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Inspection of commercial feeding-stuffs 1925, Bulletin, no. 218

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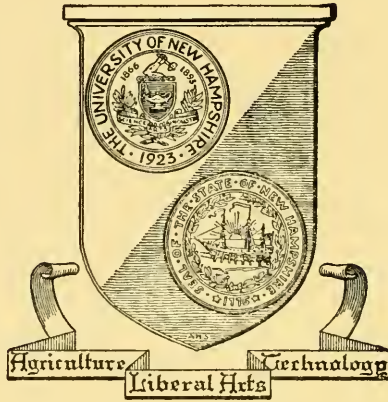
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Phillips, T. G.; Smith, T. O.; and New Hampshire Agricultural Experiment Station, "Inspection of commercial feeding-stuffs 1925, Bulletin, no. 218" (1925). *NHAES Bulletin*. 181.

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Bulletin 218

August, 1925

THE UNIVERSITY OF NEW HAMPSHIRE
AGRICULTURAL EXPERIMENT STATION

DEPARTMENT OF AGRICULTURAL CHEMISTRY

Inspection of Commercial
Feeding--Stuffs
1925

MADE FOR THE
STATE DEPARTMENT OF AGRICULTURE
No. 8717



By T. G. Phillips and T. O. Smith

THE UNIVERSITY OF NEW HAMPSHIRE
DURHAM, N. H.

INSPECTION OF COMMERCIAL FEEDING-STUFFS

Made for the
STATE DEPARTMENT OF AGRICULTURE

The inspection of commercial feeding-stuffs reported in this bulletin was made under the direction of the Honorable Andrew L. Felker, Commissioner of Agriculture. Mr. E. D. Sanborn, State Inspector, collected 330 samples of feeding-stuffs which were offered for sale in the state between December 1924 and June 1925.

THE FEEDING-STUFFS LAW

The Feeding-stuffs law entitled "An Act to Regulate the Sale of Concentrated Commercial Feeding-Stuffs" was passed in 1901 and amended in 1911 and in 1915. Under the provisions of this law every manufacturer or dealer who shall sell or offer for sale any concentrated commercial feeding-stuff shall furnish with each package a clearly printed statement certifying the number of net pounds in the package, the brand name under which the feed is sold, the name and address of the manufacturer and a chemical analysis stating the minimum percentages only of protein, fat and carbohydrates and the maximum percentage only of crude fiber. He shall also plainly state the several ingredients of which the feed is composed.

PURPOSES OF THE LAW

The purposes of the law are primarily to protect the consumer against the unscrupulous manufacturer or dealer and to enable him to buy most economically the feeds best suited to his needs. It aims to prevent misbranding, adulteration and other fraudulent practices. It requires that the

fullest information possible be available to the purchaser both as to the chemical composition of the feed and the materials of which it is composed.

TO CONSUMERS

The cooperation of the consumer aids materially in enforcing the law. Do not buy a feed that is not properly labeled and guaranteed in compliance with the law. During the past year a number of feeding-stuffs were found upon the market without a label showing the guaranteed analysis or a statement of the ingredients of which the feed is composed. This practice is unlawful. The consumer's cooperation in refusing to buy such feeds will stop it. What argument can the consumer have for buying a feed on which the manufacturer is unwilling to place a guarantee when there are high grade feeds on the market which comply with the law in every respect? In connection with the guarantee the consumer should study the list of ingredients and buy the feeds best suited to his particular needs.

TO DEALERS

Write to the Commissioner of Agriculture for a copy of the state law and familiarize yourself with its provisions. Study these annual reports and buy feeds from the manufacturers who regularly meet their guarantees. Protect yourself by specifying that all shipments of feeding-stuffs consigned to you must comply with the state law. Do not accept from the manufacturer or jobber any shipment of feed which does not have a guaranteed analysis as well as a statement of the ingredients of which the feed is composed plainly printed upon each bag. The dealer is directly responsible for any feed in his possession that fails to comply with the law. The same penalty applies to exposing or offering for sale as for actually selling. A very large per cent. of the dealers in the state now comply with

the law. This paragraph is intended as a warning to the small per cent. who violate it that the law will be rigidly enforced against them.

TO MANUFACTURERS

Each brand of feeding-stuff offered for sale in the state must be registered with the Commissioner of Agriculture, Concord, New Hampshire. Registration blanks will be furnished upon request or the uniform application blank approved by the Association of Feed Control Officials may be used. The uniform labels approved by the Association of Feed Control Officials meet the requirements of the state law.

CLASSIFICATION OF FEEDING-STUFFS ANALYZED

In classifying the feeding-stuffs the class names under which they were sold have been used. Table 1 shows the number of feeding-stuffs in each class, the average percentage of protein and fat found and the price per 100 pounds.

TABLE 1

Class	No. of Feeds	Average Per Cent. Protein	Average Per Cent. Fat	Average Price per 100 lbs.
Alfalfa Meal	4	16.47	1.57	2.47
Beet Pulp	3	9.37	0.48	2.38
Brewers' Dried Grains	1	24.26	6.58	2.75
Calf Meal	4	24.17	5.00	5.00
Compounded Feed	26	10.21	4.44	2.54
Corn and Oat Feed	2	9.28	4.35	3.08
Cottonseed Meal	19	39.03	6.73	2.69
Dairy Feed	53	21.64	5.01	2.61
Flaxseed Screenings .	1	16.48	10.16	....
Gluten Feed	6	25.00	3.01	2.62
Gluten Meal	2	45.01	2.56	3.15
Hog Feed	2	18.14	5.57	3.03
Hominy Feed	8	10.86	6.47	2.78
Horse Feed	5	10.56	3.51	2.83
Linseed Meal	9	32.79	6.72	2.85
Oat Feed	1	5.89	1.93	1.00
Poultry Feed	68	29.31	7.30	3.71
Wheat Feed	116	16.13	4.91	2.19
Total	330			

DEFICIENCIES IN ANALYSIS

Table 2 shows the number of samples found deficient in protein and in fat, the number of samples deficient in both protein and fat and also the percentages of each class showing such deficiencies. In making up the table only those feeds deficient by one-half of one per cent. or more of protein and one-fourth of one per cent. or more of fat were used.

In the tabulation of the analytical data in the following pages these deficiencies are shown in heavy black type.

TABLE 2

Class	No. in Class	No. Deficient ½% Protein	No. Deficient ¼% Fat	No. Deficient in both Protein and Fat	Per Cent. Deficient ½% Protein	Per Cent. Deficient ¼% Fat	Per Cent. Deficient in both Protein and Fat
Alfalfa Meal	4	0	1	0	0	20	0
Beet Pulp	3	0	0	0	0	0	0
Brewers' Dried Grains	1	0	0	0	0	0	0
Calf Meal	4	1	2	0	25	50	0
Compounded Feed ...	26	1	4	0	4	15	0
Corn and Oat Feed ..	2	0	0	0	0	0	0
Cottonseed Meal	19	7	0	0	37	0	0
Dairy Feed	53	7	5	0	13	10	0
Flaxseed Screenings .	1	0	0	0	0	0	0
Gluten Feed	6	0	0	0	0	0	0
Gluten Meal	2	0	0	0	0	0	0
Hog Feed	2	0	0	0	0	0	0
Hominy Feed	8	1	1	0	13	13	0
Horse Feed	5	0	0	0	0	0	0
Linseed Meal	9	3	2	1	33	22	11
Oat Feed	1	0	0	0	0	0	0
Poultry Feed	68	9	9	4	13	13	6
Wheat Feed	116	7	7	1	6	6	1
Total	330	36	31	6	11	9	2

THE CHEMICAL ANALYSIS

In a feed analysis the following determinations are usually made: protein, fat, carbohydrates, ash, moisture and crude fiber.

Protein is a term employed to designate the compounds in feeding-stuffs which contain nitrogen. It is determined by finding the per cent. of nitrogen and multiplying by the factor 6.25 since it has been found that most proteins contain approximately 16 per cent. nitrogen.

Fat is determined by extracting a dried sample of the feeding-stuff with dry ether and weighing the residue after the ether is evaporated. It contains the vegetable fats of which linseed oil, and cottonseed oil are examples. The ether extract contains also small amounts of chlorophyll, (the green coloring matter of the leaves,) waxes, resins, etc.

Ash is determined by weighing the residue after the sample has been burned at a low temperature. It contains the mineral matter of feeding-stuffs.

Carbohydrates are determined by adding the percentages of protein, fat, moisture and ash, and subtracting the total from 100 per cent. The carbohydrates are composed largely of starches, sugars, pentosans, celluloses, etc. The carbohydrates include the crude fiber also. The percentage of carbohydrates less the percentage of crude fiber is called *nitrogen free extract*.

Crude Fiber is made up of the more wood-like carbohydrates which are largely of a cellulose nature. Pure cotton is an example of almost pure cellulose. Wood, straw, corn fodder, etc., are materials which are high in crude fiber content.

DIGESTIBILITY IMPORTANT IN DETERMINING THE VALUE OF FEED

Not all of the protein, carbohydrates, and fat in the different feeding-stuffs are digestible. In comparing the feeding value of the different classes of feeds consideration must be given to their relative digestibility. The coefficient of digestibility is a term which expresses the percentage amount of the food nutrients which are digested and absorbed by the animal. Table No. 3 gives a summary of the average results for some of our common feeding-stuffs. These data are available for the pure grains and feeds, but because the various proprietary feeds are not standardized there are no data for them.

TABLE 3

AVERAGE DIGESTIBILITY OF FEEDING STUFFS, WITH RUMINANTS EXPRESSED IN PERCENTAGE

(Taken from "Feeds and Feeding" by Henry and Morrison)

	Dry Matter	Protein	Crude Fiber	Nitrogen Free Extract	Fat
Corn Meal	90	74	57	94	93
Gluten Meal	88	85	55	90	93
Gluten Feed	86	85	76	88	85
Hominy Feed	83	66	76	90	91
Wheat Bran	65	78	31	72	68
Stan. Wheat Middlings .	..	77	30	78	88
Barley	88	78	56	92	78
Oats	70	78	35	81	87
Buckwheat	71	75	24	76	100
Soybean Meal .....	..	92	99	100	68
Linseed Meal (old proc.)	79	89	57	78	89
Linseed Meal (new proc.)	81	86	73	87	95
Cottonseed	66	68	76	50	87
Cottonseed Meal	77	84	37	75	95
Cottonseed Feed	56	58	45	61	90
Dried Brewers' Grain ...	61	81	49	57	89
Dried Beet Pulp	75	52	83	33	..
Molasses Feeds	68	61	50	79	100
Flesh Meal .....	..	93	..	..	98
Fish Meal	71	78	..	..	100
Timothy Hay	55	48	50	62	50
Barley Hay	59	65	62	63	41
Cat Hay	54	54	52	56	61
Alfalfa	60	71	43	72	38
Red Clover	59	59	54	66	57
Corn Sil. Dent Immature	64	53	68	66	71
Corn Silage Dent Mature.	66	51	65	71	82

The comparison of two feeds should be made on the basis of the digestible nutrients which they contain. A cottonseed meal containing 36 per cent. protein, 84 per cent. of which is digestible contains $84/100$ of 36 pounds or 30.2 pounds of digestible protein in 100 pounds of meal. An old process linseed meal containing 34 per cent. protein, 89 per cent. of which is digestible, contains $89/100$ of 34 pounds or 30.3 pounds of digestible protein in 100 pounds of meal.

HOW TO FIGURE THE COMPARATIVE VALUE OF FEEDS FROM THE CHEMICAL ANALYSIS

Because such factors as palatability, quality of protein, digestibility, etc., play an important part in determining the value of feeding-stuffs it is difficult to make an exact comparison of their value from a chemical analysis. The analysis will, however, serve as a very valuable guide. Since the consumer can usually grow carbohydrates cheaper than he can purchase them, he is chiefly interested in buying the concentrated feeding-stuffs for their protein and fat content.

Feeds may be compared upon the basis of the number of pounds of protein and fat one dollar will buy. An example is as follows: Feed number 119 sells for \$5.25 per 100 pounds and is guaranteed protein 12 per cent. and fat 3 per cent. If it contains 12 per cent. protein there are 12 pounds of protein in 100 pounds of feed costing \$5.25. Then one dollar will buy 12 divided by 5.25 or 2.28 pounds of protein and 3 divided by 5.25 or 0.6 pound of fat. Feed number 104 sells for \$3.15 per 100 pounds and is guaranteed 20 per cent. protein and 5 per cent. fat. Then one dollar buys 20 divided by 3.15 or 6.35 pounds of protein and 5 divided by 3.15 or 1.6 pounds of fat.

In buying feed number 104 the consumer received nearly three times as much protein and nearly three times as much fat per dollar as in feed number 119. These figures represent two feeds in the same class which were sold in New Hampshire in December 1924. The state inspector collected one of them in Concord on December 23 and the other in Manchester on December 29.

