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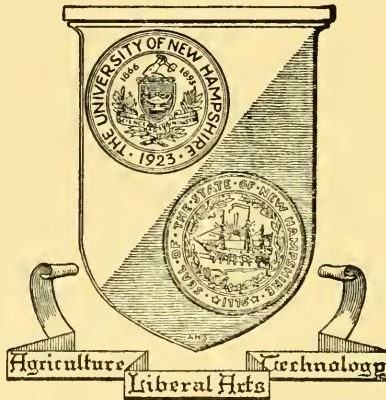
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Bulletin 213

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THE UNIVERSITY OF NEW HAMPSHIRE
AGRICULTURAL EXPERIMENT STATION

DEPARTMENT OF AGRICULTURAL CHEMISTRY

Inspection of Commercial Feeding--Stuffs 1924

MADE FOR THE
STATE DEPARTMENT OF AGRICULTURE

No. 7635



By H. R. KRAYBILL, T. O. SMITH and J. T. SULLIVAN

THE UNIVERSITY OF NEW HAMPSHIRE
DURHAM, N. H.

INSPECTION OF COMMERCIAL FEEDING-STUFFS

ANALYSES OF COMMERCIAL FEEDING-STUFFS
COLLECTED BY THE COMMISSIONER OF
AGRICULTURE, 1924

INTRODUCTION

The feed bill is by far the largest single item of expense that the New Hampshire farmer must meet. The annual expenditure for commercial feeding-stuffs is ten times the amount spent for commercial fertilizers and greatly exceeds the amount spent for labor. The preceding facts show the importance of protecting the consumer of feeding-stuffs so that he may know what he is buying. For the purpose of securing such protection the state law controlling the sale of commercial feeding-stuffs has been enacted. This law provides that before feeds may be offered or exposed for sale in the state they must be registered with the Commissioner of Agriculture. The feeds must be labeled showing the minimum percentage only of protein, fat and carbohydrates and the maximum percentage of crude fiber. In order to enforce the law the Commissioner of Agriculture directs the State Inspector to visit the various feed warehouses throughout the state, collect samples and submit them to the Agricultural Experiment Station for analysis.

This report deals with the inspection of commercial feeding-stuffs for the year 1924, made under the direction of the Honorable Andrew L. Felker, Commissioner of Agriculture. Mr. E. D. Sanborn, State Inspector, visited most of the feed warehouses in the state and collected 362 samples of feeds.

PURPOSES OF THE LAW

The purpose of the state law is primarily to protect the consumer but it also protects honest dealers as well. By requiring the guaranteed analysis to be plainly stated on each bag of

feed, it is possible for the consumer to know the quality of the product which he buys. This makes it possible for the consumer to determine whether the feed is worth the price asked for it and whether it will meet his needs. The law aims to prevent misbranding, adulteration and other fraudulent practices, which is to the best interests of the honest dealer as well as the consumer. Those conditions which make for profitable use of the feeds are in the end most profitable for the dealer. Progressive feed dealers are realizing more and more, that in the long run the feeds which are most profitable to sell are those which give the consumer the best returns.

TO THE CONSUMER

The cooperation of the consumer aids materially in enforcing the law. *Do not buy feeds which are not properly labeled.* During the last year a number of feeding-stuffs were found upon the market without a label showing the guaranteed analysis. This practice is unlawful and must be stopped. Study the guaranteed analysis and buy the feeds which serve your particular need. Why buy a feed on which the manufacturer is unwilling to place a guarantee ?

TO THE DEALERS

Before engaging in the business of selling feeding-stuffs, 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 those manufacturers which regularly meet their guarantee. Protect yourself by specifying that all shipments of feeding-stuffs must comply with the state law. Remember that you are directly responsible for any feed in your possession that fails to comply with the state law and that the same penalty applies to exposing or offering for sale as for selling the same. *Caution!* During the last year several car-load-shipments of wheat feeds were shipped to dealers in this state and offered for sale without having a guaranteed analysis upon the bags. *This is in violation of the law. Remember the dealer is subject to the penalty.*

TO THE MANUFACTURERS

The uniform labels approved by the Association of Feed Control Officials meet the requirements of the State Law. The uniform application blank adopted by the Association of Feed Control Officials may be used in making application for the registration of feeding-stuffs.

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	14.87	1.62	2.29
Beet Pulp	4	9.08	0.61	2.39
Brewers' Grains	2	23.02	6.76	2.30
Calf Meal	3	25.07	4.59	4.13
Compounded Feed	39	9.68	3.99	2.26
Corn and Oat Feed.....	2	10.79	4.53	2.80
Cottonseed Meal	27	37.89	6.44	2.86
Dairy Feed	53	21.79	5.06	2.60
Gluten Feed	6	27.65	3.24	2.84
Hominy Feed	11	10.39	5.86	2.32
Linseed Meal	10	32.86	6.52	2.74
Oat Feed	6	10.89	4.05	2.26
Pig Feed	2	19.14	4.78	2.78
Poultry Feed	52	30.46	7.89	3.74
Wheat Feed	128	16.26	5.01	2.07
Total	349			

The relative number of feeding-stuffs in the respective classes is very similar to that of last year except that the number of cottonseed meals and poultry feeds are slightly higher.

DEFICIENCIES IN ANALYSIS

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

TABLE 2

Class	No. in Class	No. Def. ½% Protein	No. Def. ¼% Fat	No. Def. both Protein and Fat	% Def. ½% Protein	% Def. ¼% Fat	% Def. both Protein and Fat
Alfalfa Meal	4	0	1	0	0	25	0
Beet Pulp	4	0	0	0	0	0	0
Brewers' Grains	2	0	0	0	0	0	0
Calf Meal	3	1	1	0	33	33	0
Compounded Feed	39	11	9	7	28	23	18
Corn and Oat Feed.....	2	0	0	0	0	0	0
Cottonseed Meal	27	14	1	1	52	4	4
Dairy Feed	53	15	8	3	28	15	6
Gluten Feed	6	0	0	0	0	0	0
Hominy Feed	11	1	7	1	9	64	9
Linseed Meal	10	2	0	0	20	0	0
Oat Feed	6	1	2	1	17	33	17
Pig Feed	2	0	0	0	0	0	0
Poultry Feed	52	13	4	3	25	8	6
Wheat Feed	128	3	4	2	2	3	2
Total	349	61	37	18	17	11	5

More feeds were deficient in protein and fat this year than in any of the past four years. The compounded feeds, cottonseed meals, dairy feeds and poultry feeds show the largest number of deficiencies. The cottonseed meals were decidedly inferior in quality, one-half of them being deficient in protein.

WHAT DOES THE CHEMICAL ANALYSIS MEAN ?

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

Protein is determined by finding the percentage of total nitrogen and multiplying this by the factor 6.25, since it has been found that the average proteins contain 16 per cent nitrogen. While this includes small amounts of certain other compounds which contain nitrogen, for all practical purposes it is sufficiently accurate. Protein, then, is made up of the compounds in the feed which contain nitrogen.

Fat is determined by extracting a dried sample of the feeding-stuff with ether and weighing the residue after the ether is driven off. In main, it contains the vegetable fats of which olive oil, linseed oil, and cottonseed oil are examples. It contains also small amounts of chlorophyll, (the green coloring matter of the leaves), waxes, resins, etc.; but for practical purposes it is accurate enough to deal with it as fat.

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.

Moisture is determined by finding the loss in weight after heating at the temperature of boiling water. It shows the amount of water that the feed contains.

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 woody-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.

WHAT ARE FOODS FOR ANIMALS ?

In order that an animal may continue to live even without making growth or producing wool, eggs, milk or work, etc., there are certain food materials which it must have. The animal must have a certain amount of protein, fat, carbohydrates, water and mineral constituents. In addition other things known as "vitamines", "growth promoting substances" or "food accessories", the chemical nature of which we know very little, are necessary. The latter substances, however, are usually present in sufficient quantities in our regular feeding-stuffs if we feed a sufficient variety and particularly if we feed a good leguminous roughage. Our feeding-stuffs usually contain mineral matter sufficient for the needs of an animal with a few exceptions, such as calcium carbonate, which we furnish as oyster shells for hens and phosphorus and calcium which is sometimes fed to dairy cattle and pigs in the form of bone meal. If alfalfa or clover is fed as a roughage they will aid very much in furnishing a proper mineral supply. *The protein, fat and carbohydrates are the foods which we are particularly interested in when we buy commercial feeding-stuffs and it is their content which largely determines the value of the feed.*

DIGESTIBILITY IMPORTANT IN DETERMINING THE VALUE OF FEED

When fed, not all of the protein, carbohydrates, and fat in the different feeding-stuffs are digested. In comparing the value of the different types, we must take into consideration the digestibility of these food nutrients. 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.

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
Standard 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 process)..	79	89	57	78	89
Linseed Meal (new process)..	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	83	..
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
Oat Hay	54	54	52	56	61
Alfalfa	60	71	43	72	38
Red Clover	59	59	54	66	57
Corn Silage Dent Immature..	64	53	68	66	71
Corn Silage Dent Mature...	66	51	65	71	82

We have this data for the pure grains and feeds, but because the various proprietary feeds are not standardized there are no data available for them.

HOW TO USE TABLE 3

Only the digestible nutrients are of value and so in comparing two feeds we should compare just the digestible nutrients. Suppose we had a cottonseed meal which analyzed 38 per cent protein. The table shows cottonseed protein to be 84 per cent digestible. We then would have $84/100$ of 38 lbs., or 31.9 lbs. of digestible protein per 100 pounds. If a wheat bran analyzed 15 per cent protein we see from the table that it is 78 per cent digestible and we would have $78/100$ of 15 or 11.7 lbs. of digestible protein. The cottonseed meal would have 31.9 lbs. compared with 11.7 in wheat bran.

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 farmer can usually raise 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 48 sells for \$5.00 per 100 pounds and is guaranteed protein 25 per cent and fat 5 per cent. If it contains 25 per cent protein there are 25 pounds of protein in 100 pounds of feed costing \$5.00. Then one dollar will buy 25 divided by 5, or 5 pounds of protein and 5 divided by 5 or 1 pound of fat. Feed number 239 sells for \$2.40 per 100 pounds and is guaranteed 24 per cent protein and 5 per cent fat. Then one dollar buys 24 divided by 2.40 or 10 pounds of protein and 5 divided by 2.40 or 2.1 pounds of fat.

In other words in feed number 239 the consumer received twice as much protein and more than twice as much fat per dollar as in feed number 48. These figures represent two feeds of the same type which were sold in New Hampshire in 1924. In comparing feeds of the same class this method shows fairly accurately their relative value. When feeds of different types like a cottonseed meal and a hominy feed are compared the digestible protein figures should be compared and the carbohydrates must also be taken into consideration.

TABLE 4

Class	No. of lbs. of Protein \$1.00 will buy	No. of lbs. of Fat \$1.00 will buy
Alfalfa Meal	6.5	0.7
Beet Pulp	3.8	0.3
Brewers' Grains	10.0	2.9
Calf Meal	6.1	1.1
Compounded Feed	4.3	1.8
Corn and Oat Feed.....	3.9	1.6
Cottonseed Meal	13.3	2.3
Dairy Feed	8.4	2.0
Gluten Feed	9.7	1.1
Hominy Feed	4.5	2.5
Linseed Meal	12.0	2.4
Oat Feed	4.8	1.8
Pig Feed	6.9	1.7
Poultry Feed	8.1	2.1
Wheat Feed	7.9	2.4

COMPARATIVE VALUE OF COTTONSEED MEALS

Twenty-seven 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 case.

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	17	35.89	2.68	13.4
38	0	.....	....	....
41	4	39.48	2.89	13.7
43	6	42.47	3.17	13.4

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 and see that the feed is properly balanced for use with the kind of roughage which you feed. The Dairy Department of the University of New Hampshire recommend 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 impossible to give an accurate figure for the digestibility of ready mixed feeds it will be approximate to assume that from 80 to 85 per cent of the crude protein is digestible. On such a basis for use with a high protein roughage a ready mixed dairy feed should contain at least 17.5 per cent protein with a medium protein roughage at least 20 per cent protein and with a low protein roughage at least 22 per cent protein.

IMPORTANCE OF ALFALFA AND CLOVER

Recent studies in animal nutrition and feeding trials have led to discoveries which have a very important bearing upon practical feeding. It has been shown for instance that not all proteins are of equal value, that our feeds may be deficient in

certain mineral elements particularly phosphorous and calcium and that certain substances known as vitamins are essential for the proper development of animals.

