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Chemistry Department.

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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	9.50	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	18.20	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.

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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.....	490	Pure Wheat Bran.....	13.92	4.63
Bridgeport, Kan.....	W. F. Peacock.....	1037	Pure Wheat Shorts.....	16.56	5.13
do.....	H. E. Peck Roller Milling Co.....	763	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	do.....	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
do.	B. Strong Grain and Coal Co.	432	Shorts	14.22	3.88
Cottonwood Falls, Kan.	Cottonwood Falls Mill and Elevator Co.	516	Bran	15.53	4.44
do.	do.	517	Corn Chop	8.67	3.83
do.	do.				

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.	Thraikill 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

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
Everest, Kan.	C. E. Sheldon	487	Corn Chop	19.87	3.96
Fairport, Kan.	G. A. Lewis	974	Shorts	16.77	4.42
do.	do.	975	Bran	9.09	4.28
Florence, Kan.	Florence City Mills	781	Pure Wheat Bran	15.89	3.01
do.	do.	782	Corn Chop	8.11	4.27
do.	do.	783	Pure Wheat Shorts	14.35	4.04
Fontana, Kan.	R. L. Gordon	680	Corn Chop	15.01	4.24
Ford, Kan.	L. K. Van Horne	548	do.	15.20	1.83
Fort Scott, Kan.	Goodlander Milling Co.	377	Mixed Bran and Shorts	8.77	4.31
do.	do. do.	378	Shorts	9.58	4.11
do.	do. do.	379	Middlings	15.45	2.18
do.	do. do.	380	Corn Chop	8.37	3.78
Fowler, Kan.	William Andis	602	do.	13.72	2.20
do.	Hatch Bros	462	Pure Alfalfa Meal	10.33	3.27
Frankfort, Kan.	Frankfort Feed Mill Co.	651	Pure Corn Chop	8.41	3.60
do.	do. do.	652	Ground Corn Chop	31.93	14.12
do.	do.	657	Ground Speltz	8.23	4.43
do.	H. C. White	658	Corn Chop 3/4 Ground Speltz 1/4	9.18	4.80
Fredonia, Kan.	do.	606	Ground Corn 3/4 Ground Speltz 1/4	9.01	4.84
do.	Fredonia Linseed Oil Works	625	Old Process Linseed Oil Meal	13.88	3.47
Galena, Kan.	A. Otto	776	Corn Chop		
do.	Galena Mill and Elevator Co.	603	do.		
do.	H. L. Jaqueth	807	do.		
do.	H. C. Loucks	807	do.		
do.	Sol. Ryan	1005	Mixed Feed		

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.	863	Bran	15.25	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.	Moses Bros. Grain Co.	332	White Shorts	17.27	3.71
do.	Moses Bros. Mill and Elevator Co.	333	Mixed Feed	17.16	4.12
do.	do.	415	100 Pound Corn Chop	9.25	4.41
do.	Walnut Creek Milling Co.	201	Wheat Bran	14.98	4.01
do.	do.	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

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.....		
Holyrood, Kan.....	Holyrood Milling Co.....	816	Pure Wheat Shorts.....	17.77	4.37
do. do.....	do. do.....	817	Pure Wheat Bran.....	17.50	4.05
Hope, Kan.....	Emil Brunner.....	986	Bran Shorts or Mill Run.....	17.19	3.84
do. do.....	do. do.....	985	Corn Chop.....	11.60	4.23
Hoyt, Kan.....	John McClune.....	785	do.....	8.19	4.80
Hudson, Kan.....	Stafford Co. Flour Mills.....	865	Bran.....	17.17	3.55
do. do.....	do. do.....	866	Mixed Feed.....	18.17	4.00
do. do.....	do. do.....	867	Shorts.....	19.97	4.54
do. do.....	do. do.....	868	Corn Chop.....	10.18	5.65
Humboldt, Kan.....	Dickinson Bros.....	274	do.....	7.56	3.68
do. do.....	Humboldt Water Mill.....	92	Wheat Bran.....	16.00	4.19
do. do.....	do. do.....	93	Wheat Shorts.....	16.66	5.19
do. do.....	do. do.....	94	Corn Chop.....	7.70	4.23
do. do.....	do. do.....	95	Corn and Oat Chop.....	9.40	5.06
Hutchinson, Kan.....	Robert Bailey.....	835	Corn Chop.....	10.03	3.76
do. do.....	Forsha Milling Co.....	625	Shorts.....	18.13	4.96
do. do.....	do. do.....	626	Bran.....	16.67	4.40
do. do.....	Hutchinson Mill Co.....	571	do.....	15.86	4.11
do. do.....	do. do.....	572	Shorts.....	19.96	5.39
do. do.....	do. do.....	573	White Shorts.....	15.88	3.05
do. do.....	do. do.....	574	Corn Chop.....	9.28	3.52
do. do.....	Kansas Grain Co.....	216	do.....	8.06	4.32
do. do.....	Wm. Kelly Milling Co.....	272	Bran.....	15.54	4.46
do. do.....	do. do.....	273	Shorts.....	18.31	5.41
do. do.....	Monarch Milling Co.....	279	Bran.....	14.68	4.58
do. do.....	do. do.....	280	Shorts.....	15.43	4.47
do. do.....	Rock Island Mill Co.....	235	Pure Corn Chop.....	9.03	4.03
do. do.....	do. do.....	527	Corn Bran.....		
do. do.....	J. A. Sickman & Co.....	588	"A. C." (Alfalfa and Corn).....	10.95	4.32
do. do.....	do. do.....	662	"P. C." (Pure Corn).....	8.82	3.86
do. do.....	Young & Sons.....	363	Young's Mixed Chicken Feed.....	9.73	3.25
do. do.....	do. do.....	323	Corn Chop.....	9.67	3.92
do. do.....	do. do.....	591	do.....	8.90	3.85
Independence, Kan.....	Bowen & Lewis.....	592	Oats Chop.....	9.72	4.63
do. do.....	do. do.....	479	Mill Run Feed or Bran.....	15.51	4.68
Independence and Elk City	Bowen Milling Co.....	480	Shorts or Middlings.....	18.44	5.39
do. do.....	do. do.....	481	Bran.....	14.40	4.53
do. do.....	do. do.....	482	Corn Chop.....	9.48	4.65

