

The order in which the fertilizing elements should appear on the label is nitrogen, available phosphoric acid, and potash. In mixed fertilizers the figures representing the analysis of these three ingredients should appear as a part of the fertilizer name, and in the same order as stated as "XYZ Fertilizer" (4-10-4),—meaning that the fertilizer contains 4 per cent of nitrogen, 10 per cent of available phosphoric acid, and 4 per cent of potash.

NOTICE OF SHIPMENT REQUIRED

A provision of the New Mexico Fertilizer Law requires that each manufacturer, importer, jobber, firm, association, corporation, or person notify the Feed & Fertilizer Control Office, State College, New Mexico, within 24 hours after making any shipment of fertilizer, as to the date, amount, consignee and destination of each shipment into or within the state. This report may be made by a copy of the invoice, or on forms furnished by this office, or any other way convenient to the manufacturer or party making the shipment.

NEW MEXICO COMMERCIAL FERTILIZER LAW AMENDED IN 1953

Effective July 1, 1953, the use of inspection tax tags and tax stamps to show payment of inspection fees was eliminated and in lieu thereof a quarterly tonnage reporting basis was provided.

INSPECTION FEES

Commercial fertilizers sold, offered or exposed for sale or distributed in New Mexico are subject to an inspection fee of 25 cents per ton. Payment of this fee is to be made quarterly in January, April, July and October for the preceding three months along with a certified statement as to fertilizer sales for that period. "If any quarterly affidavit is not filed or if the inspection fee is not paid within the thirty day period, a penalty of \$5.00 per day for each delinquent day thereafter shall be assessed for each delinquency."

PAYMENT OF INSPECTION FEE ON SMALL PACKAGES

"For each brand of commercial fertilizer sold, offered or exposed for sale, or distributed in New Mexico in packages of only five pounds or less or in bottles of only one quart or less there may be paid by the person, firm, association or corporation registering the brand an annual inspection fee of \$10.00 in lieu of the inspection fee based on tonnage, such annual fee to be paid during the month of July of each year.

EXPLANATION OF TERMS

Nitrogen, phosphoric acid, and potash are the principal constituents found either singly or combined in commercial fertilizers. Many consumers are not familiar with their function, so that a brief summary of their effects is given.

NITROGEN: Nitrogen is that constituent of fertilizers which promotes the growth of stems and leaves, while retarding the development of the fruit, thereby producing luxuriant growth in the plant prior to bloom. It also has the effect of increasing the content of nitrogen in parts of the plant and producing a deep green color in the foliage. Nitrogen deficiency is indicated by early shedding of leaves and light-weight or shriveled grains of cereals, while excessive amounts are known to adversely affect the color, flavor and keeping properties of some fruit and vegetables.

PHOSPORIC ACID: Phosphoric acid produces two important effects which are well understood. It hastens the maturity of a plant by affecting the setting and filling of the grain. It also tends to produce a strong root development. It therefore neutralizes to some extent the effect of liberal amounts of nitrogen.

Total phosphoric acid is the entire quantity of the phosphoric acid present, whether available or not to plant growth. Available phosphoric acid is the phosphoric acid in fertilizers which can be utilized readily by plants.

POTASH: Potash is essential for successful growing of crops which are rich in sugar and starch. The cellulose or woody portion is also built up from soluble starches or sugars. Thus the stem as well as the root of the structure depends on a supply of this element for their proper development. Potash is believed to help the disease resistance of plants and to improve the flavor, quality, and keeping strength of their fruits.

JUDGING THE VALUE OF FERTILIZERS

The utility of a fertilizer can generally be judged from the amounts of three constituents guaranteed—nitrogen, available phosphoric acid, and potash. Some soils may require the application of definite quantities per acre of each of three constituents while others may require the application of only one or two of the plant foods named. Purchasers of commercial fertilizers are advised to study their soil requirements and determine in advance of purchase the kind of fertilizer needed. Advice and assistance in such cases can always be obtained from your County Extension Agent, Agricultural Experiment Station, or Extension Service. While it is against the policy of the Feed and Fertilizer Control Office to make any recommendations regarding the kinds, amounts to use, and values of commercial fertilizers, it is always ready to assist purchasers and users of fertilizers by answering questions regarding the guarantees and analysis of the different brands and by securing and analyzing samples which are suspected of being below guarantee made by manufacturers.