If dairy cattle or swine are fed certain concentrated feeding-stuffs with a poor roughage such as corn stover, straw, or possibly native hay, the feeding value of the concentrates is not nearly so great as when the animals are in pasture or are fed a good leguminous roughage such as clover or alfalfa. The reason for this may be that the concentrated feeding-stuffs do not contain the proper vitamins, sufficient of the proper mineral elements or the proper proteins. If on the other hand good alfalfa or clover and silage are fed as roughage these deficiencies in the ration will be taken care of. *Grow good quality roughage ! It will make the feeding-stuffs which you buy more valuable !*

REQUESTS FOR ANALYSIS OF FEEDS

The Department is frequently asked to make analysis of samples of feeds for individuals. This they are always glad to do when the circumstances warrant it. 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 one bag and are sent to the Department carelessly wrapped in paper or in a pasteboard box from which most 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 that instead of sending a sample for analysis that the consumer write 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 that a sample be taken from at least ten per cent of the bags in a manner that will insure its being

accurately representative of the whole of it. In order that the analysis may be of value to the Department as well as to the individual we request that the following information on each sample be submitted: brand, manufacturer, address, guarantee: protein, fat, carbohydrates, moisture, ash, 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 analysis even within the same class and buy the feeds which offer the greatest value for the dollar.

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

3. If you grow legumes or high protein crops for roughage you will need to buy less of the expensive protein feeds and the feeding-stuffs which you buy will have a higher feed value.

4. A good feed is high in protein and fat or carbohydrates and low in crude fiber.

5. A poor feed is low in protein and fat and high in crude fiber.

6. If you buy a ready mixed feed be sure that it is of the proper analysis to meet your needs.

The following definitions and standards of feeding-stuffs are those adopted by the Association of Feed Control Officials.

DEFINITIONS OF FEEDING-STUFFS

Mcal is the clean, sound, ground product of the entire grain, cereal or seed which it purports to represent.

Chop is a ground or chopped feed composed of one or more different cereals or by-products thereof. If it bears a name de-

scriptive of the kind of cereals, it must be made exclusively of the entire grains of those cereals.

Ear Corn Chops is corn and cob, chopped, without the husk, with not a greater proportion of cob than occurs in the ear corn in its natural state.

Head Chops consists of the entire head of the grain sorghums, chopped, and should bear the name of the sorghum from which it is made. This includes, among others, kafir head chops, milo head chops, feterita head chops and sorghum head chops.

Head Stems consists of the head of the grain sorghums, from which the grain has been removed, and should bear the name of the sorghum from which it is made.

Chopped Alfalfa is the entire alfalfa hay, chopped and not ground finely enough to become a meal. It must not contain an admixture of alfalfa straw or other foreign material.

Alfalfa meal is the entire alfalfa hay ground and does not contain an admixture of ground alfalfa straw or other foreign materials.

ANIMAL PRODUCTS

Blood meal is ground dried blood.

Cracklings are the residue after partially extracting the fats and oils from the animal tissues. If they bear a name descriptive of their kind, composition or origin, they must correspond thereto.

Digester Tankage is the residue from animal tissue, exclusive of hoof and horn, specially prepared for feeding purposes by tanking under live steam, drying under high heat, and suitable grinding, and contains less than 10 per cent phosphoric acid ($P^2 O^5$).

Digester Meat and Bone Tankage is the residue from animal tissues, exclusive of hoof and horn, specially prepared for feeding purposes by tanking under live steam, drying under

high heat, and suitable grinding, and contains more than 10 per cent phosphoric acid ($P^2 O^5$).

Meat Scrap and Meat Meal are the ground residues from animal tissues, exclusive of hoof and horn, and contains less than 10 per cent phosphoric acid ($P^2 O^5$). If they bear a name descriptive of their kind, composition or origin, they must correspond thereto.

Meat and Bone Scrap and Meat and Bone Meal are the ground residues from animal tissues, exclusive of hoof and horn, and contains more than 10 per cent phosphoric acid ($P^2 O^5$). If they bear a name descriptive of their kind, composition or origin, they must correspond thereto.

BARLEY PRODUCTS

Barley Hulls are the outer coverings of the barley.

Barley Feed is the entire by-product resulting from the manufacture of pearl barley from clean barley.

Barley Mixed Feed is the entire offal from the milling of barley flour from clean barley and is composed of barley hulls and barley middlings.

Ground Barley is the entire product obtained by grinding clean sound barley, containing not less than 90 per cent pure barley and not more than 10 per cent of other grains, weed seeds and other foreign material and not more than 6 per cent fiber. Provided that no portion of this stated 10 per cent of other grains, weed seeds or other foreign material shall be deliberately added.

Mixed Feed Barley is the entire product obtained by grinding country run barley containing not less than 75 per cent pure barley and not more than 25 per cent of other grains, weed seeds and other foreign material. Provided that no portion of this stated 25 per cent of other grains, weed seeds or foreign material shall be deliberately added. The ingredients must be stated as barley, other grains, weed seeds and other foreign material.

BREWERS' AND DISTILLERS' PRODUCTS

Brewers' Dried Grains are the properly dried residue from cereals obtained in the manufacture of beer.

Distillers' Dried Grains are the dried residue from cereals obtained in the manufacture of alcohol and distilled liquors. The product shall bear the designation indicating the cereal predominating.

Distillers' Corn Solubles, a by-product from the manufacture of alcohol from corn, is a mash liquor concentrated after the removal of the alcohol and wet grains.

Distillers' Corn and Rye Solubles, a by-product from the manufacture of alcohol from corn and rye, is a mash liquor concentrated after the removal of the alcohol and wet grains.

Distillers' Rye Solubles, a by-product from the manufacture of alcohol from rye, is a mash liquor concentrated after the removal of the alcohol and wet grains.

Malt Sprouts are the sprouts of the barley grain obtained in the malting process. Sprouts derived from any other malted cereal must be designated by the name of that cereal.

BUCKWHEAT PRODUCTS

Buckwheat Shorts or Buckwheat Middlings are that portion of the buckwheat grain immediately inside of the hull after separation from the flour.

CORN PRODUCTS

Corn Bran is the outer coating of the corn kernel.

Corn Feed Meal is the by-product obtained in the manufacture of cracked corn, with or without aspiration products added to the siftings. This name is also correctly applied to the by-product obtained in the manufacture of table meal from the whole grain by the non-degerminating process.

Corn Germ Cake is the product obtained in the manufacture of starch, glucose and other corn products and consists of the germ from which part of the corn oil has been extracted.

Corn Germ Meal is ground corn germ cake.

Grits are the hard, flinty portions of Indian corn containing no bran or germ.

Corn Gluten Meal is that part of commercial shelled corn that remains after the separation of the larger part of the starch, the germ and the bran, by the processes employed in the manufacture of cornstarch and glucose. It may or may not contain corn solubles.

Corn Gluten Feed is that portion of commercial shelled corn that remains after the separation of the larger part of the starch and the germs by the processes employed in the manufacture of cornstarch and glucose. It may or may not contain corn solubles.

Maltose Process Corn Gluten Feed is the dried residue from degermed corn, after removal of starch in the manufacture of malt syrup.

Hominy Feed, Hominy Meal or Hominy Chop is the kiln-dried mixture of the mill run bran coating, the mill run germ, with or without a partial extraction of the oil and a part of the starchy portion of the white corn kernel obtained in the manufacture of hominy, hominy grits and corn meal by the degerminating process.

Yellow Hominy Feed, Yellow Hominy Meal or Yellow Hominy Chop is a kiln-dried mixture of the mill-run bran coating, the mill-run germ, with or without a partial extraction of the oil and a part of the starchy portion of the yellow corn kernel obtained in the manufacture of yellow hominy grits and yellow corn meal by the degerminating process.

OIL CAKE

Oil-Cake is the product obtained after the extraction of part of the oil by crushing, cooking and hydraulic pressure, or by

crushing, heating and the use of solvents from seeds which have been screened and cleaned of weed seeds and other foreign materials by the most improved commercial processes. When used alone the term "Oil Cake" shall be understood to designate linseed cake as defined. When used to cover any other product the name of the seed from which it is obtained shall be prefixed to the words "Oil Cake".

Oil Meal or Ground Oil Cake is oil cake ground to a meal.

COTTONSEED PRODUCTS

Cottonseed Meal is a product of the cottonseed only, composed principally of the kernel with such portion of the hull as is necessary in the manufacture of oil; provided, that nothing shall be recognized as cottonseed meal that does not conform to the foregoing definition and that does not contain at least 36 per cent of protein.

41.12 Per Cent Protein Cottonseed Meal, Choice Quality, must be finely ground, not necessarily bolted, perfectly sound and sweet in odor, yellow, free from excess of lint, and must contain at least 41.12 per cent crude protein, equivalent to 8 per cent of ammonia.

Cottonseed meal not fulfilling the above requirements as to color, odor or texture, shall be branded Off Quality.

38.56 Per Cent Protein Cottonseed Meal, Prime Quality, must be finely ground, not necessarily bolted, of sweet odor, reasonably bright in color, yellow not brown or reddish, free from excess of lint, and must contain at least 38.56 per cent crude protein equivalent to 7 1/2 per cent of ammonia.

Cottonseed Meal not fulfilling the above requirements as to color, odor or texture, shall be branded Off Quality.

36 Per Cent Protein Cottonseed Meal, Good Quality, must be finely ground, not necessarily bolted, of sweet odor, reasonably bright in color, free from excess lint and must contain at least 36 per cent crude protein equivalent to 7 per cent of ammonia.

Cottonseed Meal not fulfilling the above requirements as to color, odor or texture, shall be branded Off Quality.

Cottonseed Feed is a mixture of cottonseed meal and cottonseed hulls, containing less than 36 per cent of protein.

Cold Pressed Cottonseed is the product obtained from the subjection of the whole undecorticated cottonseed to the cold pressure process for the extraction of oil and includes the entire cottonseed less the oil extracted.

Ground Cold Pressed Cottonseed is the product obtained by grinding cold pressed cottonseed.

LINSEED AND FLAX PRODUCTS

Linseed Cake or Meal is oil cake or meal made from flaxseed, provided that the final product shall contain less than 6 per cent of weed seeds and other foreign materials and, provided, further that no portion of the stated 6 per cent of weed seeds and other foreign materials shall be deliberately added.

Old Process Oil Meal, Old Process Linseed Meal is oil meal as defined or linseed meal as defined produced by crushing, cooking and hydraulic pressure.

New Process Oil Meal, New Process Linseed Meal is oil meal as defined or linseed meal as defined produced by crushing, heating and the use of solvents.

Flax Plant By-Product is that portion of the flax plant remaining after the separation of the seed, the bast fiber and a portion of the shives, and consists of flax shives, flax pods, broken and immature flax seeds, and the cortical tissues of the stem.

Ground Flaxseed or Flaxseed Meal is the product obtained by grinding flaxseed which has been screened and cleaned of weed seeds and other foreign materials by the most improved commercial processes, provided that the final product shall contain less than four per cent of weed seeds and other foreign materials, and provided further that no portion of the stated four per cent of weed seeds and other foreign materials shall be deliberately added.

Unscreened Flaxseed Oil Feed Cake is the product obtained by extraction of part of the oil from unscreened flaxseed by crushing, cooking and hydraulic pressure, or by crushing, heating and the use of solvents. The ingredients shall be stated as partially extracted flaxseed and foreign seeds—wheat, wild buckwheat, pigeon grass, wild mustard, etc.

Ground Unscreened Flaxseed Oil Feed is the ground unscreened flaxseed oil feed cake.

Screenings Oil Feed is the ground product obtained after extraction of part of the oil by crushing, cooking and hydraulic pressure, or by crushing, heating and the use of solvents from the smaller imperfect grains, weed seeds and other foreign materials, having feeding value, separated in cleaning the grain. The name of the grain from which the screenings are separated shall be prefixed to "screenings oil feed".

OAT PRODUCTS

Oat Groats are the kernels of the oat.

Oat Hulls are the outer coverings of the oat.

Oat Middlings are the floury portions of the oat groat obtained in the milling of rolled oats.

Oat Shorts are the covering of the oat grain lying immediately inside the hull, being a fuzzy material carrying with it considerable portions of the fine floury part of the groat obtained in the milling of rolled oats.

Clipped Oat By-Product is the by-product obtained in the manufacture of clipped oats. It may contain the light chaffy material broken from the end of the hulls, empty hulls, light, immature oats and dust. It must not contain an excessive amount of oat hulls.

PEANUT PRODUCTS

Peanut Oil Cake is the residue after the extraction of part of the oil by pressure or solvents from peanut kernels.

Peanut Oil Meal is ground peanut oil cake.

Unhulled Peanut Oil Feed is the ground residue obtained after extraction of part of the oil from whole peanuts, and the ingredients shall be designated as *Peanut Meal and Hulls*.

RICE PRODUCTS

Rice Bran is the pericarp or bran layer of the rice, with only such quantity of hull fragments as is unavoidable in the regular milling of rice.