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.	Grant Milling Co.	851	do.	17.87	3.39
do.	do.	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	13.64	4.53
Montana, Kan.	E. E. Lugeanbeal	919	Corn Chop	12.80	4.61
Moran, Kan.	Moran Grain Co.	388	Wheat Shorts	8.54	3.87
Morganville, Kan.	Morganville Mill and Elevator Co.	389	Wheat Bran	3.90	4.46
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		

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
do.....	Niles Grain Co.....	787	do.....	10.80	4.48
Niles, Kan.....	Thos. Lockhart.....	958	do.....	10.17	4.54
do.....	J. B. Billard.....	706	do.....	11.01	3.50
do.....	do.....	707	do.....	10.53	4.04
North Topeka, Kan.....	do.....	708	do.....	9.50	4.76
do.....	do.....	709	Mixed Chop.....	9.41	4.42
do.....	do.....	710	Mixed Bran and Chop.....	12.58	4.15
do.....	do.....	675	Rye Bran.....	18.48	2.82
Norton, Kan.....	Farmers Milling and Elevator Co.....	676	Corn Bran.....	9.33	7.22
do.....	do.....	677	Corn Chop.....	9.54	3.77
do.....	do.....	713	Shorts.....	17.48	4.16
Norwich, Kan.....	Norwich Mill and Grain Co.....	610	do.....	15.86	4.17
Oakley, Kan.....	Oakley Milling Co.....	404	Bran.....	9.08	4.10
Oberlin, Kan.....	Oberlin Roller Mills.....	405	Corn Chop.....	19.05	4.26
do.....	do.....	406	Mill Run or Mixed Feed.....	15.15	3.87
do.....	do.....	622	Bran.....	16.37	4.11
Oketo, Kan.....	H. R. Chapman & Co.....	623	Shorts.....	10.32	4.85
do.....	do.....	296	Corn Chop (with 2 per cent. corn bran).....	14.37	4.81
Olathe, Kan.....	T. G. Graham.....	86	Bran.....	14.45	4.16
Onaga, Kan.....	S. P. Taylor.....	476	Shorts.....	8.49	3.51
Opolis, Kan.....	James Denton.....	133	Corn Chop.....	7.83	4.17
Osage City, Kan.....	Arthur Adams.....	45	do.....	8.61	3.93
do.....	Osage City Grain and Elevator Co.....	806	do.....	8.18	4.44
Osborne, Kan.....	W. B. Foy.....	512	do.....	8.07	4.07
do.....	Solomon Valley Milling Co.....	513	do.....	9.33	3.69
do.....	do.....	514	"O" (wheat bran).....	16.17	3.91
do.....	do.....	684	"O" (wheat shorts).....	19.17	4.49
Oswego, Kan.....	J. S. Bottenfield.....	192	Corn Chop.....	9.01	4.86
do.....	J. M. Fleming.....	298	do.....	8.07	3.60
do.....	Oswego Milling Co.....	299	Fleming's Corn Chop.....	8.53	4.68
do.....	do.....	300	Mill Run Bran.....	14.45	4.57
do.....	do.....	355	Wheat Shorts.....	13.65	3.40
do.....	Pearl Roller Mill Co.....	410	Corn Chop.....	8.11	4.02
do.....	do.....	411	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.....	951	Mill Run.....	10.19	3.82
Ottawa, Kan.....	Forest Park Milling Co.....	951	Corn Chop.....	11.35	3.59
			Mixed Feed.....		
			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	9.07	5.69
Pittsburg, Kan.	McIlvain Grain and Coal Co.	961	Corn Chop	14.4	4.02
do.	L. Belknap	70	do.		
do.	L. Belknap	1085	Belknap's Mixed Feed		

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.	589	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	4.59
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	3.68
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

