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Analyses of Registered Feeding-stuffs.*

THE Kansas law regulating the sale of concentrated feeding-stuffs, published as chapter 407 of the Laws of 1907, was printed in full in Bulletin No. 146. The law went into effect July 1, 1907. Many of the manufacturers concerned had not heard of the law and much correspondence for some months was necessary to acquaint them with its requirements and to secure registration of the feeding-stuffs sold by them. In view of the lack of knowledge concerning the law it seemed fairest not to begin at once a campaign of inspection, which would have amounted to little more than one of information. The chemical analyses of registered feeds made necessary in order to enable manufacturers to make a safe guaranty taxed the force of the department to such a degree that men could not have been spared well for inspection duties, hence inspection work was postponed until the latter part of the fall.

It developed early that in some quarters there had been a misunderstanding in respect to the scope and application of the law, although such a misunderstanding did not exist with

* In addition to those formally designated as assistants, several others have taken part in the analysis of feeding-stuffs. Among them are John W. Calvin, Adah Lewis, R. C. Thompson and H. C. McLean.

members of the legislative committees of the senate and the house and the representatives of the milling interests present at the state capital when the law was under consideration. By these it was well recognized that the law was to apply to all ground feeds, including bran, shorts and corn chop. Indeed, much of the complaint showing the need of such a law had been with reference to those very feeds. Corn bran produced in the manufacture of corn-meal had been freely mixed with corn chop or wheat bran. Coarse screenings and other refuse obtained in preparing wheat for the rolls was worked off in the bran, and shorts often contained the dirt and other waste materials of a finer texture.

The opposition to the application of the law to these common mill feeds developed sufficient force, however, so that when the legislature was summoned in special session a bill was introduced designed to express the wishes of those who desired to exempt these feeds from its application. The director and the chemist of the Experiment Station, in conference with Representative Ham and others, cooperated in formulating amendments conceding the main point at issue, but providing that if these feeds and others made by grinding a single kind of grain be mixed with each other or other substances they shall come under full action of the law; and provision was also made for the inspection of all feeds on the market with reference to their purity, and also as to the correspondence of the actual net weight of packages with the weight as represented by the seller.

The original law had sought to levy an inspection tax of twenty-five cents per ton upon all concentrated feeding-stuffs in the state of Kansas. Being advised that such a provision was discriminatory and an interference with interstate commerce, and hence in all probability non-enforceable, the Station authorities early ceased all effort to collect that inspection tax. The special session gave an opportunity to correct this defect in the law and this was done. The inspection tax is, however, not collectible on all concentrated feeding-stuffs, but only on certain kinds named in the law. A tax to the extent of twenty-five cents per ton, to be paid by the purchase of tags, was provided for all such feeds sold or held for sale within the state of Kansas.

The law specifically provided that condimental feeds should

conform to its requirements and that condimental or medicinal stock foods should pay a registration fee of fifty dollars for each brand selling for more than forty dollars per ton. This requirement naturally aroused the opposition of the manufacturers of this class of goods and they made strenuous efforts to evade the law, and the International Stock Food Company attempted by proceedings in the United States circuit court to secure a decision against the constitutionality of the entire law. The court decision, however, sustained the law in respect to the points at issue. The manufacturers of this class of substances have in some cases, by changing the names of their preparations, attempted to strengthen their cases in their opposition to conforming to the law. The Experiment Station authorities therefore took advantage of the opportunity afforded by the special session to have the law amended so as to include these substances under the various names by which they are designated.

In connection with this requirement for registration of condimental feeds it early became necessary to formulate a distinct idea in reference to them. The principle adopted was that articles other than ordinary feeds would be included in this category if they were advertised, sold or held for sale for the purpose of bringing about with animals any of the effects that are recognized as due to nutrition, such as increased growth, milk-production, egg-production, etc. It is true that purely medicinal substances by the correction of diseased conditions may indirectly produce such results. The class of substances under consideration are, however, further distinguished from medicines in that they are recommended for administration to animals in the ordinary condition of health, and usually daily or at regular intervals. Their use as advertised and recommended is not restricted or even adapted to the cure of disease, and since disease presents itself in so many forms it is obviously not in accordance with good judgment to use such preparations as medicines.

We have therefore required the registration fee to be paid upon all preparations for which the claims indicated are made, and will continue to require such payment regardless of the name under which the preparation is offered, and will not require the payment of the registration fee unless such claims are made. The following is given as a definition of such ar-

ticles coming under the law: Condimental or medicinal stock foods and condimental feeds are held to be articles containing condimental or medicinal substances, or both condimental and medicinal substances, the product being recommended and sold for use with ordinary feeds of animals in the usual condition of health with the object of increasing the production of milk or eggs or increasing the growth or rate of fattening of animals, or of otherwise contributing to the nutrition of animals.

By registering these preparations under the circumstances detailed above, it must be distinctly understood that we in no way concede the truth of the claims made for them. Concerning their individual merits or the general advisability of using such articles we do not in this connection express any opinion.

As the changes in the law have vitally affected its scope it is printed herewith, introducing the amendments and amended sections as passed at the special session of 1908. It is as follows :

“AN Act regulating the sale of concentrated feeding-stuffs, forbidding their adulteration, providing for their inspection and analysis, providing penalties for its violation, and repealing all acts or parts of acts in conflict with it.

“Be it enacted by the Legislature of the State of Kansas:

“SECTION 1. For the purposes of this act concentrated feeding-stuffs are declared to be all materials sold, offered for sale or held for sale within the state of Kansas and designed for the nutrition of animals of any species, if such materials have been subjected to any mixing process, or subjected to any process whereby the composition of the original material is altered. Condimental feeds, medicated stock foods, medicinal stock foods, stock food tonics, stock powders, condition powders, conditioners, animal regulators, proprietary feeds, or any preparations of like nature, are hereby expressly designated as coming under the provisions of this act, and all forms of animal life except man are included under the term ‘animal.’ The term ‘brand’ as used in this act is to be taken to mean, first, the name, trade-mark or other designation under which a concentrated feeding-stuff is sold, and, second, the feeding-stuff itself.

“SEC. 2. Every brand of concentrated feeding-stuff offered or held for sale within the state of Kansas shall be registered in the office of the director of the Agricultural Experiment Station of the Kansas State Agricultural College, and each sale of any concentrated feeding-stuff not so registered shall constitute a separate violation of this act. The manufacturer or seller of any concentrated feeding-stuff shall apply to the said director of the Experiment Station for registration and analysis of the feeding-stuff, and in his application for such reg-

istration and analysis he shall submit a statement of the several ingredients used in preparing the concentrated feeding-stuff and the sources from which they were obtained, which information shall be filed for reference, but shall not be disclosed by the said director if none of the ingredients are unwholesome, deleterious or fraudulent. If the feeding-stuff, as described by the manufacturer or seller, is found to consist of wholesome materials, and the name or brand used to designate it is not false or misleading, the said director of the Experiment Station shall register the name, brand or other designation of the concentrated feeding-stuff, its guaranteed composition in the terms stated in this section, and the name and address of the manufacturer or seller applying for the registration. Such registration shall be made annually, and the manufacturer or seller shall pay a registration fee of ten dollars for each brand of concentrated feeding-stuff registered; provided, that any manufacturer of condimental or medicinal stock foods shall pay a registration fee of fifty dollars for each brand selling for more than forty dollars per ton.

“SEC. 3. Whenever requested by the said director of the Experiment Station it shall be the duty of the manufacturer or seller who secured registration of a brand of concentrated feeding-stuff to furnish said director a true and complete list of the names and places of business of all dealers in said brand of concentrated feeding-stuff who purchased it of the said manufacturer or seller and reside within the state of Kansas. Failure to furnish such list shall be sufficient ground for revocation of the registration of said concentrated feeding-stuff.

“SEC. 4. Every sack, box, carton or other package of concentrated feeding-stuff offered or held for sale or sold within the state of Kansas shall bear a distinctly printed and conspicuous label in the English language, which shall state the name and address of the manufacturer or seller, the registered name, trade-mark or other designation of the concentrated feeding-stuff, the net weight of the package, and the guaranteed percentage of fat and of protein.

“SEC. 5. An inspection tax shall be collected upon all cottonseed-meal, cottonseed-cake, linseed-oil meal, linseed-oil cake and feeding-stuff by-products of starch factories, glucose factories, cereal breakfast-food factories, breweries and distilleries, meat-packing establishments or slaughtering-houses, that are sold, offered for sale or held for sale within the state of Kansas, which tax shall be at the rate of twenty-five cents per ton, except as hereinafter stated. Every sack, box, carton or other package of the feeding-stuffs named in this section that is sold, offered for sale, held for sale or in the possession of any one within the state of Kansas shall bear at least one tag certifying that the tax aforesaid has been paid on one hundred pounds or a fraction thereof. If any package contains more

than one hundred pounds it shall bear one tag for each one hundred pounds or fraction thereof, and in case the concentrated feeding-stuff is sold in bulk, one tag shall be delivered with each one hundred pounds or fraction thereof. All tags required under the provisions of this section shall be obtained from the aforesaid director of the Experiment Station in lots of four hundred or multiples thereof, and he shall receive from the manufacturer or seller five dollars for each four hundred so furnished. Such tags shall be good until used, but counterfeiting them or using them more than once is prohibited. The tax so collected, together with all registration fees collected, shall be used, so far as may be necessary, in defraying the expenses of inspection and analysis of concentrated feeding-stuffs, as hereinafter provided, and if any residue remains it shall be turned into the general funds of the Experiment Station aforesaid; provided, however, that employees of the state upon salaries shall not receive any additional compensation for making such inspection and analysis.

“SEC. 6. In so far as the revenues provided by this act or otherwise may suffice, it shall be the duty of the chemist of the Experiment Station aforesaid to make, or cause to be made, such inspection and analysis of concentrated feeding-stuffs as in his judgment may be deemed necessary to ascertain whether or not manufacturers and others are complying with all the provisions of this act. Toward this end he or his authorized deputies shall procure annually at least one sample of each brand of concentrated feeding-stuff registered for sale within the state of Kansas, and shall make, or cause to be made, an analysis of the same, according to the methods of the Association of Official Agricultural Chemists, and a certified statement of the results of such analysis shall be *prima facie* evidence in any legal action within the state of Kansas concerning such concentrated feeding-stuff; provided, however, that employees of the state upon salaries shall not receive any additional compensation for making such inspection or analysis.

“SEC. 7. In sampling concentrated feeding-stuffs in lots of ten or less packages, portions shall be taken from each package; in lots of more than ten packages and not more than five tons, samples shall be taken from not less than ten packages and from not less than ten per cent. of the packages. In lots of over five tons portions shall be taken from not less than twenty packages. In sampling concentrated feeding-stuffs in bulk, not less than ten portions shall be drawn, and these from various parts, so as to represent fairly the whole. The portions drawn shall be carefully mixed and from the mixture two samples of about two pounds each reserved and placed in sealed bottles or jars, and accurately labeled. One of these samples shall be delivered to the owner of the concentrated feeding-stuff, or his representative, the other taken for the use of the chemist of the Experiment Station. Sampling shall

be during ordinary business hours, and the owner of the concentrated feeding-stuff, or his representative, may be present, but any refusal by such owner or his representative to permit sampling shall be taken as sufficient evidence of violation of this law by him.

"SEC. 8. Any manufacturer, seller or holder of concentrated feeding-stuffs who shall fail to comply with all the provisions of this act, or who shall sell, offer for sale or hold for sale any concentrated feeding-stuffs the composition of which is not in accordance with that guaranteed, upon conviction shall be deemed guilty of a misdemeanor and fined not less than fifty dollars nor more than two hundred dollars and costs for the first offense, and not less than one hundred dollars nor more than five hundred dollars and costs for each subsequent offense; provided, that any seller shall be exempt from the penalty for sale of concentrated feeding-stuffs that are below the guaranteed standard if he has a written guaranty from the manufacturer or seller of the concentrated feeding-stuff that said feeding-stuff is registered and of the guaranteed composition, if said manufacturer or seller is a resident of the state of Kansas. Suit may be brought for the recovery of penalties under the provisions of this act in the district court of the county where the offense is alleged to have been committed, and shall be prosecuted by the county attorney in the name of the state of Kansas, upon complaint of the said director of the Experiment Station or of some reputable citizen of the county. Each sale shall constitute a separate offense. Penalties recovered under this act shall be turned into the school fund of the county wherein the offense was committed. In cases involving the composition of the concentrated feeding-stuff a deficiency not greater than one-fifteenth of the guaranteed percentage of any ingredient shall not be taken as evidence of fraudulent intent, but the seller of any concentrated feeding-stuff that does not possess the composition guaranteed shall be liable for damages resulting to the user in consequence thereof.

"SEC. 9. The Experiment Station aforesaid shall publish at least annually a bulletin giving a list of the concentrated feeding-stuffs registered for sale in this state, with their guaranteed composition and such other information as may be deemed valuable to the public concerning them and their use. This bulletin shall also contain a list of the manufacturers and sellers of concentrated feeding-stuffs in this state, according to the statements secured under the provisions of section 3.

"SEC. 10. The adulteration of any concentrated feeding-stuff by the addition of foreign mineral matter, or by the addition of foreign animal or vegetable matter of little or no nutritive value, and the use or addition of substances poisonous or deleterious to animals, is forbidden. This section shall not be so construed as to prevent the compounding and sale of balanced feeds or condiments, the composition of which

has been duly declared and approved in accordance with the provisions of section 1.

“SEC. 11. The provisions of this act shall not apply to goods sold by one manufacturer to another; nor to feed ground or mixed by the consumer of the same; nor to wheat bran, wheat shorts, wheat middlings, wheat screenings, rye bran, rye shorts, rye middlings, buckwheat bran, corn bran, corn-meal, corn chop, corn-and-cob meal, ground Kafir-corn, ground sorghum seed, ground broom-corn seed, ground milo maize, ground emmer, ground speltz, ground rye, ground barley, or sugar-beet pulp, when the same is not mixed with other grains, or with other substances, or with each other; but the feeding-stuffs named in this section shall be subject to the inspection provided for in section 6, for the purpose of ascertaining whether or not they are in fact sold, held for sale or offered for sale in the pure state, and in packages the weight of which, on the average, is equal to that which it is represented to be.

“SEC. 12. All acts and parts of acts in conflict with this act are hereby repealed.

“SEC. 13. This act shall go into effect on the first day of July, 1907, after its publication in the statute-book.

“Original act approved March 5, 1907. Published May 27, 1907.

“Amendments approved January 31, 1908. Published February 5, 1908.”

After the revised law was in effect inspection work was resumed, and the principal towns of the greater part of the state where the sale of concentrated feeding-stuffs is an important business were visited. As bran, shorts and corn chop were no longer under the law, samples were not collected of these feeds, even though previously registered, excepting as such collection was deemed advisable on account of suspected adulteration. The first work of inspectors must necessarily be largely one of education, and by friendly means to induce manufacturers and dealers to comply with the law. We have no desire to institute legal proceedings, and it is a pleasure to state that in most cases manufacturers and dealers are willing to comply with the law, and regard it as a good one for all concerned. The accompanying table shows the composition of certain registered feeds in respect to protein and fat, guaranty under which they were offered by the manufacturers, and the results obtained on analysis of the inspection sample or samples. In considering these results it must be borne in mind that the original samples as sent for analysis were not taken by those skilled in such work and acquainted with the

importance of observing minute details of care in order to obtain a fairly representative sample. It must also be recognized that the moisture content of feeds is subject to a certain variation. All samples taken by the inspectors for analysis were placed in sealed glass jars and changed little afterward. The samples first sent in by the manufacturers may have undergone alteration due to atmospheric conditions. Further, it must be borne in mind that the raw materials upon which the manufacturer operates must necessarily vary to a greater or less extent. It is the duty of manufacturers to take this into account in making their guaranty. To avoid doing injustice to a well-intentioned dealer or manufacturer the law itself further provides that a deficiency not greater than one-fifteenth of the guaranteed percentage of any ingredient shall not be taken as evidence of fraudulent intent.

RESULTS OF ANALYSES OF REGISTERED FEEDS SAMPLED PREVIOUS TO JULY 1, 1908.

| Inspection No. | Registration No. | KIND OF FEED. | Manufacturer. | Composition of sample furnished. | | Composition guaranteed by manufacturer. | | Composition of inspection sample. | |
|----------------|------------------|-----------------------------------|--|----------------------------------|-------|---|-------|-----------------------------------|-------|
| | | | | Protein. | Fat. | Protein. | Fat. | Protein. | Fat. |
| 1 | 588 | Corn Chop | Alfred Weston, Kansas City, Mo. | 8.40 | 4.02 | 8.40 | 4.02 | 8.80 | 4.01 |
| 2 | 566 | do. | Joe Stahl, Kansas City, Mo. | 9.33 | 3.98 | 8.00 | 3.30 | 8.25 | 4.51 |
| 3 | 440 | do. | Blacker Grain Co., Kansas City, Mo. | 8.21 | 4.24 | 8.21 | 4.24 | 8.45 | 4.17 |
| 4 | 512 | Bran | Solomon Valley Milling Co., Osborne, Kan. | 16.17 | 3.91 | 16.17 | 3.91 | 17.25 | 3.68 |
| 5 | 395 | Shorts | Hogan Milling Co., Junction City, Kan. | 14.87 | 3.85 | 14.87 | 3.85 | 18.35 | 4.68 |
| 6 | 394 | Bran | do. do. | 13.98 | 4.41 | 13.98 | 4.41 | 15.63 | 4.36 |
| 7 | | Corn Chop | Chas. Stevens, Junction City, Kan. | | | | | 9.60 | 3.77 |
| 8 | 502 | Bran | Aurora Mills, do. | 13.49 | 4.61 | 16.49 | 4.61 | 16.26 | 4.35 |
| 9 | 504 | Corn Chop | do. do. | 9.04 | 3.86 | 9.04 | 3.86 | 8.73 | 3.54 |
| 10 | 503 | Shorts | do. do. | 17.47 | 4.84 | 17.47 | 4.84 | 16.23 | 4.02 |
| 11 | 786 | Corn Chop | O. P. Fenton, Abilene, Kan. | 9.70 | 4.05 | 8.49 | 3.88 | 10.50 | 3.97 |
| 12 | 282 | Shorts | Abilene Milling Co., Abilene, Kan. | 16.77 | 4.35 | 15.50 | 4.25 | 18.25 | 4.08 |
| 13 | 281 | Bran | do. do. | 16.00 | 4.07 | 14.50 | 4.05 | 15.53 | 3.82 |
| 14 | 283 | Corn Chop | do. do. | 9.31 | 4.39 | 9.00 | 4.15 | 11.23 | 3.53 |
| 15 | 903 | do. | J. H. Gentry, Minneapolis, Kan. | 9.83 | 4.20 | | | 9.98 | 4.20 |
| 16 | 134 | do. | Farmers' Elevator Co., Minneapolis, Kan. | 8.95 | 4.12 | 8.75 | 4.00 | 9.00 | 2.66 |
| 17 | 679 | do. | John Hartley, Minneapolis, Kan. | 8.93 | 3.95 | | | 8.93 | 3.95 |
| 18 | 904 | Shorts | Minneapolis Mill and Elevator Co., Minneapolis, Kan. | 17.04 | 3.57 | 17.04 | 3.57 | 18.00 | 3.63 |
| 19 | 892 | Bran | do. do. | 16.50 | 3.85 | 16.50 | 3.75 | 17.65 | 3.62 |
| 20 | 905 | Corn Chop | do. do. | 9.61 | 3.70 | 9.61 | 3.70 | 10.65 | 3.78 |
| 21 | 85 | Middlings | Jackman Roller Mills, Minneapolis, Kan. | 16.64 | 4.53 | 16.50 | 4.50 | 20.47 | 4.78 |
| 22 | 84 | Bran | do. do. | 14.28 | 4.46 | 14.25 | 4.40 | 17.10 | 3.62 |
| 23 | 28 | do. | Hoffman Milling Co., Enterprise, Kan. | 14.38 | 4.02 | 14.20 | 4.00 | 17.45 | 3.78 |
| 24 | 29 | Shorts | do. do. | 15.73 | 4.77 | 16.65 | 4.75 | 19.55 | 4.58 |
| 25 | 354 | Armour's Helmet Brand Meat Meal | Armour Packing Co., Kansas City, Kan. | 62.48 | 12.89 | 60.00 | 12.00 | 61.40 | 13.71 |
| 26 | 695 | Armour's Helmet Brand Blood Meal | do. do. | 87.83 | 0.83 | 87.00 | 2.50 | 92.70 | 0.19 |
| 27 | 694 | Armour's Helmet Brand Ground Bone | do. do. | 25.26 | 0.80 | 25.00 | 5.00 | 26.00 | 1.00 |
| 28 | 22 | Wheat Middlings | Lee-Warren Milling Co., Salina, Kan. | 15.56 | 4.56 | 16.18 | 3.40 | 20.75 | 4.47 |
| 29 | 683 | Corn Chop | John Finley, Salina, Kan. | 9.18 | 4.62 | | | 9.90 | 3.86 |
| 30 | 682 | Mixed Feed | do. do. | 12.69 | 4.23 | | | 16.35 | 4.08 |
| 31 | 25 | Wheat Middlings | The Western Star Milling Co., Salina, Kan. | 17.24 | 4.74 | 16.18 | 3.50 | 21.10 | 4.40 |
| 32 | 26 | Corn Chop | do. do. | 8.52 | 3.82 | 7.90 | 3.40 | 11.87 | 3.88 |
| 33 | 24 | Bran | do. do. | 16.07 | 4.06 | 14.17 | 3.50 | 18.40 | 4.08 |
| 34 | 123 | Corn Chop | Ed Lotz, Salina, Kan. | 8.91 | 4.44 | 9.00 | 4.25 | 11.47 | 3.58 |
| 35 | 123 | do. | do. do. | | | 8.00 | 4.25 | 11.80 | 3.91 |
| 36 | 275 | Mixed Feed | do. do. | 12.03 | 4.42 | 12.00 | 4.25 | 16.67 | 4.37 |
| 37 | 10 | Wheat Middlings | Shellabarger Mill and Elevator Co., Salina, Kan. | 17.75 | 4.60 | 15.75 | 4.00 | 21.05 | 4.54 |
| 38 | | Cracked Corn | do. do. | | | 10.50 | 3.90 | 11.05 | 3.23 |