In comparing feeds of the same class this method shows fairly accurately their relative value. When feeds of different classes as a cottonseed meal and a hominy feed are compared the digestible protein figures should be compared and the carbohydrates and crude fiber must also be

taken into consideration. In Table 4 is tabulated the number of pounds of protein and fat that one dollar will buy in each class of feeding-stuffs at the average price at which they were offered for sale during the past winter and spring.

TABLE 4

Class	No. of lbs. of Protein \$1.00 will buy	No. of lbs. of Fat \$1.00 will buy
Alfalfa Meal	6.7	0.6
Beet Pulp	3.9	0.2
Brewers' Dried Grains	8.8	2.4
Calf Meal	4.8	1.0
Compounded Feed	4.0	1.7
Corn and Oat Feed	3.0	1.4
Cottonseed Meal	14.5	2.5
Dairy Feed	8.3	1.9
Gluten Feed	9.5	1.1
Gluten Meal	14.3	0.8
Hog Feed	6.0	1.8
Hominy Feed	3.9	2.3
Horse Feed	3.7	1.2
Linseed Meal	11.5	2.4
Oat Feed	5.9	1.9
Poultry Feed	7.9	2.0
Wheat Feed	7.4	2.2

COMPARATIVE VALUE OF COTTONSEED MEALS

Nineteen samples of cottonseed meals were analyzed. Table 5 shows the number of samples analyzed under each percentage, the price per 100 pounds and the average number of pounds of protein that one dollar will buy in each class.

TABLE 5
COTTONSEED MEALS

Guaranteed Per Cent. of Protein	Number of Samples	Average % of Protein Found	Average Price per 100 lbs.	No. Pounds Protein \$1.00 will buy
36	9	35.89	2.62	13.7
38	0	.....	.....	.....
41	5	41.25	2.67	15.4
43	5	42.47	2.86	14.8

READY MIXED FEEDS SHOULD BE PROPERLY
BALANCED

In selecting a ready mixed feed such as a dairy feed it is well to examine the analysis to determine that the feed is properly balanced for use with the kind of roughage to be fed. The Dairy Department of the University of New Hampshire recommends for use with a high protein roughage a feed containing 15 per cent. crude digestible protein; for use with a medium protein roughage a feed containing 17 per cent. crude digestible protein; and for use with a low protein roughage a feed containing 19 per cent. crude digestible protein. The analysis of a feeding-stuff shows the crude protein of which a portion is not digestible. While it is not possible to give an accurate figure for

the digestibility of ready mixed feeds, it is approximate to assume that from 80 to 85 per cent. of the crude protein is digestible. On this basis a ready mixed dairy feed used with a high protein roughage should contain 18 per cent. protein; with a medium protein roughage 20 per cent. protein; and with a low protein roughage 23 per cent. protein.

THE MISLEADING BRAND NAME

A deception of a few manufacturers which the consumer is warned to guard against is the misleading brand name. Out of a list of 21 brand names selected from this year's feeds containing such words as vim, vigor, superb, special, peerless, supreme, victor, vitality, perfection, etc., exactly one-third meet their guarantees. The other two-thirds are more or less deficient. In buying feeds the purchaser should consider the percentage of protein, the percentage of fat and the percentage of total carbohydrates less the percentage of crude fiber in connection with the price per one hundred pounds. He should also consider the nature of the materials of which the feed is composed, but should not be influenced by the brand name. An examination of the brand names and the analyses in the following pages will show several attempts at deception on the part of the manufacturer in giving to a feed low in protein and fat a brand name indicating that it has unusual feed value.

SLIDING SCALE OR DOUBLE GUARANTEE

Another deception of a few manufacturers is the sliding scale guarantee. The law definitely requires that the manufacturer shall state in his guarantee the minimum percentage only of protein, fat and carbohydrates and the maximum percentage only of crude fiber.

This year one of the poultry feeds composed largely of meat products is guaranteed 40 per cent. to 50 per cent. protein. It is found by analysis to contain 40.52 per cent.

Another feed is guaranteed to contain 6 per cent. to 8 per cent. fat and by analysis is found to contain only 5.80 per cent. Thirty per cent. of this year's feeds which carried a sliding scale guarantee did not meet even the minimum figure. This fact should be sufficient warning to the consumer not to buy the feeds of those manufacturers who violate this provision of the law. In publishing the guaranteed analysis of such feeding stuffs in this bulletin the maximum figures only have been used.

REQUESTS FOR ANALYSIS OF FEEDS

The Department is frequently asked to make analysis of samples of feeds for individuals. This it is always glad to do when the circumstances warrant. It must be pointed out, however, that the privilege is sometimes abused. Many of these samples apparently represent only a handful of feed taken from a single bag and are sent to the Department carelessly wrapped in paper or in a pasteboard box from which much of the fine material may have been lost. The analysis of these samples requires the same expenditure of labor and materials as the analysis of an official sample; yet the figures obtained may be worse than worthless if the sample examined does not accurately represent the lot from which it was taken.

On account of the expense involved in making these analyses and also the possibility under present conditions of the figures obtained being unreliable, the Department wishes to suggest: first, that in cases where the amount of feed is less than one ton, instead of sending a sample for analysis, the consumer writes us asking our findings on the last official sample of this feed which we have analyzed; and second, that where the amount of feed is more than one ton, a sample be taken from at least ten bags in a manner that will insure its being accurately representative of the whole lot sampled. In order that the analysis may be of value to the Department as well as to the individual and

that we may know whether or not the manufacturer is complying with all the requirements of the law, we request that the following information be submitted:

Brand

Manufacturer

Address

Guarantee:

Protein

Fat

Carbohydrates

Crude Fiber

Ingredients

Dealer

Address

Number of bags in lot

Number of bags sampled

Price per 100 pounds

Your name

Address

Your reason for requesting analysis

SOME SUGGESTIONS IN PURCHASING FEEDS

1. Compare the cost of feeds with their analyses even within the same class, and buy the feeds which offer the greatest value for the dollar. High grade feeds are the most economical.

2. Beware of misleading brand names indicating unusual feeding value. Let the analysis rather than the brand name determine the value.

3. Grow legumes or high protein crops for roughage and buy less of the expensive protein feeds.

4. In buying compounded feeds consider the constituents of which the feed is composed.

Assistance in the analytical work has been rendered by M. H. Voyagis, W. W. Sawyer and W. A. Westgate.

Brand and name and address of manufacturer	Pounds in 100 lbs. of Feeding-Stuffs						Certified by manufacturer to contain
	Protein	Fat	Carbohy- drates	Ash	Moist- ure	Crude Fiber	
ALFALFA MEAL							
Alfalfa Meal	12.00	1.00	40.00	.....	.....	35.00	Alfalfa hay.
Denver Alfalfa Milling and Products Co. Lamar, Col.	15.86	1.21	65.40	10.00	7.53	.....
Otto Weiss Alfalfa Meal	12.00	1.00	70.00	.....	.....	35.00	Ground alfalfa hay.
Otto Weiss Milling Co. Wichita, Kan.	18.12	1.97	61.91	8.72	9.28	.....
Alfalfa Meal	12.00	1.50	40.00	.....	.....	35.00	Alfalfa hay.
Pecos Valley Alfalfa Mill Co. Hagerman, N. Mex.	15.31	1.53	66.28	8.90	7.98	.....
California Alfalfa Meal	16.00	2.00	40.00	.....	.....	30.00	Alfalfa hay.
A. W. Scott Co. San Francisco, Cal.	16.57	1.56	64.36	9.88	7.63	.....
BEEET PULP							
Dried Beet Pulp	8.00	0.50	76.00	.....	.....	20.00	Residue of sugar beets dried after extraction of sugar.
Larroe Milling Co. Detroit, Mich.	9.39	0.50	79.32	3.28	7.51	.....
Dried Beet Pulp	8.00	0.50	60.00	.....	.....	20.00	Residue of sugar beets dried after extraction of sugar.
Ubiko Milling Co. Cincinnati, Ohio	9.08	0.56	78.07	2.78	9.51	.....
Dried Beet Pulp	8.00	0.50	58.00	2.50	.....	20.00	Residue of sugar beets dried after extraction of sugar.
West Bay City Sugar Co. Bay City, Mich.	9.63	0.37	77.32	3.15	9.53	.....

Brand and name and address of manufacturer	Pounds in 100 lbs. of Feeding-Stuffs							Certified by manufacturer to contain
	Protein	Fat	Carbohy- drates	Ash	Moist- ure	Crude Fiber		
Pennant Stock Feed E. W. Bailey and Co. Swanton, Vt.	G. 10.00	6.50	60.00	3.78	8.30	10.00	Fine white hominy, oat by-products, oat middlings, oat hulls and oat shorts.	
	F. 10.42	5.33	72.17	3.78	8.30	7.96		
Climax Stock Feed E. A. Cowee Co. Fitchburg, Mass.	G. 8.75	3.50	45.00	4.89	10.31	8.00	Corn, oats, barley and oat feed.	
	F. 8.75	3.55	72.50	4.89	10.31	8.00		
Cowee's Stock Feed E. A. Cowee Co. Fitchburg, Mass.	G. 9.00	4.00	45.00	5.72	8.29	10.00	Ground oats, hominy feed, barley and oat meal mill by-products, oat mid- dlings, oat shorts, oat hulls, ½ of 1% salt.	
	F. 10.29	4.55	71.15	5.72	8.29	10.00		
Stock Feed J. Cushing Co. Fitchburg, Mass.	G. 10.00	3.00	50.00	3.81	9.60	10.00	Corn feed meal, hominy feed, ground barley, ground oats, wheat middlings, oat meal mill by-products, oat mid- dlings, oat hulls, oat shorts, ½ % salt.	
	F. 10.10	4.52	71.97	3.81	9.60	10.58		
Vigor Sugared Stock Feed J. Cushing Co. Fitchburg, Mass.	G. 10.00	3.00	50.00	5.34	8.94	11.00	Corn feed meal, wheat middlings, hominy feed, soy bean meal, cane molasses, oat meal mill by-products, oat middlings, oat hulls, oat shorts, ½ % salt.	
	F. 11.62	3.31	70.79	5.34	8.94	8.85		
Eshelman's Lancaster Stock Feed John W. Eshelman and Sons Lancaster, Pa.	G. 10.00	3.00	50.00	3.98	9.59	10.00	Corn feed meal, wheat middlings, hominy feed, ground barley, ground oats, oat meal mill by-products, oat middlings, oat hulls, oat shorts, ½ % salt.	
	F. 10.27	4.32	71.84	3.98	9.59	10.00		
Eshleman's Sugared Stock Feed John W. Eshelman and Sons Lancaster, Pa.	G. 10.00	3.25	50.00	5.61	8.64	11.00	Corn feed meal, wheat middlings, hominy feed, soy bean meal, cane molasses, oat meal mill by-products, oat middlings, oat hulls, oat shorts, ½ % salt.	
	F. 10.42	2.63	72.70	5.61	8.64	12.03		

Grandin's Stock Feed D. H. Grandin Milling Co. Jamestown, N. Y.	G.	9.00	5.00	55.00	3.61	...	9.68	12.00	Corn meal, corn feed meal, hominy feed, wheat middlings, ground barley, oat meal mill by-products, oat middlings, oat hulls, oat shorts, 1/2 of 1% salt. Wheat middlings may contain ground screenings not exceeding mill run.
	F.	8.73	4.18	73.80	...	...	...	10.06	
Granite State Stock Feed E. C. and W. L. Hopkins Greenfield, N. H.	G.	9.00	5.00	60.00	3.56	...	9.02	10.00	White hominy, wheat red dog, oat by-products, oat middlings, oat hulls, and oat shorts and 1/2 of 1% salt.
	F.	10.24	6.18	71.00	...	...	...	10.00	
Our Special Stock Feed E. C. and W. L. Hopkins Greenfield, N. H.	G.	7.50	3.00	70.00	3.75	...	9.81	13.50	Ground corn or hominy meal, oat meal mill by-products, oat middlings, oat shorts, oat hulls, 1/2 of 1% salt.
	F.	7.97	2.76	75.71	...	...	...	13.09	
Stock Feed McQuesten and Lewis Manchester, N. H.	G.	12.00	3.00	60.00	3.44	...	10.87	12.00	Ground corn, hominy feed, linseed oil meal, ground barley, low grade wheat flour, wheat bran, wheat middlings with ground screenings not exceeding mill run, gluten meal, oat hulls, 3/4 of 1% salt.
	F.	11.29	3.63	70.77	...	...	...	8.82	
Merrimack Special Stock Feed Merrimack Farmers' Exchange, Concord, N. H.	G.	8.00	3.00	55.00	4.16	...	8.28	14.00	Corn meal, ground oats, oat meal mill by-products, oat middlings, oat shorts, oat hulls, 1/2 of 1% salt.
	F.	8.00	3.14	76.42	...	...	...	13.80	
Merrimack Stock Feed Merrimack Farmers' Exchange, Concord, N. H.	G.	9.00	4.00	55.00	4.04	...	8.98	11.00	Ground white hominy ground oats, oat meal mill by-products, oat middlings, oat shorts, oat hulls, 1/2 of 1% salt.
	F.	9.48	4.28	73.22	...	...	...	11.00	
Money Maker Park and Pollard Co. Boston, Mass.	G.	10.00	5.00	50.00	8.49	...	9.39	12.00	Ground clipped oat by-products, molasses, fine ground grain screenings, cocoa shell meal, calcium carbonate and salt.
	F.	14.32	6.18	61.62	...	...	...	9.12	
Stock Feed Park and Pollard Co. Boston, Mass.	G.	8.00	2.50	50.00	6.04	...	9.06	12.00	Ground barley, ground corn, ground oats, hominy feed, oat hulls, oat middlings, oat shorts, calcium carbonate and salt.
	F.	9.11	5.54	70.25	...	...	...	9.82	