Rice Hulls are the outer coverings of the rice.

Rice Polish is the finely powdered material obtained in polishing the kernel.

RYE PRODUCTS

Rye Middlings or Rye Feed is the by-product obtained from the manufacture of ordinary "100 per cent" rye flour from cleaned and scoured rye grain.

Rye Red Dog is a mixture of low-grade flour, fine particles of bran and the fibrous offal from the "tail of the mill."

VELVET BEAN PRODUCTS

Velvet Bran Meal is ground velvet beans containing only an unavoidable trace of hulls or pods.

Ground Velvet Bean and Pod is the product derived by grinding velvet beans "in the pod." It contains no additional pods or other materials.

WHEAT PRODUCTS

Wheat Bran is the coarse outer covering of the wheat kernel as separated from cleaned and scoured wheat in the usual process of commercial milling.

Standard Millings consists mostly of fine particles of bran, germ and very little of the fibrous offal obtained from the "tail

of the mill." This product must be obtained in the usual commercial process of milling and shall not contain more than 9.5 per cent crude fiber.

Flour Middlings shall consist of standard middlings and red dog flour combined in the proportions obtained in the usual process of milling and shall not contain more than 6 per cent crude fiber.

Red Dog Flour consists of a mixture of low-grade flour, fine particles of bran and the fibrous offal from the "tail of the mill" and shall not contain more than 4 per cent crude fiber.

Brown Shorts (Red Shorts) consists mostly of the fine particles of bran, germ and very little of the fibrous offal obtained from the "tail of the mill." This product must be obtained in the usual commercial process of milling.

Gray Shorts (Gray Middlings or Total Shorts) consists of the fine particles of the outer bran, the inner bran or bee-wing bran, the germ and the offal or fibrous materials obtained from the "tail of the mill." This product must be obtained in the usual process of commercial milling.

White Shorts or White Middlings consists of a small portion of the fine bran particles and the germ and a large portion of the fibrous offal obtained from the "tail of the mill." This product must be obtained in the usual process of flour milling.

Wheat Mixed Feed (Mill Run Wheat Feed) consists of pure wheat bran and the gray or total shorts of flour middlings combined in the proportions obtained in the usual process of commercial milling.

Wheat Bran and Standard Middlings consists of the two commodities as defined above, mixed in the proportions obtained in the usual process of commercial milling.

Screenings consists of the smaller imperfect grains, weed seeds and other foreign materials, having feeding value, separated in cleaning the grain.

Scourings consist of such portions of the cuticle, brush, white caps, dust, smut and other materials as are separated from the grain in the usual commercial process of scouring.

Note. If to any of the wheat or rye by-product feeds there should be added screenings or scourings—as above defined either ground or unground, bolted or unbolted, such brand shall be so registered, labeled and sold as clearly to indicate this fact. The word “Screenings” or “Scourings” as the case may be, shall appear as a part of the name or brand and shall be printed in the same size and face of type as the remainder of the brand name. When the word “Screenings” appears it is not necessary to show also on the label the word “Scourings”.

MISCELLANEOUS PRODUCTS

Dried Beet Pulp is the dried residue from sugar beets which have been cleaned and freed from crowns, leaves and sand, and which have been extracted in the process of manufacturing sugar.

Cocanut Oil Meal or “*Copra Oil Meal*” is the ground residue from the extraction of part of the oil from the dried meat of the cocanut.

Fish Meal is the clean, dried ground tissues of the undecomposed fish, with or without the extraction of part of the oil.

Fish Residue Meal is the clean undecomposed residue from the manufacture of glue or other fishery products from non-oily fish.

Palm Kernel Oil Meal is the ground residue from the extraction of part of the oil by pressure or solvents from the kernel of the fruit of *Elaeis guineensis* or *Elaeis malanococca*.

*TENTATIVE STANDARDS FOR WHEAT
MILL FEEDS

	Fiber (Max.)
Brown Shorts	6.5%
Gray Shorts	5.5
White Shorts	3.5
Wheat Mixed Feed.....	8.5
Hard Wheat Mixed Feed.....	9.5

*With or without screenings.

Brand and name and address of manufacturer	Pounds in 100 lbs. of Feed Stuff						Certified by manufacturer to contain
	Protein	Fat	Carbo- hydrates	Ash	Moist- ure	Crude Fiber	
ALFALFA MEAL							
Alfalfa Meal.....	G. 12.00	1.00	40.00	7.98	9.39	35.00	Alfalfa hay.
Denver Alfalfa Milling and Products Co. Lamar, Col.	F. 14.10	1.52	67.01			.....
Otto Weiss Alfalfa Meal.....	G. 12.00	1.00	70.00	7.71	7.97	35.00	Ground alfalfa hay.
Otto Weiss Milling Co..... Wichita, Kansas	F. 13.45	1.78	69.09			.....
Alfalfa Meal.....	G. 12.00	1.50	40.00	8.49	7.23	35.00	Made from alfalfa hay.
Pecos Valley Alfalfa Mill Co..... Hagerman, New Mexico	F. 15.55	1.69	67.04			.....
California Alfalfa Meal.....	G. 16.00	2.00	40.00	8.78	8.49	30.00	Ground from selected alfalfa hay.
A. W. Scott Co..... San Francisco, Cal.	F. 16.38	1.47	64.88			.....
BEEF PULP							
Dried Beet Pulp.....	G. 8.00	0.50	76.00	3.03	8.96	20.00	Composed only of residue of sugar beets dried after extraction of sugar.
Dominion Sugar Co., Ltd..... Kitchener, Can.	F. 8.67	0.56	78.78			.....
Dried Beet Pulp.....	G. 8.00	0.50	76.00	3.05	7.94	20.00	Residue of sugar beets dried after extraction of sugar.
Great Western Sugar Co..... Denver, Col.	F. 9.33	0.50	79.18			.....
Dried Beet Pulp.....	G. 8.00	0.50	76.00	2.49	12.15	20.00	Residue of sugar beets dried after extraction of sugar.
Larrowe Milling Co..... Detroit, Mich.	F. 9.53	0.84	74.99			.....
Dried Beet Pulp.....	G. 8.00	0.50	60.00	2.80	7.63	20.00	Residue of sugar beets dried after extraction of sugar.
Ubiko Milling Co..... Cincinnati, Ohio	F. 8.80	0.52	80.25			.....

BREWERS' GRAINS											
Bull Brand Dried Brewers' Grains.....	G.	22.00	6.00	58.96	3.27	8.01	15.00				
Farmers Feed Co.....	F.	22.90	6.86								
Buffalo, N. Y.											
Brewers' Dried Grains.....	G.	21.00	5.00	50.00	3.48	6.08	16.00				
St. Albans Grain Co.....	F.	23.14	6.65	60.05							
St. Albans, Vt.											
CALF MEAL											
Blatchford's Calf Meal.....	G.	24.00	5.00	53.00	6.04	10.83	6.75				
Blatchford Calf Meal Co.....	F.	24.08	5.00	54.05			4.97				
Waukegan, Ill.											
Purina Calf Chow Feed.....	G.	27.00	3.20	55.00	3.82	11.19	4.50				
Ralston Purina Co.....	F.	25.65	4.26	55.08			3.47				
Buffalo, N. Y.											
Ryde's Cream Calf Meal.....	G.	25.00	5.00	55.00	4.75	10.64	6.75				
Ryde and Co.....	F.	25.48	4.51	53.36	6.01		5.96				
Chicago, Ill.											
COMPOUNDED FEED											
Armour's Steam Cooked Feed.....	G.	9.00	4.00	64.00	5.75	9.53	9.00				
Armour Grain Co.....	F.	9.96	3.84	70.92			11.17				
Chicago, Ill.											
Pennant Brand Stock Feed.....	G.	9.00	5.00	60.00	3.63	8.69	12.00				
E. W. Bailey & Co.....	F.	10.07	5.48	72.13			11.49				
Swanton, Vt.											
Pennant Stock Feed.....	G.	10.00	6.50	73.45	3.42	8.89	10.00				
E. W. Bailey & Co.....	F.	8.89	5.35				9.04				
Swanton, Vt.											

Locust bean meal, unpressed flaxseed, blood flour, rice polish, old process linseed meal, dried milk albumen, barley meal, ground beans, cocoa shell meal wheat flour, cocanut oil meal, re-cleaned cotton seed meal, fenugreek, anise and salt.

Blood flour, linseed meal, hominy feed, yellow corn feed meal, wheat flour and 1% salt.

Wheat flour, linseed oil meal, re-cleaned cottonseed meal, cocanut oil meal, beans, lentils, hominy feed, locust bean meal, blood flour, ground flaxseed, malt flour, cocoa shell meal, dried milk, calcium carbonate, fenugreek, anise and salt.

Ground oats, ground corn, hominy feed, oat hulls, oat shorts, 1/2 of 1% salt.

Fine white hominy, oat by-products, oat middlings, oat hulls and oat shorts.

Fine white hominy and oat by-products, oat middlings, oat hulls, oat shorts, 1/2 of 1% salt.

Brand and name and address of manufacturer	Pounds in 100 lbs. of Feed Stuff						Certified by manufacturer to contain
	Protein	Fat	Carbo- hydrates	Ash	Moist- ure	Crude Fiber	
Cloverdale Horse Feed..... Clover Leaf Milling Co..... Buffalo, N. Y.	G. F. 9.00 10.16	2.50 3.86	60.00 69.97	3.06 3.06	12.95 12.95	11.00 10.17	Cracked corn, oats, alfalfa meal, molasses, ½ of 1% salt.
Clover Leaf Stock Feed..... Clover Leaf Milling Co..... Buffalo, N. Y.	G. F. 9.00 8.20	3.50 3.46	60.00 74.87	3.70 3.70	9.77 9.77	12.00 11.96	Hominy feed, corn feed meal, flour mid- dlings, oat meal mill by-products, oat mid- dlings, oat hulls, oat shorts, ½ of 1% salt.
Corn-Pro Horse and Mule Feed..... Corn Products Refining Co..... New York, N. Y.	G. F. 9.00 9.46	2.50 2.98	60.00 73.08	4.94 4.94	9.54 9.54	10.00 9.16	Cracked corn, rolled oats, barley, alfalfa meal, molasses, salt.
Climax Stock Feed..... E. A. Cowee Co..... Fitchburg, Mass.	G. F. 8.75 8.19	3.50 2.97	74.55 74.55	3.51 3.51	10.78 10.78	8.00 12.24	Corn, oats, barley and oat feed.
Cowee's Stock Feed..... E. A. Cowee Co..... Fitchburg, Mass.	G. F. 9.00 7.84	4.00 3.46	45.00 76.71	3.68 3.68	8.31 8.31	10.00 13.78	Ground oats, hominy feed, barley, oat meal mill by-products, oat middlings, oat shorts, oat hulls, ½ of 1% salt.
Cushing Stock Feed..... J. Cushing Co..... Fitchburg, Mass.	G. F. 10.00 10.38	3.00 3.03	50.00 73.37	3.67 3.67	9.55 9.55	10.00 10.00	Corn feed meal, wheat middlings, hominy feed, oat meal mill by-products, oat mid- dlings, oat hulls, oat shorts, ground barley, ground oats.
Steam Cooked Horse Feed..... J. Cushing Co..... Fitchburg, Mass.	G. F. 9.50 11.12	4.00 4.54	50.00 73.44	2.14 2.14	8.76 8.76	4.00 4.00	Rolled oats and crushed corn.
Vigor Horse Feed..... J. Cushing Co..... Fitchburg, Mass.	G. F. 9.00 9.28	2.50 3.63	50.00 71.59	4.43 4.43	11.07 11.07	10.00 9.75	Cracked corn, crushed oats, cane molasses, alfalfa meal, ½ of 1% salt.
Vigor Sugared Stock Feed..... J. Cushing Co..... Fitchburg, Mass.	G. F. 10.00 10.33	3.25 2.90	50.00 72.30	4.52 4.52	9.95 9.95	11.00 12.89	Corn feed meal, wheat middlings, hominy feed, soy-bean meal, cane molasses, oat meal mill by-products, oat middlings, oat hulls, oat shorts.