| | | | | | | | | | |
|----|-----|-------------------------|---|-------|------|-------|------|-------|------|
| 39 | 11 | Mixed Feed | Shellabarger Mill and Elevator Co., Salina, Kan. | 14.05 | 4.30 | 14.00 | 4.25 | 14.90 | 4.12 |
| 40 | 21 | Wheat Bran | Lee-Warren Milling Co., Salina, Kan. | 14.49 | 3.96 | 14.17 | 3.50 | 17.55 | 3.61 |
| 41 | 9 | Bran | Shellabarger Mill and Elevator Co., Salina, Kan. | 16.70 | 4.26 | 14.00 | 3.50 | 17.57 | 3.82 |
| 42 | 54 | Corn Chop | Smoky Valley Roller Mills, Lindsborg, Kan. | | | 9.81 | 4.45 | 10.95 | 3.54 |
| 43 | 52 | Wheat Bran | do. do. do. | | | 13.00 | 3.50 | 18.15 | 3.61 |
| 44 | 53 | Pure Wheat Shorts | do. do. do. | | | 16.00 | 4.00 | 20.00 | 4.02 |
| 45 | 90 | Pure Wheat Bran | Lindsborg Mill and Elevator Co., Lindsborg, Kan. | 14.81 | 4.35 | 13.00 | 4.00 | 17.25 | 3.78 |
| 46 | 91 | Pure Wheat Shorts | do. do. do. | 17.13 | 4.94 | 16.00 | 4.00 | 17.10 | 3.95 |
| 47 | 764 | Wheat Bran | H. E. Peck Roller Milling Co., Bridgeport, Kan. | | | 18.58 | 3.90 | 18.70 | 3.66 |
| 48 | 763 | Wheat Shorts | do. do. do. | | | 19.08 | 3.84 | 19.55 | 3.69 |
| 49 | 665 | Pure Wheat Shorts | The New Pearl Milling Co., McPherson, Kan. | 17.06 | 4.85 | 16.00 | 4.25 | 16.40 | 4.08 |
| 50 | 666 | Bran | do. do. do. | 15.47 | 4.33 | 14.85 | 3.80 | 15.80 | 4.29 |
| 51 | 82 | Corn Chop | do. do. do. | 9.74 | 4.51 | 9.00 | 4.00 | 10.10 | 4.12 |
| 52 | 30 | Pure Winter-wheat Bran | Colburn Bros., McPherson, Kan. | 14.63 | 4.41 | 14.00 | 3.50 | 19.15 | 4.23 |
| 53 | 31 | Wheat Shorts | do. do. do. | 16.33 | 5.16 | 16.00 | 4.00 | 18.75 | 4.47 |
| 54 | 106 | Pure Wheat Bran | Wall-Rogalsky Mig. Co., McPherson, Kan. | 15.08 | 4.54 | 14.00 | 3.50 | 16.85 | 3.48 |
| 55 | 444 | Pure Corn Chop | do. do. do. | 9.25 | 3.57 | 10.03 | 5.00 | 10.55 | 3.53 |
| 56 | 407 | Pure Wheat Shorts | do. do. do. | 16.56 | 5.04 | 16.00 | 4.50 | 18.85 | 4.72 |
| 57 | 34 | Bran | Lyons Milling Co., Lyons, Kan. | 15.67 | 4.32 | 15.50 | 4.25 | 18.35 | 4.81 |
| 58 | 35 | Shorts | do. do. do. | 17.78 | 5.62 | 17.75 | 5.50 | 20.25 | 3.47 |
| 59 | 36 | Corn Chop | do. do. do. | 9.35 | 4.08 | 9.35 | 4.05 | 10.65 | 3.40 |
| 60 | 314 | Mill Run | Central Kansas Milling Co., Lyons, Kan. | 15.81 | 4.31 | 15.00 | 4.00 | 17.80 | 4.12 |
| 61 | 318 | Bran | do. do. do. | 15.77 | 4.38 | 15.00 | 4.00 | 17.95 | 4.20 |
| 62 | 317 | White Shorts | do. do. do. | | 3.78 | 16.00 | 4.00 | 18.00 | 3.90 |
| 63 | 589 | Corn Chop | do. do. do. | 10.16 | 3.85 | | | 8.50 | 3.45 |
| 64 | 537 | do. | L. Lee, Larned, Kan. | 9.68 | 4.31 | 9.41 | 4.03 | 10.45 | 4.01 |
| 65 | 550 | do. | Albert Anderson, Larned, Kan. | 7.98 | 2.47 | 8.50 | 3.85 | 9.65 | 3.59 |
| 66 | 553 | do. | Grant Milling Co., do. | 10.32 | 3.98 | 9.95 | 3.85 | 9.65 | 3.28 |
| 67 | 551 | Bran | do. do. do. | 17.87 | 3.39 | 16.00 | 3.33 | 18.25 | 3.39 |
| 68 | 552 | Shorts | do. do. do. | 15.67 | 4.24 | 15.00 | 4.00 | 20.10 | 4.04 |
| 69 | 644 | Bran | Keystone Milling Co., Larned, Kan. | | | 16.25 | 3.30 | 18.85 | 3.70 |
| 70 | 643 | Corn Chop | do. do. do. | | | 10.00 | 4.10 | 9.13 | 3.47 |
| 71 | 642 | Shorts | do. do. do. | | | | | 18.75 | 3.42 |
| 72 | 641 | Mixed Feed | do. do. do. | | | 17.50 | 3.20 | 13.55 | 3.53 |
| 73 | 604 | Low Grade Flour | Ellinwood Mill and Elevator Co., Ellinwood, Kan. | 15.50 | 2.28 | 15.50 | 2.28 | 15.70 | 1.95 |
| 74 | 518 | Pure Corn Chop | do. do. do. | 9.44 | 3.98 | 16.24 | 4.17 | 16.20 | 3.59 |
| 75 | 518 | do. do. | do. do. do. | | | 9.00 | 4.00 | 9.95 | 3.45 |
| 76 | 520 | Pure Wheat Middlings | do. do. do. | 17.38 | 4.86 | 17.38 | 4.86 | 19.10 | 4.48 |
| 77 | 338 | Mixed Feed | Moses Bros. Mill and Elevator Co., Great Bend, Kan. | 17.16 | 4.12 | 17.00 | 4.04 | 18.61 | 3.61 |
| 78 | 330 | Wheat Bran | do. do. do. | 15.18 | 4.89 | 15.03 | 4.24 | 18.15 | 3.36 |
| 79 | 332 | White Shorts | do. do. do. | 17.27 | 3.71 | 17.04 | 3.64 | 19.60 | 3.74 |
| 80 | 331 | Wheat Shorts | do. do. do. | 16.60 | 4.06 | 16.44 | 4.00 | 18.87 | 4.06 |
| 81 | 415 | Corn Chop | do. do. do. | 9.25 | 4.41 | 9.19 | 4.34 | 9.75 | 3.17 |
| 82 | 367 | Pure Corn Chop | Barton Co. Flour Mills, Great Bend, Kan. | 9.53 | 4.02 | 9.00 | 4.00 | 10.45 | 3.58 |
| 83 | 363 | Pure Wheat Bran | do. do. do. | 15.28 | 4.13 | 15.00 | 4.00 | 18.05 | 3.50 |
| 84 | 365 | Pure Wheat White Shorts | do. do. do. | 16.91 | 4.06 | 16.00 | 4.00 | 20.75 | 3.86 |
| 85 | 364 | Pure Wheat Brown Shorts | do. do. do. | 17.63 | 4.44 | 17.00 | 4.00 | 20.60 | 4.59 |
| 86 | 366 | Pure Wheat Mixed Feed | do. do. do. | 16.61 | 4.14 | 16.00 | 4.00 | 19.62 | 3.86 |
| 87 | 202 | Shorts | Walnut Creek Milling Co., Great Bend, Kan. | 13.11 | 4.85 | 16.94 | 4.63 | 21.05 | 5.00 |
| 88 | 201 | Bran | do. do. do. | 14.98 | 4.01 | 13.81 | 3.30 | 18.10 | 3.61 |

RESULTS OF ANALYSES—CONCLUDED.

| Inspection No. | Registration No. | KIND OF FEED. | Manufacturer. | Composition of sample furnished. | | Composition guaranteed by manufacturer. | | Composition of inspection sample. | |
|----------------|------------------|---------------------------------|--|----------------------------------|-------|---|-------|-----------------------------------|-------|
| | | | | Protein. | Fat. | Protein. | Fat. | Protein. | Fat. |
| 89 | 204 | Corn Chop | Walnut Creek Milling Co., Great Bend, Kan. | 8.93 | 3.64 | 8.50 | 3.25 | 9.15 | 3.88 |
| 90 | 1017 | Chick Feed | Pinkerton Mfg. Co., Lincoln, Neb. | 11.53 | 1.95 | | | 11.90 | 1.48 |
| 91 | 1029 | Old Gold Brand Cotton Seed Meal | T. H. Bunch, Little Rock, Ark. | | | 41.00 | 9.00 | 42.03 | 7.35 |
| 92 | 1029 | Old Gold Brand Cotton Seed Meal | do. do. | | | 41.00 | 9.00 | 44.03 | 8.56 |
| 93 | 454 | Tankage | Swift & Co., St. Joseph, Mo. | | | 60.10 | 10.00 | 56.80 | 10.25 |
| 94 | | Meat Meal | do. do. | | | 46.00 | | 54.89 | 12.15 |
| 95 | | | | | | | | | |
| 96 | 423 | Linseed Meal | Kansas City Lead and Oil Works, Kansas City, Mo. | 34.66 | 7.19 | | | 83.30 | 9.22 |
| 97 | 876 | Alfalfa Meal | Topeka Alfalfa Mfg. Co., Topeka, Kan. | 15.55 | 1.65 | 15.55 | 1.65 | 17.14 | 1.72 |
| 98 | 354 | Meat Meal | Armour Packing Co., Kansas City, Kan. | 62.48 | 12.89 | | | 60.20 | 14.75 |
| 99 | | Meat Meal and Ground Bone | do. do. | | | | | 53.72 | 12.06 |
| 100 | 694 | Ground Bone | do. do. | 25.26 | 0.80 | | | 26.03 | 1.60 |
| 101 | 442 | Purina Chick Feed | Ralston Purina Co., St. Louis, Mo. | 11.66 | 3.97 | 12.00 | 3.00 | 11.14 | 3.24 |
| 102 | 820 | Cotton Seed Meal | W. H. Coyle Co., Guthrie, Okla. | | | | | 43.20 | 7.43 |
| 103 | | Alfalfa Stock Food | Otto Weiss Stock Food Co., Wichita, Kan. | 12.50 | 3.73 | 13.29 | 4.37 | 11.51 | 2.96 |
| 104 | 606 | Linseed Oil Meal | Hess & Small, Fredonia, Kan. | 31.93 | 14.12 | 31.93 | 8.00 | 33.28 | 8.88 |
| 105 | 695 | Blood Meal | Armour Packing Co., Kansas City, Kan. | 87.83 | 0.23 | | | 90.40 | 0.05 |
| 106 | 423 | Linseed Meal | Kansas City Lead and Oil Works, Kansas City, Mo. | 34.66 | 7.19 | 32.34 | 6.00 | 35.18 | 6.76 |
| 107 | 614 | Mixed Feed | Lord Milling Co., Wamego, Kan. | 15.68 | 5.38 | 14.00 | 3.50 | 14.51 | 3.73 |
| 108 | 703 | Owl Cotton Seed Meal | F. W. Brode Co., Memphis, Tenn. | | | 41-43 | 7-9 | 41.68 | 7.40 |
| 109 | 826 | June Pasture | H. C. Peters Mill Co., Omaha, Neb. | 10.70 | 1.56 | | | 12.20 | 0.49 |
| 110 | 808 | Alfalfa Meal | Newton Alfalfa Mills, Newton, Kan. | 16.47 | 2.20 | 15.00 | 2.20 | 16.04 | 2.63 |
| 111 | 993 | Mixed Feed | Oswego Seed & Grain Co., Oswego, Kan. | 11.35 | 3.59 | 15.08 | 3.13 | 13.81 | 2.59 |
| 112 | 4 | Chick Feed | Otto Weiss Stock Food Co., Wichita, Kan. | 11.02 | 2.76 | 11.02 | 2.76 | 10.14 | 0.51 |
| 113 | 355 | Mixed Feed | Pearl Roller Mills, Oswego, Kan. | 14.08 | 4.77 | 12.14 | 1.64 | 17.89 | 2.79 |
| 114 | 699 | Bran and Chop | T. A. Beck, Topeka, Kan. | 13.63 | 4.24 | 13.63 | 4.24 | 12.79 | 2.98 |
| 115 | 760 | Mixed Chop | D. O. Coe, Topeka, Kan. | 9.51 | 3.84 | 9.51 | 3.84 | 9.66 | 2.48 |
| 116 | | Sterling Chick Feed | Great Western Cereal Co., Chicago, Ill. | | | 12.00 | 3.50 | 10.69 | 2.23 |
| 117 | 1019 | Chick Feed | T. A. Beck, Topeka, Kan. | 10.25 | 3.36 | | | 9.49 | 2.10 |
| 118 | 698 | Mixed Chop | do. do. | 9.27 | 4.29 | 9.27 | 4.29 | 9.59 | 2.89 |
| 119 | 992 | Chick-O | D. O. Coe, Topeka, Kan. | 11.79 | 4.14 | 11.79 | 4.14 | 10.89 | 2.92 |
| 120 | 340 | Furphy Baby Chick Feed | Zimmerman Seed Co., Topeka, Kan. | 9.08 | 3.27 | 9.08 | 3.27 | 9.59 | 2.89 |
| 121 | 761 | Mixed Feed | D. O. Coe, Topeka, Kan. | 12.78 | 4.04 | | | 12.11 | 2.98 |
| 122 | 988 | Meat Meal | Chas. Wolf Packing Co., Topeka, Kan. | 58.08 | 17.64 | 60.00 | | 53.77 | 12.20 |
| 123 | 808 | Alfalfa Meal | Newton Alfalfa Mills, Newton, Kan. | 16.47 | 2.20 | 15.00 | 2.20 | 16.79 | 1.78 |
| 124 | 707 | Mixed Chop | J. B. Billard, North Topeka, Kan. | 9.41 | 4.42 | 9.15 | 4.15 | 10.74 | 1.27 |
| 125 | 708 | Bran and Chop | do. do. | 12.58 | 4.15 | 12.25 | 3.90 | 11.96 | 3.72 |
| 126 | 792 | Mixed Chop | Forbes Bros., North Topeka, Kan. | 9.08 | 4.15 | 9.08 | 4.15 | 9.74 | 3.21 |

| | | | | | | | | | |
|-----|------|------------------------------------|---|-------|------|----------|---------|-------|------|
| 127 | 749 | Corn and Oat Chop..... | H. Eichenlaub, Seneca, Kan..... | 10.00 | 4.12 | 10.00 | 4.12 | 9.21 | 2.85 |
| 128 | 1026 | Linseed Meal..... | Midland Linseed Co., Minneapolis, Minn..... | 33.48 | 6.95 | | | 34.88 | 7.57 |
| 129 | | Linseed Oil Meal..... | do. do..... | | | 30-35 | 5.5-8.5 | 34.98 | 7.82 |
| 130 | 762 | Superior Mixed Chicken Feed..... | D. O. Coe, Topeka, Kan..... | 10.24 | 3.19 | 10.24 | 3.19 | 9.46 | 0.56 |
| 131 | | Ideal Horse and Mule Feed..... | Atchison Oatmeal & Cereal Co., Atchison, Kan..... | | | | 7.85 | 8.49 | 1.45 |
| 132 | 100 | Oat Nutriment..... | do. do. do..... | 19.25 | 8.30 | 18-19.25 | 7-8.3 | 17.29 | 6.96 |
| 133 | 825 | Arab Horse Feed..... | M. C. Peters Milling Co., Omaha, Neb..... | 10.91 | 3.95 | 11.00 | 3.00 | 10.46 | 2.90 |
| 134 | 456 | Beef Scraps..... | Swift & Co., Kansas City, Kan..... | | | 60.00 | 8.00 | 53.17 | 7.52 |
| 135 | 1014 | Alfalmo Fat..... | Alfalga Meal Co., Council Bluffs, Iowa..... | 10.67 | 0.35 | 18.00 | 2.00 | 10.90 | 0.37 |
| 136 | 302 | Wheat and Corn Bran..... | Blaker Mfg. Co., Pleasanton, Kan..... | 13.45 | 5.40 | | | 14.00 | 3.37 |
| 137 | | Balanced Stock Food..... | Kansas Milling Co., Wichita, Kan..... | | | 41.00 | 7.00 | 40.40 | 8.89 |
| 138 | | Choice Cotton Seed Meal..... | Coate Bros., Memphis, Tenn..... | | | 41.00 | 7.00 | 39.30 | 8.61 |
| 139 | 1044 | Cold Pressed Cotton Seed Cake..... | Erio Cotton Oil Co., Pearsall, Tex..... | | | 24.80 | 7.00 | 31.00 | 8.21 |

ANALYSES OF REGISTRATION SAMPLES.

Probably no such extensive examination of bran, shorts and corn chop in respect to protein and fat has been made previously as that involved in the analyses made in this laboratory the past year under the provisions of the law. Because of this, and from the general interest in comparing results, the accompanying tables are given, which show **all** the results obtained on samples of feeding-stuffs registered within the fiscal year. As condimental feeds are not administered for their content of protein and fat, and manufacturers **do not** care to make a guaranty on those points, as a rule these have not been analyzed.

The order of arrangement of the feeds in the table is alphabetical in respect to place of business of the person or firm making the registration.

ANALYSES OF REGISTERED FEEDS, ARRANGED ALPHABETICALLY BY STATES, POST-OFFICES AND MANUFACTURERS.