COMMERCIAL ANALYSIS OF FERTILIZERS

The Feed and Fertilizer laboratory in connection with this office is in position to make commercial analysis of fertilizers sent in. The charge made for analyzing a fertilizer, the analysis of which can only benefit an individual or firm will be as follows:

Nitrogen	\$1.50
Phosphorus	
Total P ₂ O ₅	\$4.00
Available P ₂ O ₅	\$5.00
Potash (Water Soluble)	\$5.00

Method of sampling as provided for in the law is as follows:

"In sampling commercial fertilizers packed in packages of twenty-five (25) pounds or less, an original unbroken package may be taken as the official sample and the ordinary retail price tendered therefor. When the fertilizer is in packages over twenty-five (25) pounds in weight, portions for the official sample shall be taken from at least ten packages if that many are in the lot. In sampling fertilizer in bulk, not less than ten portions shall be drawn, and these shall be from various parts so as to represent fairly the whole."

proper amount of tonnage tax tags (or tax stamps) must accompany or be affixed to each lot of feeds shipped in bulk.

Inspection tax tags and stamps are issued as follows:

TAX TAGS

Good for not more than 25 pounds,	1000 for \$1.50
Good for not more than 50 pounds,	500 for \$3.00
Good for not more than 80 pounds,	1000 for \$4.80
Good for not more than 100 pounds,	1000 for \$6.00
No. 8 size tag with Patch, 100 lb.	1000 for \$6.00
No. 4 size tag Without Patch, 100 lb.,	1000 for \$6.00
No. 4 size tag Without Patch, 80 lb.,	1000 for \$4.80
No. 4 size tag Without Patch, 50 lb.,	1000 for \$3.00

GUMMED TAX STAMPS

Good for not more than 8 1/3 pounds,	1000 for \$.50
Good for not more than 10 pounds,	1000 for \$.60
Good for not more than 25 pounds,	1000 for \$1.50
Good for not more than 50 pounds,	1000 for \$3.00
Good for not more than 80 pounds,	1000 for \$4.80
Good for not more than 100 pounds,	1000 for \$6.00

GUMMED TAX STAMPS FOR BULK FEED

500 lb. Denomination Tax Stamp,	100 for \$ 3.00
2,000 lb. Denomination Tax Stamp,	100 for \$ 12.00
10,000 lb. Denomination Tax Stamp,	100 for \$ 60.00
20,000 lb. Denomination Tax Stamp,	100 for \$120.00

Order blanks for inspection tax tags and tax stamps will be furnished on request by the Feed & Fertilizer Control Office, State College, New Mexico.

Option B—Quarterly Tonnage Reporting Permits

If this procedure is preferred, you should make application to the Feed & Fertilizer Control Office for the issuance of a permit. In addition to all other provisions of the New Mexico Commercial Feeding Stuffs Law, each firm or person who is issued a permit to sell, offer, or expose for sale, or distribute commercial feeding stuffs and pay the inspection fee in accordance with the quarterly tonnage reporting system shall:

1. Maintain and furnish such records as may be required to reflect accurately the total tonnage of all feed sold, offered for sale, or otherwise distributed in New Mexico.

2. The Board of Regents or their duly authorized representative shall have permission to examine the records of the permittee at all reasonable times.

3. File in the Feed & Fertilizer Control Office, State College, New Mexico, within thirty (30) days after the close of each quarter ending with the last day of March, June, September, and December, sworn reports covering the tonnage of all feed sold for use or consumption in the State of New Mexico during the preceding quarter together with the payment of inspection fees due for such quarter.

4. When located outside of the state of New Mexico and when selling, offering for sale, or distributing commercial feed in New Mexico (a) maintain or make available on request in the state of New Mexico records and other information to substantiate the correctness of the total tonnage distributed in the state, or (b) pay all the costs incurred in the auditing of records at a location outside the state.