Brand and name and address of manufacturer	Pounds in 100 lbs. of Feed Stuff						Certified by manufacturer to contain	
	Protein	Fat	Carbo- hydrates	Ash	Moist- ure	Crude Fiber		
Faramel Horse Feed..... Nowak Milling Corp..... Buffalo, N. Y.	G. F.	9.00 10.29	3.00 3.68	73.04	2.91	10.08	7.00 6.96	Cracked corn, crushed oats, wheat bran, which may contain ground grain screenings not exceeding mill run, and molasses.
Fidelity Stock Feed..... Nowak Milling Corp..... Buffalo, N. Y.	G. F.	8.00 7.70	3.00 3.00	75.52	3.74	10.04	12.00 11.67	Ground oats, corn feed meal, hominy feed, wheat middlings, 1/2 of 1% salt, oat feed, oat middlings, oat shorts, oat hulls.
Money Maker..... Park & Pollard Co..... Boston, Mass.	G. F.	10.00 12.58	5.00 5.79	50.00 64.36	7.68	9.59	12.00 9.79	Ground clipped oat by-product, molasses, fine ground grain screenings, cocoa shell meal, calcium carbonate, and salt.
Stock Feed..... Park & Pollard Co..... Boston, Mass.	G. F.	8.00 9.07	2.50 5.02	50.00 70.73	5.47	9.71	12.00 9.16	Ground barley, ground oats, ground corn, hominy feed, oat hulls, oat middlings, oat shorts, calcium carbonate and salt.
Iowa Stock Feed..... Purity Oats Company..... Chicago, Ill.	G. F.	10.00 8.76	5.50 3.48	58.50 75.80	3.38	8.58	12.00 10.16	White hominy feed, red dog flour, re-ground oat feed and salt.
Tom Boy Stock Feed..... Purity Oats Company..... Chicago, Ill.	G. F.	9.50 10.03	4.00 4.00	60.00 72.61	4.67	8.69	13.25 11.96	Hominy feed, wheat middlings, oat meal mill by-products, oat middlings, oat hulls, oat shorts, cotton seed meal, yellow hominy feed, corn meal, linseed oil meal and molasses.
Richford White Diamond Stock Feed... Quaker Oats Company..... Chicago, Ill.	G. F.	8.00 8.80	3.00 4.07	60.00 76.04	3.64	7.45	14.00 12.06	Ground corn, hominy feed, barley feed, oat meal mill by-products, oat middlings, oat hulls, oat shorts, 3/4 of 1% salt.
Sugared Schumacker Feed..... Quaker Oats Co..... Chicago, Ill.	G. F.	10.00 10.55	3.25 4.21	58.00 71.63	4.09	9.52	12.00 10.88	Ground corn, hominy feed, yellow hominy, barley meal, molasses, cotton seed 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, 3/4 of 1% salt.

Brand and name and address of manufacturer	Pounds in 100 lbs. of Feed Stuff							Certified by manufacturer to contain
	Protein	Fat	Carbo- hydrates	Ash	Moist- ure	Crude Fiber		
1795 Steam Cooked Corn and Oats..... Miner-Hillard Milling Co. Wilkes-Barre, Pa.	G. 9.50 F. 10.94	4.00 4.42	72.74	2.18	9.72	9.00		
COTTONSEED MEAL								
Atlas Standard Cotton Seed Meal..... E. T. Allen Co. Atlanta, Ga.	G. 36.00 F. 37.24	5.50 6.83	27.00 42.20	5.99	7.74	14.00	Made from upland cotton seed only.	
Empire High Grade Cotton Seed Meal. E. T. Allen Co. Atlanta, Ga.	G. 41.12 F. 38.57	6.00 6.37	22.00 41.84	5.98	7.24	10.00	Made from upland cotton seed only.	
Surely Brand Cotton Seed Meal..... American Cotton Oil Co. New York, N. Y.	G. 36.00 F. 35.21	5.50 6.13	27.00 45.35	5.90	7.41	14.00		
Cotton Seed Cake and Meal, Port Arthur Brand American Oil Cake and Feed Co..... Dallas, Texas	G. 43.00 F. 42.45	6.00 6.61	35.00 37.56	5.56	7.82	12.00		
Rainbow Brand Cotton Seed Meal..... American Oil Cake and Feed Co..... Dallas, Texas	G. 36.00 F. 34.47	5.00 6.84	45.95	5.64	7.10	10.00		
Helmet Brand Prime Cotton Seed Meal Ashcraft-Wilkinson Co. Atlanta, Ga.	G. 41.18 F. 40.89	6.00 7.31	26.00 36.88	7.03	7.89	10.00	Made from upland cotton seed only.	
Paramount Brand Good Cotton Seed Meal Ashcraft-Wilkinson Co. Atlanta, Ga.	G. 36.00 F. 33.59	5.50 5.10	27.00 47.93	5.59	7.79	14.00	Upland cotton seed.	

Owl Brand 36% Prime Cotton Seed Meal.....	G. F.	36.00 36.92	5.00 6.91	28.00 43.54	6.18 6.45	14.00	Made from cotton seed.
F. W. Brode Corp., Memphis, Tenn.							
Buckeye 36% Cottonseed Meal.....	G. F.	36.00 36.00	5.00 6.24	30.00 43.77	6.46 7.53	14.00	Good quality.
Buckeye Cotton Oil Co., Cincinnati, Ohio							
"White Ribbon" Brand Cottonseed Meal.....	G. F.	36.00 34.19	5.00 5.75	25.00 45.15	5.90 9.01	15.00	Made from cotton seed meal and cotton-seed hulls.
R. G. Clarke and Co., Memphis, Tenn.							
Beauty Brand Cottonseed Meal.....	G. F.	36.00 36.63	6.00 6.34	43.69 43.69	6.74 6.60	14.00	Product of cottonseed only.
S. P. Davis Little Rock, Ark.							
Steerboy Brand Cottonseed Meal.....	G. F.	43.00 44.04	6.00 6.85	25.00 36.04	5.54 7.53	10.00	Made from decorticated cottonseed.
S. P. Davis Little Rock, Ark.							
Cotton Seed Meal, St. Clair Brand.....	G. F.	36.00 36.14	5.00 6.23	43.80 43.80	5.72 8.11	16.00	Made from pressed cottonseed.
East St. Louis Cotton Oil Co., National Stock Yards, Ill.							
Bull Brand Cottonseed Meal.....	G. F.	43.00 40.90	5.00 6.75	26.00 38.37	6.87 7.11	10.00	Made from pressed cottonseed.
Humphreys-Godwin Co., Memphis, Tenn.							
Dauish Brand 36% Cotton Seed Meal	G. F.	36.00 36.19	5.00 6.04	25.00 43.91	5.22 8.64	15.00	Mixture of cottonseed meal and cottonseed hulls.
Humphreys-Godwin Co., Memphis, Tenn.							
Dixie Brand Choice Prime Cotton Seed Meal.....	G. F.	41.12 38.89	5.00 6.54	26.00 39.94	7.24 7.39	10.00	Made from pressed cottonseed.
Humphreys-Godwin Co., Memphis, Tenn.							
"Thirty-Six Brand" Cotton Seed Meal	G. F.	36.00 37.11	5.00 6.02	28.50 43.42	5.76 7.69	14.00	Made from pressed cottonseed.
L. B. Lovitt and Co., Memphis, Tenn.							

Brand and name and address of manufacturer	Pounds in 100 lbs. of Feed Stuff						Certified by manufacturer to contain
	Protein	Fat	Carbo- hydrates	Ash	Moist- ure	Crude Fiber	
Good Cotton Seed Meal..... Marianna Sales Co. Memphis, Tenn.	G. F. 36.00 37.69	5.00 7.19	28.50 43.44	5.95 6.14	5.73	14.00	Made from cottonseed.
Prime Cotton Seed Meal..... Marianna Sales Co. Memphis, Tenn.	G. F. 41.00 39.58	6.00 6.54	26.00 38.34	7.26	8.28	10.00	
Prime Cotton Seed Meal "White Mule Brand"..... Marianna Cotton Oil Co. Marianna, Ark.	G. F. 43.00 43.11	6.00 6.72	25.00 36.08	6.14	7.95	10.00	Made from cottonseed.
Durham Thirty-Six Cotton Seed Meal. Memphis Cotton Seed Products Co. Memphis, Tenn.	G. F. 36.00 37.15	5.00 6.79	28.50 45.18	5.88	5.00	14.00	
Triangle Brand Cotton Seed Meal R. N. Neal and Co. Memphis, Tenn.	G. F. 36.00 34.45	5.00 7.43	28.50 43.81	6.74	7.57	14.00	
Cotton Seed Meal..... Phoenix Cotton Oil Co. Dyersburg, Tenn.	G. F. 43.00 42.39	6.00 6.31	22.00 36.72	6.72	7.86	10.00	Cottonseed meal and cottonseed hulls.
Phoenix 36% Cotton Seed Meal..... Phoenix Cotton Oil Co. Dyersburg, Tenn.	G. F. 36.00 35.88	4.50 5.61	25.00 44.28	6.40	7.83	14.00	Cottonseed meal and cottonseed hulls.
Cotton Seed Cake and Meal, Climax Brand..... Southland Cotton Oil Co. Paris, Texas	G. F. 43.00 41.92	6.00 6.04	..... 40.39	5.47	6.18	12.00	Sound decorticated cotton seed.
Good Cotton Seed Meal..... Speer and McKay..... Atlanta, Ga.	G. F. 36.00 36.54	5.50 6.95	27.00 43.52	6.51	6.48	14.00	Made from cotton seed meal and cottonseed hulls.

Brand and name and address of manufacturer	Pounds in 100 lbs. of Feed Stuff						Certified by manufacturer to contain
	Protein	Fat	Carbo- hydrates	Ash	Moist- ure	Crude Fiber	
Advanced Registry Dairy Feed Clover Leaf Milling Co. Buffalo, N. Y.	G. 25.00	5.00	50.00	5.02	8.98	10.00	Hominy feed, pure old process linseed meal, corn gluten feed, dried grains from barley, malt and corn, wheat bran, wheat middlings, cottonseed meal and 1/2 of 1% fine salt.
	F. 24.74	5.20	56.06			8.78	
Cloverdale Milk Grains Clover Leaf Milling Co. Buffalo, N. Y.	G. 24.00	4.50	50.00	8.18	8.76	10.00	Pure old process linseed meal, wheat bran, cottonseed meal, corn gluten feed, dried grains from barley, malt and corn, cleaned ground and bolted grain screenings, ground and bolted clipped oat by-product, molasses and 1/2 of 1% fine table salt.
	F. 22.31	4.93	55.82			10.33	
Cloverdale Milk Grains Clover Leaf Milling Co. Buffalo, N. Y.	G. 24.00	4.50	50.00	7.48	8.63	10.00	Dried brewers' grains, cottonseed meal, 43% linseed oil meal, old process, corn gluten feed, yellow hominy, ground oats, wheat bran, wheat middlings, cane molasses, salt.
	F. 23.33	5.01	55.55			10.00	
Dealer's Open Formula Milk Ration Clover Leaf Milling Co. Buffalo, N. Y.	G. 24.00	5.00	50.00	5.32	10.16	9.00	Cottonseed meal, pure old process linseed meal, corn gluten feed, wheat bran, wheat middlings, dried grains from barley, malt and corn, molasses and 1/2 of 1% fine table salt.
	F. 22.36	5.55	56.61			9.14	
Master Grain Ration Clover Leaf Milling Co. Buffalo, N. Y.	G. 24.00	5.00	50.00	6.26	9.55	10.00	Cottonseed meal, pure old process linseed meal, corn gluten feed, cleaned ground and bolted grain screenings, ground and bolted clipped oat by-product, molasses and 1/2 of 1% fine table salt.
	F. 24.68	5.66	53.85			10.00	
Sweet 16 Dairy Feed Clover Leaf Milling Co. Buffalo, N. Y.	G. 16.00	4.00	50.00	8.80	8.53	12.00	Gluten feed, linseed meal, cotton seed meal, coconut oil meal, corn meal, wheat bran, wheat middlings and salt.
	F. 16.51	4.24	61.92			11.89	
Covee's 1922 Ration E. A. Covee Co. Fitchburg, Mass.	G. 21.50	5.50	45.00	4.87	9.34	8.00	
	F. 20.44	5.28	60.07			8.97	