-2

| ADDRESS. | Manufacturer. | Registration No. | Feed. | Per cent. protein. | Per cent. fat. |
|----------------------|--------------------------------|------------------|---------------------------------------|--------------------|----------------|
| Little Rock, Ark. | T. H. Bunch Co. | 1029 | "Old Gold" Cottonseed Meal | | |
| do. | Consumers Cotton Oil Co. | 887 | Cottonseed Meal | 44.22 | 8.10 |
| Denver, Colo. | Ady & Crowe Mercantile Co. | 1006 | A. & C. Alfalfa Molasses Feed | 12.30 | 0.47 |
| Chicago, Ill. | Swift & Co. | 454 | Swift's Digester Tankage | | |
| do. | do. | 455 | Swift's Blood Meal | | |
| do. | do. | 456 | Swift's Beef Scraps | | |
| do. | do. | 457 | Swift's Poultry Bone | | |
| East St. Louis, Ill. | Corno Mills Co. | 998 | Corno Hen Feed | | |
| do. | do. | 999 | Corno Chick Feed | | |
| Freeport, Ill. | The W. T. Rawleigh Medical Co. | 344 | Stock Food | 14.81 | 5.58 |
| Quincy, Ill. | T. H. Jackson & Co. | 1031 | Commonsense Renovating Powders | | |
| Waukegan, Ill. | J. W. Barwell | 898 | Blatchford's Calf Meal | | |
| Chickasha, I. T. | Chickasha Cotton Oil Co. | 715 | "Feeder" Cottonseed Meal | | |
| do. | do. | 716 | "Good" Cottonseed Meal | | |
| do. | do. | 717 | "Prime" Cottonseed Meal | | |
| do. | do. | 718 | "Choice" Cottonseed Meal | | |
| Duncan, I. T. | Duncan Cotton Oil Co. | 742 | "Good" Cottonseed Meal | | |
| do. | do. | 743 | "Prime" Cottonseed Meal | | |
| do. | do. | 744 | "Choice" Cottonseed Meal | | |
| Burlington, Iowa. | A. F. Miller Chemical Works | 850 | Dr. Miller's Lucky Strike Stock Tonic | 28.55 | 6.25 |
| Keokuk, Iowa | S. F. Baker & Co. | 938 | Baker's Condition Powders | 14.47 | 3.88 |
| do. | K. K. K. Medicine Co. | 873 | K. K. K. Condition Powders | | |
| Shenandoah, Iowa. | German-American Live Stock Co. | 802 | German-American Live Stock Remedy | | |
| Abbyville Kan. | Abbyville Grain Co. | 789 | Corn Chop | 9.87 | 7.33 |
| Abilene, Kan. | Abilene Milling Co. | 281 | Bran | 16.00 | 4.07 |
| do. | do. | 282 | Shorts | 16.77 | 4.35 |
| do. | do. | 283 | Corn Chop | 9.81 | 4.39 |
| do. | O. P. Fenton | 786 | | 9.70 | 4.05 |
| do. | A. B. Seelye Medicine Co. | 1000 | Universal Condition Powder | | |
| Admire, Kan. | David Pitzer | 568 | Corn Chop | | |
| Alma, Kan. | Mid-Kansas Milling Co. | 746 | Wheat Shorts | 14.15 | 4.05 |
| do. | do. | 747 | Wheat Bran | 12.91 | 4.34 |
| do. | do. | 748 | Corn Chop | 9.18 | 3.75 |
| Altamont, Kan. | J. H. Rust | 752 | do. | | |
| Alton, Kan. | W. J. Kaull | 874 | Mixed Feed | | |
| do. | do. | 875 | Corn Chop | | |
| Altoona, Kan. | Altoona Mill Co. | 529 | do. | 8.83 | 4.65 |
| do. | Wilmoth, Lloyd & Snyder | 860 | do. | | |
| Americus, Kan. | M. Toomey | 596 | do. | 8.53 | 3.84 |

ANALYSES OF REGISTERED FEEDS—CONTINUED.

| ADDRESS. | Manufacturer. | Registration No. | Feed. | Per cent. protein. | Per cent. fat. |
|---------------------|---------------------------------|------------------|---|--------------------|----------------|
| Anthony, Kan. | Kramer Milling Co. | 305 | Wheat Bran | 17.42 | 4.52 |
| do. | do. | 306 | Ship Stuff | 17.07 | 5.37 |
| do. | do. | 307 | Corn Chop | 8.64 | 3.73 |
| Argentine, Kan. | M. L. Butcher | 477 | Chop or Ground Corn | 8.65 | 4.57 |
| Arkansas City, Kan. | Arkansas City Milling Co. | 687 | Corn Chop | 9.46 | 4.78 |
| do. | do. | 688 | Shorts | 18.01 | 4.34 |
| do. | do. | 689 | Mixed Feed | 17.53 | 4.09 |
| do. | do. | 690 | Bran | 16.98 | 4.10 |
| do. | R. H. Brock | 232 | Pure Corn Chop | 8.64 | 4.30 |
| do. | The New Era Milling Co. | 654 | Corn Chop | 9.28 | 4.75 |
| do. | do. | 655 | Wheat Bran | 16.74 | 3.55 |
| do. | do. | 656 | Shorts | 19.85 | 5.17 |
| Ashland, Kan. | Wallingford Bros. | 770 | Corn Chop | 9.93 | 3.64 |
| do. | McElhinny & Co. | 962 | do. | 11.33 | 4.14 |
| Atchison, Kan. | Atchison Oatmeal and Cereal Co. | 100 | Oat Nutriment | 19.25 | 8.30 |
| do. | do. | 101 | Oat Bran | 3.58 | 1.44 |
| do. | do. | 208 | Corn and Oat Feed | 6.81 | 2.55 |
| do. | do. | 209 | Pure Corn Chop | 8.44 | 3.63 |
| do. | do. | 942 | Sunshine Prepared Poultry and Baby Stock Food | 15.95 | 5.92 |
| do. | do. | 943 | Kansas Ideal Dairy Feed | 7.85 | 2.73 |
| do. | do. | | do. | 8.20 | 1.95 |
| do. | Blair Milling Co. | 176 | Blair's Bran | 13.01 | 5.08 |
| do. | do. | 177 | Blair's Shorts | 13.36 | |
| do. | do. | 178 | Blair's Corn Chop | 14.95 | 4.93 |
| do. | do. | 179 | Blair's Feed Meal or Blair's Hominy Feed | 15.05 | |
| do. | The Cain Mill Co. | 483 | Cain's Corn Chop | 9.29 | 3.99 |
| do. | do. | 484 | Cain's Shorts | 9.11 | 8.42 |
| do. | do. | 485 | Cain's Bran | 9.01 | 3.95 |
| do. | do. | 1032 | Cain's Feed Screenings | 18.72 | 4.50 |
| do. | Lukens Milling Co. | 180 | Bran | 14.84 | 4.52 |
| do. | do. | 181 | Shorts | 10.19 | 2.37 |
| do. | do. | 182 | Corn Chop | 13.87 | 4.94 |
| do. | S. R. Washer Grain Co. | 960 | Washer's Corn Chops | 16.37 | 5.03 |
| do. | Mangelsdorf Bros. | 1021 | Standard Laying Food | 8.24 | 4.20 |
| do. | do. | 1022 | Reliable Laying Tonic | 8.55 | 3.58 |
| do. | do. | 1023 | No. 40 Chick Food | 13.49 | 3.84 |
| do. | do. | 1024 | Special Chick Food | 9.14 | 3.03 |
| do. | do. | 1025 | Imperial Chick Food | 10.19 | 3.15 |
| Attica, Kan. | Attica Milling Co. | 472 | Shorts | 11.04 | 3.69 |
| do. | do. | 473 | Corn Chop | 10.77 | 4.39 |
| do. | do. | | do. | 19.04 | 4.29 |
| do. | do. | | do. | 9.32 | 3.72 |

| | | | | | |
|--------------------------|--|------|--------------------------------|-------|-------|
| Attica, Kan..... | Attica Milling Co..... | 474 | Bran..... | 15.70 | 4.18 |
| Augusta, Kan..... | Ward & Simpkins..... | 552 | Corn Chop..... | 8.95 | 4.15 |
| Aulne, Kan..... | Aulne Milling Co..... | 497 | Shorts..... | 16.57 | 4.09 |
| do..... | do..... | 498 | Bran..... | 15.94 | 3.90 |
| Axtell, Kan..... | D. C. O'Neil..... | 839 | Ground Corn..... | 9.09 | 3.99 |
| Barnard, Kan..... | Barnard Mill Co..... | 637 | Corn Chop..... | 9.34 | 4.07 |
| do..... | do..... | 638 | Shorts..... | 15.65 | 3.49 |
| do..... | do..... | 639 | Bran..... | 18.13 | 4.35 |
| Barnesville, Kan..... | Barnesville Milling and Stock Co..... | 840 | Corn Chop..... | 9.10 | 4.31 |
| Baxter Springs, Kan..... | White & Allen..... | 559 | do..... | 8.71 | 3.56 |
| do..... | Baxter Springs Mill and Elevator Co..... | 1040 | do..... | 10.62 | 4.28 |
| do..... | Peter McMahon..... | 341 | Mixed Corn Chop..... | 13.52 | 4.50 |
| Beattie, Kan..... | W. B. Faulkner..... | 139 | do..... | 8.62 | 4.37 |
| Belleville, Kan..... | do..... | 140 | Corn Chop..... | 14.05 | 4.70 |
| do..... | do..... | 141 | Wheat Bran..... | 13.15 | 3.01 |
| Beloit, Kan..... | Beloit Milling Co..... | 250 | Wheat Shorts..... | 8.05 | 3.51 |
| do..... | do..... | 251 | Corn Chop and Corn Bran..... | 7.91 | ..... |
| do..... | do..... | 252 | Wheat Bran..... | 15.05 | 4.44 |
| Benedict, Kan..... | S. A. Knaus..... | 836 | Wheat Shorts..... | 15.86 | 4.02 |
| Bennington, Kan..... | Geo. C. Markley..... | 944 | Corn Chop..... | 9.62 | 4.04 |
| do..... | do..... | 945 | do..... | 10.07 | 4.30 |
| Blue Rapids, Kan..... | Blue Rapids Milling and Elevator Co..... | 488 | Shorts..... | 19.27 | 4.18 |
| do..... | do..... | 489 | Bran..... | 16.98 | 3.66 |
| do..... | do..... | 490 | Pure Corn Chop..... | 9.12 | 4.01 |
| do..... | do..... | 1037 | Pure Wheat Bran..... | 13.92 | 4.63 |
| Bridgeport, Kan..... | W. F. Peacock..... | 763 | Pure Wheat Shorts..... | 16.56 | 5.13 |
| do..... | H. E. Peck Roller Milling Co..... | 764 | Corn and Oats Chop..... | 9.94 | 4.06 |
| Buhler, Kan..... | do..... | 764 | Wheat Shorts..... | 19.08 | 3.90 |
| do..... | Buhler Mill and Elevator Co..... | 268 | Bran..... | 18.58 | 3.84 |
| Burden, Kan..... | do..... | 269 | Pure Hard Wheat Bran..... | 15.08 | 3.13 |
| Burlington, Kan..... | J. L. Anderson..... | 478 | Pure Hard Wheat Middlings..... | 15.31 | 4.25 |
| do..... | D. Gerster, Excelsior Water Mill..... | 71 | Corn Chop..... | 9.06 | 4.46 |
| do..... | do..... | 72 | Bran..... | 16.50 | 4.72 |
| do..... | do..... | 73 | Shorts..... | 16.14 | 3.81 |
| do..... | Gibbon & Reid..... | 976 | Chop..... | 8.35 | 4.79 |
| Burton, Kan..... | Ira Shipley..... | 624 | Corn Chop..... | 10.25 | 5.00 |
| Bushton, Kan..... | H. C. Grain Co..... | 963 | do..... | 10.29 | 4.47 |
| do..... | Bushton Roller Mills..... | 159 | H. C. Stock Food..... | 10.41 | 3.67 |
| do..... | do..... | 160 | Wheat Bran..... | 16.52 | 4.40 |
| do..... | do..... | 161 | Wheat Shorts..... | 17.33 | 4.43 |
| Cairo, Kan..... | J. H. Magruder..... | 841 | Wheat Shorts..... | 17.47 | 4.41 |
| do..... | do..... | 842 | Corn Chop..... | 10.26 | 4.36 |
| do..... | do..... | 843 | Bran..... | 18.04 | 3.71 |
| Caldwell, Kan..... | Border Queen Mill and Elevator Co..... | 459 | Shorts..... | 18.40 | 4.01 |
| do..... | do..... | 460 | Corn Chop..... | 9.31 | 4.09 |
| do..... | do..... | 461 | do..... | 9.40 | 3.64 |
| do..... | Caldwell Milling Co..... | 63 | Shorts..... | 16.38 | 4.85 |
| do..... | do..... | 64 | Bran..... | 15.15 | 4.55 |
| do..... | do..... | 65 | Wheat Bran..... | 16.47 | 4.01 |
| Caney, Kan..... | Caney Grain Co..... | 784 | Wheat Shorts..... | 15.66 | 3.56 |
| | | | Corn Chop..... | 8.57 | 4.05 |
| | | | do..... | 9.42 | 4.17 |

ANALYSES OF REGISTERED FEEDS—CONTINUED.

| ADDRESS. | Manufacturer. | Registration No. | Feed. | Per cent. protein. | Per cent. fat. |
|-------------------|--------------------------------|------------------|------------------------------|--------------------|----------------|
| Caney, Kan. | Caney Mill and Elevator Co. | 883 | Bran. | 17.75 | 3.59 |
| do. | do. | 884 | Shorts | 19.50 | 4.94 |
| do. | do. | 885 | Corn Chop | 9.50 | 4.81 |
| Canton, Kan. | Canton Milling Co. | 342 | Bran. | 14.11 | 4.13 |
| do. | do. | 343 | Shorts | 14.96 | 3.96 |
| Cawker City, Kan. | Joseph Jackson. | 546 | Bran. | 14.59 | 4.70 |
| do. | do. | 547 | Mill Feed. | 14.88 | 3.94 |
| Cedar Point, Kan. | Cedar Point Roller Mills. | 561 | Corn Chop | 10.22 | 4.50 |
| do. | do. | 562 | Shorts | 16.75 | 4.79 |
| do. | do. | 563 | Bran. | 15.21 | 4.24 |
| Cedar Vale, Kan. | L. C. Adam Mercantile Co. | 524 | Pure Corn Chop | 9.03 | 4.28 |
| Centralia, Kan. | Kneedy & Leonard. | 982 | do. | 8.93 | 4.14 |
| Chanute, Kan. | J. N. Alcock & Co. | 862 | Corn Chop | 8.22 | 3.67 |
| do. | Chanute Milling Co. | 450 | Bran. | 16.90 | 4.61 |
| do. | do. | 451 | Mill Run Bran | 16.06 | 4.33 |
| do. | do. | 452 | Shorts | 14.48 | 3.86 |
| do. | do. | 453 | Corn Chop | 8.55 | 4.59 |
| do. | do. | 1086 | Mixed Bran. | 15.72 | 5.00 |
| do. | L. R. Tolbert. | 429 | Corn Chop | 8.09 | 4.11 |
| Chapman, Kan. | Carroll Milling Co. | 522 | do. | 10.17 | 4.28 |
| do. | Poor & Knight. | 188 | do. | 9.08 | 4.30 |
| Chautauqua, Kan. | Revlett Bros. | 530 | do. | 9.70 | 4.38 |
| Cheney, Kan. | Cheney Milling Co. | 326 | Bran. | 15.61 | 4.62 |
| do. | do. | 327 | Shorts | 15.58 | 4.35 |
| do. | do. | 328 | Mill Run | 15.31 | 4.29 |
| do. | do. | 329 | Corn Chop | 8.09 | 3.57 |
| Cherokee, Kan. | Cherokee Mill and Elevator Co. | 315 | "Cherokee" Chop. | 8.30 | 4.32 |
| do. | do. | 816 | "Lion" Bran. | 14.26 | 3.87 |
| Cherryvale, Kan. | C. D. Allen. | 914 | Corn Chop | 10.02 | 4.68 |
| do. | N. Sauer Milling Co. | 173 | Wheat Bran | 15.43 | 4.67 |
| do. | do. | 174 | Wheat Shorts. | 15.50 | 3.93 |
| do. | do. | 175 | Mixed Wheat Bran and Shorts. | 15.60 | 3.84 |
| do. | Young & Co. | 714 | Corn Chop | 8.89 | 4.08 |
| Chetopa, Kan. | Jim Crow Mill, W. F. McAleer. | 373 | Mixed Corn Chop. | 8.24 | 4.48 |
| Cimarron, Kan. | O. D. Lemert. | 441 | Corn Chop | ..... | ..... |
| do. | W. F. Rhinehart. | 448 | do. | 9.74 | 4.23 |
| Circleville, Kan. | C. C. Conner. | 594 | do. | 8.59 | 3.15 |
| Claffin, Kan. | Claffin Mill and Elevator Co. | 186 | Pure Wheat Bran | 15.43 | 4.07 |
| do. | do. | 197 | Shorts or Middlings. | 16.94 | 4.36 |

| | | | | | |
|------------------------|---|-----|------------------------------------|-------|-------|
| Clafin, Kan. | Universal Mill Co. | 618 | Wheat Bran | 16.50 | 3.82 |
| do. | do. | 619 | Wheat Shorts | 18.78 | 4.30 |
| Clay Center, Kan. | Clay Center Incubator Co., W. E. Smith. | 505 | Safety Chick Feed | 13.02 | 3.47 |
| do. | Snell Mill and Grain Co. | 198 | Wheat Bran | 13.84 | 4.37 |
| do. | Snell Mill and Elevator Co. | 199 | Wheat Shorts | 14.14 | 4.20 |
| do. | do. | 200 | Corn Chop | 7.57 | 4.42 |
| do. | M. W. Willey | 76 | do. | 9.05 | 3.83 |
| do. | do. | 77 | Flax Seed Meal | 23.77 | 35.54 |
| do. | do. | 78 | Mixed Chop (corn, oats, corn bran) | 9.88 | 4.58 |
| do. | F. L. Williamson & Co. | 223 | Bran | 12.69 | 4.25 |
| do. | do. | 224 | Shorts | 14.81 | 4.90 |
| do. | do. | 225 | Chop | 9.35 | 3.74 |
| do. | do. | 147 | Bran | 13.23 | 4.42 |
| Clyde, Kan. | Clyde Milling and Elevator Co. | 148 | Shorts | 13.63 | 4.13 |
| do. | do. | 149 | Mill Run | 13.31 | 4.63 |
| do. | do. | 150 | Chop | 8.93 | 3.99 |
| do. | do. | 369 | Pure Ground Corn | 8.48 | 3.84 |
| Coffeyville, Kan. | Western Elevator Co. | 493 | Corn Chop and Grits | 8.74 | 4.44 |
| do. | Crane & Foland | 506 | Corn Chop | 9.45 | 4.19 |
| do. | William Helmering | 422 | Mixed Feed, Bran and Shorts | 17.04 | 4.44 |
| do. | Kiddoo Milling Co. | 18 | R. P. M. Co. Bran | 16.50 | 4.50 |
| do. | The Rea-Patterson Milling Co. | 19 | R. P. M. Co. Shorts | 17.95 | 4.97 |
| do. | do. | 20 | R. P. M. Co. Mixed Feed | 16.49 | 4.46 |
| do. | do. | 607 | Corn Chop | 9.07 | 3.24 |
| do. | The Rea-Patterson Grain Co. | 321 | do. | 8.28 | 4.43 |
| do. | The Walton Grain Co. | 531 | Bran | 17.00 | 4.18 |
| Colby, Kan. | Parrott Milling Co. | 532 | Shorts | 17.39 | 3.74 |
| do. | do. | 533 | Corn Chop | 8.75 | 4.12 |
| do. | do. | 439 | do. | 8.23 | 4.11 |
| Colony, Kan. | C. Denton | 511 | Pure Corn Chop | 8.46 | 4.64 |
| Columbus, Kan. | Stauffer & Commack | 193 | Wheat Bran | 15.19 | 4.56 |
| do. | Wesley Best & Sons | 194 | Shorts or Ship Stuff | 14.21 | 3.52 |
| do. | do. | 470 | Silver and Gold Mixed Feed | 15.37 | 4.70 |
| do. | Fudge & Thomas | 471 | White Shorts | 12.98 | 2.92 |
| do. | do. | 673 | Pure Corn Chop | 8.61 | 4.27 |
| do. | do. | 469 | Clear Corn Chop | 8.62 | 4.16 |
| Concordia, Kan. | Newton Way | 124 | Mixed Bran | 13.42 | 4.59 |
| do. | Concordia Milling Co. | 125 | Shorts | 15.13 | 4.69 |
| do. | do. | 126 | Mixed Feed | 9.16 | 4.02 |
| do. | do. | 127 | Corn Chop | 9.28 | 4.18 |
| do. | H. Lague | 987 | Corn Chop and Oats | 10.62 | 3.82 |
| do. | Perry & Gould | 771 | Corn Chop | 9.74 | 4.27 |
| do. | do. | 772 | Corn and Oats Chop | 10.72 | 4.55 |
| Conway Springs, Kan. | Conway Springs Milling Co. | 855 | Corn Chop | 11.69 | 4.32 |
| do. | do. | 856 | Shorts | 17.70 | 4.24 |
| do. | do. | 857 | Bran | 17.73 | 4.07 |
| do. | do. | 932 | Corn Chop | 9.44 | 4.18 |
| Cottonwood Falls, Kan. | B. Strong Grain and Coal Co. | 432 | Shorts | 14.22 | 3.88 |
| do. | Cottonwood Falls Mill and Elevator Co. | 516 | Bran | 15.53 | 4.44 |
| do. | do. | 517 | Corn Chop | 8.67 | 3.83 |