5. Each applicant for the issuance of a permit must deposit with the Feed & Fertilizer Control Office a Surety Bond payable to the State of New Mexico in the amount of one thousand dollars (\$1,000.00), executed by a Corporate Surety Company authorized to do business in New Mexico, conditioned upon the faithful performance of the provisions of the New Mexico Commercial Feeding Stuffs Law and Regulations Under the Law.

FEED ANALYSIS

1. Feed Analysis:

Analyses of official samples are made without charge. Reports of analysis of official samples are made to manufacturer, dealer, and to all parties interested.

2. Commercial Analyses:

The Feed & Fertilizer Control Office has no funds for free analysis of other than official samples. Samples sent in for analysis by firms or individuals, the analysis of which can benefit only that individual or firm, will be considered as commercial samples.

3. Samples for commercial analyses should be sent directly to Office of State Chemist, New Mexico Department of Agriculture, State College, New Mexico.

4. The State Chemists' charges for commercial analyses are:

Crude Protein	\$1.50
Crude Fat	2.00
Crude Fiber	3.50
Crude Ash	1.00
Moisture	1.00
Calcium (As Ca)	3.00
Phosphorus (As P)	4.00
Complete feed analysis	7.50

ADMINISTRATIVE DIVISION

Dallas Rierson, Director

This third biennial report of the State Department of Agriculture of New Mexico State University is prepared for the information of the Governor, the legislature, and the people of New Mexico. It reports the functions of the department for the period July 1, 1960 through June 30, 1962. The report reflects a demand for services and regulatory activities which modern agriculture and the industrial economy of New Mexico have placed upon the department.

In 1962, New Mexico celebrated 50 years of statehood, but agriculture dates back many centuries before that. When Coronado visited the region more than 400 years ago, he found farmers and irrigation in many of the valleys that are highly productive today. Coronado, as well as our forefathers of only 50 years ago, would be surprised if they could see our modern farms and equipment. Also, the high quality food and fiber that is made available to the consumers of New Mexico, our nation, and foreign countries. Agriculture, as we know it today, is a complex operation including producers, processors, transportation companies, suppliers, marketing personnel, and facilities. The New Mexico Department of Agriculture works with all of these many branches of the industry to help the farmer produce and supply to the consumer the best and most economically abundant food and fiber supply in the world.

The Board of Regents of New Mexico State University is the administrative branch of the state government responsible for administering the department's laws and regulations which daily affect the lives of every citizen of this state. These laws and regulations concerning production, preparation, processing, sale, and use of agricultural commodities are designed to assist producers, processors, and consumers. In carrying out its responsibilities, the department works closely with other state and federal agencies.

It is hoped that this resume of activities of the department for the past two years, will assist those who have an interest in New Mexico's most important industry — agriculture.

DIVISION OF INSPECTION

FEED, FERTILIZER, PESTICIDES, and SEED

R. W. Ludwick, Chief

The Division of Inspection enforces laws relating to the manufacture, sale, distribution, registration, labeling, and use of commercial feeds, commercial fertilizers, agricultural and vegetable seeds, and economic poisons.

Samples of these products are taken by inspectors stationed over the state. All samples are taken by prescribed procedure, sealed, and sent to the State Chemist for analyses and examination. Results of these analyses are made available to the manufacturer, dealer, and consumer (if the sample is in his possession). Seed samples are sent to the State Seed Laboratory for examination and analyses.

Trips made by inspectors are planned to cover, with a minimum of expense, areas where these products are manufactured, sold, and used. Complaints are promptly and thoroughly investigated.

Most violations of the laws are handled by informing responsible persons of the law's requirements. Some circumstances warrant more formal action, such

as delivery of written warning notices, "Stop sale orders" or, where necessary to secure compliance, by filing a criminal complaint.

The Division of Inspection has the cooperation and assistance of various agencies of the United States Department of Agriculture and the United States Food and Drug Administration. Federal action in any case does not prevent action also under the respective laws of New Mexico.

The following pages summarize the activities of each branch of this division during the period covered by this biennial report.