Dairy Feed J. Cushing Co., Fitchburg, Mass.	G. F.	24.00 24.76	5.00 4.88	45.00 55.02	5.33 10.01	10.00 9.36	Wheat bran, cotton seed meal, cocoanut oil meal, wheat middlings, soy bean meal, cane molasses, corn gluten feed, corn gluten meal, old process oil meal, ground oats, ground barley, alfalfa meal, $\frac{1}{2}\%$ calcium carbonate, $\frac{1}{2}\%$ salt.
Vigor Dairy Feed J. Cushing Co., Fitchburg, Mass.	G. F.	18.00 19.26	3.50 3.59	50.00 59.96	6.18 11.01	10.00 9.90	Wheat bran, cane molasses, cottonseed meal, cocoanut oil meal, soy bean meal, corn gluten feed, wheat middlings, brewers' dried grains, old process oil meal, oat meal mill by-product, oat hulls, oat middlings, oat shorts, reground grain screenings from wheat, alfalfa meal, $\frac{1}{2}\%$ calcium carbonate, $\frac{1}{2}\%$ salt.
Gold Coin Dairy Ration. Eagle Roller Mills Co., New Ulm, Minn.	G. F.	20.00 20.14	5.00 5.07	58.00 57.54	7.62 9.63	9.00 8.04	Corn meal, pulverized oats, pulverized barley, wheat bran, red dog, oil meal, cottonseed meal, corn gluten feed, bone meal, salt.
Eastern's 20% Dairy Feed Eastern Grain Company Portland, Maine	G. F.	20.00 21.76	4.00 4.76	45.00 57.53	6.89 9.06	10.00 7.99	Wheat bran, cottonseed meal, corn gluten feed, cocoanut oil meal, cane molasses, soy bean meal, corn gluten meal, wheat middlings, old process oil meal, reground grain screenings, alfalfa meal, $\frac{1}{2}$ of 1% calcium carbonate, $\frac{1}{2}\%$ salt.
Eastern's 24% Dairy Feed Eastern Grain Company Portland, Maine	G. F.	21.00 25.06	5.00 6.20	45.00 53.67	6.04 9.03	12.00 8.64	Choice cottonseed meal, wheat bran, wheat middlings, cocoanut oil meal, corn gluten feed, corn gluten meal, cane molasses, old process, linseed meal, alfalfa meal, $\frac{1}{2}$ of 1% salt.
Eastern States Fitting Ration Eastern States Farmers' Exchange Springfield, Mass.	G. F.	12.00 12.87	3.50 5.20	55.00 64.06	5.14 12.73	8.00 8.00	Standard wheat bran, ground oats, corn meal, yellow hominy, linseed oil meal, old process cane molasses, standard wheat middlings, bone meal, salt.
Eastern States Fulbair Open Formula Dairy Ration Eastern States Farmers' Exchange Springfield, Mass.	G. F.	20.00 22.70	4.50 4.92	48.00 56.30	6.21 9.87	9.00 9.00	Corn gluten feed, standard wheat bran, yellow hominy, ground oats, cane molasses, cottonseed meal -43%, peanut meal 40%, corn distillers' grains, linseed oil meal, old process, salt, calcium carbonate.

Brand and name and address of manufacturer	Pounds in 100 lbs. of Feed Stuff						Certified by manufacturer to contain
	Protein	Fat	Carbo- hydrates	Ash	Moist- ure	Crude Fiber	
Eastern States Milkmore Dairy Ration Eastern States Farmers' Exchange, . . . Springfield, Mass.	G. 24.00	5.00	45.00	5.21	10.12	9.00	Corn gluten feed, cottonseed meal, linseed oil meal, old process, corn distillers' grains, standard wheat bran, yellow hominy, standard, wheat middlings, ground oats, cane molasses, peanut meal, salt, calcium carbonate.
	F. 26.25	5.59	52.83	4.38	9.78	7.91	
Elmore Milk Grains, Elmore Milling Co., Oneonto, N. Y.	G. 25.00	6.00	55.65	4.38	9.78	11.00	Corn distillers' grains' wheat bran, old process oil meal, corn meal or hominy feed, barley, malt sprouts, corn gluten feed, cottonseed meal, dried brewers' grains, calcium carbonate, salt.
	F. 25.00	5.19	55.65	3.67	9.60	10.21	
Fosher's Dairy Feed Fosher and Co., Manchester, N. H.	G. 22.00	3.50	50.00	3.67	9.60	8.00	Diamond gluten meal, linseed oil meal, cottonseed meal, hominy, wheat bran with mill run screenings, ground oats—high grade, 1/2 of 1% salt.
	F. 23.42	5.08	56.23	5.27	9.19	6.82	
Grandin's Twin-Six Dairy Feed D. H. Grandin Milling Co., Jamestown, N. Y.	G. 22.00	5.00	50.00	5.27	9.19	12.00	Linseed oil meal, cottonseed meal, coconut oil meal, corn gluten feed, wheat bran, wheat middlings, corn meal, corn feed meal, hominy feed, alfalfa meal, 1/2 of 1% salt, wheat bran, and wheat middlings may contain ground screenings not exceeding mill run.
	F. 21.77	5.02	58.75	6.42	9.38	9.33	
Money Maker Sweetened Dairy Feed E. C. and W. J. Hopkins, Greenfield, N. H.	G. 20.00	5.00	55.00	6.42	9.38	12.00	Corn gluten feed, cottonseed meal, old process linseed meal, wheat bran with screenings, hominy, oatmeal by-products, molasses, cocoa shell meal, calcium carbonate and salt.
	F. 21.04	5.67	57.49	7.04	10.52	10.39	
International Ready Ration International Sugar Feed Co., Minneapolis, Minn.	G. 20.00	5.00	45.00	7.04	10.52	11.50	Old process oil meal, cottonseed meal, corn gluten feed, wheat bran, molasses, ground clipped oat by-product, 1% salt, ground, cleaned grain screenings.
	F. 18.88	4.65	58.91			11.36	

International Special Dairy Feed..... International Sugar Feed Co. Minneapolis, Minn.	G. F.	15.00 14.17	4.50 4.77	47.00 62.65	8.97	9.44	12.00 11.88	Old process oil meal, cottonseed meal, corn gluten feed, wheat bran, molasses, ground clipped out by-product, cleaned grain screenings, 1% salt.
Champion Dairy Ration C. H. Jameson Colebrook N. H.	G. F.	23.00 24.26	5.50 4.75	50.00 56.23	4.52	10.24	11.00 7.89	Bran, cottonseed meal 43%, Buffalo gluten feed, Diamond gluten meal, old process linseed oil meal, fancy ground oats, corn meal, brewers' dried grains, flour middlings, 3/4 of 1% salt.
Beatsall Milk Grains Kasco Mills, Inc. Waverly, N. Y.	G. F.	22.00 22.24	4.50 5.14	57.00	5.31	10.24	10.00 9.27	Wheat middlings, wheat bran, linseed oil meal, corn gluten feed, cottonseed meal, hominy feed, 3/4 of 1% salt, beet pulp.
Larro, The Ready Ration Larroe Milling Co. Detroit, Mich.	G. F.	20.00 20.71	4.00 4.52	58.00 60.97	5.22	8.58	12.00 10.96	Cottonseed meal, corn gluten feed, old process linseed oil meal, standard wheat bran, standard wheat middlings, dried beet pulp, 3/4% salt.
Bull Brand Dairy Ration Maritime Milling Co., Inc. Buffalo, N. Y.	G. F.	24.00 23.36	6.00 6.46	50.00 54.09	6.39	9.70	12.00 10.38	Dried brewers' grain, dried malt grains, old process oil meal, cottonseed meal, corn gluten feed, hominy feed, coconut oil meal, wheat bran, wheat middlings, 3/4 of 1% salt. Wheat bran and wheat middlings may contain ground screenings not exceeding mill run.
Merrimack Dairy Ration Merrimack Farmers' Exchange Concord, N. H.	G. F.	20.00 24.04	5.00 4.60	50.00 57.13	4.92	9.31	10.00 7.78	Corn gluten feed, linseed oil meal, cottonseed meal, corn meal, wheat bran, wheat middlings—not exceeding mill run of screenings—ground oats and 3/4 of 1% salt.
Domino Union Dairy Feed Nowak Milling Corp. Buffalo, N. Y.	G. F.	15.00 14.54	3.00 4.32	64.55	6.67	9.92	16.00 12.05	Cottonseed meal, corn gluten feed, linseed oil meal, 3/4 of 1% salt, calcium carbonate, molasses and ground and bolted grain screenings.
New-Life Balanced Ration Nowak Milling Corp. Buffalo, N. Y.	G. F.	22.00 22.29	4.00 5.23	50.00 56.86	5.23	10.39	12.00 7.73	Corn gluten feed, wheat middlings, cottonseed meal, linseed oil meal, wheat bran, corn feed meal, salt.

Brand and name and address of manufacturer	Pounds in 100 lbs. of Feed Stuff						Certified by manufacturer to contain
	Protein	Fat	Carbo- hydrates	Ash	Moist- ure	Crude Fiber	
Noyes' Dairy Feed	G. 23.50	5.50	56.60	...	...	8.50	43% cottonseed meal, old process linseed meal, white hominy feed or corn meal, pure ground oats, bran, gluten, 1% salt.
D. A. Noyes and Son,	F. 23.32	4.92	56.20	4.68	10.88	8.05	
Stevens' Economy Feed	G. 24.00	6.00	43.00	...	...	10.00	Corn distillers' dried grains, wheat bran, with mill run of screenings, wheat cereal, by-products, residue from wheat bran processed, old process linseed oil meal, hominy feed, gluten feed, cottonseed meal, calcium carbonate and salt.
Park and Pollard Co. Boston, Mass.	F. 23.00	5.39	56.45	6.34	8.82	11.23	
Stevens' 44 Sweetened	G. 24.00	5.00	40.00	...	...	14.00	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, ground grain screenings, molasses.
Park and Pollard Co. Boston, Mass.	F. 24.39	5.38	55.21	6.53	8.49	11.06	
Universal Ration	G. 15.00	6.00	50.00	...	...	12.00	Linseed oil meal, cottonseed meal, cocoa shell meal, fine ground grain screenings, alfalfa, toasted wheat feed, oat feed, oat middlings, oat shorts, oat hulls, fish, molasses, calcium carbonate and salt.
Park and Pollard Co. Boston, Mass.	F. 14.35	5.83	61.27	8.64	9.91	10.53	
Pillsbury's Dairy Ration	G. 20.00	4.00	50.00	...	...	11.00	Ground oats, wheat bran, hominy feed, linseed oil meal, corn gluten feed, wheat standard middlings, cottonseed meal and mineral matter, calcium carbonate and sodium chloride.
Pillsbury Flour Mills Co. Minneapolis, Minn.	F. 20.00	5.05	58.49	7.07	9.39	9.02	
Boss Dairy Ration	G. 24.00	4.00	45.00	...	...	11.00	Hominy feed, yellow hominy feed, cottonseed meal, corn gluten feed, old process linseed oil meal, wheat bran, wheat middlings, with ground screenings not exceeding mill run, oat meal mill by-product, oat middlings, oat shorts, oat hulls, 3/4 of 1% salt, calcium carbonate, molasses.
Quaker Oats Co. Chicago, Ill.	F. 25.09	4.70	55.01	6.17	9.03	10.82	

Purina 24% Cow Chow Feed	G.	24.00	4.30	53.00	5.82	9.74	12.00	Linseed oil meal, old process, gluten feed from corn, hominy feed, corn feed meal, molasses, cottonseed meal, ground alfalfa, 1% salt.
Ralston-Purina Co., St. Louis, Mo.	F.	25.16	4.48	54.80	6.76	8.80	9.89	
Protena More Milk Dairy Feed.....	G.	16.50	3.50	55.00	3.90	10.49	7.50	Cottonseed meal, gluten feed from corn, oat feed, oat hulls, oat shorts, oat middlings, ground wheat screenings, molasses and 1% salt.
Ralston-Purina Co., St. Louis, Mo.	F.	17.91	3.64	62.89	3.46	9.57	11.90	
New Hampshire Dairy Ration	G.	20.00	5.50	51.00	4.86	9.15	7.04	Ground fancy oats, oil meal, bran, cottonseed meal, gluten feed, optional hominy or meal.
Rockingham County Farmers' Exchange Epping, N. H.	F.	20.43	5.07	60.11	5.09	8.14	7.50	
Warrrens' Dairy	G.	21.00	4.00	64.46	5.73	9.11	9.56	Ground fancy oats, gluten feed, cottonseed meal, hominy, mixed feed, beet pulp.
Rockingham County Farmers' Exchange Epping, N. H.	F.	18.51	4.00	64.46	5.73	9.11	9.56	
Vitality Milk Ration	G.	24.00	5.00	50.00	4.86	9.15	10.00	Corn distillers' grains, brewers' dried grains, cottonseed meal, old process linseed oil meal, wheat bran, wheat middlings, corn gluten feed, corn feed meal, corn oil meal, 1/2 of 1% salt.
Rosenbaum Brothers	F.	24.11	6.21	55.67	4.86	9.15	8.29	
Chicago, Ill.								
Paragon Dairy Feed	G.	22.00	4.00	44.00	5.09	8.14	14.00	Cottonseed meal, linseed meal, Diamond gluten meal, corn gluten feed, oat meal mill by-products, oat middlings, oat shorts, oat hulls, ground corn, wheat bran not exceeding mill run screenings, not over 3/4 of 1% salt.
St. Albans Grain Co., St. Albans, Vt.	F.	24.69	5.32	56.76	5.09	8.14	13.05	
Wirthmore Balanced Ration	G.	25.00	5.50	55.00	5.73	9.11	10.00	Cottonseed meal, linseed meal, Diamond corn gluten meal, corn gluten feed, wheat middlings, wheat bran, not exceeding mill run screenings, corn distillers' dried grains, brewers' dried grains, hominy or corn meal, edible bone meal, dairy salt.
St. Albans Grain Co., St. Albans, Vt.	F.	25.52	5.62	54.02	5.73	9.11	7.98	
S. Co. Balanced Ration	G.	22.99	4.76	57.90	5.02	9.33	8.29	Bran, 43% cottonseed, 34% oil meal, gluten feed, corn meal, ground oats, 1% salt, bone meal.
F. S. Sleeper and Co., North Haverhill, N. H.	F.	22.99	4.76	57.90	5.02	9.33	8.29	
F. S. Co. Dairy Feed	G.	20.50	4.00	50.00	4.79	9.66	8.50	Wheat feed, ground oats, Buffalo gluten, Diamond gluten, corn meal, old process linseed, cottonseed, molasses.
Frank Smith Co., Lancaster, N. H.	F.	21.36	4.69	59.50	4.79	9.66	8.50	