ANALYSES OF REGISTERED FEEDS—CONTINUED.

| ADDRESS. | Manufacturer. | Registration No. | Feed. | Per cent. protein. | Per cent. fat. |
|---------------------|-------------------------------------|------------------|-------------------------|--------------------|----------------|
| Council Grove, Kan. | P. Broderson, Agent. | 270 | Corn Chop | 8.73 | 3.81 |
| Crestline, Kan. | E. C. Hutchinson | 854 | Pure Corn Chop | 10.14 | 4.26 |
| do. | B. F. Jacob | 848 | do. | 9.26 | 3.74 |
| Danville, Kan. | J. W. Markey | 795 | Markey's Corn Chop | 10.35 | 4.84 |
| Delavan, Kan. | Robt. T. Ray Grain Co. | 849 | Corn Chop | 10.57 | 4.01 |
| Delphos, Kan. | Will M. Chapin | 494 | do. | 10.68 | 4.39 |
| do. | do. | 495 | Shorts | 16.82 | 4.47 |
| do. | do. | 496 | Bran | 14.76 | 4.27 |
| do. | Wright Milling Co. | 257 | Wheat Bran | 15.35 | 4.57 |
| do. | do. | 258 | Shorts | 15.06 | 3.90 |
| do. | do. | 259 | Corn Chop | 9.35 | 3.79 |
| Denison, Kan. | David Coleman | 891 | do. | 16.27 | 5.02 |
| Dighton, Kan. | C. J. Van Keuren | 590 | do. | 8.54 | 4.08 |
| Dillon, Kan. | Dillon Roller Mills | 755 | Shorts | 13.55 | 2.73 |
| do. | do. | 756 | Bran | 17.06 | 4.18 |
| do. | do. | 757 | Corn Chop | 9.12 | 2.42 |
| Dodge City, Kan. | Dodge City Milling and Elevator Co. | 838 | Pure Corn Chop | 9.81 | 4.21 |
| do. | do. | 990 | Bran and Shorts | 18.29 | 3.94 |
| do. | Martin Bros. | 523 | Corn Chop | 9.66 | 3.75 |
| Downs, Kan. | A. Jackson & Co. | 888 | Bran | 16.17 | 3.89 |
| do. | do. | 889 | Ship Feed (Chop) | 17.75 | 3.53 |
| do. | do. | 890 | Corn Chop | 10.12 | 3.84 |
| Drury, Kan. | Thraillkill Milling Co. | 433 | Bran | 16.96 | 4.02 |
| do. | do. | 434 | Corn Chop | 8.90 | 3.13 |
| do. | do. | 768 | Wheat Shorts | 18.06 | 3.58 |
| do. | do. | 769 | White Wheat Shorts | 16.11 | 1.81 |
| Edna, Kan. | C. E. Page | 392 | Page's Pure Corn Chop | 8.84 | 4.46 |
| El Dorado, Kan. | Binford & Scott | 821 | Corn Chop | 9.66 | 4.46 |
| do. | Dillenbecks & Vickers | 946 | Corn | ..... | ..... |
| do. | El Dorado Alfalfa Milling Co. | 1033 | Alfalfa Meal | 14.27 | 1.52 |
| do. | L. H. Fowell | 601 | Pure Corn Chop | 8.53 | 3.68 |
| do. | Minos West | 691 | Corn Chop | 8.05 | 4.05 |
| Elk City, Kan. | J. Johansen | 488 | do. | 8.93 | 3.74 |
| Ellinwood, Kan. | Ellinwood Mill and Elevator Co. | 518 | do. | 9.44 | 3.98 |
| do. | do. | 519 | Bran ("B. 100") | 16.24 | 4.17 |
| do. | do. | 520 | Middlings ("S. 100") | 17.38 | 4.86 |
| do. | do. | 521 | Middlings ("W. S. 100") | 17.00 | 4.29 |
| do. | do. | 604 | Low-grade Flour | 15.50 | 2.28 |
| do. | F. W. Ludwig | 585 | Pure Corn Chop | 9.01 | 4.01 |

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| Ellinwood, Kan. | E. L. Pearson | 981 | Corn and Alfalfa Meal | 14.03 | 2.68 |
| do. | do. | 980 | Corn Chop | 11.65 | 3.92 |
| Ellsworth, Kan. | Ellsworth Mill and Elevator Co. | 144 | Bran Offal from Wheat and Rye | 14.91 | 3.94 |
| do. | do. do. | 145 | Shorts Offal from Wheat and Rye | 17.51 | 4.65 |
| do. | do. do. | 146 | Corn Chop | 9.11 | 4.28 |
| do. | do. | 853 | do. | 8.95 | 4.72 |
| Emporia, Kan. | Samuel C. Groth & Co. | 401 | Mixed Bran | 13.39 | 5.05 |
| do. | City Roller Mill Co. | 402 | Pure Wheat Shorts | 16.10 | 4.59 |
| do. | do. | 403 | Pure Corn Chop | 8.73 | 4.28 |
| do. | Eagle Alfalfa Milling Co. | 1016 | Alfalfa Meal | 16.50 | 1.79 |
| do. | Emporia Water Mills | 190 | Soden's Wheat Bran | 14.58 | 3.58 |
| do. | do. | 191 | Soden's Wheat Shorts | 16.27 | 4.53 |
| do. | do. | 312 | Soden's Corn Chop | 14.38 | 4.02 |
| Enterprise, Kan. | Hoffman & Son Milling Co. | 28 | Bran | 16.73 | 4.77 |
| do. | do. do. | 29 | Shorts | 8.56 | 3.03 |
| Erie, Kan. | R. A. Braik | 333 | Corn Chop | 8.35 | 4.13 |
| do. | H. H. Dorr & Son | 391 | do. | 8.21 | 4.39 |
| do. | W. H. Treadway | 308 | do. | 9.32 | 4.21 |
| Esckridge, Kan. | W. A. Ferguson | 899 | Pure Corn Chop | 15.31 | 4.63 |
| do. | J. E. Miller & Son | 1018 | Chick Feed | 12.14 | 2.40 |
| Eudora, Kan. | W. W. Bromelsick | 463 | Wheat Bran | 8.71 | 4.61 |
| do. | do. | 464 | Wheat Shorts | 9.10 | 3.82 |
| do. | do. | 465 | Corn Chop | 14.67 | 3.03 |
| Eureka, Kan. | Eureka City Roller Mills | 929 | do. | 15.65 | 4.14 |
| do. | do. do. | 930 | Ship Stuff | 8.96 | 4.69 |
| do. | do. do. | 931 | Bran | 17.78 | 2.47 |
| do. | do. | 487 | Corn Chop | 19.87 | 3.96 |
| Everest, Kan. | C. E. Sheldon | 487 | Shorts | 16.77 | 4.42 |
| Fairport, Kan. | G. A. Lewis | 974 | Bran | 9.09 | 4.28 |
| do. | do. | 975 | Corn Chop | 15.89 | 3.01 |
| Florence, Kan. | Florence City Mills | 781 | Pure Wheat Bran | 8.11 | 4.27 |
| do. | do. | 782 | Corn Chop | 14.35 | 4.04 |
| do. | do. | 783 | Shorts | 15.01 | 4.24 |
| Fontana, Kan. | R. L. Gordon | 680 | Middlings | 15.20 | 1.83 |
| Ford, Kan. | L. K. Van Horne | 548 | Corn Chop | 8.77 | 4.31 |
| Fort Scott, Kan. | Goodlander Milling Co. | 377 | do. | 9.58 | 4.11 |
| do. | do. do. | 378 | Pure Alfalfa Meal | 15.45 | 2.18 |
| do. | do. do. | 379 | Ground Corn Chop | 8.37 | 3.78 |
| do. | do. do. | 380 | Ground Speltz | 13.72 | 2.20 |
| Fowler, Kan. | William Andis | 602 | Corn Chop 3/4 Ground Speltz 1/4 | 10.33 | 3.27 |
| do. | Hatch Bros | 462 | Ground Corn | 8.41 | 3.60 |
| Frankfort, Kan. | Frankfort Feed Mill Co. | 651 | Old Process Linseed Oil Meal | 31.93 | 14.12 |
| do. | do. do. | 652 | Corn Chop | 8.23 | 4.43 |
| do. | H. C. White | 657 | do. | 9.18 | 4.80 |
| do. | do. | 658 | do. | 9.01 | 4.84 |
| Fredonia, Kan. | Fredonia Linseed Oil Works | 606 | Mixed Feed | 13.88 | 3.47 |
| do. | A. Otto | 625 | | | |
| Galena, Kan. | Galena Mill and Elevator Co. | 776 | | | |
| do. | H. L. Jaqueth | 603 | | | |
| do. | H. C. Loucks | 807 | | | |
| do. | Sol. Ryan | 1005 | | | |

ANALYSES OF REGISTERED FEEDS--CONTINUED.

| ADDRESS. | Manufacturer. | Registration No. | Feed. | Per cent. protein. | Per cent. fat. |
|-------------------|-----------------------------------|------------------|----------------------------|--------------------|----------------|
| Galesburg, Kan. | William Moore | 414 | Corn Chop | 8.04 | 4.17 |
| Garden City, Kan. | Garden City Mill and Elevator Co. | 549 | Clear Corn Chop | 10.45 | 4.60 |
| Gardner, Kan. | Ward & Fluke | 345 | Ground Corn | 7.91 | 4.27 |
| Garfield, Kan. | Garfield Cooperative Co. | 871 | Corn Chop | 9.28 | 4.81 |
| do. | do. | 872 | Mixed Bran and Shorts | 17.45 | 8.04 |
| Garland, Kan. | S. J. Bryant | 221 | Corn Chop | 8.27 | 4.92 |
| do. | do. | 222 | Corn Bran | 9.62 | 8.49 |
| Garnett, Kan. | W. O. Decker & Co. | 611 | Corn Chop | 9.13 | 4.39 |
| do. | do. | 612 | Shorts | 15.51 | 4.08 |
| do. | do. | 613 | Bran | 15.09 | 4.58 |
| Girard, Kan. | C. Hitz & Son | 534 | Wheat Bran | 15.87 | 4.23 |
| do. | do. | 535 | Corn Chop | 8.30 | 3.96 |
| do. | do. | 536 | Wheat Shorts | 15.85 | 4.25 |
| do. | Leigh & Gerken | 751 | Corn Chop | 8.51 | 4.05 |
| do. | Morrow & Taaffe | 970 | do. | 9.02 | 4.08 |
| Glen Elder, Kan. | Nash & Kaul | 877 | Bran | 17.38 | 3.77 |
| do. | do. | 878 | Shorts | 20.13 | 4.90 |
| Goessel, Kan. | Goessel Milling Co. | 115 | Bran | 14.41 | 4.77 |
| do. | do. | 116 | Shorts | 14.43 | 3.71 |
| Goodland, Kan. | Bartholomew & Jayne | 491 | Barley Chop | 12.31 | 2.04 |
| do. | do. | 492 | Corn Chop | 8.89 | 3.49 |
| do. | J. G. Hamilton | 605 | do. | 9.66 | 3.94 |
| do. | King Manufacturing Co. | 811 | King Cholera Remedy, No. 1 | 8.14 | 0.64 |
| do. | do. | 812 | King Cholera Remedy, No. 2 | 8.60 | 1.16 |
| do. | do. | 813 | King Condition Powders | 22.51 | 6.49 |
| do. | do. | 883 | Bran | 15.28 | 4.13 |
| Great Bend, Kan. | Barton County Flour Mills Co. | 364 | Shorts | 17.63 | 4.44 |
| do. | do. | 365 | White Shorts | 16.91 | 4.06 |
| do. | do. | 366 | Mixed Feed | 16.61 | 4.14 |
| do. | do. | 367 | Corn Chop | 9.53 | 4.02 |
| do. | Moses Bros. Mill and Elevator Co. | 330 | Bran | 15.18 | 4.39 |
| do. | do. | 331 | Shorts | 16.60 | 4.06 |
| do. | do. | 332 | White Shorts | 17.27 | 3.71 |
| do. | Moses Bros. Grain Co. | 333 | Mixed Feed | 17.16 | 4.12 |
| do. | Moses Bros. Mill and Elevator Co. | 415 | 100 Pound Corn Chop | 9.25 | 4.41 |
| do. | do. | 201 | Wheat Bran | 14.98 | 4.01 |
| do. | Walnut Creek Milling Co. | 202 | Wheat Shorts | 18.11 | 4.85 |
| do. | do. | 203 | Mixed Feed | 15.12 | 4.34 |
| do. | do. | 204 | Corn Chop | 8.93 | 3.64 |

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|-------------------|--|------|------------------------------|-------|------|
| Greeley, Kan. | John Weaver, Greeley Mills | 550 | Pure Corn Chop | 8.44 | 4.18 |
| Greensburg, Kan. | J. M. Kelley | 291 | Kelley's Best Chop | 10.43 | 4.14 |
| Grenola, Kan. | Hand & Miller Bros. | 528 | Stockman's Pride (chop) | | |
| Gypsum, Kan. | Teichgraber Bros. | 97 | Bran | 14.70 | 4.38 |
| do. | do. | 98 | Shorts | 15.81 | 4.38 |
| do. | do. | 99 | Corn Chop | 9.97 | 4.70 |
| Halstead, Kan. | Halstead Milling and Elevator Co. | 37 | Bran | 14.47 | 4.35 |
| do. | do. | 35 | Shorts or Ship Stuff | 15.20 | 3.98 |
| do. | do. | 39 | Corn Chop | 9.25 | 4.04 |
| Hanover, Kan. | Ed Mueller & Son | 543 | Pure Wheat Shorts | 15.71 | 5.36 |
| do. | do. | 544 | Pure Wheat Bran | 14.20 | 5.07 |
| do. | do. | 545 | Pure Corn Chop | 10.16 | 3.68 |
| Hanston, Kan. | D. J. Hooley | 586 | "D. J. H." (barley and corn) | | |
| Harlan, Kan. | Harlan Milling Co. | 337 | Pure Wheat Bran | 14.32 | 4.25 |
| do. | do. | 338 | Pure Wheat Shorts | 15.23 | 4.36 |
| do. | do. | 339 | Pure Corn Chop | 9.62 | 3.70 |
| Harper, Kan. | Harper Mill and Elevator Co. | 578 | Mill Run | 16.08 | 4.51 |
| do. | do. | 579 | Pure Corn Chop | 9.29 | 4.71 |
| do. | do. | 580 | Ship or Shorts | 18.31 | 4.66 |
| do. | do. | 581 | Straight Wheat Bran | 16.39 | 3.94 |
| Hartford, Kan. | T. O. Gibbon | 863 | Corn Chop | 8.15 | 3.69 |
| do. | O'Connor & Stratton | 551 | do. | 8.45 | 3.77 |
| Harveyville, Kan. | Garinger Bros. | 443 | do. | 8.91 | 3.92 |
| Haven, Kan. | Bushman, Welk & Co. | 311 | Wheat Bran | 16.67 | 4.14 |
| do. | do. | 313 | Corn Chop | 9.82 | 3.79 |
| do. | do. | 424 | Shorts | 17.82 | 5.44 |
| Hays, Kan. | Streat H. Cox | 567 | Corn Chop | 10.05 | 3.72 |
| do. | I. M. Yost Milling Co. | 608 | Pure Shorts | 21.25 | 4.40 |
| do. | do. | 609 | Pure Bran | 20.88 | 4.13 |
| do. | do. | 964 | Corn Chop | 9.77 | 4.19 |
| Helmick, Kan. | J. O. Rochat | 507 | do. | 8.76 | 3.97 |
| Herndon, Kan. | Malone & Wenzel | 496 | Shorts | 16.26 | 4.56 |
| do. | do. | 500 | Bran | 16.00 | 4.51 |
| do. | do. | 501 | Corn Chop | 10.56 | 4.74 |
| Hiawatha, Kan. | Hiawatha Milling Co. | 253 | Wheat Bran | 14.02 | 4.56 |
| do. | do. | 254 | Wheat Shorts | 14.75 | 4.77 |
| do. | do. | 255 | Corn Chop | 9.29 | 4.28 |
| do. | Reliable Stock Powder Co. (B. E. Sipe) | 1001 | Reliable Stock Powder | | |
| Hill City, Kan. | Graham Co. Mill and Elevator Co. | 416 | Chop | 11.21 | 4.27 |
| do. | do. | 417 | Bran (wheat) | 15.70 | 4.16 |
| do. | do. | 418 | Shorts (wheat) | 15.63 | 3.45 |
| do. | do. | 435 | Barley Chop | | |
| Hillsboro, Kan. | Ebel Bros. | 894 | Red Shorts (pure) | 18.17 | 4.64 |
| do. | do. | 895 | Corn Chop (pure) | 9.75 | 3.43 |
| do. | do. | 896 | Bran | 15.37 | 3.67 |
| do. | do. | 897 | White Shorts | 17.67 | 3.50 |
| do. | John A. Klaassen | 924 | Wheat Shorts | 17.45 | 4.29 |
| do. | do. | 925 | Corn Chop | 9.99 | 3.64 |
| do. | do. | 926 | Wheat Bran | 15.87 | 3.67 |
| Holton, Kan. | Bernard Bros. | 659 | Corn Chop | 9.30 | 4.05 |

ANALYSES OF REGISTERED FEEDS—CONTINUED.

| ADDRESS. | Manufacturer. | Registration No. | Feed. | Per cent. protein..... | Per cent. fat..... |
|---------------------------|-------------------------------|------------------|---------------------------------|------------------------|--------------------|
| Holton, Kan..... | Sarbach Grain Co..... | 949 | Corn Chop..... | 17.77 | 4.37 |
| Holyrood, Kan..... | Holyrood Milling Co..... | 816 | Pure Wheat Shorts..... | 17.50 | 4.05 |
| do. do..... | do. do..... | 817 | Pure Wheat Bran..... | 17.19 | 3.84 |
| Hope, Kan..... | Emil Brunner..... | 986 | Bran Shorts or Mill Run..... | 11.60 | 4.23 |
| do. do..... | do. do..... | 985 | Corn Chop..... | 8.19 | 4.80 |
| Hoyt, Kan..... | John McClune..... | 785 | do..... | 17.17 | 3.55 |
| Hudson, Kan..... | Stafford Co. Flour Mills..... | 865 | Bran..... | 18.17 | 4.00 |
| do. do..... | do. do..... | 866 | Mixed Feed..... | 19.97 | 4.54 |
| do. do..... | do. do..... | 867 | Shorts..... | 10.18 | 5.65 |
| do. do..... | do. do..... | 868 | Corn Chop..... | 7.56 | 3.68 |
| Humboldt, Kan..... | Dickinson Bros..... | 274 | do..... | 16.00 | 4.19 |
| do. do..... | Humboldt Water Mill..... | 92 | Wheat Bran..... | 16.66 | 5.19 |
| do. do..... | do. do..... | 93 | Wheat Shorts..... | 7.70 | 4.23 |
| do. do..... | do. do..... | 94 | Corn Chop..... | 9.40 | 5.06 |
| do. do..... | do. do..... | 95 | Corn and Oat Chop..... | 10.03 | 3.76 |
| Hutchinson, Kan..... | Robert Bailey..... | 835 | Corn Chop..... | 18.13 | 4.96 |
| do. do..... | Forsha Milling Co..... | 625 | Shorts..... | 16.67 | 4.40 |
| do. do..... | do. do..... | 626 | Bran..... | 15.86 | 4.11 |
| do. do..... | Hutchinson Mill Co..... | 571 | do..... | 19.96 | 5.39 |
| do. do..... | do. do..... | 572 | Shorts..... | 15.88 | 3.05 |
| do. do..... | do. do..... | 573 | White Shorts..... | 9.28 | 3.52 |
| do. do..... | do. do..... | 574 | Corn Chop..... | 8.06 | 4.32 |
| do. do..... | Kansas Grain Co..... | 216 | do..... | 15.54 | 4.46 |
| do. do..... | Wm. Kelly Milling Co..... | 272 | Bran..... | 18.31 | 5.41 |
| do. do..... | do. do..... | 273 | Shorts..... | 14.68 | 4.58 |
| do. do..... | Monarch Milling Co..... | 279 | Bran..... | 15.43 | 4.47 |
| do. do..... | do. do..... | 280 | Shorts..... | 9.03 | 4.03 |
| do. do..... | Rock Island Mill Co..... | 235 | Pure Corn Chop..... | ..... | ..... |
| do. do..... | do. do..... | 527 | Corn Bran..... | 10.95 | 4.32 |
| do. do..... | J. A. Sickman & Co..... | 588 | "A. C." (Alfalfa and Corn)..... | 8.82 | 3.86 |
| do. do..... | do. do..... | 662 | "P. C." (Pure Corn)..... | 6.73 | 3.25 |
| do. do..... | Young & Sons..... | 363 | Young's Mixed Chicken Feed..... | 9.67 | 3.92 |
| do. do..... | do. do..... | 323 | Corn Chop..... | 8.90 | 3.85 |
| Independence, Kan..... | Bowen & Lewis..... | 591 | do..... | 9.72 | 4.63 |
| do. do..... | do. do..... | 592 | Oats Chop..... | 15.51 | 4.68 |
| Independence and Elk City | Bowen Milling Co..... | 479 | Mill Run Feed or Bran..... | 18.44 | 5.39 |
| do. do..... | do. do..... | 480 | Shorts or Middlings..... | 14.40 | 4.53 |
| do. do..... | do. do..... | 481 | Bran..... | 14.40 | 4.53 |
| do. do..... | do. do..... | 482 | Corn Chop..... | 9.48 | 4.65 |

