 1,646 colonies were examined for pesticide damage and 1,285 colonies were found damaged. Increased use of Furadan on alfalfa hay for weevil control resulted in the increase in honeybee death losses in 1974.

During the biennium, the department established each spring a "Pesticide Honeybee Telephone Answering Service" in Churchill and Lyon Counties. Pest control operators were required by regulations to call the Answering Service prior to application of a pesticide in the agricultural areas of both counties. Beekeepers could make one telephone call to the Answering Service each evening during operation of the service and receive a listing of all locations where a pesticide would be applied. Operation of this service continued daily from May 15 to August 15 each year.

During the biennium, 39 pollination permits were issued to out-of-state beekeepers to transport colonies into Nevada for pollination service. A total of 39,150 colonies entered Nevada during the biennium for alfalfa seed pollination.

Apiary inspectors stationed in the pollination districts inspected 6,714 permit colonies for the presence of bee diseases. Inspectors found 139 colonies infected with American foulbrood disease which were destroyed by burning. In 1973, there were two illegal colony entries. Three apiaries, which moved into Clark County from Utah, were found and ordered out of state. Upon inspection of the three apiaries, they were all found diseased and exposing disease to Nevada colonies. One apiary entered Lander County from California without a permit and was ordered out of state.

BEE COLONY REGISTRATIONS AND INSPECTIONS 1973-1974

RESIDENT COLONIES

	Number Colonies Registered	Number Colonies Inspected	Number Colonies Diseased
1973	7,229	1,604	23
1974	7,138	1,335	32
	14,367	2,939	55

Apiaries Inspected

1973	97
1974	88
	185

POLLINATION PERMITS

	Number Colonies Registered	Number Colonies Inspected	Number Colonies Diseased
1973	19,126	3,685	86
1974	20,024	3,029	53
	39,150	6,714	139

Apiaries Inspected

1973	232
1974	148
	380

ENTOMOLOGY

INSECT PEST DETECTION AND SURVEY

Detection surveys for pest species not known to occur in Nevada were continued for the boll weevil, cereal leaf beetle, Colorado potato beetle, European corn borer, European pine shoot moth, gypsy moth, Japanese beetle, khapra beetle, sorghum midge and tomato russet mite. All surveys were negative.

Nine species of insects were recorded from the state for the first time. They were the dodder gall weevil, *Smicronyx sculpticollis* Casey, a dodder gall weevil, *S. interruptus* Blatchley, a weevil, *S. sordidus* LeConte, three lace bugs, *Corythucha confraterna* Gibson, *C. montivaga* Drake and *C. padi* Drake, a conopid fly, *Dalmannia pacifica* Banks, a grasshopper, *Melanoplus splendidus* Hebard and a cicada, *Cacama valvata* (Uhler).

The distribution of 23 species of insects and mites in counties in which they were not known to occur was recorded during the biennium. They included the brown wheat mite, *Petrobia latens* (Müller), the brown dog tick, *Rhipicephalus sanguineus* (Latreille), grasshoppers, *Ageneotettix deorum* (Scudder), *Amphitornus coloradus ornatus* McNeill, *Chorthippus curtipennis* (Harris), *Cratypedes neglectus neglectus* (Thomas), *Melanoplus cinereus cinereus* Scudder, *M. yarrowii* (Thomas), *Mermeria bivittata maculipennis* Bruner, *Spharagemon collare* (Scudder), *Trachyrhachys kiowa kiowa* (Thomas), *Trimerotropis cincta* (Thomas), *T. gracilis gracilis* (Thomas), *T. latifasciata* Scudder, *T. strenua* McNeill and *T. suffusa* Scudder, the greenbug, *Schizaphis graminum* (Rondani), the San Jose scale, *Quadraspidiotus perniciosus* (Comstock), the western boxelder bug, *Leptocoris rubrolineatus* Barber, the merchant grain beetle, *Oryzaephilus mercator* (Fauvel), the hollyhock weevil, *Apion longirostre* Olivier, a weevil *Smicronyx sordidus* LeConte and a conopid fly, *Dalmannia picta* Williston.

At the close of the last biennium, the spotted alfalfa aphid, *Therioaphis maculata* (Buckton), had approached economic levels for the first time since 1966. This increase continued with heavy infestations occurring on alfalfa seed and hay in the northern counties in 1972. In Dixie Valley, Pershing County, one alfalfa seed field was so heavily infested and damaged that the crop was a complete loss. In 1973, economic populations again developed on alfalfa seed but not on alfalfa hay. Chemical treatments were applied to several thousand acres with controls being ineffective in several instances.

The pea aphid, *Acyrthosiphon pisum* (Harris), developed economic infestations on alfalfa hay in the spring and early summer of 1974 and required treatments in Churchill, Douglas, Elko, Esmeralda, Eureka, Lyon, Nye and White Pine Counties. In many areas, infestations were so heavy that plant growth was retarded and the plants were covered with honeydew. These infestations showed no apparent decline by late June and will undoubtedly continue on alfalfa hay and increase on alfalfa seed during the next biennium.