FEED CONTROL OFFICE. The New Mexico Commercial Feed Law is primarily a correct labeling act. All commercial feeds offered for sale in New Mexico must be labeled and registered with the Feed Control Office. A label facsimile is submitted with each application for registration for approval by the administrative officer. These labels are checked closely to see that no harmful materials are used and that the required information is given thereon. Applications bearing misleading information or not meeting the requirements of the law in any way are not registered until they have been corrected.

The Feed Control Office publishes an annual report each year which contains the results of the analyses of all official samples taken during the year. A list of feed registrants, explanation of the law, financial statement, and other important information are also placed in the annual report. This report is available to anyone who requests a copy.

The Commercial Feed Law makes the dealer directly responsible if feed in his possession fails to meet requirements of the law. The same penalty applies for exposing or offering for sale any unlabeled feeds or feeds not having the New Mexico inspection fee paid thereon. The dealer should always voluntarily withdraw from sale all feeds which he knows or suspects of being legally unsalable. Then he should write the Feed Control Office, giving details concerning the transaction and product.

The New Mexico Commercial Feed Law of 1961 provides for annual registrations of feed stuffs instead of permanent registration. Annually the office will be able to eliminate registrations by manufacturers who are no longer selling feed in the state. This new law also abandoned the tax tag and tax stamp method of paying inspection fees. All fees are now paid on a quarterly reporting basis, thereby facilitating interstate transportation of feed stuffs by the manufacturers, and relieving the Feed Control Office of the expense of providing such tags and stamps. Feed manufacturers and dealers welcome the new method as a major improvement.

Foods for pets were also included in the 1961 law, this creating a new responsibility for the Feed Control Office.

Inspectors have visited all feed manufacturers, dealers, super-markets and many farms and ranches to examine various commodities. Whenever a mislabeled or unlabeled feed was found, it was reported to the administrative officer for further action. Many samples were drawn from many lots of feed. These samples were taken according to prescribed procedure, sealed, and sent to the State Chemist for examination and analyses. After the samples were analyzed, the results were sent to the manufacturer, dealer, and consumer, if the sample was from a lot of feed in his possession.

Inspectors secured feed samples for analyses as follows:

ADMINISTRATIVE DIVISION

Director, Dallas Rierson

This biennial report is prepared for the information of the Governor, the Legislature, and the people of New Mexico. It is a report of the functions of the State Department of Agriculture of the New Mexico College of Agriculture and Mechanic Arts for the period of July 1, 1956, through June 30, 1958. The report reflects the demand for services and regulatory activities which the expanded agricultural and industrial economy of New Mexico places on this department. Changes in agricultural products, methods, and newly-developed processing, marketing and distribution techniques have added to the complexity of the work of the department. Those engaged in agriculture and related industries realize that expanded population and mechanization of agriculture and industry, which have made operating units fewer in number and larger in size, are effecting a revolution in agricultural life in our state and nation.

The Board of Regents of the New Mexico College of Agriculture and Mechanic Arts is the administrative branch of the state government responsible for the administration of laws and regulations which daily affect the lives of every citizen of New Mexico. These laws and regulations, which relate to production, preparation, processing, sale and use of agricultural commodities are designed to assist producers, processors, and consumers. The department has maintained a close working relationship with other state agricultural agencies, and this relationship extends to other state departments of agriculture as well as the U. S. Department of Agriculture.

It is hoped that this resume of activities for the past two years will be of assistance to those who have a sincere interest in this most important industry in New Mexico.

DIVISION OF PLANT INDUSTRY

Chief of Division, Dallas Rierson

Inspector, Donald D. Lucht

The Division of Plant Industry administers several of the laws governing primarily disease and insect control of various commodities and activities within the state. Included in these Acts are the Nursery Inspection Act, the Bee Law, the Cotton Gin Law (a bonding and licensing law), the Insect Pest and Plant Disease Act, and cooperative work with the U. S. Department of Agriculture in insect and plant disease control programs. (The insect survey and various related subjects will be covered in more detail later in this report.) Many of these activities are so related that they are best handled as one program for economy and beneficial use of the state. Therefore, they are organized as one division for administrative purposes.