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| Independence, Kan. | Johnston & Allen. | 600 | Corn Chop | 8.86 | 8.92 |
| do. | H. L. Theiss | 371 | do. | 9.27 | 4.11 |
| Inman, Kan. | Inman Milling Co. | 181 | Bran. | 15.01 | 3.61 |
| do. | do. | 256 | Shorts | 16.84 | 4.12 |
| Iola, Kan. | R. R. Claiborne. | 721 | Corn Chop | 8.71 | 4.57 |
| Jetmore, Kan. | A. H. Ling. | 195 | do. | 8.39 | 4.18 |
| Jewell City, Kan. | Jewell Milling Co. | 881 | do. | 8.68 | 4.58 |
| do. | do. | 382 | Shorts | 15.05 | 4.11 |
| do. | do. | 384 | Bran. | 14.25 | 4.61 |
| Junction City, Kan. | Hogan Milling Co. | 394 | do. | 13.98 | 4.41 |
| do. | do. | 395 | Shorts | 14.87 | 3.85 |
| do. | C. E. Stevens. | 972 | Pure Corn Chop | 10.02 | 3.93 |
| do. | Tyler & Co., Aurora Mills. | 502 | Bran. | 16.49 | 4.61 |
| do. | do. | 503 | White Shorts. | 17.49 | 4.84 |
| do. | do. | 504 | Corn Chop | 9.04 | 3.86 |
| Kansas City, Kan. | Armour Packing Co. | 354 | Helmet Brand Ground Meat Meal. | 62.48 | 12.89 |
| do. | do. | 694 | Helmet Brand Ground Bone | 25.26 | 0.80 |
| do. | do. | 696 | Helmet Brand Blood Meal (fine and granulated). | 87.83 | 0.23 |
| do. | Blacker Grain Co. | 440 | Corn Chop | 8.21 | 4.24 |
| do. | Crescent Cereal Co. | 864 | do. | 8.36 | 3.98 |
| do. | Joe A. Stahl Hay Co. | 566 | do. | 9.33 | 3.98 |
| do. | Alfred Weston & Co. | 588 | Pure Corn Chop | 8.40 | 4.02 |
| Kensington, Kan. | Kensington Mill Co. | 554 | Shorts | 16.83 | 3.90 |
| do. | do. | 555 | Bran. | 15.98 | 3.90 |
| do. | do. | 556 | Ground Corn. | 9.38 | 3.13 |
| do. | do. | 557 | Ground Wheat. | 13.08 | 2.48 |
| Kingman, Kan. | Kingman Milling Co. | 285 | Bran (wheat) | 15.47 | 4.63 |
| do. | do. | 286 | Shorts | 17.22 | 5.08 |
| do. | do. | 287 | Corn Chops. | 9.17 | 3.78 |
| Kinsley, Kan. | Fravel & Lewis. | 640 | Corn Chop | ..... | ..... |
| Kirwin, Kan. | J. W. & C. R. Jackson. | 597 | Bran. | 16.42 | 3.77 |
| do. | do. | 598 | Ship Stuff | 18.13 | 3.95 |
| do. | do. | 599 | Corn Chop | 9.92 | 3.93 |
| La Cygne, Kan. | Cartwell & Potter | 584 | do. | ..... | ..... |
| La Harpe, Kan. | Adams & Co. | 276 | do. | 7.80 | 3.96 |
| do. | S. S. Forney | 310 | Straight Corn Chop | 8.55 | 4.60 |
| do. | International Drug Co. | 740 | "Big 4" Stock Food | 19.37 | 4.62 |
| Lakin, Kan. | C. H. Waterman | 869 | Corn Chop | ..... | ..... |
| Larned, Kan. | Albert Anderson. | 950 | do. | 7.98 | 2.47 |
| do. | H. G. Gabel & Sons. | 641 | Mixed Feed. | 19.18 | 3.58 |
| do. | do. | 642 | Shorts | 18.75 | 3.09 |
| do. | do. | 643 | Corn Chops. | 10.27 | 4.56 |
| do. | do. | 644 | Bran. | 17.75 | 3.97 |
| do. | do. | 851 | do. | 17.87 | 3.39 |
| do. | Grant Milling Co. | 852 | Shorts | 15.67 | 4.24 |
| do. | do. | 853 | Corn Chops. | 10.32 | 3.98 |
| do. | do. | 989 | Mixed Feed. | 19.85 | 3.66 |
| do. | Lafe Lee. | 537 | Corn Chop | 9.68 | 4.31 |
| Lawrence, Kan. | Bowersock Mills and Power Co. | 242 | Pure Wheat Bran | 14.50 | 4.11 |
| do. | do. | 243 | Pure Wheat Shorts. | 15.38 | 3.87 |

ANALYSES OF REGISTERED FEEDS—CONTINUED.

| ADDRESS. | Manufacturer. | Registration No. | Feed. | Per cent. protein. | Per cent. fat. |
|-------------------------|------------------------------------|------------------|-------------------|--------------------|----------------|
| Lawrence, Kan. | Bowersock Mills and Power Co. | 244 | Pure Corn Chop | 8.25 | 3.57 |
| do. | A. C. Gibson | 560 | do. | 8.29 | 4.07 |
| do. | F. Gleed | 984 | do. | 8.90 | 4.38 |
| do. | E. B. Gorsuch | 108 | Corn Chop | 8.19 | 5.00 |
| do. | Pierson Milling Co. | 217 | Bran | 12.99 | 4.66 |
| do. | do. | 218 | White Shorts | 10.57 | 2.13 |
| do. | Underwood & Jones | 918 | Corn Chop | 9.57 | 4.19 |
| Leavenworth, Kan. | Ashby & Son | 157 | do. | 8.89 | 3.60 |
| do. | do. | 158 | Corn Bran | 8.02 | 5.98 |
| do. | M. A. Kelley | 598 | Corn Chops | 8.59 | 4.32 |
| do. | Kelley & Lysle Milling Co. | 117 | Pure Wheat Bran | 13.24 | 4.52 |
| do. | do. | 118 | Pure Wheat Shorts | 16.37 | 5.77 |
| do. | Leavenworth Milling Co. | 879 | Shorts | 13.70 | 4.43 |
| do. | do. | 880 | Bran | 16.53 | 3.97 |
| do. | Taylor Corn Mill Co. | 661 | Chop | 8.53 | 4.06 |
| Lebanon, Kan. | Lebanon Mill and Elevator Co. | 564 | Pure Wheat Shorts | 17.65 | 4.07 |
| do. | do. | 565 | Wheat Bran | 16.73 | 3.83 |
| do. | do. | 739 | Corn Chop | 8.99 | 3.53 |
| Lebo, Kan. | Geo. E. Ott | 558 | do. | 8.70 | 4.18 |
| Lecompton, Kan. | C. L. Walters | 804 | do. | 8.60 | 4.08 |
| Lehigh, Kan. | Groening Bros. | 778 | do. | 16.75 | 3.51 |
| do. | do. | 779 | Bran | 16.75 | 3.51 |
| do. | do. | 780 | Shorts | 17.25 | 4.17 |
| Lenora and Edmond, Kan. | Long & Goodman | 722 | do. | 15.97 | 4.58 |
| do. | do. | 723 | Bran | 14.64 | 3.78 |
| Le Roy, Kan. | Le Roy Milling Co. | 955 | Corn Chop | 9.13 | 4.14 |
| do. | do. | 956 | Shorts | 14.50 | 3.01 |
| do. | do. | 957 | Bran | 15.40 | 3.96 |
| Lewis, Kan. | James F. Malin | 882 | Corn Chop | 9.45 | 3.46 |
| Lincoln, Kan. | J. C. Cooper | 773 | do. | 13.63 | 1.56 |
| do. | Lincoln Roller Mills | 396 | White Shorts | 16.52 | 4.18 |
| do. | do. | 397 | Shorts | 16.52 | 4.18 |
| do. | do. | 398 | Bran and Shorts | 16.19 | 4.36 |
| Lindsborg, Kan. | Theo. Teichgraeber | 52 | Wheat Bran | 12.99 | 4.07 |
| do. | do. | 53 | Shorts | 16.20 | 4.98 |
| do. | do. | 54 | Pure Corn Chop | 9.81 | 4.49 |
| do. | Lindsborg Milling and Elevator Co. | 90 | Wheat Bran | 14.31 | 4.35 |
| do. | do. | 91 | Wheat Shorts | 17.13 | 4.94 |
| Logan, Kan. | Bowman Bros. | 515 | Corn Chop | 9.74 | 3.78 |

ANALYSES OF REGISTERED FEEDS—CONTINUED.

| ADDRESS. | Manufacturer. | Registration No. | Feed. | Per cent. protein. | Per cent. fat. |
|----------------------|-----------------------------------|------------------|----------------------------|--------------------|----------------|
| Medicine Lodge, Kan. | W. R. Forsythe | 33 | Corn Chop | 10.57 | 4.34 |
| Meriden, Kan. | Meriden Elevator Co. | 800 | do. | 9.85 | 3.51 |
| Minneapolis, Kan. | Farmers' Elevator Co. | 134 | do. | 9.85 | 4.10 |
| do. | J. H. Gentry | 903 | do. | 9.83 | 3.95 |
| do. | John Hartley | 679 | do. | 14.28 | 4.46 |
| do. | Jackman Roller Mills | 84 | Pure Wheat Bran | 16.54 | 4.59 |
| do. | do. | 85 | Pure Wheat Middlings | 16.50 | 3.35 |
| do. | Minneapolis Mill and Elevator Co. | 892 | Bran | 17.04 | 3.57 |
| do. | do. | 904 | Shorts | 9.61 | 3.70 |
| do. | do. | 905 | Corn Chop | 9.42 | 4.09 |
| do. | do. | 907 | do. | 8.21 | 3.57 |
| Moline, Kan. | Frank Webb | 449 | Pure Corn Chop | | |
| Montana, Kan. | E. E. Lugeanbeal | 919 | Corn Chop | 13.64 | 4.53 |
| Moran, Kan. | Moran Grain Co. | 388 | Wheat Shorts | 12.80 | 4.61 |
| Morganville, Kan. | Morganville Mill and Elevator Co. | 389 | Wheat Bran | 8.54 | 3.87 |
| do. | do. | 390 | Corn Chop | 10.07 | 4.46 |
| do. | do. | 724 | do. | 18.15 | 3.97 |
| Morland, Kan. | Morland Milling and Grain Co. | 725 | Bran | 16.72 | 2.47 |
| do. | do. | 726 | Shorts | 9.65 | 4.02 |
| do. | do. | 741 | Corn Chop | 7.91 | 4.03 |
| Morrill, Kan. | H. R. Melendy | 376 | Carpenter's Corn Chop | 15.15 | 4.33 |
| Mound City, Kan. | W. A. Carpenter | 412 | Bran | 13.30 | 3.09 |
| Moundridge, Kan. | Alta Milling Co. | 413 | Shorts | 16.26 | 4.58 |
| do. | Moundridge Milling Co. | 58 | do. | 15.58 | 3.88 |
| do. | do. | 57 | Bran | 15.09 | 5.04 |
| do. | do. | 59 | Mill Run or Mixed Feed | 13.26 | 4.25 |
| Mulvane, Kan. | Nessly & Rucker | 119 | Bran | 16.06 | 4.55 |
| do. | do. | 120 | Shorts or Ship | 8.76 | 4.26 |
| do. | do. | 121 | Chop | 7.98 | 4.28 |
| Neodesha, Kan. | Bauman Grain Co. | 467 | Bauman's Pure Chop | 15.57 | 4.65 |
| do. | Land Milling Co. | 87 | Bran | 17.09 | 4.52 |
| do. | do. | 88 | Shorts | 7.98 | 4.21 |
| do. | do. | 89 | Corn Chop | 15.57 | 4.64 |
| do. | do. | 1033 | Mixed Feed | 8.84 | 4.61 |
| do. | Sharp & Son | 475 | Sharp's Straight Corn Chop | 8.37 | 3.50 |
| Neosho Falls, Kan. | Farmers' Roller Mills | 634 | Corn Chop | 9.68 | 4.32 |
| Ness City, Kan. | D. E. Bondurant | 910 | do. | 8.95 | 4.17 |
| New Albany, Kan. | Robert Mooney | 678 | do. | 14.04 | 3.45 |
| do. | New Albany Roller Mills | 685 | Shorts | | |

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|------------------------|---------------------------------------|-----|---|-------|------|
| New Albany, Kan..... | New Albany Roller Mills..... | 686 | Wheat Bran..... | 14.24 | 4.74 |
| Newton, Kan..... | P. M. Claassen..... | 569 | do..... | 15.48 | 4.38 |
| do..... | do..... | 570 | Wheat Shorts..... | 12.83 | 2.42 |
| do..... | Eagle Milling Co..... | 55 | Bran..... | 16.54 | 4.25 |
| do..... | Eagle Milling Co..... | 56 | Shorts..... | 7.06 | 4.02 |
| do..... | Newton Alfalfa Mills..... | 808 | Pure Alfalfa Meal..... | 15.49 | 3.46 |
| do..... | Newton Milling and Elevator Co..... | 42 | Bran..... | 18.80 | 4.77 |
| do..... | do..... | 43 | Shorts..... | 16.47 | 2.20 |
| do..... | do..... | 44 | Corn Chop..... | 15.38 | 4.39 |
| do..... | Nurse & Lawry..... | 753 | Corn and Oats Chop..... | 17.16 | 4.82 |
| do..... | do..... | 754 | Corn Chop..... | 9.80 | 3.53 |
| Niles, Kan..... | Niles Grain Co..... | 787 | do..... | 10.80 | 4.48 |
| do..... | Thos. Lockhart..... | 958 | do..... | 10.17 | 4.54 |
| North Topeka, Kan..... | J. B. Billard..... | 706 | do..... | 11.01 | 3.50 |
| do..... | do..... | 707 | Mixed Chop..... | 10.53 | 4.04 |
| do..... | do..... | 708 | Mixed Bran and Chop..... | 9.50 | 4.76 |
| do..... | do..... | 709 | Rye Bran..... | 9.41 | 4.42 |
| do..... | do..... | 710 | Corn Bran..... | 12.58 | 4.15 |
| Norton, Kan..... | Farmers Milling and Elevator Co..... | 675 | Corn Chop..... | 18.48 | 2.82 |
| do..... | do..... | 676 | Shorts..... | 9.33 | 7.22 |
| do..... | do..... | 677 | Bran..... | 9.54 | 3.77 |
| Norwich, Kan..... | Norwich Mill and Grain Co..... | 713 | Corn Chop..... | 17.48 | 4.16 |
| Oakley, Kan..... | Oakley Milling Co..... | 610 | Shorts..... | 15.86 | 4.17 |
| Oberlin, Kan..... | Oberlin Roller Mills..... | 404 | Bran..... | 9.08 | 4.10 |
| do..... | do..... | 405 | Corn Chop..... | 19.05 | 4.26 |
| do..... | do..... | 406 | Mill Run or Mixed Feed..... | 15.15 | 3.87 |
| Oketo, Kan..... | H. R. Chapman & Co..... | 622 | Bran..... | 16.37 | 4.11 |
| do..... | do..... | 623 | Shorts..... | 10.32 | 4.85 |
| Olathe, Kan..... | T. G. Graham..... | 296 | Corn Chop (with 2 per cent. corn bran)..... | 14.37 | 4.81 |
| Onaga, Kan..... | S. P. Taylor..... | 476 | Bran..... | 14.45 | 4.16 |
| Opolis, Kan..... | James Denton..... | 133 | Shorts..... | 8.49 | 3.51 |
| Osage City, Kan..... | Arthur Adams..... | 45 | Corn Chop..... | 7.83 | 4.17 |
| do..... | Osage City Grain and Elevator Co..... | 806 | do..... | 8.61 | 3.93 |
| Osborne, Kan..... | W. B. Foy..... | 512 | do..... | 8.18 | 4.44 |
| do..... | Solomon Valley Milling Co..... | 513 | do..... | 8.07 | 4.07 |
| do..... | do..... | 514 | do..... | 9.33 | 3.69 |
| do..... | do..... | 684 | "O" (wheat bran)..... | 16.17 | 3.91 |
| Oswego, Kan..... | J. S. Bottenfield..... | 192 | "O" (wheat shorts)..... | 19.17 | 4.49 |
| do..... | J. M. Fleming..... | 298 | Corn Chop..... | 9.01 | 4.86 |
| do..... | Oswego Milling Co..... | 299 | do..... | 8.07 | 3.60 |
| do..... | do..... | 300 | Fleming's Corn Chop..... | 8.53 | 4.68 |
| do..... | do..... | 355 | Mill Run Bran..... | 14.45 | 4.57 |
| do..... | Pearl Roller Mill Co..... | 410 | Wheat Shorts..... | 13.65 | 3.40 |
| do..... | do..... | 411 | Corn Chop..... | 8.11 | 4.02 |
| do..... | do..... | 412 | Mixed Feed..... | 14.08 | 4.77 |
| do..... | do..... | 967 | Corn Chop..... | 7.99 | 3.49 |
| do..... | Oswego Seed and Grain Co..... | 993 | do..... | 12.14 | 1.64 |
| do..... | do..... | 993 | Mill Run..... | 10.19 | 3.82 |
| Ottawa, Kan..... | Forest Park Milling Co..... | 951 | Corn Chop..... | 11.35 | 3.59 |
| | | | Bran..... | | |

ANALYSES OF REGISTERED FEEDS—CONTINUED.