In 1973, the variegated cutworm, *Peridroma saucia* (Hübner), was reported from most counties where it developed heavy, damaging populations on alfalfa, vegetables and various ornamental flowers. The economic infestations on thousands of acres of alfalfa in Clark, Douglas, Esmeralda, Humboldt, Lincoln, Lyon, Nye and Pershing Counties were the most widespread and damaging and required chemical treatments. Plant growth in many established fields was completely retarded and several seedling fields were destroyed. Treatments were ineffective in several instances and may have been due to improper dosage, application or larval size.

Also, in 1973, the alfalfa looper, *Autographa californica* Speyer, the beet armyworm, *Spodoptera exigua* (Hübner) and the western yellow-striped armyworm, *Spodoptera praefica* (Grote), developed economic infestations on alfalfa and required controls in several counties by themselves, in combination or in conjunction with the variegated cutworm.

The painted lady, *Cynthia cardui* (Linnaeus) developed unusually heavy populations on range forbs and infested various thistles statewide in 1973. Larval migration into alfalfa hay took place in several counties but heavy damage was reported only from Lincoln County where treatments were required.

Populations of the brown wheat mite, *Petrobia latens* (Müller), decreased in the first part of the biennium but increased to economic levels and caused heavy damage to small grains in Pershing County in the spring of 1974. Irrigation, which was sometimes an effective control measure in previous years, was ineffective and chemical treatments were required.

In 1973, larvae of the cabbage looper, *Trichoplusia ni* (Hübner), developed economic infestations on potatoes in Humboldt and Lyon Counties and required control.

The development of heavy infestations of various lepidopterous larvae in 1973 resulted in a corresponding increase in predators and parasites of these pests. Most noteworthy of the predators was a ground beetle, *Calosoma parvicollis* Fall, which developed unusually heavy populations in several counties, especially Clark County where from early May through early July the adults were a severe nuisance to humans by being attracted to lights and entering homes, motels, hotels, casinos, et cetera.

GRASSHOPPER CONTROL PROGRAMS

Grasshopper populations were reduced below the heavy, widespread infestations of the previous biennium, especially on cropland but were still economic and required controls in 1973. *Cammula pellucida* (Scudder), *Melanoplus bivittatus* (Say) and *M. sanguinipes* (Fabricius) were the predominant species on cropland and *Aulocara elliotti* (Thomas), *M. sanguinipes* (Fabricius) and *Oedaleonotus enigma* (Scudder) were the most abundant species on rangeland. Abatement procedures and control

operations were carried out by department personnel on 1,640 acres of cropland in Humboldt County. A cooperative Federal-State program was undertaken for treatment of 12,096 acres of rangeland in Elko County and a program under Federal jurisdiction was completed on 7,168 acres of rangeland in Elko County. In addition to cooperative programs, a total of 3,450 acres of cropland and 320 acres of rangeland was treated by individuals in 1973. In 1974, no cooperative programs were necessary as populations were at low levels due partly to a statewide drought which caused unfavorable conditions and rapid drying of rangeland vegetation. However, a total of 186 acres of rangeland in Humboldt and White Pine Counties and 1,192 acres of cropland in Elko and Mineral Counties required treatment by individuals.

MORMON CRICKET CONTROL PROGRAMS

In 1974, Mormon cricket, *Anabrus simplex* Haldeman, populations increased and developed economic infestations for the first time since 1969 and required treatments in two localities. A total of 28,960 acres of rangeland was treated in the Seven Troughs Range, Pershing County, and 832 acres were treated in the Cold Springs Valley and Red Rock area, Washoe County. Other localities in Elko, Eureka, Humboldt, Lander, Pershing and Washoe Counties supported local populations but no controls were applied in these areas as the infestations were below economic levels or encompassed very small areas. If conditions are favorable in these localities in 1975, additional economic infestations could develop and additional treatments will be necessary.

SYSTEMATIC ENTOMOLOGY

The number of collections received for identification in the taxonomic laboratory was down over the last biennium with 838 determinations being made by the insect taxonomist. There was a reduction in submission by federal and state agencies but an increase in specimens submitted by city and county agencies, pest control operators and individuals.

At the end of the biennium, the permanent reference collection consisted of 19 orders, 107 families, 283 genera, 389 species and 778 vials in the alcohol material; 9 orders, 133 families, 703 genera, 1,644 species and 20,871 specimens in the pinned material and 4 orders, 20 families, 93 genera, 146 species and 860 slides in the slide material from which the data have been recorded.

FEED, COMMERCIAL LIVESTOCK, INSPECTION

Until the 1973 Legislature passed a feed law, Nevada and one other state had been the only states without such a law. Individuals and organizations such as the Farm Bureau had for many years been advocating such a law. However, the proposals had included the establishment of a feed analysis laboratory which, for Nevada, was impractical from a funding standpoint. The cost of a laboratory

equipped and staffed several years ago would have been in the neighborhood of $45,000.

During the 1973 legislative session, Senator Monroe of Elko County introduced legislation which would have required all feeds to be labeled with all the ingredients and their percentages. At hearings in Carson City, Harry Gallaway, Administrator, Division of Plant Industry, with representatives of the feed industry which included Albers of Reno and Jim McDougal of Lovelock, established this to be impractical and subsequently a satisfactory law was worked out which was passed by the 1973 Legislature with $5,000 for funding the program as proposed by the Administrator.