Brand and name and address of manufacturer	Pounds in 100 lbs. of Feeding-Stuffs							Certified by manufacturer to contain
	Protein	Fat	Carbohy- drates	Ash	Moist- ure	Crude Fiber		
Richford White Diamond Stock Feed Quaker Oats Co. Chicago, Ill.	G. 8.00	3.00	60.00	14.00	Ground corn, hominy feed, barley feed, oat middlings, oat hulls, oat shorts, $\frac{3}{4}$ of 1% salt.	
	F. 9.39	4.52	73.51	4.36	8.22	13.56		
Sugared Schumacker Feed Quaker Oats Co. Chicago, Ill.	G. 10.00	3.25	58.00	12.00	Ground corn, hominy feed, yellow hominy feed, barley meal, cottonseed meal, old process linseed oil meal, low grade wheat flour, wheat middlings, with ground wheat screenings not exceeding mill run, oat meal mill by-products, oat middlings, oat hulls, oat shorts, $\frac{3}{4}$ of 1% salt, $1\frac{1}{2}$ % calcium carbonate, molasses.	
	F. 10.68	3.81	72.53	4.83	8.15	10.28		
Purlna O-Molene Feed Raiston Purlna Co., Inc. Buffalo, N. Y.	G. 9.70	3.20	67.00	8.00	Cracked corn, crushed oats, ground alfalfa, molasses, old process linseed oil meal and 1% salt.	
	F. 10.13	3.99	70.58	4.19	11.11	7.49		
Charlestock Feed St. Albans Grain Co. St. Albans, Vt.	G. 9.00	4.00	50.00	14.00	Oat feed, oat meal mill by-products, oat shorts, oat middlings, oat hull, hominy or corn meal, linseed oil meal, and $\frac{1}{2}$ of 1% salt.	
	F. 10.40	5.33	71.13	5.17	7.97	11.80		
Wirthmore Stock Feed St. Albans Grain Co. St. Albans, Vt.	G. 9.00	4.00	60.00	9.50	Ground barley, ground oats, ground hominy meal, ground corn, oat meal mill by-products, oat middlings, oat shorts, oat hulls, $\frac{1}{2}$ of 1% salt.	
	F. 10.33	6.66	70.27	3.58	9.16	9.19		
Haskell's Stock Feed Sheets Elevator Co. Cleveland, Ohio	G. 9.00	6.00	61.00	9.00	Ground corn, ground oats, hominy feed, oat hulls, oat shorts and salt.	
	F. 9.22	6.00	72.63	3.78	8.37	8.08		

Brand and name and address of manufacturer	Pounds in 100 lbs. of Feeding-Stuffs						Certified by manufacturer to contain
	Protein	Fat	Carbohydrates	Ash	Moisture	Crude Fiber	
Paramount Brand Good Cottonseed Meal	G. 36.00	5.50	27.00	...	...	14.00	
	F. 36.21	6.46	43.76	6.21	7.36	....
Ashcraft-Wilkinson Co. Atlanta, Ga.							
Buckeye Prime Cottonseed Meal ...	G. 41.00	6.50	...	...	...	10.00	
	F. 42.40	6.75	37.16	6.61	7.08	....
Buckeye Cotton Oil Co. Cincinnati, Ohio.							
Buckeye Standard Cottonseed Meal.	G. 36.00	5.00	30.00	5.52	6.82	14.00	
	F. 36.16	6.54	44.96	...	...	....
Buckeye Cotton Oil Co. Cincinnati, Ohio							
Goodluck Brand Cottonseed Meal ...	G. 41.00	6.00	...	...	...	10.00	Decorticated cottonseed.
	F. 38.44	5.83	42.30	5.57	7.86	....
S. P. Davis							
Little Rock, Ark.							
Steer Boy Brand Cottonseed Meal ..	G. 43.00	6.00	25.00	...	...	10.00	Decorticated cottonseed.
	F. 43.42	7.18	35.80	6.63	6.97	....
S. P. Davis							
Little Rock, Ark.							
Supreme Cottonseed Meal	G. 36.00	5.00	27.00	6.25	6.14	14.00	
	F. 36.00	8.30	43.31	...	...	....
Eastern Cotton Oil Co. Edenton, N. C.							
Bull Brand Cottonseed Meal.....	G. 43.00	5.00	26.00	6.84	7.48	10.00	Pressed cottonseed.
	F. 43.72	5.93	36.03	...	...	....
Humphreys-Godwin Co. Memphis, Tenn.							
Danish Brand Cottonseed Feed	G. 36.00	5.00	25.00	...	...	15.00	Cottonseed meal and cottonseed hulls.
	F. 39.71	6.31	40.71	5.81	7.46	....
Humphreys-Godwin Co. Memphis, Tenn.							

"Lovitt Brand" 43% Cottonseed Meal	G.	43.00	6.00	25.00	....	....	10.00	Decorticated cottonseed.
L. B. Lovitt and Co.	F.	42.36	7.38	35.45	6.49	8.32	....
Thirty-Six Brand Cottonseed Meal	G.	36.00	5.00	28.50	....	....	14.00	
L. B. Lovitt and Co.	F.	34.95	6.24	45.23	5.84	7.74	....
Good Cottonseed Meal	G.	36.00	5.00	28.50	....	....	14.00	
Marianna Sales Co.	F.	36.29	6.69	43.83	5.57	7.62	....
Prime Cottonseed Meal	G.	41.00	6.00	26.00	....	....	10.00	
Marianna Sales Co.	F.	40.42	7.06	38.59	7.27	6.66	....
Prime Cottonseed Meal—White								
Mule Brand	G.	43.00	6.00	25.00	....	....	10.00	
Marianna Sales Co.	F.	39.86	7.73	38.86	6.86	6.69	....
Durham Thirty-Six Cottonseed Meal	G.	36.00	5.00	28.50	....	....	14.00	
Memphis Cottonseed Products Co.,	F.	36.25	6.19	44.17	6.10	7.29	....
Inc.								
Triangle Brand Cottonseed Meal	G.	36.00	5.00	28.50	....	....	14.00	
R. N. Neal and Co.	F.	31.40	5.84	48.68	5.43	8.65	....
Memphis, Tenn.								
Planet Brand Cottonseed Meal	G.	43.00	6.00	26.00	....	....	10.00	Pressed cottonseed.
A. C. Westervelt and Co.	F.	43.00	6.93	34.19	6.88	9.00	....
Memphis, Tenn.								
DAIRY FEED								
Milkers Ready Ration	G.	22.00	4.00	53.00	....	....	11.00	Corn gluten feed, wheat middlings,
Arcady Farms Milling Co.	F.	20.10	4.84	57.98	7.64	9.44	9.69	wheat bran, old process linseed oil
Chicago, Ill.								meal, dried grains from barley, malt
								and corn, cleaned ground and bolted
								wheat screenings, ground and bolted
								clipped oat by-products, cottonseed
								meal, molasses and 1/2 of 1% salt.

Brand and name and address of manufacturer	Pounds in 100 lbs. of Feeding-Stuffs							Certified by manufacturer to contain
	Protein	Fat	Carbohy- drates	Ash	Moist- ure	Crude Fiber		
Sweet 16 Dairy Feed	16.00	4.00	50.00	8.81	8.68	12.00	Wheat bran, cottonseed meal, pure old process linseed meal, corn gluten feed, cleaned ground and bolted wheat screenings, ground and bolted clipped oats by-products, molasses and ½ of 1% salt.	
Arcady Farms Milling Co. Chicago, Ill.	17.03	4.65	60.83	8.81	8.68	12.00		
Capital Dairy Ration	24.00	5.50	55.00	5.29	9.09	9.00	Corn gluten feed, linseed oil meal, hominy feed, cottonseed meal, ground oats, wheat bran, corn meal and ½% salt.	
E. W. Bailey and Co. Swanton, Vt.	25.46	5.50	54.66	5.29	9.09	7.49		
Favorite Dairy Ration	20.00	5.50	59.82	5.13	9.30	7.50	White hominy, cottonseed, corn gluten, linseed meal, corn meal, ground oats, wheat bran, wheat mid- dlings.	
E. W. Bailey and Co. Swanton, Vt.	20.95	4.80	59.82	5.13	9.30	6.81		
Green Mountain Dairy Ration	23.00	5.00	50.00	5.22	9.78	10.00	Cottonseed meal, wheat bran, ground oats, ground barley, gluten feed, hominy, oil meal.	
Caledonia Mills, Inc. St. Johnsbury, Vt.	23.00	5.59	56.41	5.22	9.78	9.86		
Unicorn Dairy Ration	24.00	5.00	50.00	6.32	8.45	10.00	Cottonseed meal, corn gluten meal, linseed meal, corn gluten feed, brewers' grains, corn oil meal, wheat bran, hominy meal and salt.	
Chapin and Co. Hammond, Ind.	24.60	5.14	55.49	6.32	8.45	8.38		
Cowee's 1922 Ration	21.50	5.50	45.00	5.63	10.52	8.00	Gluten feed, linseed meal, cottonseed meal, cocoanut oil meal, corn meal, wheat bran, wheat middlings and salt.	
E. A. Cowee Co. Fitchburg, Mass.	21.67	4.62	57.56	5.63	10.52	8.32		
Beet Pulp Dairy Feed	20.00	3.00	50.00	5.34	10.31	12.00	Beet pulp, wheat bran, wheat mid- dlings, Buffalo gluten feed, diamond gluten meal, cocoanut oil meal, cot- tonseed meal, soy bean meal, old process oil meal, ½% calcium car- bonate ½% salt.	
J. Cushing Co. Fitchburg, Mass.	22.18	4.45	57.72	5.34	10.31	12.00		

Dairy Feed J. Cushing Co., Fitchburg, Mass.	G.	20.00	4.00	53.00	6.83	10.00	Wheat bran, cottonseed meal, corn gluten feed, coconut oil meal, cane molasses, soy bean meal, corn gluten meal, wheat middlings, brewers' dried grains, old process oil meal, reground grain screenings, from wheat, alfalfa meal, ½% calcium carbonate, ½% salt.
	F.	20.48	4.66	57.81	6.83	9.30	
Dairy Feed J. Cushing Co., Fitchburg, Mass.	G.	24.00	5.00	53.00	6.48	10.00	Wheat bran, cottonseed meal, coconut oil meal, wheat middlings, soy bean meal, cane molasses, corn gluten feed, corn gluten meal, brewers' dried grains, old process oil meal, reground oats, ground barley, alfalfa meal, ½% calcium carbonate, ½% salt.
	F.	24.71	5.09	53.85	6.48	9.13	
Gold Coin Dairy Ration Eagle Roller Mill Co., New Ulm, Minn.	G.	20.00	5.00	58.00	7.40	9.00	Corn meal, pulverized oats, pulverized barley, wheat bran, wheat middlings, wheat red dog, oil meal, cottonseed meal, corn gluten feed, bone meal, salt.
	F.	20.45	5.00	57.28	7.40	7.66	
Eastern's 16% Dairy Feed Eastern Grain Co., Portland, Maine	G.	16.00	3.00	45.00	7.06	10.00	Cottonseed meal, cane molasses, coconut oil meal, soy bean meal, corn gluten feed, brewers' dried grains, old process oil meal, oat meal mill by-products, oat hulls, oat middlings, oat shorts, reground grain screenings from wheat ½% calcium carbonate, ½% salt.
	F.	16.97	4.43	61.49	7.06	10.46	
Eastern's 20% Dairy Feed Eastern Grain Co., Portland, Maine	G.	20.00	4.00	53.00	7.03	10.00	Wheat bran, cottonseed meal, corn gluten feed, coconut oil meal, cane molasses, soy bean meal, corn gluten meal, wheat middlings, brewers' dried grains, old process oil meal, reground grain screenings from wheat, alfalfa meal, ½% calcium carbonate and ½% salt.
	F.	18.30	4.21	60.21	7.03	10.00	