| ADDRESS. | Manufacturer. | Registration No. | Feed. | Per cent protein. | Per cent fat. |
|--------------------|------------------------------------|------------------|--|-------------------|---------------|
| Ottawa, Kan. | Forest Park Milling Co. | 952 | Shorts | | |
| do. | do. | 953 | Corn Chop | 8.15 | 3.67 |
| do. | Williams-Wilson Grain Co. | 909 | do. | 15.19 | 4.56 |
| Oxford, Kan. | Mitchell Mill Co. | 356 | Wheat Bran | 15.69 | 4.35 |
| do. | do. | 357 | Wheat Shorts | 8.86 | 4.50 |
| do. | do. | 358 | Corn Chop | 8.60 | 4.05 |
| Ozawkie, Kan. | M. A. Wilson | 989 | do. | 8.10 | 3.92 |
| Paola, Kan. | R. Ewbank & Co. | 207 | Pure Corn Chop | 8.90 | 4.45 |
| do. | E. T. Fowler | 142 | Corn Chop | 6.18 | 2.52 |
| do. | do. | 143 | Corn Bran | 15.08 | 4.24 |
| do. | Voglesong & Hamlin | 40 | Bran | 15.08 | 4.06 |
| do. | do. | 41 | Shorts | 8.78 | 3.96 |
| do. | do. | 261 | Corn Chop | 8.76 | 4.36 |
| Parsons, Kan. | J. C. Burgess | 636 | do. | 8.40 | 3.54 |
| do. | Cornish & Slane, Globe Feed Mill. | 587 | Pure Corn Chop | 13.74 | 4.75 |
| do. | Hoke Bros. | 169 | Bran | 12.23 | 2.80 |
| do. | do. | 170 | Shorts | 8.09 | 3.65 |
| do. | do. | 171 | Corn Chop | 8.80 | 2.86 |
| do. | do. | 172 | Mixed Chicken Feed | 11.72 | 4.12 |
| do. | W. H. Jardine | 1008 | Electric Mixed Feed | 9.13 | 3.76 |
| do. | J. W. McKierman | 129 | Exchange Mill Chicken Feed | 8.03 | 4.38 |
| do. | do. | 130 | Exchange Mill Corn Chop | 11.19 | 4.26 |
| do. | G. W. Thurston | 309 | Duke's Mixture | 9.94 | 4.50 |
| Partridge, Kan. | W. M. French | 797 | Corn Chop | 12.47 | 4.43 |
| Paxico, Kan. | Paxico Milling Co. | 214 | Paxico Milling Co.'s "Pure Wheat Bran" | 12.64 | 3.85 |
| do. | do. | 215 | Paxico Milling Co.'s White Shorts | 15.46 | 4.67 |
| Peabody, Kan. | Janett & Moffitt | 154 | Wheat Bran | 15.77 | 4.91 |
| do. | do. | 155 | Wheat Shorts | 8.87 | 3.28 |
| do. | do. | 156 | Corn Chop | 9.69 | 4.07 |
| do. | W. A. Sterling | 821 | do. | 15.27 | 3.53 |
| Peru, Kan. | Peru Milling and Elevator Co. | 700 | Wheat Shorts | 8.72 | 4.37 |
| do. | do. | 701 | Corn Chop | 17.14 | 4.71 |
| do. | do. | 702 | Wheat Bran | 18.38 | 3.95 |
| Phillipsburg, Kan. | Phillipsburg Mill and Elevator Co. | 630 | Wheat Shorts or Middlings | 9.92 | 4.55 |
| do. | do. | 631 | Corn Chop | 17.00 | 4.20 |
| do. | do. | 632 | Wheat Bran | | |
| do. | do. | 631 | Corn Chop | | |
| Pittsburg, Kan. | McIlvain Grain and Coal Co. | 961 | Corn Chop | 9.07 | 5.69 |
| do. | L. Belknap | 70 | do. | 14.4 | 4.02 |
| do. | L. Belknap | 1085 | Belknap's Mixed Feed | | |

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|------------------|------------------------------------|-----|----------------------------------|-------|------|
| Pittsburg, Kan. | Pittsburg Elevator Co. | 79 | Pittsburg Elevator Mixed Feed. | 13.29 | 3.28 |
| do. | do. | 80 | Pittsburg Elevator Chop | 7.81 | 4.67 |
| do. | Pittsburg Modern Milling Co. | 184 | Bran (98 lbs.) | 15.62 | 4.54 |
| do. | do. | 185 | Shorts (98 lbs.) | 14.71 | 3.50 |
| do. | do. | 186 | Mixed Feed or Mill Run (98 lbs.) | 15.24 | 3.71 |
| do. | do. | 187 | Corn Chop | 8.51 | 4.98 |
| do. | do. | 539 | Mixed Feed | 18.26 | 4.32 |
| Plainville, Kan. | Plainville Mill and Elevator Co. | 540 | Shorts | 19.61 | 4.67 |
| do. | do. | 541 | Bran | 17.17 | 4.36 |
| do. | do. | 542 | Corn Chop | 10.21 | 3.50 |
| do. | do. | 301 | Wheat Bran | 14.19 | 4.32 |
| Pleasanton, Kan. | The Blaker Milling Co. | 302 | Wheat and Corn Bran | 13.45 | 5.40 |
| do. | do. | 303 | Wheat Shorts | 16.70 | 4.35 |
| do. | do. | 304 | Corn Chop | 7.86 | 4.10 |
| do. | do. | 928 | do. | | |
| Pratt, Kan. | M. V. Bradley | 407 | Wheat Bran | 15.47 | 4.34 |
| do. | Pratt Mill and Elevator Co. | 408 | Corn Chop | 9.25 | 4.44 |
| do. | do. | 409 | Wheat Shorts | 17.46 | 5.33 |
| do. | do. | 983 | Corn Chop | 10.20 | 4.48 |
| Protection, Kan. | Geo. S. Scantlin & Co. | 870 | do. | 8.60 | 3.73 |
| do. | Alva Mill and Elevator Co. | 674 | do. | 10.77 | 4.28 |
| Quenemo, Kan. | Wuchter & McCracken. | 553 | do. | 8.84 | 4.05 |
| do. | S. F. Lester | 911 | Bran | 17.42 | 4.15 |
| do. | Quenemo Milling Co. | 912 | Corn Chop | 7.89 | 3.61 |
| do. | do. | 913 | Shorts | 16.83 | 4.00 |
| do. | do. | 132 | Corn Chops | 8.44 | 3.49 |
| Rosedale, Kan. | Chas. Engler | 109 | Corn Chop | 8.67 | 3.81 |
| do. | Southern Milling Co. | 436 | Wheat Bran | 15.84 | 4.28 |
| Russell, Kan. | Russell Milling Co. | 437 | Shorts | 18.54 | 5.17 |
| do. | do. | 663 | Corn Chop | 8.38 | 3.39 |
| St. John, Kan. | P. F. Fox & Co. | 758 | do. | 8.92 | 3.97 |
| St. Marys, Kan. | Byrnes & Co. | 682 | Mixed Feed | 12.69 | 4.23 |
| Salina, Kan. | John Finley | 683 | Corn Chop | 9.18 | 4.62 |
| do. | do. | 21 | Winter Wheat Bran | 14.49 | 3.97 |
| do. | Lee-Warren Milling Co. | 22 | Winter Wheat Middlings | 16.56 | 4.56 |
| do. | do. | 122 | Corn and Oats Chop | 9.02 | 4.41 |
| do. | Edward Lotz | 123 | Corn Chop | 8.91 | 4.44 |
| do. | do. | 275 | Mixed Feed | 12.03 | 4.42 |
| do. | do. | 9 | Bran "S" | 16.70 | 4.26 |
| do. | Shellabarger Mill and Elevator Co. | 10 | Middlings "S" | 17.75 | 4.60 |
| do. | do. | 11 | Mixed Feed "S" | 14.05 | 4.30 |
| do. | do. | 12 | Corn Chop "S" | 10.60 | 3.95 |
| do. | do. | 24 | Star Winter Wheat Bran | 16.07 | 4.06 |
| do. | do. | 25 | Star Winter Wheat Middlings | 17.24 | 4.74 |
| do. | do. | 26 | Star Corn Chop | 8.52 | 3.82 |
| do. | do. | 27 | Star Corn and Oats Chop | 9.28 | 4.39 |
| do. | do. | 916 | Shorts | 13.75 | 2.40 |
| Sawyer, Kan. | Bozeman & Francis | 917 | Bran | 15.77 | 3.87 |
| do. | do. | 973 | Corn Chop | 10.08 | 4.14 |
| Scott City, Kan. | L. & M. Mercantile Co. | 978 | do. | 9.12 | 3.51 |
| Sedan, Kan. | Webb Livery Co. | | | | |

ANALYSES OF REGISTERED FEEDS—CONTINUED.

| ADDRESS. | Manufacturer. | Registration No. | Feed. | Percent protein. | Percent fat. |
|--------------------|---|------------------|-------------------------------------|------------------|--------------|
| Sedgwick, Kan. | G. Barkemeyer | 128 | B's Corn Chop | 9.19 | 4.07 |
| do. | Wm. Finn | 352 | Corn Chop | 8.76 | 3.79 |
| Seneca, Kan. | H. Eichenlaub | 749 | Corn and Oats Chop | 10.00 | 4.12 |
| do. | do. | 750 | Corn Chop | 8.73 | 4.27 |
| Severance, Kan. | Ebeling & Laverantz | 345 | Wheat Bran | 12.12 | 5.38 |
| do. | do. do. | 347 | Shorts | 8.21 | 2.12 |
| do. | do. do. | 348 | Corn Chop | 7.86 | 4.11 |
| Severy, Kan. | A. M. Brandt | 927 | do. | 10.15 | 3.10 |
| Shady Bend, Kan. | Shady Bend Mill and Elevator Co. | 667 | Mixed Feed | 17.02 | 3.99 |
| do. | do. do. | 668 | Corn Chop | 9.40 | 3.80 |
| Sibley, Kan. | E. O. Karnes | 784 | Pure Corn Chop | 8.81 | 3.73 |
| Simpson, Kan. | Simpson Milling Co. | 66 | Bran | 13.33 | 4.69 |
| do. | do. do. | 67 | Shorts | 15.51 | 4.84 |
| do. | do. do. | 68 | Ear Corn Chop | 8.28 | 3.48 |
| do. | do. do. | 69 | Corn Chop | 9.49 | 4.39 |
| Smith Center, Kan. | Smith Center Mill, Elevator and Light Co. | 359 | Wheat Bran | 14.09 | 4.05 |
| do. | do. do. do. | 360 | Shorts | 16.60 | 4.54 |
| do. | do. do. do. | 727 | Corn Chop | 9.33 | 4.20 |
| South Haven, Kan. | Wm. B. Hicks | 385 | Bran | 14.56 | 4.29 |
| do. | do. | 386 | Shorts | 17.04 | 4.90 |
| do. | do. | 387 | Corn Chop | 9.48 | 3.39 |
| Stafford, Kan. | Larabee Flour Mills Co. | 110 | Larabee's Bran | 14.29 | 4.68 |
| do. | do. do. | 111 | Larabee's Shorts | 16.46 | 4.86 |
| do. | do. do. | 112 | Larabee's Mixed Feed | 15.41 | 4.64 |
| do. | do. do. | 113 | Larabee's Sterling Feed | 12.01 | 1.65 |
| do. | do. do. | 114 | Larabee's Corn Chop | 9.41 | 3.85 |
| Sterling, Kan. | Henry J. Arnold | 46 | Bran | 15.17 | 4.05 |
| do. | do. | 47 | Shorts | 18.13 | 4.85 |
| do. | do. | 48 | Shorts and Bran Mixed | 15.50 | 4.69 |
| do. | do. | 49 | Corn Chop | 8.24 | 3.85 |
| do. | H. M. Lloyd | 681 | do. | 9.79 | 4.51 |
| Stockton, Kan. | Frank M. Jackson | 922 | Wheat Bran | 17.22 | 3.44 |
| do. | do. | 923 | Corn Chop | 7.90 | 2.15 |
| do. | do. | 984 | Shorts or Ship Stuff | 18.80 | 3.55 |
| do. | do. | 486 | Corn Chop | 8.57 | 3.63 |
| Strawn, Kan. | Kuhlman Bros. | 233 | Wheat Bran with Unground Screenings | 14.19 | 4.67 |
| Sylvia, Kan. | Sylvia Mill and Elevator Co. | 234 | Daisy Shorts | 13.53 | 4.05 |
| do. | do. do. | 234 | do. | 9.10 | 4.16 |
| do. | do. do. | 595 | Corn Chop | 9.10 | 4.16 |
| Syracuse, Kan. | H. R. Taylor | 393 | do. | 10.28 | 4.77 |

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|------------------|---|------|---|-------|-------|
| Syracuse, Kan. | H. R. Taylor | 620 | Bran (later mill run) | 17.13 | 2.25 |
| do. | L. P. Worden & Son | 915 | Corn Chop | 9.45 | 4.03 |
| Tampa, Kan. | Tampa Milling Co. | 247 | Wheat Bran | 14.91 | 4.64 |
| do. | do. | 248 | Wheat Shorts | 16.70 | 5.12 |
| do. | do. | 249 | Corn Chop | 9.30 | 4.13 |
| do. | do. | 908 | do. | 10.50 | 4.01 |
| Tescott, Kan. | Stetson & Neely | 920 | Bran | 18.13 | 3.93 |
| do. | do. | 921 | Shorts | 18.47 | 4.13 |
| do. | do. | 822 | Corn Chop | 9.14 | 3.90 |
| Thayer, Kan. | Powell & Curry | 575 | do. | 8.43 | 3.83 |
| Tonganoxie, Kan. | Tonganoxie Milling Co. | 576 | Shorts | 16.85 | 4.75 |
| do. | do. | 577 | Bran | 14.28 | 4.22 |
| do. | do. | 876 | Pure Alfalfa Meal | 15.55 | 1.65 |
| Topeka, Kan. | Alfalfa Milling Co. | 704 | Mixed Feed | 13.28 | 4.27 |
| do. | Geo. W. Barker & Onion | 705 | Corn Chop | 9.19 | 4.11 |
| do. | do. | 696 | do. | 9.08 | 4.25 |
| do. | T. A. Beck | 697 | Cracked Corn | 8.56 | 3.36 |
| do. | do. | 698 | Mixed Chop | 9.27 | 4.29 |
| do. | do. | 699 | Bran and Chop | 13.63 | 4.24 |
| do. | do. | 1019 | Beck's Chick Food | 10.25 | 3.86 |
| do. | do. | 759 | Corn Chop | 9.08 | 4.28 |
| do. | D. O. Coe | 760 | Mixed Chop | 9.51 | 3.84 |
| do. | do. | 761 | Mixed Feed | 12.78 | 4.04 |
| do. | do. | 762 | Mixed Chicken Feed | 10.24 | 3.19 |
| do. | do. | 992 | Chick-O | 11.79 | 4.14 |
| do. | do. | 647 | White Shorts | 17.54 | 4.38 |
| do. | Crosby Roller Milling Co. | 648 | Bran | 16.45 | 4.57 |
| do. | do. | 649 | Shorts | 18.13 | 4.71 |
| do. | do. | 792 | Mixed Chop | 9.08 | 4.15 |
| do. | Forbes Bros. | 793 | Corn Chop | 8.18 | 3.70 |
| do. | do. | 794 | Corn Bran | 6.21 | 4.30 |
| do. | do. | 745 | Eller's Highly Medicated Condiment Stock Food | 19.70 | 4.38 |
| do. | German Swine and Poultry Mercantile Co. | 881 | Corn Chop | 8.47 | 4.15 |
| do. | T. C. Kirkpatrick & Co. | 151 | Wheat Bran | 14.25 | 3.90 |
| do. | Willis Norton & Co. | 152 | Wheat Shorts | 16.52 | 4.89 |
| do. | do. | 803 | Medicated Stock Salt for Farm Animals | 16.73 | 4.00 |
| do. | W. M. Hornbeck | 846 | Pure Wheat Shorts | 17.22 | 4.74 |
| do. | Kaw Milling Co. | 847 | Pure Wheat Bran | 14.54 | 4.27 |
| do. | do. | 50 | Bran | 15.63 | 4.51 |
| do. | Thos. Page | 51 | Shorts | 16.24 | 4.03 |
| do. | do. | 645 | Bran | 18.12 | 4.89 |
| do. | Shawnee Milling Co. | 646 | Shorts | 15.29 | 4.35 |
| do. | do. | 205 | Wheat Bran | 16.94 | 4.63 |
| do. | Topeka Milling Co. | 206 | Shorts | 58.15 | 17.64 |
| do. | do. | 988 | Meat Meal | 9.08 | 3.27 |
| do. | Chas. Wolf Packing Co. | 340 | Purity Baby Chick Food | 8.77 | 4.10 |
| do. | Zimmerman Seed Co. | 971 | Corn Chop | 12.36 | 6.64 |
| do. | Sharits & Johnson | 162 | Mixed Bran | 14.35 | 5.04 |
| Toronto, Kan. | Clark Bros. | 163 | Shorts | 14.14 | 4.96 |
| Troy, Kan. | do. | | | | |
| do. | do. | | | | |

ANALYSES OF REGISTERED FEEDS—CONTINUED.

| ADDRESS. | Manufacturer. | Registration No. | Feed. | Per cent. protein. | Per cent. fat. |
|--|----------------------------------|------------------|--------------------------|--------------------|----------------|
| Turon, Kan. | Turon Mill and Elevator Co. | 334 | Mixed Bran | 14.77 | 5.33 |
| do. | do. | 335 | Corn Chop | 9.44 | 4.13 |
| do. | do. | 336 | Shorts | 12.33 | 2.14 |
| Udall, Kan. | Udall Milling Co. | 288 | Corn Chop | 8.40 | 3.49 |
| do. | do. | 289 | Wheat Bran | 14.37 | 4.22 |
| do. | do. | 290 | Pure Wheat Shorts | 15.06 | 4.47 |
| Valley Falls, Kan. | Thos. Hatfield | 153 | Corn Chop | 8.86 | 4.14 |
| do. | Hauck Bros. | 23 | do. | 9.46 | 4.27 |
| Wa Keeney, Kan. | H. F. Osterkamp | 692 | do. | | |
| do. | do. | 693 | Mixed Horse and Cow Feed | | |
| do. | Ross & Waldo | 933 | Corn Chop | | |
| Wakefield, Kan. | W. H. Beatty | 837 | do. | 8.90 | 3.76 |
| do. | H. Niemoller & Sons | 349 | Wakefield Wheat Bran | 14.11 | 4.16 |
| do. | do. | 350 | Wakefield Shorts | 14.83 | 4.40 |
| do. | do. | 351 | Wakefield Corn Chop | 9.21 | 4.51 |
| Wamego, Kan. | Lord Milling Co. | 614 | Mixed Feed | 15.68 | 5.38 |
| do. | do. | 615 | Corn Chop | 9.47 | 4.20 |
| do. | do. | 616 | Shorts | 19.71 | 4.73 |
| do. | do. | 617 | Wheat Bran | 16.80 | 3.80 |
| Washington, Kan. | R. P. Brown | 1039 | Corn and Oats Chop | 10.67 | 3.91 |
| Wathena, Kan. | Fred Richards | 458 | Nuggett Mill Corn Chop | 9.18 | 4.84 |
| Waverly, Kan. | J. F. Grennon | 775 | Corn Chop | 9.13 | 4.86 |
| Weir City, Kan. | Weir City Milling Co. | 375 | do. | 8.41 | 4.19 |
| Wellington, Kan. | Ætna Mill and Elevator Co. | 939 | Shorts | 20.15 | 5.52 |
| do. | do. | 940 | Corn Chop | 9.17 | 3.88 |
| do. | do. | 941 | Bran | 16.12 | 4.00 |
| do. | Hunter Milling Co. | 211 | do. | 15.52 | 4.22 |
| do. | do. | 212 | Shorts | 16.92 | 4.46 |
| do. | do. | 213 | Corn Chop | 8.34 | 3.70 |
| do. | do. | 245 | Mill Run | 15.72 | 4.60 |
| do. | Wellington Mill and Elevator Co. | 13 | Bran | 16.90 | 4.01 |
| do. | do. | 14 | Rich Bran | 18.10 | 4.41 |
| do. | do. | 15 | Shorts | 19.80 | 4.79 |
| do. | do. | 16 | White Shorts | 17.96 | 3.73 |
| do. | do. | 17 | Chop | 18.00 | |
| Wellsville, Agricola and Waverly, Kan. | Star Grain and Lumber Co. | 323 | Ear Corn Chop | 9.70 | 3.95 |
| do. | do. | 324 | Corn Chop | 7.28 | 3.26 |
| | | | | 8.21 | 3.95 |