On August 10, 1973, a preliminary hearing, attended by members of industry and department personnel, was held at the Department office in Reno to establish proposed regulations under the new law. After study by the department, some revisions were made with the concurrence of industry and the regulations were adopted August 26, 1974 and became effective on October 1, 1974.

In the meantime, the Administrator had negotiated with the California Department of Food and Agriculture to do the analysis of feed samples on a fee basis which has proved to be a considerable savings to the state of Nevada.

From late 1973 to the date of this report in late 1974, feed samples have been taken in all parts of Nevada and forwarded to the laboratory in California for analysis. The results have been gratifying in that, with a few minor exceptions, they show that industry within Nevada and in other states as well has been conscientious in providing livestock feeds that were as good as or better than their guaranteed analysis. When the few minor discrepancies were pointed out to the manufacturers, a marked improvement soon became evident.

Continued sampling of livestock feeds by department personnel will assure the purchaser that he will be receiving that for which he has paid.

The results of the 106 feed samples taken during the second year of the biennium are tabulated below:

Sampling Date	No. Samples	Passed	Deficient
1st Quarter	36	25	11
2nd Quarter	29	26	3
3rd Quarter	21	19	2
4th Quarter	20	20	0

FERTILIZER AND AGRICULTURAL MINERALS REGISTRATION AND INSPECTION

One of the functions of the Nevada State Department of Agriculture is the control of chemicals which are used directly in growing various crops. This activity not only affects and benefits farmers and growers but also involves the welfare of businesses which furnish these indispensable commodities as well as affecting the general economy.

Of first importance among these chemicals are commercial fertilizers, gypsum and other agricultural minerals. An adequate supply of good fertilizer and similar material must be readily available to farmers and ranchers if maximum and most economical crop production is to be obtained. These products must be plainly and honestly labeled. They must measure up to guarantees made as to plant food or soil conditioning agents. Fraudulently branded or otherwise unsatisfactory goods must be excluded. Honest manufacturers must be protected against dishonest competition. The best means of accomplishing these objectives is by enforcement of the State Fertilizer Law.

The Nevada Fertilizers and Agricultural Minerals Act requires registration with the Department of Agriculture any material which is claimed to supply plant nutrients or which will alter the soil chemically or physically. Some exceptions are excreta of domestic animals and domestic fowl, hays, straws, peat, leaf mold, sand and soil. Organic material containing less than 5% nitrogen, available phosphoric acid or soluble potash, singularly or collectively, as well as small packages of fertilizers or agricultural minerals of less than one pound are also exempt.

Applications for registration together with labels are examined for compliance of state regulations. If the requirements are not fully met, the application is held for correction or is rejected and returned.

Registrations are issued on a fiscal year basis and must be renewed as long as the product is being offered for sale. During the 1972-73 fiscal year, 578 grades were registered compared to 612 for the 1973-1974 fiscal year. This is an increase of 5.4% over the previous biennium.

In addition to registration, manufacturers or distributors of commercial fertilizers and agricultural minerals are required to file a quarterly tonnage report of goods sold in the state. Reports from registrants show a continued increase in consumption of plant foods and agricultural minerals in Nevada. During the biennium, 49,637 tons were used. This is a record 46% increase over the 1970-1972 period.

A statewide inspection service is maintained for checking labeling and for the collection of official samples from farmers,

ranchers, dealers and other users. Effort is made to obtain as many samples as possible from farmers, both as a direct farm service and as the best means of identifying ultimate consumers where payment of penalties for deficiencies may be involved. All requests for inspection service are followed up as promptly as possible.

Reports of the chemistry laboratory analysis of each sample are forwarded to manufacturers, dealers and consumers. In cases of a deficiency beyond that which is recognized in the law as a reasonable operational tolerance, it is required that manufacturers reimburse consumers by payment of a penalty. When reports of analysis indicate a penalty, the registrant has ten days in which to call for a review and if desired by him, to request a portion of the official sample for his examination. All analyses which show the sample to be deficient are thoroughly rechecked as to chemical work before the reports are released by the laboratory.

Penalties are calculated at the rate of three times the value of the deficiency. No credit is allowed for overages in other plant foods. Within 90 days of notice, it is the duty of the manufacturer to make settlement of the full amount of the penalty to the consumer. Evidence of payment must be filed with this office.

Small package fertilizer, which may be in the hands of dealers selling to the home garden trade, is ordered off-sale when found deficient. It would be impossible to determine the consumers in this case.

During the biennium, 83 lots were examined. Out of this number, 17 were found to be deficient in one or more of the primary plant foods. Total penalties assessed due to failures to meet guaranteed analyses amounted to $3,209.54. One registrant made no attempt to pay the penalty so they were advised not to make any further shipment into Nevada until their obligation was met. Three products were found being sold without registration. One was subsequently registered.

NURSERY LICENSING AND INSPECTION

Following a 3.3% decrease in the number of nursery licenses issued in the fiscal year 71-72, there has been an 11.5 and 12.5% increase in the ensuing fiscal periods. There has been approximately a 20% increase in the number of registered places of business licenses which presumably are additional nursery businesses. In fiscal year 72-73, there was an 18.5% increase in the number of outlet licenses issued, possibly indicating additional outlets for chainstore businesses or perhaps an additional chainstore with several outlets opening in this state.