Brand and name and address of manufacturer	Pounds in 100 lbs. of Feed Stuff						Certified by manufacturer to contain
	Protein	Fat	Carbo- hydrates	Ash	Moist- ure	Crude Fiber	
Union Grains, Biles Ready Dairy Ration	G. 24.00	5.00	50.00	5.84	8.04	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, 1/2 of 1% fine table salt.
Ubiko Milling Co., Cincinnati, Ohio	F. 24.82	5.31	55.99	5.84	8.04	8.08	
Blue Seal Dairy Feed	G. 22.00	5.00	50.00	4.74	9.55	10.00	Cottonseed meal, linseed oil meal, gluten feed, bran, corn meal, crushed fancy oats, bean meal and alfalfa.
H. K. Webster Co., Lawrence, Mass.	F. 22.20	4.82	58.69	4.74	9.55	10.63	
GLUTEN FEED							
Cream of Corn Gluten Feed	G. 23.00	1.50	64.29	1.86	6.48	8.50	Cottonseed meal, linseed oil meal, gluten feed, bran, corn meal, crushed fancy oats, bean meal and alfalfa.
American Maize Products Co., New York, N. Y.	F. 23.56	3.81	64.29	1.86	6.48	8.50	
Clinton Corn Gluten Feed	G. 23.00	2.00	52.00	3.89	7.14	8.00	Cottonseed meal, linseed oil meal, gluten feed, bran, corn meal, crushed fancy oats, bean meal and alfalfa.
Clinton Corn Syrup Refining Co., Clinton, Iowa	F. 24.81	3.08	61.08	3.89	7.14	8.00	
Buffalo Corn Gluten Feed	G. 23.00	1.00	50.00	5.08	9.18	8.50	Cottonseed meal, linseed oil meal, gluten feed, bran, corn meal, crushed fancy oats, bean meal and alfalfa.
Corn Products Refining Co., New York, N. Y.	F. 25.86	2.64	57.24	5.08	9.18	8.50	
Diamond Corn Gluten Meal	G. 40.00	1.00	40.00	1.22	8.22	4.00	Cottonseed meal, linseed oil meal, gluten feed, bran, corn meal, crushed fancy oats, bean meal and alfalfa.
Corn Products Refining Co., New York, N. Y.	F. 43.46	3.58	43.52	1.22	8.22	4.00	
Jenk's Corn Gluten Feed	G. 22.00	3.00	62.14	2.46	7.29	8.00	Not colored. Corn starch by-product with corn bran.
Huron Milling Co., Harbor Beach, Mich.	F. 22.90	5.21	62.14	2.46	7.29	8.00	
Staley's Corn Gluten Feed	G. 23.00	1.00	50.00	3.34	9.68	8.00	Cottonseed meal, linseed oil meal, gluten feed, bran, corn meal, crushed fancy oats, bean meal and alfalfa.
A. E. Staley Mfg. Co., Decatur, Ill.	F. 25.31	1.09	60.58	3.34	9.68	8.00	

HOMINY FEED												
Acme Hominy Feed	G.	10.00	7.00	70.11	1.91	11.64	6.00					Corn product.
Acme-Evans Co., Indianapolis, Ind.	F.	10.55	5.79				.....				
Homco Hominy Feed	G.	10.00	6.00	71.26	2.32	10.14	6.00					White corn only with corn screenings added and part of germ removed.
American Hominy Co., Chicago, Ill.	F.	9.77	6.51				.....				
Bufaceco Hominy Feed	G.	10.00	6.00	68.89	2.49	11.48	6.00					Guaranteed pure.
Armour Grain Co., Chicago, Ill.	F.	11.62	5.52				.....				
"Emco" Evans Hominy Feed	G.	10.00	7.50	55.00	2.79	7.22	7.00					Absolutely pure from mixture.
Evans Milling Co., Indianapolis, Ind.	F.	11.30	7.65	71.04			.....				
B. C. White Hominy Feed	G.	10.00	6.00	55.00	2.40	9.89	5.00					Made from pure white corn.
Kellogg Toasted Corn Flakes Co., Pattle Creek, Mich.	F.	10.55	7.22	69.94			.....				
Badger White Hominy Feed	G.	10.00	5.00	74.21	1.33	11.72	5.00					Made from white corn.
Chas. A. Krause Milling Co., Milwaukee, Wis.	F.	9.22	3.52				.....				
Choice Steam Cooked Hominy Feed	G.	10.00	4.00	71.29	2.14	10.29	5.00					
Miner-Hillard Milling Co., Wilkes-Barre, Pa.	F.	10.68	5.60				.....				
Pure Hominy Feed	G.	10.00	6.50	69.20	2.00	8.36	4.80					
Plymouth Milling Co., Lemars, Iowa	F.	9.79	6.12	73.73			.....				
Homco Yellow Hominy Feed	G.	9.00	6.00	72.64	1.92	10.27	5.00					Made from pure yellow corn.
Purity Oats Co., Chicago, Ill.	F.	10.29	4.88				.....				
Yellow Hominy Feed	G.	10.50	5.00	64.00	2.08	10.86	6.00					
Quaker Oats Co., Chicago, Ill.	F.	10.22	4.87	71.97			.....				
"Logan" Hominy Feed	G.	10.00	7.00	60.00	2.40	9.56	6.00					
Snyder Milling Co., Chillicothe, Ohio	F.	10.33	6.77	70.94			.....				

Brand and name and address of manufacturer	Pounds in 100 lbs. of Feed Stuff						Certified by manufacturer to contain
	Protein	Fat	Carbo- hydrates	Ash	Moist- ure	Crude Fiber	
LINSEED MEAL							
Alinco Old Process Linseed Oil Meal..	G.	32.00	5.00	45.58	6.15	9.93	8.00
American Linseed Co.	F.	32.23	6.11	45.58	6.15	9.93	8.00
Buffalo, N. Y.							
Alinco Old Process Linseed Oil Meal..	G.	34.00	5.00	45.00	5.09	9.94	8.00
American Linseed Co.	F.	33.71	6.13	45.13	5.09	9.94	8.00
Buffalo, N. Y.							
Old Process Ground Oil Cake	G.	32.00	5.00	46.85	6.02	8.94	10.00
Archer-Daniels Midland Co.	F.	31.51	6.68	46.85	6.02	8.94	10.00
Buffalo, N. Y.							
Old Process Ground Oil Cake	G.	34.00	5.00	45.31	5.10	9.19	10.00
Archer-Daniels Midland Co.	F.	34.22	6.18	45.31	5.10	9.19	10.00
Buffalo, N. Y.							
Old Process Ground Oil Cake	G.	32.00	5.00	45.14	5.12	7.96	10.00
Archer-Daniels Linseed Co.	F.	34.74	7.04	45.14	5.12	7.96	10.00
Edgewater, N. J.							
Kellogg's Pure Old Process Oil Meal..	G.	31.00	5.00	45.00	6.30	8.84	10.00
Spencer Kellogg and Sons	F.	31.14	6.89	46.83	6.30	8.84	10.00
Undercliff, N. J.							
Kellogg's Pure Old Process Oil Meal..	G.	34.00	5.00	45.00	5.05	9.16	10.00
Spencer Kellogg and Sons	F.	34.85	6.79	44.15	5.05	9.16	10.00
Buffalo, N. Y.							
Pure Oil Meal (Old Process)	G.	30.00	4.00	37.00	6.16	8.95	9.00
Kelloggs and Miller	F.	31.96	5.89	47.04	6.16	8.95	9.00
Amsterdam, N. Y.							

Brand and name and address of manufacturer	Pounds in 100 lbs. of Feed Stuff						Certified by manufacturer to contain
	Protein	Fat	Carbo- hydrates	Ash	Moist- ure	Crude Fiber	
New Hampshire Pig Ration	15.00	3.00	49.00	...	...	7.00	Ground fancy oats (optional meal or ho- miny) flour middlings, high grade meat scraps.
Rockingham County Farmers' Exchange Epping, N. H.	16.16	4.76	62.21	6.01	10.86	4.54	
POULTRY FEED							
Amco Poultry Mash	20.00	3.50	...	...	...	10.00	Wheat bran, wheat middlings, corn gluten feed, corn feed meal, ground oats, meat scraps, linseed oil meal, dried skimmed milk.
Amendt Milling Co. Monroe, Mich.	20.40	4.18	59.79	4.59	11.04	6.19	
Protox Pure Ground Meat Scraps	55.00	10.00	...	...	...	.....	Dried buttermilk, meat scraps, fish meal, oat meal, alfalfa meal, linseed meal, corn meal, bone meal, wheat bran, containing mill run ground screenings, yellow hominy feed, 1% carbonate of lime, 1/2% salt.
American Agricultural Chemical Co.... New York, N. Y.	49.80	10.72	.....	29.46	6.72	.....
Armour's Cak-Cak Laying Mash	20.00	3.00	50.00	...	...	9.00	Corn feed meal, hominy feed, corn gluten feed, oat middlings, oat meal, wheat bran, wheat middlings, containing mill run ground screenings, 1/2 of 1% salt.
Armour Grain Co. Chicago, Ill.	21.32	5.26	56.89	6.98	9.55	5.66	
Iroquois Poultry Mash	15.00	4.00	60.00	...	...	6.00	Meat scraps, dried milk albumen, fish meal, blood flour, corn meal, wheat bran, oat meal, bean meal, alfalfa meal, wheat mid- dlings, cocoanut oil meal, cocoanut shell meal, old process linseed meal, rice polish, barley meal, calcium carbonate and salt.
Armour Grain Co. Chicago, Ill.	16.61	5.52	65.09	4.43	8.35	6.00	
Beef Scraps "Star Brand"	35.00	10.00	.....	...	...	.....	Beef Scraps, dried milk albumen, fish meal, blood flour, corn meal, wheat bran, oat meal, bean meal, alfalfa meal, wheat mid- dlings, cocoanut oil meal, cocoanut shell meal, old process linseed meal, rice polish, barley meal, calcium carbonate and salt.
Beach Soap Company	40.59	15.56	.....	33.24	7.04	.....
Lawrence, Mass.							
Blatchford's Egg Mash	19.00	4.00	54.00	...	...	10.00	Meat scraps, dried milk albumen, fish meal, blood flour, corn meal, wheat bran, oat meal, bean meal, alfalfa meal, wheat mid- dlings, cocoanut oil meal, cocoanut shell meal, old process linseed meal, rice polish, barley meal, calcium carbonate and salt.
Blatchford Calf Meal Co. Waukegan, Ill.	19.88	5.64	54.62	10.74	9.12	7.87	

Breck's Ground Beef Scraps Joseph L. Breck & Sons, Boston, Mass.	G. F.	43.00 46.69	12.00 12.66	..... .....	28.13	6.59 .....	..... .....	Bone and meat scraps, animal product.
Burlington Poultry Feed Burlington Rendering Co., Burlington, Vt.	G. F.	50.00 42.61	12.00 9.14	..... .....	35.11	7.56 .....	..... .....	Corn meal, ground oats, wheat middlings, cottonseed meal, gluten feed, linseed meal, rolled oats and fine ground alfalfa, bran, fine ground meat and fish scraps, charcoal and 1/10 of 1% salt.
Green Mountain Mash California Mills, Inc., St. Johnsbury, Vt.	G. F.	19.00 18.73	4.00 4.63	48.00 59.25	7.28	10.11	9.00 9.34	Pure old process linseed meal, dried buttermilk, meat meal, wheat bran, wheat middlings, alfalfa meal, 1/2 of 1% fine table salt.
Peerless Laying Mash Clover Leaf Milling Co., Buffalo, N. Y.	G. F.	18.00 15.72	4.00 5.27	50.00 62.84	5.22	10.95	10.00 6.92	Wheat bran, oats, gluten, corn middlings, linseed, bone and meat meal and fish scraps with buttermilk.
Cowee's Climax Mash E. A. Cowee Co., Fitchburg, Mass.	G. F.	20.00 19.24	3.50 5.02	45.00 52.81	12.83	10.10	10.00 6.77	Meat and bone scraps.
Poultry Food E. A. Cowee Co., Fitchburg, Mass.	G. F.	35.00 36.94	5.00 15.25	..... .....	34.81	5.33 .....	..... .....	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.
Cushing Laying Mash J. Cushing Co., Fitchburg, Mass.	G. F.	20.00 24.04	5.00 6.09	45.00 51.91	8.10	9.86	7.00 6.39	Meat scraps.
Dow's 60% Beef Scraps John C. Dow Co., Boston, Mass.	G. F.	60.00 59.83	10.00 15.54	..... .....	14.84	7.89 .....	..... .....	Meat scraps.
Dow's Ground Beef Scraps John C. Dow Co., Boston, Mass.	G. F.	43.00 47.17	12.00 14.73	..... .....	26.84	6.35 .....	..... .....	Meat scraps.
Gold Coin Buttermilk Laying Mash Eagle Roller Mills Co., New Ulm, Minn.	G. F.	20.00 20.05	5.00 5.28	56.00 56.08	9.08	9.51	8.00 7.14	Corn meal, pulverized oats, pulverized barley, wheat red dog, wheat middlings, wheat bran, corn gluten feed, oil meal, meat meal, bone meal, salt, dried buttermilk.