Chart I gives a statistical outline of the work carried on in the various fields during the past two years. As many states have quarantines against specific insects and plant diseases, the State Department of Agriculture has the responsibility of ascertaining, through surveys, whether certain insects and plant diseases exist in New Mexico, and if they do not, to certify that these commodities originated where the plant disease or insect is not known to exist. If insects and plant diseases are known to exist in New Mexico, the Department has the responsibility of supervising the treatment of products so that they may move into the state specified. This function takes a great deal of time of the division, but certainly it is a vital function in helping to market New Mexico's agricultural products. For example, each shipment of grain sorghums or broomcorn to Arizona or California must have a "Certificate of Origin." During the past biennium, 3,560 such certificates were issued by this division for commodities moving into these two states.

COTTON GIN LAW

The Cotton Gin Law was revised during the 1957 session of the State Legislature. Its primary requirements are that all gins must be licensed and bonded to operate in the state. This law protects the producer by requiring that he keep adequate records of the produce he brings to the ginner and that the ginner shall assume certain liabilities after the cotton has been delivered to him. It also specifies that each bale must be properly labeled as to name, number and address of the gin. A bond is required to assure that this is done or can be drawn on by the producer if the ginner does not carry out the requirements of the Act. Fifty-nine gins were licensed and bonded in New Mexico in the 1956-57 ginning season.

NEW MEXICO NURSERY ACT

The New Mexico Nursery Act provides for the annual inspection of nurseries and nursery stock grown, sold, or offered for sale in the state. It provides for the licensing of nurseries in the state and for licensing of nurseries in other states desiring to sell nursery stock in New Mexico. The law covers agents or representatives selling, offering for sale, or soliciting orders for nursery stock in the state. For the purpose of this Act, nursery stock "... shall include all field-grown florist stock, fruit, shade or ornamental trees, shrubs, vines, cuttings, grafts, scions, buds, fruit pits and other seeds of fruits and ornamental trees or shrubs, herbaceous plants, bulbs and roots and other products for propagation, except field vegetable and flower seeds, and shall include such ornamental trees, shrubs, plants, flowers, cuttings, bulbs or roots grown in greenhouses or under glass." The primary purpose of the Nursery Act is to prevent the introduction and spread of plant diseases and insects by nursery stock and to assure the consumer that he is buying "clean" nursery stock. In carrying out this Act, the State Department of Agriculture made 1,187 nursery inspections during the biennium, and 874 inspections of consignments shipped into the state. Port-of-entry inspections of nursery stock were also made, and licenses and permit certificates were issued.

NEW MEXICO BEE LAW

The New Mexico Bee Law was amended in the 1957 session of the State Legislature. This Act is designed to control contagious diseases of bees and to prevent the spread of disease in bees and the introduction of diseased bees from other states. The amendment of 1957 gave the owner an opportunity to clean up any disease found in his colonies. This legal change was brought about by the many new drugs that have shown promise in curing certain bee diseases. If the owner of a diseased colony wishes to isolate it and take proper care in seeing that it cannot infect other colonies of bees, he may try to cure this disease with approved drugs. Prior to this change in the law, all diseased bees had to be destroyed. Another change in the law did away with the tax stamp that had been required of each retail container of honey sold in the state. At present, the law requires a quarterly report to be made by all packagers of honey for retail sale in the state and a 1/4-cent per pound tax to be paid on a quarterly basis. During the biennium, 11,447 colonies were inspected, and of these, 551 diseased colonies were found. Fifteen colonies were destroyed.

INSECT PEST AND PLANT DISEASE ACT

This act gives the Board of Regents of the New Mexico College of Agriculture and Mechanic Arts the authority to promulgate quarantines, rules, and regulations concerning shipment of products into the state or within the state that may harbor insects or plant diseases. Most of the work under the Insect Pest and Plant Disease Act has been concerned with five principal quarantines. Two of the quarantines affect the Khapra beetle—one relating to interstate shipments and the other to intrastate shipments of commodities that might be infested with the Khapra beetle. Another quarantine prevents the introduction