Four types of licenses may be issued: Registered Place of Business, annual fee $25.00; Outlet $10.00 for each; Peddler $25.00 annual fee plus an additional $25.00; and Exempt.

Licenses issued are as follows:

	1970-71	1971-72	1972-73	1973-74
Registered Place of Business	99	95	101	121
Outlet	72	70	83	89
Peddler	6	6	7	5
Exempt	0	0	0	0
TOTAL	177	171	191	215

PEST CONTROL OPERATOR LICENSING AND INSPECTION

With the amendment of the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) in 1972 by the 92nd Congress, the Division entered a new era in the regulation of pesticide applications. Selected pesticides are now being classified for "restricted use," and the private applicator, along with the commercial applicator, must now be able to meet strict standards in order to be certified to apply "restricted use" pesticides.

The Division has until October, 1975 to submit to the Environmental Protection Agency (EPA) a State plan for the certification of applicators, and until October, 1976 to have this plan in effect. To aid in fulfilling this responsibility, the Division hired a staff specialist in pesticides and has requested an additional pesticide specialist and a secretary to handle the increasing pesticide administrative duties.

Along with the added responsibility of certifying applicators, the Division has the continued responsibility of licensing custom (i.e., for hire) pest control firms. In 1973, there were 81 firms licensed to conduct pest control operations in the state. This increased to 84 in 1974 with 71 of the 81 firms licensed in 1973 renewing their licenses and 13 new firms meeting state licensing requirements.

At the end of the biennium, there were 41 aerial operator employees and 175 ground operator employees licensed in the state. The majority of these operator employees were licensed in 1973 but many took exams to add additional categories to their licenses. This, along with new licensees being examined, accounted for 233 exams being given to operator employees in 1973. These decreased to 175 exams given to operator employees in 1974. All new principal operators were required to meet the "two year's experience or six month's experience and 16 college credits" examination requirement enacted by the 1973 legislative session.

The aerial pest control firms treated 656,758 total acres during the biennium which breaks down to the following:

Crop	1973 Acreage Treated	1974 Acreage Treated
Alfalfa Hay	81,607	84,519
Alfalfa Seed	98,914	131,835
Apples	16	---
Barley	3,361	1,650
Corn	556	574
Cotton	2,424	1,830
Ditchbanks	247	50
Forests	---	11
Garlic	15	15
Grain	8,463	4,149
Mint	145	---
Mosquito Control	91,689	107,416
Oats	57	---
Onions	683	788
Pasture	1,554	1,679
Peas	---	500
Potatoes	6,825	15,573
Rangeland	17,435	28,958
Timothy	---	23
Wheat	1,924	13,283
TOTAL	315,915	392,853

PESTICIDE REGISTRATION AND INSPECTION

The Nevada Pesticides Act is a consumer protection law which primarily provides for labeling on pesticides to show the intended uses, directions, warnings, precautions, et cetera. Such products cover a large number of materials and mixtures intended for destroying, controlling or repelling pests such as insects, weeds and other noxious plants, predatory animals and birds, soil-infesting pests such as nematodes, algae, snails and bacteria. Other examples are disinfectants, defoliants, various repellents, moth proofers, wood preservatives other than common paints, mildew control and seed fumigants.

An adequate and readily available supply of many of these products is essential in the economical production of feed and food crops. The preservation of many products in storage and the control of domestic and industrial pests, which affect both health and welfare of human beings and animals, are likewise dependent on such materials.

While the development and distribution of various pesticides to serve these needs are important, provisions must be present to protect the public. Since 1955, it has been the purpose of the Nevada Pesticides Act to protect the public from adulterated, misbranded, worthless and dangerous products. The Act also influences the effects of pesticides on the environment by controlling products as to what may be used and its manner of use. This is controlled through the

requirement that these products must be registered with the State Department of Agriculture before offering them for sale in Nevada. Registration may be refused when labeling presented does not indicate proper usage or lack of other required information.

Acceptable labeling must bear directions for use which, if complied with, are considered adequate for the protection of the public. With few exceptions, the label must show a warning or caution statement designed to prevent injury to man and other vertebrate animals, vegetation or other useful living things. The front or display side of the label should also bear the statement, "Keep Out of Reach of Children."

Pesticide labels must also bear an ingredient statement indicating the name and percentage of each active ingredient together with the percentage of total inert ingredients.

All registrations expire on December 31 of each year and must be renewed annually as long as the product is being sold in the state. Registration fee is at the rate of $20.00 each for the first five products and $10.00 each thereafter.

Since the Nevada Pesticides Act became effective, there has been a steady increase of registered brands. During the 1972-74 biennial period, 5,461 brands were registered. This is an increase of 11% over the previous biennium. Of the total brands registered, 1,170 were new products never before registered for sale in Nevada. This is better than a 50% increase of new products.

Among other requirements, the Act authorizes inspections and analyses of official samples taken from products offered for sale within the state. A statewide inspection service is maintained for the collection of official samples from farms, ranches, other users and dealers. Individual requests for inspection are followed up promptly.

Samples are sent to the department's chemistry laboratory for analyses and as soon as the work is completed, individual reports are forwarded to manufacturers, dealers and users. If the analysis shows the material to be below guarantee, the entire lot represented by the sample may be ordered off-sale. Total official samples examined during the biennium were 34. Two of these samples were found to be below guaranteed analyses.