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.	649	Mixed Chop	9.08	4.15
do.	Forbes Bros.	792	Corn Chop	8.18	3.70
do.	do.	793	Corn Bran	6.21	4.30
do.	do.	794	Eller's Highly Medicated Condiment Stock Food	19.70	4.38
do.	German Swine and Poultry Mercantile Co.	745	Corn Chop	8.47	4.15
do.	T. C. Kirkpatrick & Co.	881	Wheat Bran	14.25	3.90
do.	Willis Norton & Co.	151	Wheat Shorts	16.52	4.89
do.	do.	152	Medicated Stock Salt for Farm Animals	16.73	4.00
do.	W. M. Hornbeck	803	Pure Wheat Shorts	17.22	4.74
do.	Kaw Milling Co.	846	Pure Wheat Bran	14.54	4.27
do.	do.	847	Bran	15.63	4.51
do.	Thos. Page	50	Shorts	16.24	4.03
do.	do.	51	Bran	18.12	4.89
do.	Shawnee Milling Co.	645	Shorts	15.29	4.35
do.	do.	646	Wheat Bran	16.94	4.63
do.	Topeka Milling Co.	205	Shorts	58.15	17.64
do.	do.	206	Meat Meal	9.08	3.27
do.	Chas. Wolf Packing Co.	988	Purity Baby Chick Food	8.77	4.10
do.	Zimmerman Seed Co.	340	Corn Chop	12.36	6.64
do.	Sharits & Johnson	971	Mixed Bran	14.35	5.04
Toronto, Kan.	Clark Bros.	162	Shorts	14.14	4.96
Troy, Kan.	do.	163	do.	14.14	4.96
do.	do.	163	do.	14.14	4.96

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.....	220	Banner Mills Corn Chop.....	9.13	3.97
do.....	Poenisch Bros.....	246	Corn Chop.....	9.44	4.23
do.....	Puckett & Bagby.....	271	Wheat Bran, Wheat Screenings and Corn Bran.....	14.45	4.39
do.....	Red Star Mill and Elevator Co.....	263	Wheat Shorts.....	17.54	5.63
do.....	do. do. do.....	264	Wheat White Shorts.....	17.05	4.62
do.....	do. do. do.....	265	Corn Chop.....	9.27	3.78
do.....	do. do. dp.....	266	do.....	7.62	4.13
do.....	Charles Seiner.....	210	Pure Corn Chop.....	8.50	3.17
do.....	Stevens Scott Grain Co.....	189	Wheat Bran.....	16.31	4.80
do.....	Watson Mill Co.....	74	Wheat Shorts.....	15.77	3.89
do.....	do.....	75	Star Stock Food.....	14.49	4.02
do.....	Weed & Abbott.....	236	Corn Chop.....	9.12	3.63
do.....	do.....	237	Otto Weiss Alfalfa Stock Food.....	12.50	3.73
do.....	Otto Weiss Alfalfa Stock Food Co.....	1	Otto Weiss Alfalfa Hog Food.....	17.95	4.26
do.....	do. do. do.....	2	Alfalfa Mash Every Day Egg Producer.....	17.90	3.34
do.....	do. do. do.....	3	Otto Weiss Chick Feed.....	11.02	2.76
do.....	do. do. do.....	4	Otto Weiss Hen Feed.....	10.59	3.33
do.....	do. do. do.....	5	Alfalfa Conditioner.....	18.09	13.28
do.....	do. do. do.....	6	Alfalfa Poultry Remedy.....	16.59	16.81
do.....	do. do. do.....	7	Alfalfa Hog Remedy.....	14.37	14.12
do.....	do. do. do.....	8			

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

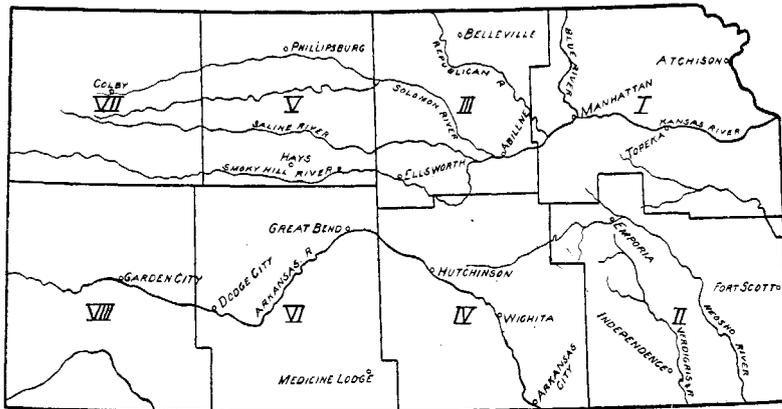
Joplin, Mo.	Brand-Dunwoody Milling Co.	831	"Dunwoody's Best" Mixed Feed	17.34	4.14
Kansas City, Mo.	American Alfalfa Milling Co.	1015	"Alfalco" Horse and Mule Feed	13.20	3.61
do.	Arms & Kidder	292	Bran.	14.25	4.30
do.	do.	293	Shorts	16.10	4.32
do.	H. G. Cherry	1014	Cherry's Alfalmo	10.67	0.85
do.	Fowler 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.