Brand and name and address of manufacturer	Pounds in 100 lbs. of Feed Stuff						Certified by manufacturer to contain
	Protein	Fat	Carbo- hydrates	Ash	Moist- ure	Crude Fiber	
Eastern's La-in-Egg Mash Eastern Grain Co., Portland, Me.	G.	5.00	45.00	7.97	7.00	7.00	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 linseed meal, 1% alfalfa meal.
	F.	24.24	6.11	51.94	7.97	9.74		7.00
Eastern States Egg Mash Eastern States Farmers' Exchange Springfield, Mass.	G.	3.50	50.00	4.84	11.23	7.00	Wheat flour middlings, corn gluten feed, ground oats, corn meal, standard wheat bran, meat scraps.
	F.	22.42	4.74	56.77	4.84	11.23		7.00
Eshelman's Laying Mash John W. Eshelman and Sons Lancaster, Pa.	G.	5.00	45.00	6.86	9.20	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 linseed meal, 1% alfalfa meal.
	F.	22.24	6.22	55.48	6.86	9.20		6.06
Capital Meat and Bone Scraps Purbush and Co., Inc. Boston, Mass.	G.	10.00	.....	.....	.....	.....	Meat and bone scraps.
	F.	49.26	12.87	28.18	5.66	
Grandin's Poultry Dry Mash D. H. Grandin Milling Co., Jamestown, N. Y.	G.	3.00	50.00	9.25	8.15	10.00	Ground fish, ground meat 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 and buckwheat, powdered buttermilk, alfalfa meal, calcium carbonate and a small % of salt.
	F.	22.58	4.83	55.19	9.25	8.15		8.64
Poultry Food Greene Chick Feed Co., Marblehead, Mass.	G.	5.00	.....	.....	.....	.....	Wheat bran and wheat middlings may contain ground screenings not exceeding mill run.
	F.	39.70	16.56	31.04	6.02	

Red Comb Egg Mash Hales and Hunter Company Chicago, Ill.	G. F.	20.00 19.46	4.50 5.01	45.00 57.34	7.18	11.01	9.00 4.24	Corn feed meal, ground oats, wheat middlings, wheat bran, linseed oil meal, corn gluten feed, meat scraps, alfalfa meal, dried buttermilk, 5% calcium carbonate.
Meat and Bone Scraps W. D. Higgins Co. Framingham, Mass.	G. F.	50.00 42.30	15.00 17.47	..... .....	29.20	7.08.....	..........	..........
Kasco Full Nest Mash Kasco Mills, Inc. Waverly, N. Y.	G. F.	20.00 21.98	4.00 5.13	55.56	7.07	10.26	8.50 8.22	Wheat bran, wheat middlings, wheat red dog flour, corn meal, ground kafir corn, linseed oil meal, corn gluten feed, ground oats, meat and bone scraps, fish meal, dried buttermilk, $\frac{3}{4}$ of 1% salt, beet pulp and alfalfa meal.
Blue Top Egg Mash Chas. A. Krause Milling Co. Milwaukee, Wis.	G. F.	20.00 20.44	5.00 3.94	60.09	5.15	10.38	7.00 6.64	Meat scraps, dried buttermilk, fine alfalfa meal, wheat bran and wheat middlings with mill run screenings, corn flour, badger hominy feed, ground and bolted screenings from wheat and salt.
Peerless Poultry Feed Lowell Rendering Co. Lowell, Mass.	G. F.	40.00 42.93	8.00 11.86	..... .....	31.75	7.69 .....	..... .....	Cooked meat and bone scraps. Animal product.
Perfection Poultry Feed Lowell Rendering Co. Lowell, Mass.	G. F.	65.00 55.63	12.00 11.04	..... .....	21.13	8.39 .....	..... .....	Cooked meat and bone scraps. Animal product.
Poultry Mash McQueen and Lewis Manchester, N. H.	G. F.	11.00 20.61	2.50 4.69	60.00 56.39	9.27	9.64	7.00 6.24	Wheat and wheat by-products, corn by-products, gluten feed, alfalfa meal, barley meal, oat meal and a small amount of salt.
Manchester Poultry Feed Manchester Rendering Co. Manchester, N. H.	G. F.	40.00 38.85	8.00 12.11	..... .....	38.06	7.23 .....	..... .....	Cooked meat and bone scraps. Products.
Marsh's Pure Ground Scraps George E. Marsh Co. Lynn, Mass.	G. F.	40.00 42.28	8.00 12.05	..... .....	31.62	6.86 .....	..... .....	Cooked meat and bone scraps.
Merrimack Egg Mash Merrimack Farmers' Exchange Concord, N. H.	G. F.	21.00 22.33	5.00 5.57	50.00 56.73	7.14	8.23	5.00 5.00	Corn meal, rolled oats, wheat bran, white wheat middlings, corn gluten feed and high grade meat scraps.

Brand and name and address of manufacturer	Pounds in 100 lbs. of Feed Stuff						Certified by manufacturer to contain
	Protein	Fat	Carbo- hydrates	Ash	Moist- ure	Crude Fiber	
White Seal Meat Scraps New England By-Products Corp. Lawrence, Mass.	G. F. 43.00 41.42	5.00 8.54	..... .....	39.91	5.57	..... .....
Growing Feed Park and Pollard Co. Boston, Mass.	G. F. 10.00 15.39	1.50 4.06	50.00 64.23	6.44	9.88	8.00 6.54	Ground corn, wheat, oats, barley, wheat meal and bone meal, wheat bran, with mill run screenings, wheat middlings, calcium carbonate salt and dried buttermilk.
Lay or Bust Dry Mash Park and Pollard Co. Boston, Mass.	G. F. 18.00 19.98	1.50 4.99	40.00 56.80	9.81	8.42	12.00 7.45	Ground corn, wheat, oats, barley, kafir corn, buckwheat, alfalfa, fish meal, bone, wheat bran, mill run of screenings, wheat middlings, calcium carbonate, salt and dried buttermilk.
Fish Meal, Chesapeake Bay Brand Potomac Poultry Food Co. Baltimore, Md.	G. F. 57.00 54.88	8.00 7.69	..... .....	18.00 21.86	8.28	..... .....
Fulo-Pep Dry Mash Quaker Oats Co. Chicago, Ill.	G. F. 20.00 21.15	4.00 5.31	45.00 57.03	8.98	7.53	10.00 8.02	Hominy feed, yellow hominy feed, corn gluten feed, oat meal, cottonseed meal, wheat bran and wheat middlings with ground screenings not exceeding mill run. Bone meal, fish meal, meat scraps, alfalfa meal, ground grain screenings from wheat.
Purina Baby Chick Chow Feed Ralston-Purina Co. St. Louis, Mo.	G. F. 10.00 11.04	2.00 2.77	67.00 72.78	1.45	11.96	4.00 6.09	Wheat, corn, kafir, milo and millet.
Purina Chick Startona Feed Ralston Purina Co. St. Louis, Mo.	G. F. 17.00 19.22	4.00 5.48	52.00 59.50	5.00 6.29	9.51	7.50 6.89	Corn meal, wheat bran, dried buttermilk, oat meal, alfalfa flour, linseed flour, wheat middlings, granulated meat, $\frac{1}{3}$ of 1% charcoal and $\frac{1}{2}$ of 1% salt.

Purina Chicken Chowder Feed	G. F.	19.00 20.05	4.00 4.92	55.00 58.96	7.10 8.97	9.00 9.00	Wheat middlings, wheat bran, gluten feed from corn, corn meal, alfalfa flour, linseed flour, granulated meat, charcoal, 1% salt.
St. Louis, Mo.							
Rauh's Meato	G. F.	75.00 73.21	10.00 11.02	.....	10.00 9.68	.....	Meat products.
E. Rauh and Sons Animal Feed Co. Indianapolis, Ind.							
Reardon's Rear-Em-Right' Beef Scraps John Reardon and Sons, Co. Cambridge, Mass.	G. F.	60.00 52.84	9.75	.....	27.96	.....
Reardon's Rear-Em-Right Brand Beef Scraps	G. F.	50.00 45.62	9.57	.....	36.45	.....
John Reardon and Sons, Co. Cambridge, Mass.							
New Hampshire Poultry Ration Dry Mash	G. F.	20.00 21.19	5.00 5.98	41.00 55.11	9.25	6.00 5.01	Gluten feed, red dog, middlings, oat meal, bran, lumpy, high grade meat scraps.
Rockingham County Farmers' Exchange Epping, N. H.							
Vitality Egg Mash	G. F.	20.00 20.82	4.00 4.76	48.00 56.26	8.48	7.00 6.90	Buttermilk, oat meal, meat scraps, bone meal, corn feed meal, wheat middlings, alfalfa meal, corn germ meal.
Rosenbaum Brothers,							
Chicago, Ill.							
Wirthmore Buttermilk Mash with Fish and Meat Scraps	G. F.	20.00 22.77	4.00 5.58	50.00 54.07	9.12	8.50 6.12	Pure dried buttermilk, ground oats, barley, corn, wheat bran, wheat middlings, not exceeding mill run screenings, corn gluten feed, beet pulp, ground rolled oats, choice fine ground beef scraps, fish meal, linseed meal, buckwheat, about 3/4 of 1% salt.
St. Albans Grain Co. St. Albans, Vt.							
Wirthmore Growing Feed	G. F.	15.00 19.37	4.50 5.51	50.00 56.12	8.61	4.50 4.50	Pure dried buttermilk, edible bone meal, ground wheat, corn, oats, barley, peas, milo, maize, wheat bran, wheat middlings, not exceeding mill run of screenings, red dog flour and choice fine ground beef scraps.
St. Albans Grain Co. St. Albans, Vt.							
Ti-O-Ga Growing Mash	G. F.	12.00 13.58	2.00 3.87	65.58	5.03	6.00 4.94	Wheat middlings, corn feed meal, wheat bran, powdered buttermilk, kafir corn meal, corn gluten feed, 2 1/2% phosphate of lime.
Tioga Mill and Elevator Co. Waverly, N. Y.							