In addition to the official samples, 16 informational samples were tested by the laboratory for departmental staff members in connection with their various official duties.

The laboratory has had a gas chromatograph with an electron capture detector. This instrument was used several years back in residue studies in connection with alfalfa production. Since these studies were completed, there was no longer any use for the instrument.

During the biennium, money was appropriated so that we could have it modified for use in formulation analyses. Due to complexities in pesticide analyses, this instrument will complement other laboratory equipment and help us make more accurate determinations.

PETROLEUM PRODUCT ADVERTISING

Gas wars during the first year of the biennium required considerable expenditure of manpower in policing the petroleum product advertising law, which requires that signs displaying the price at which a petroleum product is sold must bear certain essential information, including the brand or trade name of the gasoline or motor vehicle fuel being offered for sale. The law further requires that all letters, figures or numerals used in designating the brand be of uniform size and at least six inches in height, and the height shall not be more than twice the dimension of the width of each such letter, or figure, or numeral. And, further, that all letters or figures indicated as showing the price shall be not more than twice the size of the letters designating the brand name.

The manpower expenditure in placing this activity was directed toward voluntary compliance, however, repeated violations by the same individual is a major problem. With the heavy workload of District Attorneys in handling other criminal complaints, there is a reluctance to expend the time and effort in prosecution of a violation of this section of the law. Other means of administrative disciplinary action, such as an administrative fine, warrants consideration.

PETROLEUM PRODUCT INSPECTION

Through the enforcement of the Nevada Petroleum Products Inspection Act, the public is provided a reasonable assurance that petroleum products sold in Nevada conform to quality standards and labeling requirements designated for each specific petroleum product. Products covered by this Act include gasolines, diesel fuels, heating oils and motor oils.

A statewide inspection service is maintained for checking labeling and for collection of official samples of the various petroleum products being sold in the state. Individual requests for inspection service are followed up as promptly as possible.

Samples are sent to the state petroleum laboratory for testing to determine quality and labeling compliance with state law and product specifications. Petroleum products are subjected to numerous quality tests.

Violations are generally in the following areas: gasoline contaminated with heating fuel or diesel, motor oil labeled with wrong SAE number and heating fuel or diesel contaminated with gasoline. The latter is the most dangerous because of the possibility of a furnace exploding or costly damage to a diesel engine.

The following is a summary of laboratory test results:

Samples	Samples Tested	Passed	Violative
Diesel Fuel	116	101	15
Gasoline	504	499	5
Heating Oil	86	73	13
Motor Oil	94	83	11
TOTAL	800	756	44

Violative Findings of Laboratory Tests

	No.	Violation
Diesel Fuel	10	Low flash
	4	Improper labeling
	1	High ash
Gasoline	4	High distillation end point
	1	Water and sediment
Heating Oil	11	Improper labeling
	1	Low flash
	1	Water and sediment
Motor Oil	10	Wrong SAE number
	1	Not labeled with SAE number

In addition to the official samples, 44 unofficial samples were sent to the laboratory for testing. These were submitted by various federal, state or county agencies for clarification of problems incurred. This also includes samples tested on a fee basis. A limited number of samples are accepted on a fee basis since commercial laboratory facilities are not available in northern Nevada.

PLANT PATHOLOGY

Unlike the previous biennium when there was an increase of 10% in the number of specimens examined, there was no increase in this biennium. There was a shifting of numbers with an increase in the number of fruit tree specimens submitted with an overall decrease in ornamental numbers. The increase in the former was of fruit trees in home yards of Las Vegas. The continued growth of the potato industry and potato growing in the Humboldt County area is again reflected in a 63% increase in the number of potato samples submitted.

Total number of plants examined is greater than the 132 listed, as the samples submitted may be a single plant specimen or consist of as many as 20 or 30 plants picked up in a field

inspection.

Specimens submitted for determinations were as follows:

Forest and range		3
Fruit trees		25
Grain		2
Ornamentals		54
Home	(47)	
Nursery	(7)	
Potatoes		18
Non-seed	(15)	
Seed	(3)	
Turf		11
Other		19
Soil: Nematodes	(4)	
TOTAL		132

PLANT QUARANTINE

Exterior plant pest quarantines enforced by the Division are:

The Colorado Beetle Quarantine
European Corn Borer Quarantine
Cotton Boll Weevil Complex Quarantine
European Pine Shoot Moth Quarantine
Elm Tree Disease Quarantine
Mint Diseases Quarantine
Sugar Beet Nematode Quarantine

These quarantine measures require that certain items of host materials must meet specified conditions of treatment or come from certain areas in the United States not under quarantine before being admitted into the state of Nevada. They are designed to prevent the introduction into the state of serious plant pests that could cause severe economic hardship to the agricultural and urban areas should infestations of the pest be introduced into the state.

The interior quarantine on Pink Boll Worm, which is a companion to the federal quarantine against the cotton producing areas in the state of Nevada due to the presence of the Pink Boll Worm, was continued. With the dropping of cotton as a commercial crop in the Moapa Valley area of Clark County, the department, with the University of Nevada and the Plant Protection Division and Agricultural Research Service, U.S.D.A., conducted basic research work on the Pink Boll Worm in this valley.