Brand and name and address of manufacturer	Pounds in 100 lbs. of Feeding-Stuffs							Certified by manufacturer to contain
	Protein	Fat	Carbohy- drates	Ash	Moist- ure	Crude		
						Fiber	Fiber	
Eastern's 24% Dairy Feed	24.00	5.00	53.00	5.70	...	10.00	10.00	Wheat bran, cottonseed meal, cocoa- nut oil meal, wheat middlings, soy bean meal, cane molasses, corn gluten feed, corn gluten meal, brewers' dried grains, old process linseed oil meal, ground oats, ground barley, alfalfa meal, ½% calcium carbonate, ½% salt.
	24.00	4.69	56.14	5.70	9.47	11.26	11.26	
Eastern States Pitting Ration	13.00	4.00	55.00	7.38	...	9.00	9.00	Standard wheat bran, ground oats, standard wheat middlings, yellow hominy feed, old process linseed oil meal, corn meal, cane molasses, bone meal, salt.
	16.09	4.51	62.11	7.38	9.91	7.39	7.39	
Eastern States Fulpail Dairy Ration	20.00	4.00	48.00	7.16	...	9.00	9.00	Standard wheat bran, linseed oil meal, ground oats, standard wheat mid- dlings, cane molasses, corn gluten feed, corn gluten meal, cottonseed meal, corn distillers' dried grains, bone meal, calcium carbonate, salt.
	21.80	4.41	57.03	7.16	9.60	8.73	8.73	
Eastern States Milkmore Dairy Ra- tion	24.00	4.00	45.00	6.43	...	9.00	9.00	Linseed oil meal, corn gluten feed, standard wheat bran, corn gluten meal, standard wheat middlings, ground oats, cottonseed meal, corn distillers' dried grains, cane molasses, bone meal, calcium carbonate, salt.
	24.36	4.88	54.12	6.43	10.21	8.95	8.95	
Fosher's Dairy Feed	22.00	3.50	50.00	4.58	...	8.00	8.00	Diamond gluten meal, linseed oil meal, cottonseed meal, hominy, wheat bran, mill run of screenings, ground oats, ½ of 1% salt and brewers' grain.
	24.84	5.57	56.17	4.58	8.84	7.12	7.12	

Grandin's Twin Six Dairy Feed	G.	22.00	5.00	50.00	5.44	...	...	12.00	Linsseed oil meal, cottonseed meal, coconut oil meal, corn gluten feed, wheat bran, wheat middlings, corn meal, corn feed meal, hominy feed, alfalfa meal, and 1/2 of 1% salt. Wheat bran and wheat middlings may contain ground screenings not exceeding mill run.
	F.	22.05	4.83	57.98	9.70	5.44	9.70	10.14	
Holton's Cow Feed	G.	23.00	5.00	45.00	...	...	...	9.00	Wheat bran, cottonseed meal, oil meal, ground oats, corn meal, corn gluten feed, distillers' dried grains.
	F.	22.02	5.87	57.48	5.15	9.48	9.48	8.80	
Money Maker Sweetened Dairy Feed	G.	20.00	5.00	55.00	...	...	...	12.00	Corn gluten feed, cottonseed meal, old process linseed meal, wheat bran with screenings, hominy, oat meal by-products, molasses, cocoa shell meal, calcium carbonate and salt, ground oats, brewers' grains.
	F.	23.38	5.16	55.62	6.26	9.58	9.58	9.19	
Nason's Dairy Feed	G.	24.00	4.40	55.00	...	...	...	10.00	Gluten meal, cottonseed meal, linseed oil meal, ground oats hominy feed, wheat bran with ground screenings not exceeding mill run, 1/2 of 1% salt.
	F.	24.82	4.99	56.40	4.50	9.29	9.29	8.16	
International Special Dairy Feed	G.	15.00	4.50	47.00	...	...	...	12.00	Old process oil meal, cottonseed meal, corn gluten feed, wheat bran, molasses, ground clipped oat by-products, ground cleaned gram screenings, 1% salt.
	F.	14.20	5.16	61.65	9.07	9.92	9.92	11.51	
Champion Dairy Ration	G.	23.00	5.00	55.00	...	...	...	11.00	Pure bran, corn gluten feed, old process linseed meal, ground oats, brewers' dried grains, corn meal or hominy, winter wheat middlings, edible bone meal, 1% salt.
	F.	23.18	5.72	55.04	5.38	10.68	10.68	10.69	
Kasco Mornilk Dairy Ration	G.	25.00	5.00	50.00	...	...	...	9.00	Wheat middlings, wheat bran, linseed oil meal, corn gluten feed, cottonseed meal, hominy feed, 3/4 of 1% salt.
	F.	25.28	5.36	53.18	6.61	9.57	9.57	7.97	

Brand and name and address of manufacturer	Pounds in 100 lbs. of Feeding-Stuffs						Certified by manufacturer to contain
	Protein	Fat	Carbohy- drates	Ash	Moist- ure	Crude Fiber	
Larro, The Ready Ration Larrowe Milling Co., Detroit, Mich.	G. F.	4.00 4.34	58.00 61.01	5.51	9.14	12.00 10.39	Cottonseed meal, corn gluten feed, old process linseed oil meal, standard wheat bran, standard wheat middlings, dried beet pulp, $\frac{3}{4}$ % salt.
Armour's 24% Dairy Feed Mapl-Flake Mills, Inc., Chicago, Ill.	G. F.	5.00 4.87	50.00 54.60	8.49	8.60	12.00 12.44	Corn gluten feed, corn oil meal, cottonseed oil meal, linseed oil meal, cocoanut oil meal, wheat bran, oat hulls, oat middlings, hominy feed, 1% salt, 1% carbonate of lime.
E. P. Dairy Ration Mapl-Flake Mills, Inc., Chicago, Ill.	G. F.	4.00 4.48	55.00 58.40	7.02	8.79	12.00 11.91	Beet pulp, linseed oil meal, hominy feed, cottonseed meal, wheat bran, corn gluten feed, 1% salt.
Iroquois 20% Dairy Ration Mapl-Flake Mills, Inc., Chicago, Ill.	G. F.	4.00 4.02	55.00 58.73	9.61	9.26	11.00 11.62	Corn gluten feed, wheat bran, cottonseed meal, clipped oat by-product, hominy feed, ground grain screenings, linseed oil meal, molasses, 1% carbonate of lime, 1% salt.
Bull Brand Dairy Ration Maritime Milling Co., Inc., Buffalo, N. Y.	G. F.	6.00 6.00	50.00 54.18	6.37	9.05	12.00 10.11	Dried brewers' grains, dried malt, malt grains, old process oil meal, cottonseed meal, corn gluten feed, hominy feed, cocoanut oil meal, wheat bran and wheat middlings and $\frac{3}{4}$ % of 1% salt. Wheat bran and wheat middlings may contain ground screenings not exceeding mill run.
Hi-Test Dairy Feed Maritime Milling Co., Inc., Buffalo, N. Y.	G. F.	5.00 5.04	50.00 57.25	7.34	9.26	14.00 14.00	Corn gluten feed, linseed oil meal, cocoanut oil meal, cottonseed meal, dried yeast grains, hominy feed, ground oats, wheat bran, oat shorts, $\frac{3}{4}$ % of 1% salt. Wheat bran may contain ground screenings not exceeding mill run, oat hulls not to exceed 15%.

Merrimack Dairy Ration Merrimack Farmers' Exchange, Inc. Concord, N. H.	G. F.	20.00 21.53	5.00 4.83	50.00 58.91	5.34 9.39	10.00 9.42	Corn gluten feed, linseed oil meal, cottonseed meal, corn meal, wheat bran, wheat middlings, not exceeding mill run of screenings, ground oats and $\frac{3}{4}$ of 1% salt.
Noyes' Dairy Feed D. A. Noyes and Son Colebrook, N. H.	G. F.	23.00 23.62	5.00 5.01	56.00 56.37	5.07 9.93	9.00 8.18	Cottonseed meal, old process linseed meal, white hominy feed or corn meal, pure ground oats, bran, gluten, 1% salt.
Detroit Dairy Ration Old Reliable Milling Co. Detroit, Mich.	G. F.	20.00 20.65	5.00 5.09	48.00 57.92	6.28 10.06	10.00 9.01	Cottonseed meal, corn gluten feed, linseed oil meal and old process screenings oil feed, wheat bran with screenings not to exceed mill run, wheat middlings with screenings not to exceed mill run, bean meal, 1% salt.
Stevens 44 Dairy Ration Park and Pollard Co. Boston, Mass.	G. F.	24.00 26.24	5.00 6.14	40.00 52.01	7.28 8.33	14.00 11.45	Linseed oil meal, cottonseed meal, corn gluten feed, coconut oil meal, pea meal, corn distillers' dried grains, brewers' dried grains, corn meal, calcium carbonate, salt, wheat bran with mill run screenings.
Stevens Economy Feed Park and Pollard Co. Boston, Mass.	G. F.	20.00 21.45	5.00 6.07	40.00 51.80	10.36 10.32	10.00 9.59	Distillers' dried grains, old process linseed oil meal, cottonseed meal, cocoa shell meal, hominy feed, fine ground grain screenings, ground fish, wheat bran, ground oats, molasses, calcium carbonate and salt.
Universal Ration Park and Pollard Co. Boston, Mass.	G. F.	15.00 17.79	6.00 6.96	50.00 54.45	11.07 9.73	12.00 11.89	Linseed oil meal, cottonseed meal, coa shell meal, fine ground grain screenings, alfalfa, fish, molasses, calcium carbonate and salt.
Peel's Dairy Feed William F. Peel Nashua, N. H.	G. F.	20.00 21.19	5.00 5.67	55.00 57.38	6.69 9.07	12.00 11.14	Corn gluten feed, cottonseed meal, old process linseed meal, wheat bran with screenings, hominy, oat meal by-products, molasses, cocoa shell meal, ground oats, brewers' grains, calcium carbonate and salt.

Brand and name and address of manufacturer	Pounds in 100 lbs. of Feeding-Stuffs						Certified by manufacturer to contain
	Protein	Fat	Carbohy- drates	Ash	Moist- ure	Crude Fiber	
Pillsbury's 20% Dairy Ration Pillsbury Flour Mills Co. Minneapolis, Minn.	G. 20.00	4.00	50.00	7.73	9.84	11.00	Ground oats, wheat bran, hominy feed, linseed oil meal, corn gluten feed, wheat standard middlings, cottonseed meal, calcium carbonate and sodium chloride.
	F. 20.92	4.95	56.56	.....	.....	8.69	
Boss Dairy Ration 24% Quaker Oats Co. Chicago, Ill.	G. 24.00	4.00	45.00	7.45	9.22	10.50	Hominy feed, yellow hominy feed, cottonseed meal, corn gluten feed, old process linseed meal, wheat bran and wheat middlings with ground screenings not exceeding mill run, oat meal mill by-products, oat middlings, oat shorts, oat hulls, $\frac{3}{4}$ of 1% salt, 1% calcium carbonate, molasses.
	F. 24.00	4.64	54.69	.....	.....	9.61	
Protena More Milk Dairy Feed Ralston Purina Co., Inc. Buffalo, N. Y.	G. 16.50	3.50	55.00	8.07	8.48	12.00	Cottonseed meal, gluten feed from corn, oat feed, oat hulls, oat shorts, oat middlings, ground wheat screenings, molasses and 1% salt.
	F. 16.44	3.85	63.16	.....	.....	10.87	
Purina Chow Feed Ralston Purina Co., Inc. Buffalo, N. Y.	G. 24.00	4.30	63.00	7.28	9.88	12.00	Linseed oil meal, old process, gluten feed from corn, hominy feed, corn feed, meal, cottonseed meal, molasses, ground alfalfa, 1% salt.
	F. 26.43	4.75	51.66	.....	.....	9.26	
Paragon Dairy Feed St. Albans Grain Co. St. Albans, Vt.	G. 22.00	4.00	44.00	6.07	9.18	14.00	Cottonseed meal, linseed meal, diamond corn gluten meal, corn gluten feed, cocoa meal, corn meal, oat meal mill by-products, oat middlings, oat shorts, oat hulls, wheat bran, edible bone meal and dairy salt.
	F. 22.25	4.26	58.24	.....	.....	13.91	

Brand and name and address of manufacturer	Pounds in 100 lbs. of Feeding-Stuffs							Certified by manufacturer to contain
	Protein	Fat	Carbohy- drates	Ash	Moist- ure	Crude Fiber		
Union Grains Biles Ready Dairy Ration	G. 24.00	5.00	53.03	5.94	8.76	10.00	Corn distillers' dried grains, choice cottonseed meal, old process linseed meal, white wheat middlings, winter wheat bran, hominy meal, corn germ meal, corn gluten feed, brewers' dried grains, ½% fine table salt.	
Ubiko Milling Co. Cincinnati, Ohio	F. 25.35	6.92	53.03	5.94	8.76	7.66		
Warren's Dairy	G. 18.00	5.00	50.00	4.71	9.28	8.50	Gluten feed, ground oats, mixed feed, beet pulp, cottonseed meal.	
J. Q. Warren	F. 18.13	4.07	63.81	4.71	9.28	10.26		
Blue Seal Dairy Feed	G. 22.00	4.50	50.00	4.86	10.22	10.00	Cottonseed meal, linseed oil meal, gluten feed, bran, corn meal, crushed fancy oats.	
H. K. Webster Co. Lawrence, Mass.	F. 22.66	4.50	57.76	4.86	10.22	10.95		
N. H. Dairy	G. 18.86	5.39	60.10	5.31	10.34	8.38	Flaxseed screenings ground.	
H. K. Webster Co. Lawrence, Mass.	F. 18.86	5.39	60.10	5.31	10.34	8.38		
FLAXSEED SCREENINGS								
Puraflex Money Saver	G. 14.00	8.00	48.00	6.46	10.74	14.00	Flaxseed screenings ground.	
Old Reliable Milling Co. Detroit, Mich.	F. 16.48	10.16	56.16	6.46	10.74	...		
GLUTEN FEED								
Cream of Corn Gluten Feed	G. 23.00	1.50	60.77	3.27	7.86	8.50	Flaxseed screenings ground.	
American Malze Products Co. New York City	F. 24.83	3.27	60.77	3.27	7.86	...		
Clinton Corn Gluten Feed	G. 23.00	2.00	52.00	3.95	9.18	8.00	Flaxseed screenings ground.	
Clinton Corn Syrup Refining Co. ... Clinton, Iowa	F. 26.53	2.31	58.03	3.95	9.18	...		