| | | | | | |
|-------------------|--------------------------------------|-----|--|-------|-------|
| Westphalia, Kan. | V. Highberger | 660 | Corn Chop | 8.03 | 3.87 |
| White Cloud, Kan. | Jno. H. Lynds Mill and Elevator Co. | 625 | do. | 8.05 | 3.17 |
| do. | do. do. do. | 626 | Wheat Shorts | 11.98 | 3.28 |
| do. | do. do. do. | 627 | Wheat Bran | 12.47 | 4.41 |
| do. | White Cloud Milling and Elevator Co. | 669 | Wheat Shorts | 15.21 | 4.24 |
| do. | do. do. do. | 670 | Corn Chop | 8.28 | 4.52 |
| do. | do. do. do. | 671 | Wheat Bran | 13.19 | 3.67 |
| White Water, Kan. | White Water Milling and Elevator Co. | 628 | do. | 16.03 | 4.53 |
| do. | do. do. do. | 629 | Shorts or Middlings | 16.79 | 4.24 |
| Wichita, Kan. | East End Feed and Coal Co. | 956 | Corn Chop | 8.95 | 3.51 |
| do. | Hess Flour Co. | 319 | do. | 10.29 | 4.27 |
| do. | Howard Mills Co. | 135 | Peerless Princess Wheat Bran | 16.95 | 4.88 |
| do. | do. | 136 | Peerless Princess Shorts | 14.47 | 3.82 |
| do. | do. | 137 | Corn Chop | 7.55 | 4.21 |
| do. | do. | 138 | Corn Bran | 8.22 | 6.05 |
| do. | do. | 267 | Mixed Feed, Bran and Shorts | 15.79 | 4.44 |
| do. | Imboden Milling Co. | 165 | Wheat Bran | 14.79 | 5.30 |
| do. | do. | 166 | Ship Stuff | 15.91 | 4.77 |
| do. | do. | 167 | Corn Chops | 8.91 | 3.95 |
| do. | do. | 168 | Corn Bran | 8.68 | 6.87 |
| do. | F. M. Johnson | 219 | Corn Chop | 8.70 | 4.08 |
| do. | Kansas Milling Co. | 239 | Climax Wheat Bran | 15.52 | 4.61 |
| do. | do. | 240 | Corn Chops | 8.36 | 3.25 |
| do. | do. | 241 | Climax Special Wheat Feed or Shorts | 13.95 | 3.48 |
| do. | do. | 790 | Alfalfa Stock Food | 12.73 | 3.77 |
| do. | do. | 791 | Climax Wheat Shorts | 17.49 | 4.03 |
| do. | F. H. Keillogg | 230 | Chop and Bran | 10.74 | 4.29 |
| do. | do. | 231 | Corn Chop | 8.53 | 4.11 |
| do. | do. | 325 | do. | 9.34 | 4.19 |
| do. | North End Coal and Feed Co. | 220 | Peerless Mills Corn Chop | 7.92 | 3.78 |
| do. | Peerless Mills | 246 | Banner Mills Corn Chop | 9.13 | 3.97 |
| do. | Poensich Bros. | 271 | Corn Chop | 9.44 | 4.23 |
| do. | Puckett & Bagby | 263 | Wheat Bran, Wheat Screenings and Corn Bran | 14.45 | 4.39 |
| do. | Red Star Mill and Elevator Co. | 264 | Wheat Shorts | 17.54 | 5.63 |
| do. | do. do. do. | 265 | Wheat White Shorts | 17.05 | 4.62 |
| do. | do. do. do. | 266 | Corn Chop | 9.27 | 3.78 |
| do. | do. do. do. | 210 | do. | 7.62 | 4.13 |
| do. | Charles Seiner | 189 | Pure Corn Chop | 8.50 | 3.17 |
| do. | Stevens Scott Grain Co. | 74 | Wheat Bran | 16.31 | 4.80 |
| do. | Watson Mill Co. | 75 | Wheat Shorts | 15.77 | 3.89 |
| do. | do. | 236 | Star Stock Food | 14.49 | 4.02 |
| do. | Weed & Abbott | 237 | Corn Chop | 9.12 | 3.63 |
| do. | do. | 1 | Otto Weiss Alfalfa Stock Food | 12.50 | 3.73 |
| do. | Otto Weiss Alfalfa Stock Food Co. | 2 | Otto Weiss Alfalfa Hog Food | 17.95 | 4.26 |
| do. | do. do. do. | 3 | Alfalfa Mash Every Day Egg Producer | 17.90 | 3.34 |
| do. | do. do. do. | 4 | Otto Weiss Chick Feed | 11.02 | 2.76 |
| do. | do. do. do. | 5 | Otto Weiss Hen Feed | 10.59 | 3.33 |
| do. | do. do. do. | 6 | Alfalfa Conditioner | 18.09 | 13.28 |
| do. | do. do. do. | 7 | Alfalfa Poultry Remedy | 16.59 | 16.81 |
| do. | do. do. do. | 8 | Alfalfa Hog Remedy | 14.37 | 14.12 |

ANALYSES OF REGISTERED FEEDS—CONTINUED.

| ADDRESS. | Manufacturer. | Registration No. | Feed. | Per cent. protein. | Per cent. fat. |
|--------------------------|-----------------------------------|------------------|--|--------------------|----------------|
| Wichita, Kan. | Otto Weiss Alfalfa Stock Food Co. | 262 | Otto Weiss Corn Chop | 8.90 | 3.82 |
| do. | do. | 633 | Kafir Shorts | 9.62 | 2.95 |
| do. | C. E. Weybright | 228 | Mixed Feed | 10.02 | 3.78 |
| do. | do. | 229 | Corn Chop | 8.74 | 4.15 |
| do. | W. M. Wikoff | 238 | Wikoff's Corn Chop | 9.71 | 3.73 |
| Wilsey, Kan. | Robt. T. Ray Grain Co. | 322 | Corn Chop | 8.99 | 3.81 |
| Wilson, Kan. | W. L. Nesmith & Son | 796 | do. | 9.42 | 3.95 |
| do. | B. C. Paull | 774 | do. | | |
| Winfield, Kan. | Alexander Milling Co. | 102 | Bran | 15.63 | 4.41 |
| do. | do. | 103 | Shorts | 16.68 | 4.91 |
| do. | do. | 104 | Bran and Shorts Mixed | 17.02 | 4.57 |
| do. | do. | 105 | Corn Chop | 9.60 | 4.26 |
| do. | Clarkson Milling Co. | 508 | Wheat Bran | 15.44 | 4.28 |
| do. | do. | 509 | Shorts | 17.08 | 4.36 |
| do. | do. | 510 | Corn Chop | 9.05 | 4.78 |
| do. | C. R. Peden | 959 | do. | 9.33 | 4.61 |
| do. | M. J. Phillips | 977 | do. | 9.47 | 3.50 |
| do. | Winfield Roller Mills | 60 | Bran | 15.08 | 3.94 |
| do. | do. | 61 | Shorts | 16.41 | 4.21 |
| do. | do. | 62 | Corn Chop | 9.19 | 4.89 |
| Woodbine, Kan. | Woodbine Mill and Elevator Co. | 947 | Bran | 16.08 | 3.65 |
| do. | do. | 948 | Shorts | 17.53 | 4.14 |
| Yates Center, Kan. | Yates Center Mills | 672 | Corn Chop | 8.91 | 3.94 |
| do. | Harder-Weide Hay and Grain Co. | 965 | Pure Corn Chop | | |
| Shreveport, La. | Caddo Cotton Oil Co. | 374 | Caddo Cold Pressed Cotton Seed Cake | 23.28 | 7.36 |
| Minneapolis, Minn. | International Stock Food Co. | 833 | International Stock Food | 11.96 | 5.76 |
| do. | do. | 832 | International Poultry Food | 16.75 | 3.79 |
| do. | Midland Linseed Co. | 438 | Midland Brand, Old Process Ground Linseed Cake | | |
| do. | do. | 1026 | Midland Old Process Ground Linseed Meal | 33.48 | 6.95 |
| do. | Security Remedy Co. | 719 | Security Stock Powder | | |
| do. | do. | 720 | Security Poultry Powder | | |
| do. | Stock Food Co. of America | 1009 | Clover Brand Stock Tonic | | |
| do. | do. | 1010 | Clover Brand Poultry Tonic | | |
| St. Paul, Minn. | Gold Coin Stock Food Co. | 859 | Gold Coin Stock Food | 11.77 | 5.94 |
| do. | Prussian Remedy Co. | 806 | Prussian Stock Tonic | 12.90 | 3.91 |
| Burlington Junction, Mo. | Perfect Stock Powder Co. | 801 | Perfect Stock Powder | 0.53 | 0.08 |
| Carthage, Mo. | Cowgill & Hill Milling Co. | 320 | Peacock Mixed Feed | 15.27 | 4.85 |
| do. | McDaniel Milling Co. | 297 | Mixed Feed | 14.70 | 4.05 |

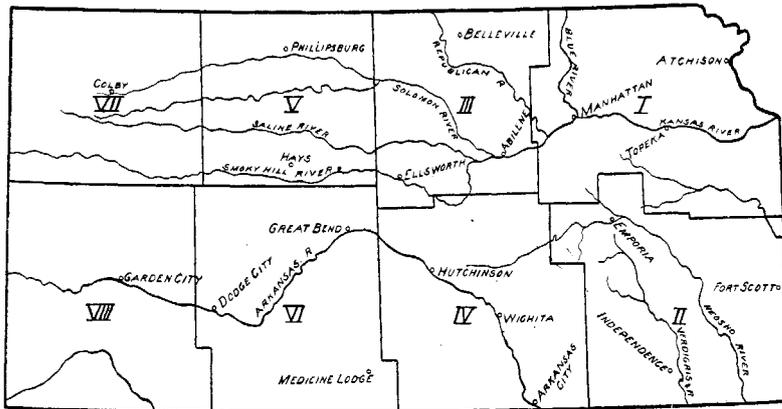
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|---------------------------------------|------------------------------|------|--|-------|-------|
| Joplin, Mo. | Brand-Dunwoody Milling Co. | 831 | "Dunwoody's Best" Mixed Feed | 17.34 | 4.14 |
| Kansas City, Mo. | American Alfalfa Milling Co. | 1015 | "Alfalco" Horse and Mule Feed | 13.20 | 3.61 |
| do. | Arms & Kidder | 292 | Bran. | 14.25 | 4.30 |
| do. | do. | 293 | Shorts | 16.10 | 4.32 |
| do. | H. G. Cherry | 1014 | Cherry's Alfalmo | 10.67 | 0.85 |
| do. | Fowler Commission Co. | 183 | Corn Chop | 9.14 | 4.89 |
| do. | K. C. Lead and Oil Works | 423 | Ground Oil Cake | 34.66 | 7.19 |
| do. | Pioneer Linseed and Lead Co. | 684 | Clark's Owl Brand Soft Pressed Oil Meal | 31.50 | 10.75 |
| do. | do. | 731 | Clark's Owl Brand Oil Meal | | |
| do. | F. E. Ransom & Co. | 935 | Corn Chop or Cracked Corn | 9.40 | 4.37 |
| do. | Russell Grain Co. | 968 | Russell's Corn Chop | 9.98 | 4.82 |
| do. | do. | 1034 | Ruslmo | | |
| do. | Southwestern Milling Co. | 954 | K. C. K. Bran | 16.20 | 3.68 |
| St. Joseph, Mo. | Davis Milling Co. | 419 | Shorts | 13.61 | 4.77 |
| do. | do. | 420 | Bran. | 13.07 | 4.60 |
| do. | do. | 421 | Corn Chop | 8.14 | 4.24 |
| St. Louis, Mo. | Hunter Bros. Milling Co. | 732 | Cottonseed Meal | 46.83 | 7.48 |
| do. | do. | 732 | Screened Cottonseed Cake | 51.49 | 7.15 |
| do. | Dr. L. D. LeGear Co. | 994 | Dr. LeGear's Poultry Powder | | |
| do. | do. | 995 | Dr. LeGear's Stock Powder | | |
| do. | Ralston Purina Co. | 442 | Purina Mill Feed, Chick and Scratch Size | 11.66 | 3.97 |
| Tarkio, Mo. | Champion Feed Co. | 966 | Champion Feed | 8.87 | 2.15 |
| Beatrice, Neb. | Black Bros. | 339 | Shorts | 14.29 | 4.52 |
| do. | do. | 400 | Bran. | 13.28 | 4.47 |
| Bertrand, Neb. | R. H. Duff Co. | 735 | Shorts | 15.01 | 4.67 |
| do. | do. | 736 | Bran. | 14.63 | 3.95 |
| do. | do. | 737 | Corn Chop | 9.68 | 4.10 |
| Blue Springs, Neb. | Black Bros. | 370 | Bran. | 13.99 | 4.81 |
| do. | do. | 428 | Black Bros. Shorts | 11.88 | 3.55 |
| Falls City, Neb. | O. P. Heck | 1007 | Climax Chick Feed | 11.27 | 2.90 |
| Hardy, Neb. | Jas. H. Fair | 426 | Shorts | 7.56 | 4.41 |
| do. | do. | 427 | Bran. | 12.11 | 5.07 |
| Lincoln, Neb. | Pinkerton Mfg. Co. | 1017 | Mrs. Pinkerton's Chick Food | 11.53 | 1.95 |
| Omaha, Neb., and Council Bluffs, Iowa | Alfalfa Meal Co. | 858 | Alfalmo | 13.93 | 0.53 |
| Omaha, Neb. | Geo. H. Lee Co. | 425 | Lee's Egg Maker and Chick Grower | 37.09 | 3.15 |
| do. | M. C. Peters Mill Co. | 824 | Alfal-fat | 11.43 | 0.63 |
| do. | do. | 825 | Arab Horse Feed | 10.91 | 3.95 |
| do. | do. | 826 | June Pasture | 10.70 | 1.56 |
| do. | Rex Company | 1013 | Rex Conditioner | | |
| do. | J. L. Stalnaker Co. | 838 | Great Western Conditioner | 16.27 | 5.02 |
| do. | Standard Stock Food Co. | 445 | Standard Stock Food | 13.30 | 7.16 |
| do. | do. | 446 | Standard Poultry Food | 18.29 | 1.53 |
| do. | do. | 447 | Standard Milk Meal | 29.06 | 3.53 |
| do. | do. | 777 | Corn Chop | 9.47 | 3.21 |
| Superior, Neb. | Bossemeyer Bros. | 829 | do. | | |
| do. | Geo. Scoular | 814 | Dr. Heas Stock Food | 11.19 | 2.54 |
| Ashland, Ohio | Drs. Hess & Clark | 1020 | Conkey's Laying Tonic | | |
| Cleveland, Ohio | G. E. Conkey Co. | 1002 | Fleck's Condition Powder | | |
| Tiffin, Ohio | J. J. Fleck | 1003 | Fleck's Stock Powder | | |
| do. | do. | 1003 | Fleck's Poultry Powder | | |
| do. | do. | 1004 | | | |

ANALYSES OF REGISTERED FEEDS—CONCLUDED.

| ADDRESS. | Manufacturer. | Registration No. | Feed. | Per cent. protein. | Per cent. fat. |
|--------------------------|---|------------------|---|--------------------|----------------|
| Tiffin, Ohio..... | Seneca Company..... | 1027 | Seneca Poultry Powder..... | ..... | ..... |
| do..... | do..... | 1028 | Seneca Stock Powder..... | ..... | ..... |
| Alva, Okla..... | Alva Roller Mills..... | 361 | Shorts..... | 16.07 | 3.51 |
| do..... | do..... | 362 | Bran..... | 17.79 | 4.38 |
| Blackwell, Okla..... | Blackwell Milling and Elevator Co..... | 430 | Shorts..... | 18.79 | 4.36 |
| do..... | do..... | 431 | Bran..... | 16.48 | 4.52 |
| Chandler, Okla..... | Chandler Cotton Oil Co..... | 818 | Choice Cottonseed Meal..... | ..... | ..... |
| do..... | do..... | 819 | Prime Cottonseed Meal..... | ..... | ..... |
| Cherokee, Okla..... | Alfalfa Meal and Milling Co..... | 1011 | Maz-a-Flora..... | 12.75 | 2.61 |
| Chickasha, Okla..... | Apache Cotton Oil and Manufacturing Co..... | 605 | Choice Cottonseed Meal..... | ..... | ..... |
| Guthrie, Okla..... | W. H. Coyle Co..... | 820 | Prime Cottonseed Meal..... | ..... | ..... |
| do..... | Houghton & Douglass Cotton Co..... | 765 | Choice Screen Cracked Cake..... | ..... | ..... |
| do..... | do..... | 766 | Choice Meal..... | 47.50 | 7.92 |
| Muskogee, Okla..... | Muskogee Cotton Oil Co..... | 997 | Cottonseed Meal..... | 45.60 | 7.06 |
| Norman, Okla..... | Norman Cotton Oil Mill Co..... | 788 | "Prime" Oil Meal..... | 50.67 | 8.58 |
| Oklahoma City, Okla..... | Oklahoma Cotton Oil Co..... | 809 | Prime Cottonseed Meal..... | ..... | ..... |
| do..... | do..... | 810 | Prime Cottonseed Cracked Cake..... | ..... | ..... |
| Shawnee, Okla..... | Shawnee Cotton Oil Co..... | 996 | Prime Cottonseed Meal..... | ..... | ..... |
| Philadelphia, Pa..... | Pratt Food Co..... | 827 | Pratt's Conditioner..... | 12.49 | 5.54 |
| do..... | do..... | 828 | Pratt's Food for Horses and Cattle..... | 14.00 | 6.30 |
| do..... | do..... | 1112 | Pratt's Poultry Regulator..... | ..... | ..... |
| do..... | do..... | 1030 | Pratt's Animal Regulator..... | ..... | ..... |
| Memphis, Tenn..... | F. W. Brode & Co..... | 703 | Owl Brand Cottonseed Meal..... | ..... | ..... |
| do..... | Humphreys-Goodwin & Co..... | 844 | Dixie Brand Cottonseed Meal..... | ..... | ..... |
| do..... | do..... | 845 | Dixie Brand Nut Cake..... | ..... | ..... |
| Bartlett, Tex..... | Bartlett Oil Mill..... | 830 | Texas Cold Pressed Cottonseed Cake..... | 26.31 | 6.98 |
| Burlington, Tex..... | Texas Cooking Oil Co..... | 834 | Cold Pressed Cottonseed Cake..... | ..... | ..... |
| Mansfield, Tex..... | Mansfield Cotton Oil Co..... | 815 | Cottonseed Cake..... | 26.64 | 8.75 |
| Milwaukee, Wis..... | Wilbur Stock Food Co..... | 861 | Wilbur's Stock Food or Stock Tonic..... | ..... | ..... |

VARIATION IN COMPOSITION IN DIFFERENT REGIONS
 OF THE STATE.

As the work of analysis of the samples recorded on the foregoing pages proceeded, indications seemed to appear that there were differences in composition due to regional differences in origin. We have therefore collected together and averaged the results for the three **feeds**—bran, shorts and corn **chop**—as obtained on samples grouped into eight lots representing as many parts of the state. These eight regions are indicated on the accompanying map. While of approximately equal size they to a considerable extent also represent distinctly different drainage areas as well as progressive variation in climatic conditions.



Regions I and II are bounded on the west by the great belt of limestone hills which stretches across the state and marks the upper limit of the Carboniferous geological formation. Region I consists largely of the drainage basins of the Blue, Kansas and Marais des Cygnes rivers, while region II is characterized by those of the Neosho and Verdigris. Region III includes the lower stretches of the valleys of the Saline, Solomon, Republican and Smoky Hill rivers, while the waters of region IV flow almost wholly into the Arkansas, as do those of regions VI and VIII. Regions V and VII are in the higher altitudes drained by the Republican, Saline and Smoky Hill rivers. In regions III and IV we pass from the characteristics of eastern Kansas to those typical of the Great Plains, which are exemplified completely in regions V, VI, VII and VIII.

The average annual rainfall diminishes steadily from about forty inches per annum on the eastern border to less than fifteen inches at the Colorado line. The altitude ranges from about 690 feet, at Kansas City, Kan., to about 4000 feet.

The accompanying table exhibits the average results for the several regions and for the entire state. The numbers of samples coming from the different regions gives one a measure of the relative importance of each in respect to the staple crops, wheat and corn. Study of the figures shows a tendency to higher protein content as the place of origin is farther westward with all three of the feeds—bran, shorts and corn chop. The fat seems to be nearer constant, especially with corn. It is, of course, recognized that the grain milled in a given region is not all produced in that region, so that there must be some lack of sharpness, on this account, in such differences as exist. It should also be recognized that the moisture content probably diminishes as one goes westward, which would tend to increase the percentages of the other constituents.

AVERAGE PERCENTAGE OF PROTEIN AND FAT IN BRAN, SHORTS AND CORN CHOP FROM EIGHT REGIONS OF KANSAS, AND GENERAL AVERAGES FOR ALL.

| REGION. | Bran. | | | Shorts. | | | Corn Chop. | | |
|-------------|-----------------|--------------------------|---------------------|------------------|--------------------------|---------------------|------------------|--------------------------|---------------------|
| | No. of samples. | Per-centage of pro-tein. | Per-centage of fat. | No. of sam-ples. | Per-centage of pro-tein. | Per-centage of fat. | No. of sam-ples. | Per-centage of pro-tein. | Per-centage of fat. |
| I..... | 32 | 14.57 | 4.35 | 31 | 15.46 | 4.11 | 79 | 8.76 | 4.03 |
| II..... | 23 | 15.44 | 4.41 | 24 | 15.68 | 4.08 | 89 | 8.77 | 4.16 |
| III..... | 30 | 15.34 | 4.16 | 32 | 16.20 | 4.22 | 41 | 9.50 | 4.03 |
| IV..... | 59 | 15.59 | 4.25 | 60 | 16.73 | 4.46 | 83 | 9.23 | 4.05 |
| V..... | 17 | 16.60 | 3.97 | 15 | 17.71 | 4.02 | 19 | 9.73 | 3.83 |
| VI..... | 14 | 16.33 | 4.03 | 13 | 17.12 | 4.04 | 26 | 9.52 | 4.08 |
| VII..... | 3 | 16.05 | 4.19 | 3 | 16.68 | 4.14 | 4 | 9.47 | 4.07 |
| VIII..... | 1 | 17.13 | 4.25 | ..... | ..... | ..... | 9 | 9.70 | 4.25 |
| Totals..... | 179 | 15.46 | 4.24 | 178 | 16.38 | 4.29 | 350 | 9.10 | 4.07 |

RULINGS UNDER THE LAW.