Information gained from these research activities will be helpful in determining the effectiveness of biological and sterile moth techniques in other areas of the United States. The Pink Boll Worm populations in the Pahrump Valley of Nevada have not developed economic

populations. The plowdown of cotton stubble and irrigation practices associated therewith, together with the winter temperatures present in the valley, have greatly aided in holding down the development of serious infestations. No chemical treatments have been applied for the control of Pink Boll Worm in the Pahrump Valley cotton fields.

SEED

The monetary value of Nevada seed production has increased greatly in the past two years. Alfalfa seed has accounted for most of the gain with the 1973 crop valued at more than double the 1972 crop. Combined production for the two years exceeded 12 million dollars. Despite a slight decrease from the previous two years, Nevada's total alfalfa seed production has ranked fourth in the nation in both 1972 and 1973.

With the interest in new production areas for grass seed along with anticipated increases in seed potato acreage seed production should continue to become an increasingly important part of Nevada agriculture.

The State Department of Agriculture's seed program consists of three major areas: Seed Inspection, Seed Laboratory and Seed Certification.

SEED INSPECTION

Nevada seed law is oriented toward protection of the consumer through mandatory labeling requirements to prevent misrepresentation of seed quality and to prevent marketing of low quality seed. The law also provides for enforcement to assure that these requirements are met.

Regulatory samples of questionable seed lots moving in trade are taken for analyses to determine compliance with the seed law. Unlabeled seed lots, or those not meeting specifications advertised, are subject to be held or removed from sale until such time as requirements are met. It is the responsibility of the person offering seed for sale to maintain accurate and current labeling information including submitting seed samples to an official testing laboratory to obtain this information.

SEED LABORATORY

The seed laboratory performs the analyses of seed samples to provide required labeling information and other information as requested. Most samples are submitted for three separate tests: purity, germination percentage and noxious weed content. Anyone may submit samples to the laboratory for analyses and fees are charged depending on the kind of seed and tests performed.

SEED CERTIFICATION

The Nevada State Department of Agriculture is designated as the official seed certifying agency for the state. This responsibility

includes determining eligibility of a variety for certification when an application is received assuring a field meets certification standards during the growing season and maintaining records on certified fields from the time of planting until end of production. Final determination of eligibility for certification depends on the results of laboratory analysis of a seed sample after harvest.

Alfalfa seed constitutes the largest portion of certified seed grown within the state. Nearly half of the alfalfa seed grown is under certification with the average certified acreage for the last two years up 20% over the previous biennium.

STANDARDIZATION AND GRADING AGRICULTURAL PRODUCE

Three separate programs are conducted by the Division in this subject area.

SHIPPING POINT INSPECTION

This program is third party inspection of fresh fruits and vegetables to provide certification as to the quality and condition at point of origin in order to aid in orderly marketing of agricultural produce. Inspection is on a request basis by one of the parties financially interested in the commodity and is conducted under a Federal-State cooperative program.

With the beginning of a potato industry in Humboldt County, Nevada, this program has rapidly expanded during the biennium and will continue to expand in the future. It was necessary to hire additional personnel to perform these services at Winnemucca.

	1972-73	1973-74
Potatoes	17,047 Tons	18,936 Tons
Onions	314 Tons	275 Tons
Garlic	0	107 Tons

MARKET INSPECTION

The market inspection program for compliance with minimum quality on fresh fruits, vegetables and nuts being offered for sale at the retail market level was continued on a maintenance basis during the biennium. The maintenance was primarily directed towards the investigation of complaints on produce quality and inspection requests from market management for inspection and certification as to quality and condition of produce received. The latter phase of this work is helpful to the market outlet in determining adjustments with the supplier for produce received that fails to meet condition factors.

SHELL EGG INSPECTION

This phase of standardization inspection is both regulatory and service. Under Nevada's law, shell eggs being offered for sale must be labeled and graded in accordance with Nevada's Shell Egg Standards. Inspections are made primarily directed at the retail level for compliance. Upon request by the packers or producers, inspections are made and certificates are issued as to grade quality for purposes of orderly marketing. The retail inspection program is designed for surveillance and quality of eggs being sold at the retail level. I am happy to report that during this biennium, compliance with Nevada's Shell Egg Standards was very good, with only a few individual lots of eggs being found out of grade. The primary cause for rejection continues to be excessive checked eggs due to damage in transit shipment related to rough handling.

The department entered into a cooperative agreement with the Agricultural Marketing Service, U.S.D.A., to perform inspections for them under the new federal law on shell eggs and egg products. The department is reimbursed the expense of performing these inspections.

WEEDS

The noxious weed control conducted by the department was maintained at the same level as the previous biennium with the exception of an expanded Puncture Vine *(Tribulus terrestris L.)* program. Cooperative agreements with Washoe County, City of Reno and the Washoe County School District made this program possible.

Diffused Knapweed *(Centaurea diffusa)*, Musk Thistle *(Carduus nutans)*, and Yellow Star Thistle *(Centaurea solstitialis L.)* infestations in Washoe County were controlled in cooperation with landowners who have these noxious weeds on their lands.