Buffalo Corn Gluten Feed	G.	23.00	2.00	50.00	...	...	...	8.50	
Corn Products Refining Co. New York City	F.	24.82	2.50	58.57	5.06	9.05	...	...
Jenk's Corn Gluten Feed	G.	22.00	3.00	...	...	...	...	8.00	Corn starch by-product with corn bran.
Huron Milling Co. Harbor Beach, Mich.	F.	22.61	4.58	61.64	2.76	8.41	...	...
Douglas Corn Gluten Feed	G.	23.00	1.00	60.00	...	...	...	8.00	
Penick and Ford Ltd., Inc. Cedar Rapids, Iowa	F.	25.41	2.43	55.49	7.09	9.58	...	...
Staley's Corn Gluten Feed	G.	23.00	1.00	50.00	...	...	...	8.00	
A. E. Staley Mfg. Co. Decatur, Ill.	F.	25.80	2.97	57.11	4.80	9.32	...	...
GLUTEN MEAL									
Diamond Corn Gluten Meal	G.	40.00	1.00	40.00	...	...	...	4.00	
Corn Products Refining Co. New York	F.	43.76	2.43	41.62	1.14	11.05	...	...
Douglas Corn Gluten Meal	G.	42.00	1.00	43.00	...	...	...	6.00	
Penick and Ford Ltd., Inc. Cedar Rapids, Iowa	F.	46.25	2.69	41.44	1.25	8.37	...	...
HOG FEED									
Larowe Hog Feed	G.	18.00	5.00	48.00	...	...	...	10.00	Corn germ meal, old process linseed oil meal, hominy feed, digester tankage, standard wheat middlings, standard wheat bran, dried beet pulp, 1/2 of 1% salt.
Larowe Milling Co. Detroit, Mich.	F.	19.13	5.06	59.79	5.36	10.66	...	7.49	
Wirthmore Hog Feed	G.	17.00	3.00	50.00	...	...	...	7.00	Tankage, wheat middlings, not exceeding mill run of screenings, hominy, corn meal, linseed meal, peanut feed, red dog flour, ground barley and about 1/2 of 1% salt.
St. Albans Grain Co. St. Albans, Vt.	F.	17.14	6.08	58.50	7.91	10.37	...	6.94	

Brand and name and address of manufacturer	Pounds in 100 lbs. of Feeding-Stuffs						Certified by manufacturer to contain
	Protein	Fat	Carbohy- drates	Ash	Moist- ure	Crude Fiber	
HOMINY FEED							
Trojan Hominy Feed	G. 10.00	6.00	66.70	3.11	9.48	6.00	
Allen and Wheeler Co. Troy, Ohio	F. 11.67	9.04	66.70	3.11	9.48	6.00	
Hominy Feed	G. 10.00	5.00	70.46	2.80	10.82	8.00	
Aunt Jemima Mills Co. St. Joseph, Mo.	F. 10.92	5.00	70.46	2.80	10.82	8.00	
B. C. White Hominy Feed	G. 10.00	6.00	55.00	2.69	9.88	5.00	White corn.
Kellogg Toasted Corn Flake Co. .. Battle Creek, Mich.	F. 11.27	7.14	69.02	2.69	9.88	5.00	
Choice Steam Cooked Hominy Feed	G. 10.00	4.00	60.00	2.69	9.99	5.00	
Miner-Hillard Milling Co. Wilkes-Barre, Pa.	F. 11.25	5.86	70.21	2.69	9.99	5.00	
Hominy Feed	G. 10.00	5.00	60.00	2.93	10.08	5.00	
Patent Cereals Co. Geneva, N. Y.	F. 11.17	5.37	70.45	2.93	10.08	5.00	
Burt's Hominy Feed	G. 10.00	6.00	65.00	2.08	8.96	5.00	White corn.
Postum Cereal Co., Inc. Battle Creek, Mich.	F. 10.68	5.71	72.57	2.08	8.96	5.00	
White Hominy Feed	G. 10.50	5.00	64.00	1.81	10.24	6.00	
Quaker Oats Co. Chicago, Ill.	F. 9.82	6.54	71.59	1.81	10.24	6.00	
Paragon Hominy Feed	G. 10.00	6.00	60.00	3.61	10.45	7.00	White corn.
St. Albans Grain Co. St. Albans, Vt.	F. 10.12	7.09	68.73	3.61	10.45	7.00	

HORSE FEED												
Corn-Pro Horse and Mule Feed	G.	9.00	2.50	60.00	.....	10.00	Cracked corn, rolled oats, alfalfa meal, corn, sugar, molasses and salt.				
Corn Products Refining Co.	F.	9.63	2.67	74.14	4.20	8.99						
New York City					.....	9.36					
Horse Feed Special	G.	8.00	2.00	50.00	.....	9.00	Cracked corn, crushed oats, wheat bran, cane molasses, 1/2 of 1% salt.				
J. Cushing Co.	F.	10.96	3.76	71.53	3.67	7.75						
Fitchburg, Mass.					.....	10.08					
Steam Cooked Horse Feed	G.	9.50	4.00	50.00	.....	4.00	Rolled corn and crushed oats.				
J. Cushing Co.	F.	9.94	3.86	75.65	1.86	4.16						
Fitchburg, Mass.					.....	8.69					
Arlington Horse Feed	G.	9.00	2.50	60.00	.....	11.00	Cracked corn, crimped oats, wheat bran, molasses, 1/2 of 1% fine table salt.				
Park and Pollard Co.	F.	10.65	3.91	70.86	3.36	8.62						
Boston, Mass.					.....	11.22					
Green Cross Horse Feed	G.	10.00	2.50	54.00	5.36	12.00	Cracked corn, crushed oats, cotton-seed meal, alfalfa meal, oat meal					
Quaker Oats Co.	F.	11.64	3.34	69.98	.....	12.00	mill by-products, oat middlings, oat shorts, oat hulls, 3/4 of 1% salt and molasses.				
Chicago, Ill.					.....	9.68					
LINSEED MEAL												
Alinco Old Process Linseed Oil Meal	G.	34.00	5.00	45.00	.....	8.00					
American Linseed Co.	F.	32.75	6.74	45.01	4.57	.....					
Buffalo, N. Y.					.....	10.93					
Old Process Linseed Meal and Old Process Screenings Oil Feed	G.	30.00	5.00	30.00	.....	10.00					
American Milling Co.	F.	30.03	6.78	47.63	5.23	.....					
Peoria, Ill.					.....	10.33					
Old Process Ground Oil Cake	G.	32.00	5.00	.....	.....	10.00				
Archer-Daniels Midland Co.	F.	32.00	7.05	44.85	6.05	.....					
Buffalo, N. Y.					.....	10.05					
Pure Old Process Ground Oil Cake	G.	34.00	6.00	45.00	.....	9.00					
Archer-Daniels Midland Co.	F.	34.95	5.49	44.57	4.91	.....					
Minneapolis, Minn.					.....	10.08					

Brand and name and address of manufacturer	Pounds in 100 lbs. of Feeding-Stuffs						Certified by manufacturer to contain
	Protein	Fat	Carbohy- drates	Ash	Moist- ure	Crude Fiber	
Old Process Pure Oil Meal	G. 37.00	7.00	43.95	4.80	9.98	9.00	Pure old process.
Kellogg's and Miller	F. 34.79	6.48	43.95	4.80	9.98	9.00	
Pure Old Process Oil Meal	G. 30.00	4.00	37.00	6.25	8.53	9.00	Pure old process.
Kellogg's and Miller	F. 31.70	7.68	45.84	6.25	8.53	9.00	
Linsed Oil Meal	G. 34.00	6.00	35.00	4.70	11.43	10.00	Pure old process.
Mann Brothers Co.	F. 33.29	7.80	42.78	4.70	11.43	10.00	
Kellogg's Oil Meal. Pure Old Pro- cess	G. 34.00	5.00	45.00	5.19	9.46	10.00	Pure old process.
Spencer Kellogg and Sons, Inc.	F. 34.13	5.73	45.49	5.19	9.46	10.00	
Kellogg's Pure Old Process Oil Meal Spencer Kellogg and Sons, Inc.	G. 31.00	5.00	45.00	6.17	9.27	10.00	Oat meal mill by-products, oat mid- dlings, oat hulls, oat shorts.
Buffalo, N. Y.	F. 31.46	5.31	47.79	6.17	9.27	10.00	
OAT FEED							
Vim Feed	G. 5.00	2.00	47.00	6.82	7.36	28.00	Oat meal mill by-products, oat mid- dlings, oat hulls, oat shorts.
Quaker Oats Co.	F. 5.89	1.93	78.00	6.82	7.36	29.23	
Peterborough, Canada							
POULTRY FEED							
Capital Meat and Bone Scraps	G. 45.00	6.00	.....	35.52	6.99	.....	Meat and bone scraps.
American Agricultural Chemical Co. New York City	F. 44.54	9.65	.....	35.52	6.99	.....

Protox Meat and Bone Scraps	G.	55.00	6.00	.....	.....	.....	.....	.....	Meat and bone scraps.
American Agricultural Chemical Co. F. New York City	F.	55.32	11.02	.....	24.51	.....	5.61	.....
Best Bet Laying Mash	G.	20.00	4.00	55.00	.....	.....	.....	9.00	Meat meal, dried buttermilk, alfalfa meal, corn feed meal, pure old process linseed oil meal, wheat bran, wheat middlings, corn gluten feed, bone meal, calcium carbonate and 1/2 of 1% fine table salt.
Arcady Farms Milling Co. Chicago, Ill.	F.	22.63	5.05	52.50	10.22	.....	9.60	7.63	
Beach's Superior Beef Scraps	G.	50.00	15.00	.....	24.58	.....	6.63	.....
Beach Soap Co. Lawrence, Mass.	F.	53.13	12.78	.....	.....	.....	.....	.....
N. H. Pure Ground—Star Brand Beef Scraps	G.	35.00	10.00	.....	.....	.....	.....	.....
Beach Soap Co. Lawrence, Mass.	F.	42.82	11.48	.....	34.52	.....	6.07	.....
Bidwell Dry Mash	G.	18.00	1.50	40.00	.....	.....	.....	12.00	Ground corn, barley, oats, meat and bone meal, fish, wheat bran and grain screenings, wheat middlings, calcium carbonate and salt.
Black Rock Milling Corp. Black Rock, N. Y.	F.	19.83	5.61	55.57	8.78	.....	10.21	8.26	
Blatchford's Chick Mash	G.	20.00	4.00	52.00	.....	.....	.....	7.50	Dried milk albumen, meat scraps, fish meal, blood flour, bone meal, corn meal, oat meal, wheat middlings, cocoa shell meal, locust bean meal, rice polish, old process linseed meal, cocaoat oil meal, wheat flour, barley meal, calcium carbonate.
Blatchford Calf Meal Co. Waukegan, Ill.	F.	20.07	5.30	54.21	10.30	.....	10.12	6.53	
Blatchford's Egg Mash	G.	19.00	4.00	54.00	.....	.....	.....	10.00	Meat scraps, dried milk albumen, fish meal, wheat bran, oat meal, wheat middlings, cocaoat oil meal, cocoa shell meal, old process linseed oil meal, bone meal, calcium carbonate, salt, blood flour, corn meal, alfalfa meal, bran meal, rice polish, barley meal.
Blatchford Calf Meal Co. Waukegan, Ill.	F.	20.60	5.84	52.95	10.77	.....	9.84	6.99	