It is not possible with reference to any complicated business so to formulate a law that all circumstances and contingencies will be provided for. It becomes necessary, therefore, for the administrative officer charged with the enforcement of the law to adopt lines of action which the letter and the spirit of the law warrant, and at times to embody his judgment in definite rulings. In the administration of the feeding-stuffs law the Station officers have been guided by the interests of the consumer and the honest manufacturer as affected by the law, and have striven to incommode them as little as possible. The remainder of this Bulletin will be largely a discussion of the relation of the law to the several classes affected by it. Certain of its requirements are enlarged upon that there may be no doubt as to our attitude in the work of inspection. Some of these matters have been the subject of extended consideration by the attorney-general of the state, and it is believed that the views here presented are such as will stand the test of the courts.

OBJECTS OF THE LAW.

The law is calculated to benefit both the producer and the consumer of feeds coming within its scope. It benefits the consumer (1) by giving him an assurance concerning the nature of the article which he purchases; (2) by the statement of the net weight of the package; (3) by the guaranty of composition required, which is an index of the quality of the feed.

The manufacturer of feeds that are what they purport to be and that are sold in fair competition is benefited (1) by the elimination of adulterated and misbranded goods, which are by no means uncommon in the absence of a law of this kind; (2) by the elimination of the competition of short-weight packages; (3) by the advantage in the sale of high-grade goods resulting from a guaranty of the percentage of fat and of protein.

There are abundant and increasing evidences that feeds hitherto sold under the same name lack much of being identical. Under the name of bran, mixtures of very uncertain nature have been sold. Corn chop has not always meant the same thing, and with admittedly mixed feeds there has been still greater uncertainty.

In respect to weight, it is well known in some of our cities and towns that sacks of bran or chop supposed to be of 100 pounds' weight have been 5, 10 or 15 pounds short of that weight, to the disadvantage of the purchaser and of the competitor who puts out his feeds in full-weight sacks.

In respect to composition, by which is meant the chemical ingredients of the feed, such as fat, protein, carbohydrates, and mineral constituents or ash, there are considerable differences in different brands of the same kind of feed. Thus cottonseed-meal is made in various grades, which differ greatly in value because of their difference in composition. The same thing is true of many other feeds.

SCOPE AND APPLICATION OF THE LAW.

It will be seen that section 1 defines concentrated feeding-stuffs for the purpose of the law, which definition agrees substantially with the ordinary use of the words, except that it does not include unmixed grains, either ground or whole. It might also be held that condimental feeds would not necessarily be so classed. To remove any doubt in this case the law specifically provides that they shall be sold in accordance with its provisions, and to prevent any evasion of the spirit of the law the various names under which this class of goods is sold are recited.

It will be seen that, in addition to condimental feeds, which are later referred to as condimental or medicinal stock foods, all mixed feeds, and all feeds which have been produced by altering in any way the composition of the original substance, must be held to be within the scope and application of the law. Hence, except as otherwise specifically provided, it applies to all by-products of seeds or grains, since in the manufacturing process to which the seed or grain is subjected certain parts are removed which, being different from the entire seed or grain in composition, leave a by-product that is also different from the original substance in composition. This would include bran, shorts and middlings, were they not especially excepted by the provisions of section 11.

The law applies to all kinds of mixed feeds. Many of the feeds as now put out by flouring-mills come within this classification, as they do not consist of pure bran or pure shorts, but of mixtures of these with each other or with wheat screenings, corn bran, etc. All such mixtures come within the scope of the

law. Such mixtures, as well as all others, must be registered, and when sold carry the label provided for by section 4 of the law. It may also be mentioned that bran or shorts containing screenings or other admixtures will not be permitted by the federal authorities to enter interstate commerce under the names of the pure feeds.

REGISTRATION OF FEEDING—STUFFS.

The law requires that all concentrated feeding-stuffs, as defined in the law, excepting as specified in section 11, shall be registered by the director of the Experiment Station, but he is not required to register products that are misbranded or deleterious. To enable him to form a judgment on these points the law requires those applying for registration of feeding-stuffs to make certain statements concerning them. The ingredients used in preparing the feeding-stuff must be stated and the sources from which they are obtained. For example, if "mixed feed" is offered for registration the applicant must state what is mixed to make the feed. He might say "chop, bran and screenings." That would not be sufficient, as there are various kinds of chop, bran and screenings, and the specific kinds must be stated. Even in registering a single feed a statement of its origin is necessary. In brief, he must give the exact name which he expects to place upon the label, and he must state the kinds of grains, by-products or other materials which he incorporates in the feed, using their ordinary names. It is of the highest importance to the applicant that he make a truthful statement concerning his feeds, for if the later work of inspection shows that the article which he places upon the market does not agree with his statement concerning it, its registration will be revoked and he will be, moreover, liable to punishment for violation of the law.

The director will refuse registration if the name or brand under which it is proposed to sell the feed is false or misleading. This covers adulteration, as no mixed feed may be registered under the name of a single constituent, and the label under which the feed is sold must bear the registered name. If a mixture is sold for what it is there is no deception and no adulteration, but if such a mixture were sold under the name of only one of the components it would be a sale of adulterated feed. For example, a mixture of corn chop and corn bran may be sold as such if it is registered and is sold under

the label and guaranty required by section 4, but if it is sold as corn chop the seller is liable to all the penalties of the law. Similar considerations apply to a mixture of wheat bran and corn bran, since the name bran when unqualified is universally taken to mean wheat bran. It must be registered and sold under some name that will show its character.

ANALYSIS OF SAMPLES.

The law is construed to require the Experiment Station to determine, without extra charge, the percentage of protein and of fat in registered feeds if the manufacturers desire it in order to make the guaranty required by section 4. If a more extended analysis is desired arrangements may be made with the chemist of the Station to have such work done. In such cases a charge is made, which is to be paid in advance. No analysis is begun on a feed offered for registration until the registration fee of ten dollars has been paid. Analyses are made in the order of registration if the samples are at hand.

Manufacturers are not infrequently disappointed in the results shown by the analysis of their samples. It is a matter of some difficulty to get a perfectly fair sample. To insure that justice be done manufacturers in our inspection work, the law prescribes the mode of sampling that is to be followed when samples for inspection are taken. It is apparent that manufacturers in taking samples upon which they are to base their guaranty should proceed with somewhat similar care, and a sample of not less than one or two pounds should be sent to the chemist by mail or prepaid express. All samples must bear the name and address of the sender as a means of identification.

Purchasers of feeds frequently suspect that they are not of the desired quality and request that analyses be made by the Experiment Station. While there is no provision in any of the laws requiring the Experiment Station or any other institution in the state to make such analyses without charge, it is our desire to serve the public interest, even to the extent of making analyses upon samples furnished by private individuals. It is seldom, however, that such samples serve any public interest and as a rule a charge must be made for such analyses. Those who wish analyses made should state specifically what constituents are to be determined, also the name and address of the dealer from whom the feed was obtained,

the brand of the feed, and the quantity in the shipment. The value of the analysis will be very much increased by following the directions for sampling contained in the law.

In case of shipment of large amounts of feed coming within the scope of the feeding-stuffs law, which feed appears not to be as represented, it is sometimes possible to send a deputy inspector to examine and sample the feed. It must be understood that feed purchased outside the limits of the state and upon which the inspection tax has not been paid, and which has perhaps not even been registered, does not come within these provisions.

LABELING AND TAGGING.

The law provides that a distinct label or tag, as specified in section 4, must be on every package of concentrated feeding-stuff, as defined by the law, sold in the state. The guaranty as to the percentage of protein and fat required by the law is understood to be the minimum, and not necessarily the exact amount in the feed. The manufacturer guarantees that the percentages will be not less than those which he states. The label may be in the form of a tag attached to the package or the information may be printed upon the sack or other container, as suits the convenience of the manufacturer.

It is held that the label required by section 4 need not be attached to packages shipped to points outside the state unless the destination is near the Kansas line and the feed is likely to get back into Kansas markets.

Concerning sales of feed in bulk, the law is not clear in respect to the label described in section 4, and it is held that the delivery to the consumer of one such label with each lot purchased in bulk is in accordance with the spirit of the law, and that such delivery should be made. In respect to very small lots of ten pounds or less taken from a bulk lot in the store of a dealer, it is held that conspicuous display in connection with the bulk supply of a label giving the information required by section 4 is sufficient, and that a label need not be attached to the small lot.

Feeds subject to the inspection tax must, in addition to the tax tags required by the provisions of section 5, carry the label or tag provided for by section 4.

THE INSPECTION TAX.

Section 5 of the law provides for the payment of an inspection tax on certain kinds of feeds. This tax is to be collected by means of tags to be furnished by the director of the Experiment Station at the rate of 400 for five dollars. The law provides that all of the feeds named in section 5 shall pay this tax whether made in this state or not, and no matter by what means they are introduced. All such feeds sold or held for sale by any one within the state of Kansas must bear at least one tag on each package, and each 100 pounds or fraction thereof in a bulk lot must be accompanied by one tag. Residents of Kansas ordering any of these feeds for sale should insist upon it that the manufacturers ship the goods properly tagged to show that the inspection tax has been paid, and also labeled in accordance with section 4. The data required by section 4 may be printed on the back of the tax tag if desired. Counterfeiters of the tag, and users of counterfeit or fraudulent tags, will be punished to the full extent of the law. If dealers obtain feeds offered within the state or from other states that are not properly tagged it is their duty to see that tags are attached in accordance with the provisions of sections 4 and 5 in so far as they apply. Failure of a manufacturer or other dealer to attach the tags does not excuse any one else.

It would much facilitate the administration of the feeding-stuffs law if all manufacturers outside the state would attach the tax tags to all feeds requiring them which they ship into the state. We have, however, no hold upon them excepting through the specifications that may be made by dealers within the state, and all such dealers should, in securing quotations of prices, specify that any tax tags or labels required by the Kansas law be attached by the manufacturer. Dealers who do not do this cannot fail to be more or less under the suspicion of neglecting to attach proper tax tags and labels themselves before selling the goods within the state.

It is possible for a consumer to order feed from points outside the state and obtain it without any guaranty, tax tags or other conformation to the provisions of the Kansas feeding-stuffs law, and as long as he feeds it himself, offering none of it for sale and selling none, the transaction does not come within the scope of the Kansas law, being interstate commerce. On the other hand, the feeder relinquishes all protection that the

law is designed to give. In cases in which the consumer purchases concentrated feeding-stuffs of dealers located in this state, the shipment of the feed direct from the jobber or manufacturer outside the state to the consumer without its passing through the warehouses of the dealer who sold the feed, does not relieve the feed from the required inspection tax, and dealers selling feed in that way without furnishing the consumer the necessary tax tags, or seeing that they are applied by the manufacturer, is violating the law.

MIXED FEEDS.

Mixed feeds have always been the medium through which the most flagrant frauds in the feeding-stuffs business have been perpetrated. Oat-hulls, rice bran, ground corn-cobs and other waste products of little or no feeding value have been systematically incorporated in such feeds. The value of mixed feeds cannot be estimated by a purchaser with much assurance of satisfactory results. In the case of pure feeds, the consumer can, to a degree, judge for himself, notwithstanding the considerable variations to which even they are subject in respect to composition and, consequently, feeding value. Mixed feeds have therefore always come under feeding-stuffs laws and have, indeed, received special attention.

The Kansas law requires that feeding-stuffs that have been subjected to any mixing process, or subjected to any process whereby the composition of the original material is altered, shall be registered with the director of the Experiment Station if sold, offered for sale or held for sale within the state of Kansas. It further provides that every sack or other package held for sale or sold within the state shall bear a distinct brand and conspicuous label in the English language, which shall state the name of the manufacturer or seller, the registered name, trade-mark or other designation of the feed, the net weight of the package, and a guaranty as to the percentage of fat and of protein.

It must be distinctly recognized that this provision has no bearing upon mixtures made for one for his own use, whether the user mixes the feed with his own hands, has it done by his hired man, or orders it done by a dealer. A consumer may, for his own use, order any mixture whatever made by a dealer, and the law has no application to the transaction. If he is feeding a ration to his animals he is thus able to modify it at any time

and in any way that he sees fit. The law hampers him in no way whatever as long as the mixture made is not offered for sale.

While dealers are thus permitted to mix feeds in any way that may be wished by a purchaser upon his special order, he has no right to anticipate orders and mix feeds in advance, holding them in stock until purchased. Any mixture of feeds thus kept on hand by a dealer is subject to all of the provisions of the law as designated above.

Attention may be drawn to the fact that wheat bran mixed with wheat screenings, corn bran or other foreign substances must be regarded as a mixed feed, and its manufacturers are required to comply with the law as applied to mixed feeds. So, too, corn bran may not be mixed with corn chop without subjecting it to all of these provisions. The importance of bran and corn chop is such as to warrant special treatment. This is given in the succeeding paragraphs.

WHAT IS PURE BRAN?

In its present form the Kansas feeding-stuffs law requires no registration or special guaranty or tagging for pure bran or pure shorts, while impure feeds of the general nature of these must be registered as mixtures and be labeled so as to show the net weight of the package, the name and address of the manufacturer, the name of the feed, and a guaranty as to the percentage of fat and of protein. Hence a definition or description of pure bran becomes of considerable importance to manufacturers and consumers alike.

The chemist of the Experiment Station, who is by the law charged with the duty of inspecting feeding-stuffs in person or by deputy, holds that bran to be pure must not include anything that is separated from the wheat in preparing it for the milling process. Some wheat as marketed contains bits of straw, broken weed stems, oats, cheat and other foreign substances that must be removed before the wheat enters the rolls for grinding. All such screenings must be excluded if the bran is to be classed as pure.

The shrunken wheat unfit for flour-making and also removed in this preparatory process is doubtless of equal feeding value with the bran, and its presence in bran is not economically objectionable, though technically an impurity. This shrunken wheat is by some millers ground and separated into

a coarse part and a fine part, the former being put into the bran and the latter into the shorts. Such action is held to be legitimate, but this should not be taken as an approval of the introduction in a ground state of the other light materials of little feeding value. If such materials, either ground or unground, are marketed with the bran the product must be sold as "bran and screenings," and under the general label and guaranty referred to, and must be registered with the director of the Experiment Station.

Some millers who make corn-meal dispose of the corn bran separated in that process by mixing it with the wheat bran. This practice is not legitimate, and if followed the mixture must be designated as "wheat bran and corn bran" and be registered and labeled as described above.

Millers can adopt and maintain a high standard for their bran, and put out a product in which they can take pride, only by keeping out all adulterations. These by-products of questionable character can be disposed of without loss by making a mixed feed with which they may be incorporated, which must of course be registered with the director of the Experiment Station annually and carry the proper label and guaranty. Purchasers will then know what they are getting, and Kansas bran will be of a uniformly high grade.

Attention may also be drawn to the fact that the rulings above stated are in harmony with the policy of the federal authorities in respect to mill products entering interstate commerce.

ADULTERATED CORN CHOP.

Under the Kansas feeding-stuffs law pure corn chop is not subject to registration or tagging, but is subject to inspection in respect to purity and weight of packages. The law provides that all weights of feeding-stuffs shall be net; that is, a sack of corn chop purporting to be 100 pounds must weigh enough more to make up for the weight of the sack. Reasonable allowance should be made for atmospheric influences.

Pure corn chop is the product obtained by grinding well-cleaned shelled corn, removing nothing therefrom and adding nothing thereto. Anything resembling corn chop but not meeting the preceding definition must be treated either as a mixed feed or as one which has been subjected to a "process whereby the composition of the original material is altered." In either of these two cases the product must be registered

annually with the director of the Experiment Station and be labeled so as to show the name and address of the manufacturer, the true nature of the feed, the net weight, and the percentage of protein and of fat guaranteed.

In the manufacture of corn-meal the corn bran is removed by bolting, and the temptation is strong upon a miller to put this by-product in with his corn chop. This practice, as indicated above, is not legitimate, constituting in fact a serious adulteration. Corn bran, though possessing a good percentage of fat and of protein, is greatly inferior to whole corn in its content of starch and has a high per cent. of fiber which is of little or no net feeding value. If a manufacturer wishes to work off his corn bran with corn chop he must plainly tag it as "corn chop and corn bran" and sell it under all the conditions applying to mixed feeds.

So, too, if the miller after grinding corn removes some of the finest and best parts for corn-meal and sells the remainder as corn chop he is violating the law unless he sells it under a label that shows its true nature, and has complied otherwise with all of the provisions of the feeding-stuffs law.

Again, corn chop is not to be made the medium through which screenings of various kinds are disposed of, neither is it to include rotten corn, corn-cobs or dirt. There is no question that in the past much of such fraudulent feed has been foisted upon the public, and it is against such that the law operates.

CONDIMENTAL OR MEDICINAL STOCK FOODS.

The attention of druggists, and perhaps others who do not handle ordinary concentrated feeding-stuffs, is especially directed to the provision of the law in respect to condimental or medicinal stock foods. Condimental or medicinal stock foods and condimental feeds are held to be articles containing condimental or medicinal substances, or both condimental and medicinal substances, the product being recommended and sold for use with the ordinary feed of animals in the usual condition of health with the object of increasing the production of milk or eggs or increasing the growth or rate of fattening of animals, or of otherwise contributing to the nutrition of animals. The sale of any article agreeing with the preceding definition is contrary to the law unless the same has been properly registered with the director of the Experiment Station and is la-

beled in accordance with the law. To remove all uncertainty concerning the application of the law to this general class of goods the law specifically enumerates a great variety of the names under which they are sold. Druggists can protect themselves only by refusing to handle unregistered condimental feeds. There is an abundant variety of such preparations already registered.

There is little doubt that large quantities of condimental stock foods are used each year without any adequate financial return to the feeder. Tests made by several experiment stations have shown that with animals in the ordinary condition of health there is little or no difference in the results obtained in feeding, whether condimental stock foods are used in addition to the regular ration or not. Furthermore, it now and then comes to notice that farmers are defrauded through the purchase of materials that are purely medicinal according to the claims of the makers but the use of which is no real advantage. It would seem to be the part of wisdom not to administer medicines or medicinal preparations to animals in a healthy condition, and when they are in ill health to secure competent advice and treat them for the special difficulty found to be present.

RESPONSIBILITY OF DEALERS.

The attention of dealers in feeds subject to registration and taxation, who are not manufacturers of them, is drawn to the fact that if they sell such feed that has not been registered and tagged in accordance with sections 4 and 5 of the law they are violating the law, even if it was sold them by a manufacturer in this state who had neglected to tag it. Dealers should refuse to accept shipments of feed not properly tagged, unless they are willing to go to the expense of registering and tagging it themselves. There is no lack of registered feed on the market. A dealer who hires his feed prepared for him, instead of purchasing it, is, before the law, the manufacturer of the feed, and it is his duty to have the feed registered and see that it is properly tagged before selling it, if it is a feed requiring such registration and tagging.

It is human nature for every one to attempt to push responsibility for wrong-doing back upon some one else, but in the case of a sale of feeding-stuffs it cannot be too strongly insisted that each one who makes a sale in which the require-

ments of the law have not been fully complied with is guilty of its violation, regardless of the number of times that the law may have been violated by others in preceding sales of the same feed. Violations of the law by another are no excuse for any one. Dealers and consumers alike are invited to bring to the attention of the Experiment Station officers any transactions or conditions that indicate violation of the law, and they will be investigated and action taken in accordance with the fundamental principle that the object of the law is to protect consumers and honest dealers and manufacturers from the impositions and unfair competition of the unscrupulous.

SUMMARY.

The Bulletin begins with a summary of the history of the feeding-stuffs law and its administration, followed by the amended law in full.

The inspection work and analyses made under the amended law then follow. The analyses of inspection samples show that in general the feeds were fairly up to the guaranties. The most of the deficiencies were with corn chop, upon which a guaranty is no longer required.

The analyses of registration samples present an interesting and valuable compilation of data concerning Kansas feeds. These are given some general study in reference to the region of the state in which the feed was produced. From this it appears that the protein content tends to become higher the farther west the feed originates.

The remainder of the Bulletin is devoted to an exposition and explanation of the requirements of the law and to rulings made under it.