Start of an eradication program on Austrian Pea Weed *(Spaerophysa salsula)* was started this past biennium in Churchill and Pershing Counties. This project was undertaken because the seed of Austrian Pea Weed is the same size and shape as alfalfa seed. In addition to this, at the present time, it is of a limited distribution in these two counties.

A cooperative agreement with the Nevada State Highway Department is still proving to be advantageous to both departments involved.

During this past biennium, we have also assisted with technical knowledge the landscape section of the Highway Department with weed control in their planted areas of highway rights-of-way.

A total of 25,207 gallons of spray solution was used this past biennium.

Weeds sprayed this past biennium were: Austrian Pea Weed *(Spaerophysa salsula)*, Canada Thistle *(Cirsium arvense)*, Dalmatian Toadflax *(Linaria dalmatica)*, Diffused Knapweed *(Centaurea diffusa)*, Johnson Grass *(Sorghum halepense)*, Leafy Spurge *(Euphorbia esula)*, Musk Thistle *(Carduus nutans)*, Puncture Vine *(Tribulus terrestris L.)*, Russian Thistle *(Centaurea repens L.)*, Scotch Thistle *(Onopordum acanthium)*, Spotted Knapweed *(Centaurea maculosa)*, Whitetop *(Cardaria sp.* and *Lepidium latifolium L.)* and Yellow Star Thistle *(Centaurea solstitialis L.)*.

Continued surveys made while personnel are traveling throughout the state have turned up new infestations of Spotted Knapweed *(Centaurea maculosa)* and Dalmatian Toadflax *(Linaria dalmatica)*, on Highway 93 north of Pioche in southeastern Nevada.

Leafy Spurge *(Euphorbia esula)*, was reported to this department by a local rancher in Paradise Valley and the Humboldt County Extension Service. The Paradise Valley Weed District is now working on its control.

A new infestation of Black Henbane *(Hyoscyamus niger L.)* was reported in the Gold Creek area of Elko County by the Extension Agent of that county. The only previous infestation was found in 1972, in the Bruffey Canyon area of Elko County by department personnel while working on a grasshopper survey.

There are now five operating weed districts in the northern part of the state. Due to the higher price of chemicals and the inability of distributors to obtain same, it is imperative that these weed districts work together to maintain a continuing program of controlling noxious weeds.

PUBLIC WEIGHMASTERS

Public Weighmasters have continued to play an important role in our economy with the issuance of certified and accurate weights. Consideration is presently being given to the complete revision and updating of our Public Weighmasters Act. This revision will include a proposal for the creation of a category of Private Weighmasters. This category would apply to those parties who have the necessity of issuing a certified weight for a commodity in which they are interested, either as a buyer or seller. Those engaged in third party weighing for a fee will remain known as Public Weighmasters.

Persons desiring to become Public Weighmasters must pay a $15.00 initial licensing fee; file a $1,000 faithful performance bond; use an accurate and approved scale as well as state approved weight certificates. The license is renewable on a calendar year basis for a fee of $10.00.

There were 67 licensed Public Weighmasters at the close of the biennium, an increase of five over the previous biennium.

WEIGHTS AND MEASURES

Since the beginning of civilization, man has found the necessity of using some form of weights and measures almost on a daily basis. As trade became more widely carried on, it became necessary for an arbitrator to be present to insure correct exchanges of these goods and services. Therefore, weights and measures must be considered as a highly important arm of our government service. Today, the weights and measures official remains as the "third man," who can be called upon by either party to a transaction, to establish the amount of merchandise or service in question.

Weights and measures activities in Nevada consist of two major functions of work. The main function has been, and continues to be, the inspection of weighing and measuring devices. Such devices include truck meters, gasoline pumps, store scales, livestock scales, and truck and hopper scales. These devices are checked periodically for accuracy as is spelled out in the National Bureau of Standards Handbook 44, which we have adopted. The second main function is the inspection of commodities that are pre-weighed or measured in the customer's absence and offered for sale. This area of work consists of package inspection of the many pre-packaged items found in the market place; the checking of wood or other bulk products; the investigation of a variety of customer complaints, and public relations work, such as educating buyers and sellers of their rights and responsibilities under the law.

Along with these two major functions of work, gasolines, motor oil, heating oil, diesel fuel and antifreeze products are sampled for quality, quantity and labeling compliance.

It is evident that the role of the weights and measures official is undergoing a change. No longer is this official merely concerned with devices. With today's spiraling costs and more consumer awareness, the official now must spend an increasing amount of his time on complaints and investigations. Only through adequate staffing, funding and training can we hope to serve the economic interests of both the buyer and seller in the market place.

PACKAGING AND LABELING

Added emphasis has been placed on package weight inspection, unit price labeling and the advertising of packaged goods. Pricing per single unit of weight, measure or count on random packages, and the advertising of commodities in package form requiring them to have a declaration of quantity associated with the statement of price, was added to NRS in 1971. These requirements on packages and in advertising enables the consumer to have adequate information to facilitate value comparison prior to purchase. The total time expended on packaging and labeling was increased during this biennium; although an increased number of items were examined, the number of violative packages has declined.