Brand and name and address of manufacturer	Pounds in 100 lbs. of Feeding-Stuffs						Certified by manufacturer to contain
	Protein	Fat	Carbolydrates	Ash	Moisture	Crude Fiber	
Burlington Poultry Feed	50.00	12.00	.....	.....	.....	.....	Meat and bone scraps.
Burlington Rendering Co. Burlington, Vt.	47.85	10.84	.....	31.56	7.47	.....
Pure Dried Buttermilk	30.00	3.50	38.00	.....	.....	.....	Rolled oats, wheat middlings, corn meal, corn feed meal, buttermilk, bone.
Collis Products Co. Clinton, Iowa	32.32	6.56	42.38	9.54	9.20	.....
Conkey's Buttermilk Grain and Bone Starting Feed	12.00	3.00	60.00	.....	.....	4.00	Wheat bran, oats, gluten, corn, middlings, linseed, bone and meat meal, and fish scraps.
G. E. Conkey Co. Toledo, Ohio	13.56	4.76	65.87	5.54	10.27	3.99	
Cowee's Climax Mash	20.00	3.50	45.00	.....	.....	10.00	Fish meal, meat scraps, corn gluten feed, linseed oil meal, ground corn, oats, barley, wheat bran, wheat middlings, not exceeding mill run screenings, ground buckwheat and not over $\frac{1}{4}$ of 1% salt.
E. A. Cowee Co. Fitchburg, Mass.	19.24	5.41	53.37	11.83	10.15	8.61	
Crosby's Egg Mash	18.00	4.00	50.00	.....	.....	8.50	Pure dried buttermilk, edible bone meal, ground wheat, corn, oats, barley, peas, milo maize, wheat bran, wheat middlings, not exceeding mill run screenings, fine ground beef scraps, salt, calcium carbonate.
Crosby Milling Co. Brattleboro, Vt.	22.01	5.76	52.06	10.16	10.01	7.91	
Crosby's Growing Feed	15.00	4.50	50.00	.....	.....	4.50	Oat meal, kiln dried corn meal, cooked and baked wheat feed, wheat middlings, powdered buttermilk, bone meal, old process linseed meal.
Crosby Milling Co. Brattleboro, Vt.	17.16	5.32	56.03	10.51	10.98	4.50	
Buttermilk Baby Chick Starter	10.00	4.00	65.00	.....	.....	5.00	
J. Cushing Co. Fitchburg, Mass.	15.11	5.29	67.14	3.53	8.93	4.49	

Growing Mash J. Cushing Co. Fitchburg, Mass.	G. F.	16.00 18.14	4.00 5.71	45.00 58.21	6.42 11.52	8.00	Dried buttermilk, meat and fish scraps, wheat middlings, corn feed meal, wheat bran, corn gluten feed, oat meal, ground oats, ground barley, hominy feed, old process oil meal, alfalfa meal ½ % salt.
Laying Mash J. Cushing Co. Fitchburg, Mass.	G. F.	20.00 23.03	5.00 6.64	45.00 51.56	8.77 10.00	7.00 6.47	Dried buttermilk, meat and fish scraps, wheat middlings, corn feed meal, wheat bran, corn gluten feed, ground oats, ground barley, hominy feed, old process oil meal, alfalfa meal, ½ % salt.
Dow's 55% Beef Scraps John C. Dow Co. Boston, Mass.	G. F.	55.00 48.76	10.00 11.32	.... ....	30.41 5.46	.... ....	Meat scraps.
Dow's 60% Beef Scraps John C. Dow Co. Boston, Mass.	G. F.	60.00 62.21	10.00 10.19	.... ....	16.18 7.67	.... ....	Meat scraps.
Dow's Ground Beef Scraps John C. Dow Co. Boston, Mass.	G. F.	45.00 45.00	12.00 10.20	.... ....	35.97 5.25	.... ....	Meat scraps.
Eastern's Earlelegg Growing Mash Eastern Grain Co. Portland, Maine	G. F.	15.00 18.63	4.00 6.20	45.00 53.75	5.91 10.45	8.00 7.90	Dried buttermilk, meat and fish scraps, wheat middlings, corn feed meal, wheat bran, corn gluten feed, oat meal, ground oats, ground barley, hominy feed, old process oil meal, alfalfa meal, ½ % salt.
Eastern's La-In Egg Mash Eastern Grain Co. Portland, Maine	G. F.	20.00 22.90	5.00 6.40	45.00 52.10	8.56 10.04	7.00 6.96	Dried buttermilk, meat and fish scraps, wheat middlings, corn feed meal, wheat bran, corn gluten feed, ground oats, ground barley, hominy feed, old process oil meal, alfalfa meal, ½ % salt.
Eastern States Egg Mash Eastern States Farmers' Exchange. Springfield, Mass.	G. F.	20.00 20.74	3.50 5.01	57.22	6.75 10.28	7.00 5.91	Wheat flour middlings, corn gluten feed, ground oats, fine corn meal, standard wheat bran, meat scraps.

Brand and name and address of manufacturer	Pounds in 100 lbs. of Feeding-Stuffs						Certified by manufacturer to contain
	Protein	Fat	Carbohy- drates	Ash	Moist- ure	Crude Fiber	
Eshelman's Laying Mash John W. Eshelman and Sons Lancaster, Pa.	G. 20.00	5.00	45.00	7.96	9.84	7.00	20% dried buttermilk, meat and fish scraps, wheat middlings, corn feed meal, wheat bran, corn gluten feed, ground oats, ground barley, hominy feed, 2% old process oil meal, 1% alfalfa meal, ½% salt.
	F. 22.27	5.96	53.97	7.96	9.84	5.95	
Vitality Chick Starter Grain Marketing Co. Chicago, Ill.	G. 15.00	5.00	49.00	9.67	11.04	6.00	Buttermilk, oat meal, bone meal, wheat middlings, and corn feed meal.
	F. 17.32	5.31	56.66	9.67	11.04	5.19	
Vitality Growing Mash Grain Marketing Co. Chicago, Ill.	G. 15.00	5.00	49.00	8.02	10.92	6.00	Buttermilk, oat meal, meat scraps, bone meal, corn feed meal, wheat middlings, alfalfa meal, and corn germ meal.
	F. 16.98	5.16	53.92	8.02	10.92	5.35	
Grandin's Baby Chick Starter D. H. Grandin Milling Co. Jamestown, N. Y.	G. 12.00	4.00	60.00	5.73	10.78	5.00	Dried buttermilk, fine ground hulled oats, ground wheat, corn meal, hominy feed, wheat middlings, calcium carbonate, and bone meal.
	F. 15.59	5.44	62.46	5.73	10.78	4.76	
Grandin's Poultry Dry Mash D. H. Grandin Milling Co. Jamestown, N. Y.	G. 20.00	3.00	50.00	12.43	9.09	10.00	Ground fish meal and bone, corn gluten feed, corn gluten meal, wheat bran, wheat middlings, corn meal, corn feed meal, hominy feed, ground oats, ground scratch feed, screenings consisting of corn, wheat, barley, kafir corn, milo maize, buckwheat, powered buttermilk, alfalfa meal, calcium carbonate and a small percentage of salt, wheat bran and wheat middlings may contain ground screenings not exceeding mill run.
	F. 20.75	4.64	53.09	12.43	9.09	8.92	

Greene's Poultry Food	G.	35.00	5.00	.....	.....	.....	.....	.....	Meat and bone.
Greene Chick Feed Co. Marblehead, Mass.	F.	37.19	9.30	.....	36.27	.....	9.34	.....	.....
Red Comb Egg Mash	G.	20.00	4.50	45.00	.....	.....	.....	7.00	Corn feed meal, oat flour, wheat bran,
Hales and Hunter Co. Chicago, Ill.	F.	18.23	6.37	56.27	9.36	.....	9.77	3.64	wheat middlings, corn gluten feed, meat scraps, alfalfa meal, dried but- termilk and not over 5% calcium car- bonate.
Red Comb Growing Mash	G.	18.00	4.00	55.00	.....	.....	.....	5.00	Corn feed meal, corn gluten feed, oat
Hales and Hunter Co. Chicago, Ill.	F.	19.39	5.48	58.83	6.84	.....	9.46	4.16	flour, wheat middlings, wheat bran, meat scraps, dried buttermilk and not over 5% calcium carbonate.
Meat and Bone Scraps	G.	40.00	12.00	.....	.....	.....	.....	.....	.....
W. D. Higgins Co. Framingham, Mass.	F.	46.64	11.23	.....	32.79	.....	6.52	.....	.....
Hinckley Poultry Feed	G.	40.00	8.00	.....	.....	.....	.....	.....	Meat and bone scraps.
Hinckley Rendering Co. Somerville, Mass.	F.	43.96	10.80	.....	35.14	.....	6.53	.....	.....
Kasco Mash with Dried Buttermilk	G.	20.00	4.00	50.00	.....	.....	.....	8.50	Wheat bran, wheat middlings, wheat
Kasco Mills, Inc. Waverly, N. Y.	F.	21.69	5.44	55.15	7.86	.....	9.86	8.19	red dog flour, corn meal, linseed oil meal, corn gluten feed, ground oats, meat and bone scraps, fish meal, dried buttermilk, $\frac{3}{4}$ of 1% salt and al- falfa meal.
Peerless Poultry Feed	G.	45.00	8.00	.....	.....	.....	.....	.....	Meat and bone scraps.
Lowell Rendering Co. Lowell, Mass.	F.	45.30	9.21	.....	34.14	.....	7.69	.....	.....
Perfection Poultry Feed	G.	55.00	8.00	.....	.....	.....	.....	.....	Meat and bone.
Lowell Rendering Co. Lowell, Mass.	F.	59.50	10.32	.....	20.94	.....	7.36	.....	.....
Poultry Mash	G.	11.00	2.50	60.00	.....	.....	.....	7.00	Wheat ard wheat by-products, corn
McQueen and Lewis	F.	22.14	5.00	53.71	9.11	.....	10.04	4.87	and corn by-products, gluten feed, alfalfa, meat, barley meal, oil meal and small amount of salt.

Brand and name and address of manufacturer	Pounds in 100 lbs. of Feeding-Stuffs						Certified by manufacturer to contain
	Protein	Fat	Carbohy- drates	Ash	Moist- ure	Crude Fiber	
Manchester Poultry Feed Manchester Rendering Co., Manchester, N. H.	G. 40.00	8.00	.....	.....	.....	.....	Meat and bone scraps.
	F. 41.57	11.65	.....	38.01	6.63	.....
Manchester Special Poultry Feed Manchester Rendering Co., Manchester, N. H.	G. 50.00	8.00	.....	.....	.....	.....	Meat and bone scraps.
	F. 49.52	12.81	.....	27.35	6.51	.....
Armour's Cak-Cak Laying Mash Mapl-Flake Mills Inc., Chicago, Ill.	G. 20.00	3.00	50.00	.....	.....	6.00	Dried buttermilk, meat scraps, fish meal, oat meal, alfalfa meal, linseed meal, corn meal, bone meal, wheat bran, yellow hominy feed, 1% carbonate of lime, ½% salt.
	F. 19.54	4.53	57.30	7.92	10.71	5.94	
Iroquois Laying Mash Mapl-Flake Mills, Inc., Chicago, Ill.	G. 20.00	5.00	55.00	.....	.....	8.00	Corn feed meal, hominy feed, linseed oil meal, alfalfa meal, oat middlings, meat and bone scraps, wheat bran and wheat middlings containing mill run of ground screenings, ½ of 1% salt.
	F. 20.03	6.36	56.39	7.88	9.34	8.00	
Marsh Diamond Special Ground Scraps Geo. E. Marsh Co., Lynn, Mass.	G. 50.00	10.00	.....	.....	.....	.....	Meat and bone scraps.
	F. 51.46	13.65	.....	25.44	6.59	.....
Marsh's Pure Ground Scraps Geo. E. Marsh Co., Lynn, Mass.	G. 40.00	8.00	.....	.....	.....	.....	Meat and bone scraps.
	F. 40.78	11.81	.....	37.55	5.70	.....