Percentage of Short Weight or Measure Packages found for the following years:

1959 - 62%	1964 - 29%	1968 - 17%	1972 - 24%
1960 - 17%	1965 - 8%	1969 - 30%	1973 - 15%
1961 - 30%	1966 - 35%	1970 - 15%	
1962 - 12%	1967 - 27%	1971 - 22%	

Results of the Package Inspection Program for the biennium are as follows:

Total Lots Sampled	2,798
Total Packages in Lots	123,230
Lots in Violation	507
Packages in Violation	26,217
Percent of Packages in Violation	21%

PETROLEUM PRODUCTS PRICE ADVERTISING

The petroleum products price advertising law prevents unfair competition in the sale of motor vehicle fuels, and protects the consuming public against fraudulent advertising.

With the advent of fuel shortages and high prices, the practice of price advertising was discontinued by many station operators. Whenever the price of a motor vehicle fuel is posted, the sign must include the brand name, the actual price and the product identification. The total price must include applicable taxes.

Corrective action was ordered on a total of 161 price advertising signs during the biennium.

METROLOGY

During the past several years, the Metric System of measurement has been viewed with considerable interest on a local and national level. The Nevada Metrology Laboratory is equipped with both the U. S. Customary and Metric Primary Standards; and as industry gradually begins to convert to metric usage, it will necessitate our acquiring metric field standards, thereby enabling this department to lend guidance and support to local weighing and measuring industries.

The commercial weighing and measuring equipment used in Nevada's commerce are traceable to the National Bureau of Standards, through the Laboratory Auditing Program conducted by N.B.S. This Laboratory Auditing Program monitors the Metrologist, using our instruments and standards, thus providing a continuing control of the measurement process.

A supporting laboratory, presently under construction in Las Vegas,

will offer convenient service to the repair industry in that area of the state for the inspection of their field standards.

WEIGHTS AND MEASURES DEVICES TESTED July 1, 1972 - June 30, 1974

	Total Initially Tested	Initially Tested & Passed	Adjusted and Passed	Out-of Order	Total out-of-Orders Rechecked	Rechecked and Passed	Rechecked Adjusted and Passed	Rechecked and Failed to Pass
Scales--								
Spring	167	154	9	4	7	6		1
Computing	2,420	1,840	322	258	271	211	17	43
Prepackage	254	218	12	24	29	25	1	3
Overhead Track & Beam	212	169	23	20	20	17	1	2
Small capacity	426	344	38	44	29	21	4	4
Large capacity	619	531	45	43	44	30	9	5
Pharmacy	5	5	0	0	0	0	0	0
Balances	220	201	11	8	35	35	0	0
Livestock	748	574	73	101	71	37	26	8
Motor Truck	261	144	59	58	91	42	39	10
Contractor Portable Truck	25	6	16	3	3	1	2	0
Hwy. Construction Hopper	31	18	12	1	1	1	0	0
Hopper	167	79	66	22	34	9	21	4
Railroad	10	7	2	1	0	0	0	0
Loadometers	3	3	0	0	0	0	0	0
Miscellaneous	46	34	8	4	3	3	0	0
Meters--								
Gasoline Pumps	9,065	7,888	290	887	847	748	23	76
Truck Meters	497	326	128	43	36	20	8	8
Split Compartment Tests	234	203	5	26	10	8	0	2
Rack Meters	116	88	21	7	2	1	1	0
Liquid Petroleum Gas	261	154	100	7	21	10	10	1
Compensators	137	97	37	3	15	8	7	0
Oil Meters	8	8	0	0	0	0	0	0
Liquid Measures --								
Tank Compartments	43	24	19	0	0	0	0	0
Milk Tanks	9	6	1	2	1	1	0	0
Linear & Dry Measures	240	227	0	13	4	4	0	0
Miscellaneous Measures	11	9	0	2	0	0	0	0
Commercial Devices Initially Tested	16,235	13,357	1,297	1,581	1,574*	1,238	169	167
Devices Rechecked	1,574							
Grand Total Tested	17,809							

WEIGHTS AND MEASURES DEVICES TESTED July 1, 1972 - June 30, 1974 (Con't.)

	Total Initially Tested	Initially Tested & Passed	Adjusted and Passed	Out-of-Order	Total Out-of-Order Rechecked	Rechecked and Passed	Rechecked Adjusted and Passed	Rechecked & Failed to Pass
Weights - commercial								
Avoirdupois	3,650	3,579	45	26	38	38	0	0
Metric	105	89	16	0	0	0	0	0
Apothecary	91	91	0	0	0	0	0	0
Trade Standards								
Measures	48	18	26	4	0	0	0	0
Weights	186	177	5	4	24	1	23	0
Scales	3	3	0	0	0	0	0	0
State Standards								
Measures	93	93	0	0	69	69	0	0
Weights	1,210	1,155	12	43	160	124	36	0
Scales	19	19	0	0	25	24	1	0
Total Initially Tested	5,405	5,224	104	77	316*	256	60	0
Total Rechecked	316							
Grand Total	5,721							

* Total Out-of-Order Rechecks also include devices rechecked upon complaint or suspect of being in error.

Devices initially tested and passed are sealed. Minor adjustments are made in instances where this will correct errors and equipment is then sealed. Non-complying equipment is marked "Out-of-Order" and required to be repaired. A recheck test is made after a notification has been received that the out-of-order devices have been corrected.