Farr Mash Merrimack Farmers' Exchange, Inc. Concord, N. H.	G. F.	18.00 19.38	4.00 5.65	50.00 49.51	15.44 10.02	8.00 8.00	Wheat middlings, wheat bran, mill run of screenings, corn meal, high grade meat scraps, ground oats, ground alfalfa, charcoal, $\frac{3}{4}$ of 1% salt, 3% carbonate of lime.
Merrimack Egg Mash Merrimack Farmers' Exchange, Inc. Concord, N. H.	G. F.	21.00 21.71	5.00 5.84	50.00 52.53	10.02 9.90	5.00 4.36	Corn meal, rolled oats, wheat bran, white wheat middlings, corn gluten feed and high grade meat scraps, 1% salt.
Merrimack Special Egg Mash Merrimack Farmers' Exchange, Inc. Concord, N. H.	G. F.	20.00 21.57	5.00 5.72	50.00 51.70	10.06 10.95	6.00 6.00	Corn meal, ground oats, wheat bran, white wheat middlings, corn gluten feed, and high grade meat scraps.
Poultry Scraps New England Dressed Meat and Wool Co. Boston, Mass.	G. F.	50.00 48.09	12.00 14.13	..... .....	..... 29.85	..... .....	Meat and bone.
Norton's Poultry Food Norton Tallow Co. Somerville, Mass.	G. F.	45.00 40.52	12.00 11.48	..... .....	..... 4.68	..... .....	Ground alfalfa, corn, wheat, barley, oats, fish, meat and bone meal, wheat bran, wheat middlings, rice, calcium carbonate, salt, and dried buttermilk.
Bonnie Booster Park and Pollard Co. Boston, Mass.	G. F.	12.00 12.89	3.00 3.77	60.00 66.48	4.70 12.16	3.00 3.33	Ground alfalfa, barley, corn, wheat, oats, meat and bone meal, wheat bran, with mill run of screenings, wheat middlings, calcium carbonate, salt and dried buttermilk.
Growing Feed Park and Pollard Co. Boston, Mass.	G. F.	14.00 14.38	1.50 3.89	50.00 63.18	7.62 10.93	8.00 5.87	Ground corn, wheat, oats, barley, kafir corn, buckwheat, alfalfa, fish, meat, bone, wheat bran with mill run of screenings, calcium carbonate, salt and dried buttermilk.
Lay or Bust Dry Mash Park and Pollard Co. Boston, Mass.	G. F.	18.00 18.00	1.50 5.16	40.00 55.84	10.91 10.09	12.00 8.46	Ground corn, wheat, oats, barley, kafir corn, buckwheat, alfalfa, fish, meat, bone, wheat bran with mill run of screenings, calcium carbonate, salt and dried buttermilk.

Brand and name and address of manufacturer	Pounds in 100 lbs. of Feeding-Stuffs							Certified by manufacturer to contain
	Protein	Fat	Carbohydrates	Ash	Moisture	Crude Fiber		
Portland Poultry Feed	50.00	12.00	.....	33.77	7.28	.....	Meat and bone scraps.
Portland Rendering Co. Portland, Maine	44.51	11.21	.....	.....	.....	.....
Chesapeake Bay Brand Fish Meal ..	57.00	8.00	.....	24.16	7.83	.....	Dried buttermilk, oat meal, corn meal, wheat middlings and wheat bran, bone meal, meat scraps, fish meal.
Potomac Poultry Food Co. Baltimore, Md.	56.32	5.80	.....	.....	.....	.....
Pratt's Supreme Growing Mash	17.50	4.50	58.00	.....	.....	7.00	Dried buttermilk, ground clipped oats, corn meal, old process oil meal, wheat middlings, meat scraps, corn feed meal, wheat bran, alfalfa, fish meal, ½ of 1% salt.
Pratt Food Co. Philadelphia, Pa.	18.01	5.60	57.88	8.18	10.33	6.92		
Pratt's Supreme Laying Mash	20.00	4.00	55.00	.....	.....	9.00	Oat meal, yellow hominy feed, corn gluten feed, wheat bran and wheat middlings with ground wheat screenings not exceeding mill run, bone meal, fish meal, ground puffed wheat, alfalfa meal, cod liver oil.
Pratt Food Co. Philadelphia, Pa.	21.87	6.01	54.75	7.44	9.93	7.49		
Ful-O-Pep Chick Starter	15.00	5.00	60.00	.....	.....	6.50	Hominy feed, yellow hominy feed, corn gluten feed, oat meal, cottonseed meal, wheat bran, wheat middlings, bone meal, fish meal, ground meal scraps, alfalfa meal, ground grain screenings from wheat.
Quaker Oats Co. Chicago, Ill.	16.94	5.82	59.28	9.03	8.93	6.46		
Ful-O-Pep Egg Mash	20.00	4.00	45.00	.....	.....	10.00	Wheat middlings, wheat bran, gluten feed from corn, corn meal, alfalfa flour, linseed flour, granulated meat, charcoal, 1% salt.
Quaker Oats Co. Chicago, Ill.	21.38	5.44	53.90	9.97	9.31	9.69		
Purina Chicken Chowder Feed	19.00	4.00	55.00	.....	.....	9.00	
Ralston Purina Co., Inc. St. Louis, Mo.	20.07	4.63	56.17	8.52	10.61	8.68		

Reardon's Beef Scraps John Reardon and Sons Co. Cambridge, Mass.	G. F.	55.00 59.13	8.00 9.76	..... .....	21.44	6.95.....	..........	..........	..........	..........	..........	..........	..........
Reardon's Meat Scraps John Reardon and Sons Co. Cambridge, Mass.	G. F.	45.00 46.36	6.00 11.61	..... .....	31.64	5.93.....	..........	..........	..........	..........	..........	..........	..........
Vitality Egg Mash Rosenbaum Brothers Chicago, Ill.	G. F.	20.00 21.72	4.00 5.08	48.00 54.65	8.77	9.78	7.00 6.82	..... .....	..... .....	..... .....	..... .....	..... .....	Oat meal, meat scraps, bone meal, corn feed meal, wheat middlings, alfalfa meal, and corn germ meal.
Vitality Growing Mash Rosenbaum Brothers Chicago, Ill.	G. F.	13.00 15.63	5.00 4.52	49.00 62.53	6.66	10.66	6.00 4.19	..... .....	..... .....	..... .....	..... .....	..... .....	Buttermilk, oat meal, meat scraps, bone meal, corn feed meal, wheat middlings not exceeding mill run screenings, alfalfa meal, and corn germ meal.
Wirthmore Buttermilk Baby Chick Food St. Albans Grain Co. St. Albans, Vt.	G. F.	13.50 16.16	5.00 4.47	60.00 56.51	11.68	11.18	5.00 3.93	..... .....	..... .....	..... .....	..... .....	..... .....	Pure dried buttermilk, hulled oats, edible bone meal, ground wheat, pure wheat middlings, yellow corn meal, pure wheat bran, white hominy feed, choice fine ground beef scraps, calcium carbonate and dairy salt.
Wirthmore Buttermilk Mash Feed St. Albans Grain Co. St. Albans, Vt.	G. F.	20.00 19.33	4.00 5.36	50.00 54.54	9.68	11.19	8.50 7.87	..... .....	..... .....	..... .....	..... .....	..... .....	Pure dried buttermilk, ground oats, barley, buckwheat, corn, wheat, bran, wheat middlings, corn gluten feed, ground rolled oats, beef scraps, fish meal, linseed meal, calcium carbonate and dairy salt.
Strafford County Mash Strafford County Grain Mill Rochester, N. H.	G. F.	..... 17.14	..... 5.93	60.16	7.32	9.45 .....	..... 9.16	..... .....	..... .....	..... .....	..... .....	..... .....	Bran middlings, ground oats, corn meal, gluten feed, meat scraps.
Egg Mash Ublko Milling Co. Cincinnati, Ohio	G. F.	20.00 22.37	4.00 4.92	53.00 53.53	8.00 9.70	9.48	6.00 6.00	..... .....	..... .....	..... .....	..... .....	..... .....	Meat meal, bone meal, corn meal, wheat bran, wheat middlings, whole ground oats, corn gluten feed, old process linseed meal and dried buttermilk.

Brand and name and address of manufacturer	Pounds in 100 lbs. of Feeding-Stuffs						Certified by manufacturer to contain
	Protein	Fat	Carbohy- drates	Ash	Moist- ure	Crude Fiber	
Blue Seal Dry Mash with Metall H. K. Webster Co. Lawrence, Mass.	G. 19.00	3.00	55.00	7.83	9.72	10.00	Metall, ground oats, wheat feed, corn meal, ground oats, gluten feed, and not over 1-3% salt.
	F. 22.24	5.69	54.52	.....	.....	7.98	
N. H. Mash H. K. Webster Co. Lawrence, Mass.	G. ....	.....	.....	.....	.....	.....	Wheat feed.
	F. 21.74	6.37	55.27	7.67	8.95	5.96	
WHEAT FEED							
Trojan Bran Allen and Wheeler Co. Troy, Ohio	G. 15.00	4.00	52.00	.....	.....	9.50	Wheat feed with ground screenings not exceeding mill run.
	F. 15.09	3.50	63.11	6.55	11.75	.....
Trojan Mixed Feed Allen and Wheeler Co. Troy, Ohio	G. 15.50	4.00	52.00	4.64	12.34	8.00	Wheat bran with ground screenings not exceeding mill run.
	F. 15.76	4.01	63.25	.....	.....	.....
Bran Ansted and Burk Co. Springfield, Ohio	G. 15.50	4.00	55.25	7.31	10.21	9.50	Wheat middlings with ground screen- ings not exceeding mill run.
	F. 16.39	3.89	62.20	.....	.....	.....
Middlings Ansted and Burk Co. Springfield, Ohio	G. 16.25	4.00	61.50	4.29	11.42	5.75	Wheat mixed feed with ground screenings not exceeding mill run.
	F. 16.25	3.53	64.51	.....	.....	.....
Mixed Feed Ansted and Burk Co. Springfield, Ohio	G. 15.50	4.00	60.50	5.39	10.16	8.50	Red dog flour, wheat middlings, corn bran, and corn meal, wheat screen- ings.
	F. 16.10	3.86	64.43	.....	.....	.....
White Middlings Ansted and Burk Co. Springfield, Ohio	G. 13.50	3.00	.....	2.93	12.40	5.50	.....
	F. 13.67	3.55	67.45	.....	.....	.....

Brand and name and address of manufacturer	Pounds in 100 lbs. of Feeding-Stuffs						Certified by manufacturer to contain
	Protein	Fat	Carbohy- drates	Ash	Moist- ure	Crude Fiber	
Commander Wheat Bran	G. 14.50	5.00	62.00	6.42	12.47	10.90	Ground screenings not exceeding mill run.
Commander Mill Co., Minneapolis, Minn.	F. 15.18	4.78	61.15	.....	.....	.....
Standard Middlings	G. 16.15	4.70	62.95	4.90	11.30	.....	Ground screenings not exceeding mill run.
E. A. Cowee Co., Fitchburg, Mass.	F. 16.15	4.70	62.95	4.90	11.30	.....
Mixed Feed	G. 14.00	4.00	45.00	4.90	11.77	6.00	Ground screenings not exceeding mill run.
J. Cushing Co., Fitchburg, Mass.	F. 14.66	5.76	62.91	.....	.....	.....
Wheat Bran	G. 15.00	3.50	.....	5.70	11.27	11.50	Ground screenings not exceeding mill run.
Dominion Flour Mills, Ltd., Montreal, Canada	F. 15.27	5.58	62.18	.....	.....	.....
Wheat Shorts	G. 16.00	5.00	.....	4.42	10.33	8.00	Ground screenings not exceeding mill run.
Dominion Flour Mills, Ltd., Montreal, Canada	F. 16.77	5.64	62.84	.....	.....	.....
Duluth Imperial Bran	G. 14.00	3.75	60.00	5.12	11.74	13.00	Ground screenings not exceeding mill run.
Duluth Superior Milling Co., Duluth, Minn.	F. 14.76	5.39	62.99	.....	.....	.....
Superb Red Dog	G. 16.50	4.50	53.50	3.22	11.59	3.50	Wheat by product.
Eagle Roller Mill Co., New Ulm, Minn.	F. 17.73	5.22	62.24	.....	.....	.....
Wheat Bran	G. 14.00	4.00	.....	5.85	11.06	12.00	Ground screenings not exceeding mill run.
Eagle Roller Mill Co., New Ulm, Minn.	F. 15.68	4.92	62.49	.....	.....	.....
Wheat Flour Middlings	G. 16.00	5.00	48.00	3.84	11.99	6.00	Ground screenings not exceeding mill run.
Eagle Roller Mill Co., New Ulm, Minn.	F. 17.12	5.38	61.67	.....	.....	.....

Brand and name and address of manufacturer	Pounds in 100 lbs. of Feeding-Stuffs							Certified by manufacturer to contain
	Protein	Fat	Carbohy- drates	Ash	Moist- ure	Crude Fiber		
Choice Wheat Bran	12.75	3.50	47.50	6.33	11.21	14.00	Wheat with ground grain screenings not exceeding mill run.	
Hecker-Jones-Jewell Milling Co. .. Buffalo, N. Y.	15.70	4.55	62.16	6.38	11.21	.....	
Standard Middlings	15.00	4.75	51.00	4.61	12.00	9.50	Ground screenings not exceeding mill run.	
Hecker-Jones-Jewell Milling Co. Buffalo, N. Y.	16.20	6.16	61.03	4.61	12.00	.....	
Heywood Pure Mill Feed	14.00	3.75	55.00	5.02	12.34	10.00	Soft winter wheat guaranteed to contain no ground screenings or dirt from receiving separators.	
Heywood Milling Co. Jackson, Mich.	15.44	3.98	63.22	5.02	12.34	.....	
Granite State Mixed Feed	15.00	4.00	55.00	4.52	12.25	8.50	Wheat bran and wheat red dog flour with ground screenings not exceeding mill run.	
E. C. and W. L. Hopkins	14.43	4.12	64.68	4.52	12.25	.....	
Our Special Mixed Feed	14.00	4.00	55.00	5.33	9.04	10.00	Wheat bran and wheat red dog flour with ground screenings not exceeding mill run.	
E. C. and W. L. Hopkins	16.03	4.75	64.25	5.33	9.04	.....	
Black Hawk Standard Middlings ..	16.50	4.50	61.50	4.79	11.29	8.50	Wheat standard middlings with ground screenings not exceeding mill run.	
International Milling Co. Minneapolis, Minn.	16.33	4.89	62.70	4.79	11.29	.....	
Wheat Bran and Wheat Screenings G.	14.50	3.50	62.73	6.82	10.95	11.00	Wheat bran and wheat screenings with mill run ground screenings not to exceed 8 per cent.	
Ismert-Hincke Milling Co. Kansas City, Kansas	15.35	4.15	62.73	6.82	10.95	.....	
Modoc	16.00	4.00	60.00	3.21	10.79	4.00	Low grade wheat flour, fine particles of wheat bran and fibrous offal from tail of mill.	
H. H. King Flour Mills Co. Minneapolis, Minn.	17.12	6.39	62.49	3.21	10.79	.....	
Snowball Flour Middlings	16.00	4.00	61.00	3.88	10.89	6.00	Wheat standard middlings and ground cleaned wheat screenings not exceeding mill run and red dog wheat flour.	
King Midas Milling Co. Minneapolis, Minn.	17.44	5.04	62.75	3.88	10.89	.....	

Lakewood's Pure Standard Middlings	G.	16.00	5.00	51.00	.....	.....	.....	8.00	
Lake of the Woods Milling Co., Ltd. Montreal, Canada	F.	16.94	5.52	61.83	3.76	11.95	.....	.....
Lakewood's Wheat Bran	G.	15.00	3.50	.....	.....	.....	11.50		
Lake of the Woods Milling Co., Ltd. Montreal, Canada	F.	15.37	4.84	63.59	5.59	10.61	.....	
Waseo Mixed Feed	G.	15.00	4.00	.....	.....	.....	8.00		Ground screenings not exceeding mill run.
Lyon and Greeleaf	F.	15.48	4.21	63.40	4.90	12.01	.....	
Waseo Soft Bran	G.	14.50	4.00	54.00	.....	.....	9.50		Ground screenings not exceeding mill run.
Lyon and Greenleaf	F.	14.50	4.10	63.42	6.17	11.81	.....	
Bran	G.	15.00	4.00	49.00	.....	.....	11.50		
Mapleleaf Milling Co. Toronto, Canada	F.	15.08	5.66	61.31	6.01	11.94	.....	
Rex Wheat Shorts	G.	16.00	5.00	52.00	.....	.....	9.50		Screenings not exceeding mill run.
Mapleleaf Milling Co. Toronto, Canada	F.	16.07	6.18	62.37	4.35	11.03	.....	
Merrimack Heavy Wheat Feed	G.	15.00	4.00	55.00	.....	.....	9.00		Wheat bran. Bran may contain mill run of screenings. Wheat white middlings.
Merrimack Farmers' Exchange, Inc. Concord, N. H.	F.	15.14	4.56	63.98	4.60	11.72	.....	
Golden Flour Middlings	G.	16.00	5.50	63.00	.....	.....	6.00		
Minneapolis Milling Co. Minneapolis, Minn.	F.	15.94	5.58	62.50	4.13	11.85	.....	
Flour Middlings	G.	17.00	3.50	49.00	.....	.....	6.00		Wheat middlings and wheat flour with ground screenings not exceeding mill run.
National Milling Co. Toledo, Ohio	F.	15.33	4.41	65.37	3.58	11.31	.....	
Osota Feed	G.	15.00	4.50	49.00	.....	.....	10.00		Wheat bran and wheat middlings with ground screenings not exceeding mill run and salt.
National Milling Co. Toledo, Ohio	F.	16.96	5.07	62.18	5.25	10.54	.....	

Brand and name and address of manufacturer	Pounds in 100 lbs. of Feeding-Stuffs						Certified by manufacturer to contain
	Protein	Fat	Carbohy- drates	Ash	Moist- ure	Crude Fiber	
Pennant Quality Feed	15.00	3.75	49.00	.....	.....	8.50	Wheat bran, wheat middlings and wheat flour with ground screenings not exceeding mill run and salt.
National Milling Co. Toledo, Ohio	15.74	4.70	63.20	4.23	12.13	.....
Niagara Choice Middlings	15.50	4.00	50.00	.....	.....	9.50	Trace of scourings.
Niagara Falls Milling Co. Niagara Falls, N. Y.	16.71	4.69	62.87	3.50	12.23	.....
Niagara Choice Mixed Feed	15.50	2.50	.....	.....	.....	9.00	No ground screenings.
Niagara Falls Milling Co. Niagara Falls, N. Y.	15.96	4.70	64.98	4.94	9.42	.....
N. M. Co.'s Mixed Feed	16.00	4.00	.....	.....	.....	8.00	Pure wheat feed, wheat bran mid- dlings and ground screenings not ex- ceeding mill run.
N. M. Co. Noblesville, Ind.	17.14	4.79	61.19	5.05	11.83	.....
XXX Comet	16.00	4.00	60.00	.....	.....	4.00	Red dog wheat flour.
Northwestern Consolidated Milling Co. Minneapolis, Minn.	17.62	6.43	62.53	3.05	10.37	.....
Flour Middlings	15.00	4.00	57.00	.....	.....	6.00	Ground screenings not exceeding mill run.
Northwestern Consolidated Milling Co. Minneapolis, Minn.	17.06	5.46	62.72	3.66	11.10	.....
Planet Feed	15.00	4.00	55.00	.....	.....	8.00	No screenings, no scourings, a mix- ture of wheat bran and red dog wheat flour.
Northwestern Consolidated Milling Co. Minneapolis, Minn.	15.64	5.10	61.77	5.36	12.13	.....
Pure Wheat Bran	13.00	4.00	50.00	.....	.....	13.00	No screenings, no scourings.
Northwestern Consolidated Milling Co. Minneapolis, Minn.	15.46	5.35	60.95	6.35	11.89	.....

Brand and name and address of manufacturer	Pounds in 100 lbs. of Feeding-Stuffs							Certified by manufacturer to contain
	Protein	Fat	Carbohy- drates	Ash	Moist- ure	Crude Fiber		
Bell Cow Bran	15.00	3.50	57.00	5.82	11.43	10.00		
Quaker Oats Company	15.20	5.15	62.40	5.82	11.43	10.00	Wheat bran with ground screenings not exceeding mill run.	
Peterborough, Canada								
Bell Cow Shorts	16.00	4.00	57.00	3.87	11.18	8.00		
Quaker Oats Company	16.81	5.64	62.50	3.87	11.18	8.00	Wheat shorts with ground screenings not exceeding mill run.	
Peterborough, Canada								
Low Grade or 2nd Clear	14.21	2.74	69.03	1.52	12.50	.....	
A. H. Randall .....	.....	.....	.....	.....	.....	.....
Tekonsha, Mich.								
Black Hawk Pure Bran	15.00	3.50	.....	.....	.....	11.50	
Robin Hood Mills, Ltd.	16.18	5.71	62.31	4.43	11.37	.....	
Moosejaw, Canada								
Blackhawk Shorts	17.00	4.50	.....	.....	.....	9.50	
Robin Hood Mills, Ltd.	17.36	5.77	61.02	3.76	12.09	.....	Ground screenings not exceeding mill run.
Moosejaw, Canada								
Royal Mixed Feed	16.00	4.00	55.00	.....	.....	10.00	
Royal Milling Co.	16.84	5.36	61.54	4.88	11.38	.....	Wheat bran, flour middlings and ground screenings not exceeding mill run.
Great Falls, Mont.								
Alta Middlings	15.50	4.50	61.50	3.85	11.96	8.50		
Russell-Miller Milling Co.	15.39	6.49	62.31	3.85	11.96	.....	Mill run of standard middlings and flour middlings mixed.
Minneapolis, Minn.								
Occident Mixed Feed	15.50	4.50	52.00	.....	.....	9.50	
Russell-Miller Milling Co.	16.44	5.64	61.09	4.43	12.40	.....	Hard wheat, mill run of bran middlings and red dog.
Minneapolis, Minn.								

Brand and name and address of manufacturer	Pounds in 100 lbs. of Feeding-Stuffs							Certified by manufacturer to contain
	Protein	Fat	Carbohy- drates	Ash	Moist- ure	Crude Fiber		
Monarch Fancy Wheat Feed	G. 16.00	4.00	50.00	....	....	10.00	Mill run of screenings.
F. W. Stock and Sons	F. 17.60	4.47	61.71	4.86	11.36	....	
Hillsdale, Mich.								
Soft Michigan Middlings	G. 16.00	4.00	50.00	....	....	7.00	Mill run of screenings.
F. W. Stock and Sons	F. 17.55	4.68	62.47	3.89	11.41	....	
Hillsdale, Mich.								
Superior Wheat Feed and Wheat Flour	G. 16.00	4.50	50.00	....	....	7.00	Mill run of screenings.
F. W. Stock and Sons	F. 16.03	4.28	63.51	4.45	11.73	....	
Hillsdale, Mich.								
Bran	G. 15.00	4.00	50.50	....	....	12.50	Spring wheat bran with ground clean wheat screenings.
David Stott Flour Mills, Inc.	F. 16.42	4.26	60.66	6.44	12.22	....	
Detroit, Mich.								
Bran	G. 15.00	4.00	52.00	....	....	12.50	Spring wheat bran with ground clean wheat screenings not exceeding mill run.
David Stott Flour Mills, Inc.	F. 15.02	3.82	62.52	6.13	12.51	....	
Detroit, Mich.								
Fancy Bran	G. 15.00	4.00	64.00	....	....	11.00	Mill run of screenings ground in.
Stratton and Co.	F. 15.50	4.04	62.95	5.71	11.80	....	
Concord, N. H.								
Middlings	G. 16.20	4.26	66.00	....	....	6.50	Screenings not exceeding mill run.
Stratton and Co.	F. 15.71	3.77	66.64	2.95	10.93	....	
Concord, N. H.								
Stratton and Co.'s Mixed Feed	G. 15.29	4.30	63.00	....	....	7.13	Screenings not exceeding mill run.
Stratton and Co.	F. 15.98	4.35	62.93	4.94	11.80	....	
Concord, N. H.								

Brand and name and address of manufacturer	Pounds in 100 lbs. of Feeding-Stuffs						Certified by manufacturer to contain
	Protein	Fat	Car-bohy-drates	Ash	Moist-ure	Crude-Fiber	
Gold Medal Adrian Red Dog Washburn-Crosby Co. Minneapolis, Minn.	G. 16.00	4.00	50.00	2.78	10.40	4.00	
	F. 17.66	4.00	65.16	6.03	11.43	12.00	
Gold Medal Bran Washburn-Crosby Co. Minneapolis, Minn.	G. 14.00	4.00	51.00	6.03	11.43	12.00	Hard wheat bran and mill run cleaned ground wheat screenings.
	F. 15.41	4.66	62.47	4.42	11.62	7.50	
Gold Medal Mixed Feed Washburn-Crosby Co. Minneapolis, Minn.	G. 16.00	4.00	58.00	4.42	11.62	7.50	Hard wheat bran, flour middlings and mill run cleaned ground wheat screenings.
	F. 16.57	4.08	63.31	4.87	11.38	9.50	
Gold Medal Standard Middlings Washburn-Crosby Co. Minneapolis, Minn.	G. 15.00	4.00	53.00	4.87	11.38	9.50	Hard wheat standard middlings and mill run cleaned ground wheat screenings.
	F. 17.08	5.73	60.94	3.42	11.91	8.00	
Fancy Middlings H. K. Webster Co. Lawrence, Mass.	G. 17.18	4.32	63.17	3.42	11.91	8.00	
	F. 17.18	4.32	63.17	3.42	11.91	8.00	
Canada Wheat Short's Western Canada Flour Mills Co., Ltd. Winnipeg, Canada	G. 16.00	5.00	61.12	4.30	10.88	8.00	
	F. 17.78	5.92	61.12	4.30	10.88	8.00	
Pioneer Pure Bran Western Canada Flour Mills Co., Ltd. Winnipeg, Canada	G. 16.55	5.52	60.57	5.50	11.86	8.00	
	F. 16.55	5.52	60.57	5.50	11.86	8.00	