Brand and name and address of manufacturer	Pounds in 100 lbs. of Feed Stuff						Certified by manufacturer to contain
	Protein	Fat	Carbo- hydrates	Ash	Moist- ure	Crude Fiber	
Ti-O Ga Laying Food	17.00	2.50	.....	...	....	6.00	Wheat middlings, corn gluten meal, meat and bone scraps, 2½% phosphate of lime, fish meal and wheat bran.
Tioga Mill and Elevator Co. Waverly, N. Y.	19.86	4.74	56.76	6.96	11.68	5.21	
Ubiiko Egg Mash	20.00	4.00	53.00	8.00	....	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.
Ubiiko Milling Co. Cincinnati, Ohio	22.40	4.70	53.05	9.61	10.24	5.82	
Blue Seal Dry Mash	16.00	3.00	55.00	....	....	10.00	Wheat feed, corn meal, gluten feed, rolled oats, ground oats, beef scraps, fish scraps, oil meal and calf meal.
H. K. Webster Co. Lawrence, Mass.	19.98	5.81	56.39	8.88	8.94	8.17	
Singlex Brand Meat Scraps	45.00	12.00	.....	....	....	.....	Not to exceed 5% screenings.
Whitman and Pratt Rendering Co. ... Boston, Mass.	42.64	14.68	.....	30.35	6.80	.....
WHEAT FEED							
Wheat Bran and Wheat Screenings...	14.50	3.50	50.00	....	....	11.00	Pure wheat feed.
Abilene Flour Mills Co. Abilene, Kansas	16.11	4.14	63.61	6.88	9.26	.....
Trojan Bran	15.00	4.00	52.00	....	....	9.50	Wheat feed, with ground screenings not exceeding mill run.
Allen and Wheeler Co. Troy, Ohio	15.46	4.00	63.94	6.77	9.83	.....
Trojan Mixed Feed	15.50	4.00	52.00	....	....	8.00	Wheat feed, with ground screenings not exceeding mill run.
Allen and Wheeler Co. Troy, Ohio	15.55	4.12	64.41	5.79	10.13	.....
Anco Pure Wheat Bran	15.00	3.00	53.34	....	....	12.55	Wheat feed, with ground screenings not exceeding mill run.
Amendt Milling Co. Monroe, Mich.	16.55	4.09	62.93	6.31	10.12	.....

Bran Ansted and Burk Co. Springfield, Ohio	G. F.	15.50 15.94	4.00 4.01	55.25 64.07	7.11 8.87	9.50	Wheat bran with ground screenings not exceeding mill run.
Middlings Ansted and Burk Co. Springfield, Ohio	G. F.	16.25 15.89	4.00 4.09	61.50 65.96	4.06 10.00	5.75	Wheat middlings with ground screenings not exceeding mill run.
Mixed Feed Ansted and Burk Co. Springfield, Ohio	G. F.	16.50 16.18	4.00 4.24	60.50 64.96	5.29 9.33	11.50	Wheat mixed feed with ground screenings not exceeding mill run.
Red Dog Ansted and Burk Co. Springfield, Ohio	G. F.	15.00 15.85	3.20 3.89	64.50 67.53	2.20 10.53	3.50	
Astoria Standard Superior Bran Astoria Flouring Mills Co. Astoria, Oregon	G. F.	12.00 14.45	3.00 4.68	55.05 65.05	5.31 10.51	12.00	
Atkinson's Watchword Red Dog Flour Atkinson Milling Co. Minneapolis, Minn.	G. F.	17.00 15.47	4.00 3.55	60.00 66.89	2.29 11.80	4.00	
E.A.Co. Standard Middlings Everett, Aughenbaugh and Co. Waseco, Minn.	G. F.	15.00 15.15	3.00 5.34	50.00 65.49	4.79 9.23	9.50	With ground screenings not exceeding mill run.
Bailey Fancy Feed E. W. Bailey and Co. Montpelier, Vt.	G. F.	15.00 16.86	3.75 4.59	49.00 62.45	5.68 10.42	10.00	
Capitol Mixed Feed E. W. Bailey and Co. Swanton, Vt.	G. F.	14.00 15.64	3.00 4.65	60.00 65.77	4.15 9.79	7.00	Wheat bran and second-clear flour.
Mixed Feed E. W. Bailey and Co. Swanton, Vt.	G. F.	17.01	4.43	62.85	5.48	10.23	.....
Brooks' Fancy Mixed Feed Caledonia Mills Inc. St. Johnsbury, Vt.	G. F.	16.00 16.38	5.00 5.93	61.26	4.45	11.98	9.00

Brand and name and address of manufacturer	Pounds in 100 lbs. of Feed Stuff							Certified by manufacturer to contain
	Protein	Fat	Carbo- hydrates	Ash	Moist- ure	Crude Fiber		
Commander Flour Middlings Commander Mill Co., Minneapolis, Minn.	G. F. 16.50 16.74	5.00 5.14	53.00 62.96	3.84 4.09	11.07	8.00	With ground screenings not exceeding mill run.	
Fine Middlings Crookston Milling Co., Crookston, Minn.	G. F. 15.00 16.03	5.00 5.67	62.59	3.84	11.87	9.00	Ground screening not exceeding mill run.	
Mixed Feed J. Cushing Co., Fitchburg, Mass.	G. F. 14.50 14.50	4.00 4.72	45.00 66.34	4.51	9.93	6.00	Screenings not exceeding mill run.	
Bran Dominion Flour Mills Montreal, Canada	G. F. 15.00 15.92	3.50 6.12	63.01	6.07	8.88	11.50		
Middlings Dominion Flour Mills Montreal, Canada	G. F. 15.00 17.30	4.00 5.71	63.44	3.98	9.57	8.00	Mill run of screenings.	
Shorts Dominion Flour Mills Montreal, Canada	G. F. 16.00 17.10	5.00 6.13	62.59	4.89	9.29	8.00	Mill run of screenings.	
Bran Duluth-Universal Milling Co., Duluth, Minn.	G. F. 13.80 15.41	4.10 5.08	62.94	5.71	10.86	12.70	Ground screening not exceeding mill run.	
Durum Bran Duluth Superior Milling Co., Duluth, Minn.	G. F. 14.00 16.29	5.00 5.16	60.00 63.70	4.86	9.99	11.25	Ground screenings not exceeding mill run.	
Middlings Eagle Roller Mill Co., New Ulm, Minn.	G. F. 15.00 16.46	4.00 5.79	53.00 62.09	4.98	10.68	9.50	Ground screenings not exceeding mill run.	

Brand and name and address of manufacturer	Pounds in 100 lbs. of Feed Stuff						Certified by manufacturer to contain
	Protein	Fat	Carbo- hydrates	Ash	Moist- ure	Crude Fiber	
Pure Bran	G. 12.00	3.50	55.00	5.92	10.29	14.00	Choice winter wheat guaranteed to contain no ground screenings or dirt from receiving separators.
Heywood Milling Co. Jackson, Mich.	F. 15.72	3.97	64.10	.....	.....	.....
Pure Middlings	G. 15.70	4.25	55.00	3.94	10.30	8.00	Choice selected wheat guaranteed to contain no ground screenings or dirt from receiving separators.
Heywood Milling Co. Jackson, Mich.	F. 17.91	4.77	63.08	.....	.....	.....
Granite State Mixed Feed	G. 15.00	4.00	55.00	4.91	9.93	8.50	Wheat bran and wheat red dog flour with ground screenings not exceeding mill run.
E. C. and W. L. Hopkins	F. 15.68	5.06	64.42	.....	.....	.....
Jenk's Mixed Feed	G. 12.50	3.50	60.00	5.11	10.56	11.50	Ground screenings not exceeding mill run.
Huron Milling Co. Harbor Beach, Mich.	F. 14.45	4.38	65.50	.....	.....	.....
Black Hawk Standard Middlings	G. 16.50	4.50	52.00	5.27	10.32	8.50	Ground screenings not exceeding mill run.
International Milling Co. Minneapolis, Minn.	F. 17.12	4.74	62.55	.....	.....	.....
Clover Leaf Pure Bran	G. 14.50	3.50	64.59	5.29	9.60	12.00	Pure wheat bran.
King Midas Milling Co. Minneapolis, Minn.	F. 15.41	5.11	.....	.....	.....	.....
King Midas Feed	G. 15.50	4.50	64.24	4.58	10.91	10.00	Pure wheat bran, standard middlings, low grade wheat flour, and pulverized wheat screening not exceeding mill run.
King Midas Milling Co. Minneapolis, Minn.	F. 15.59	4.68	.....	.....	.....	.....
Snowball Flour Middlings	G. 16.00	4.00	55.00	4.04	10.93	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.	F. 16.38	5.36	63.29	.....	.....	.....
Lakewoods Bran	G. 15.00	3.50	62.76	6.21	10.39	11.50	Wheat standard middlings and ground cleaned wheat screenings not exceeding mill run and red dog wheat flour.
Lake of the Woods Milling Co., Ltd. Montreal, Canada	F. 14.94	5.70	.....	.....	.....	.....

Lakewoods Shorts Lake of the Woods Milling Co., Ltd. Montreal, Canada	G. F.	16.00 16.46	3.00 4.63	64.14	4.25	10.52	8.00	
Wheat Bran and Wheat Screenings Larabee Flour Mills Corp. Kansas City, Mo.	G. F.	15.00 16.07	3.50 4.77	50.00 63.41	6.92	8.83	10.00	Not to exceed mill run or 8%.
Waseo Bran Lyon and Greenleaf Wauscon, O.	G. F.	14.50 15.41	4.00 4.00	65.01	6.52	9.06	9.50	Soft winter wheat with ground screenings not exceeding mill run.
Waseo Middlings Lyon and Greenleaf Wauscon, O.	G. F.	16.00 17.21	4.00 4.54	64.45	3.87	9.93	6.00	Ground screenings not exceeding mill run.
Bran Maple Leaf Milling Co. Toronto, Canada	G. F.	15.00 15.33	4.00 5.89	49.00 62.18	6.27	10.33	11.50	
Rex Wheat Shorts Maple Leaf Milling Co. Toronto, Canada	G. F.	16.00 16.60	5.00 5.43	52.00 63.32	4.33	10.32	9.50	Screenings not exceeding mill run.
Bessie Anna Bran Midland Flour Milling Co. Kansas City	G. F.	16.50 16.50	4.00 4.42	49.00 62.70	6.96	9.42	10.00	Wheat bran with ground screenings not exceeding 8%.
Montco Middlings Montana Flour Mills Co. Great Falls, Mont.	G. F.	15.00 17.60	4.00 4.98	61.71	4.72	10.99	10.00	
Middlings Geo. O. Moon and Co., Inc. Binghampton, N. Y.	G. F.	15.00 16.86	5.00 4.70	66.01	3.04	9.39	7.50	Wheat middlings, fresh ground.
Dig B Bran Moseley and Motley Milling Co. Rochester, New York	G. F.	13.50 14.67	3.00 5.61	51.00 63.41	6.32	9.99	13.00	
Bran National Milling Co. Toledo, Ohio	G. F.	14.00 15.99	3.00 3.75	49.00 64.60	6.63	9.03	10.00	Ground screenings not exceeding mill run.

Brand and name and address of manufacturer	Pounds in 100 lbs. of Feed Stuff						Certified by manufacturer to contain
	Protein	Fat	Carbo- hydrates	Ash	Moist- ure	Crude Fiber	
Middlings National Milling Co. Toledo, Ohio	G. 17.00	3.50	49.00	4.72	8.65	9.00	Ground screenings not exceeding mill run.
	F. 17.65	4.96	64.02	4.33	9.99	10.00	
Osota Feed National Milling Co. Toledo, Ohio	G. 15.00	4.50	49.00	4.09	10.52	8.50	Wheat bran and wheat middlings with ground screenings not exceeding mill run.
	F. 17.69	5.76	62.23	4.35	8.47	9.50	
Pennant Feed National Milling Co. Toledo, Ohio	G. 15.00	3.75	49.00	4.97	10.53	9.00	Wheat bran, wheat middlings and wheat flour with ground screenings not exceeding mill run and salt.
	F. 17.60	5.54	62.25	4.35	8.47	9.50	
Niagara Choice Middlings Niagara Falls Milling Co. Niagara Falls, N. Y.	G. 15.50	4.00	63.98	4.35	8.47	9.50	Trace of screenings.
	F. 17.25	5.95	63.98	4.35	8.47	9.50	
Niagara Choice Mixed Feed Niagara Falls Milling Co. Niagara Falls, N. Y.	G. 15.50	2.50	63.76	4.97	10.53	9.00	No ground screenings.
	F. 15.76	4.98	63.76	4.97	10.53	9.00	
XXX Comet Northwestern Consolidated Milling Co.. Minneapolis, Minn.	G. 16.00	4.00	60.00	3.06	10.93	4.00	Pure wheat product composed of red dog wheat flour.
	F. 19.85	5.14	61.02	3.06	10.93	4.00	
Planet Feed Northwestern Consolidated Milling Co.. Minneapolis, Minn.	G. 15.00	4.00	55.00	4.55	11.20	8.00	Mixture of wheat bran and red dog wheat flour. No screening. No scourings.
	F. 16.99	5.07	62.19	4.55	11.20	8.00	
Pure Bran Northwestern Consolidated Milling Co.. Minneapolis, Minn.	G. 13.00	4.00	50.00	6.52	11.11	13.00	No screenings. No scourings.
	F. 15.68	5.44	61.25	6.52	11.11	13.00	
Standard Middlings Northwestern Consolidated Milling Co.. Minneapolis, Minn.	G. 14.00	4.00	53.00	5.01	10.62	9.50	Ground screenings not exceeding mill run.
	F. 16.46	4.91	63.00	5.01	10.62	9.50	

Wheat Bran Ogilvie Flour Mills Co., Ltd. Montreal, Canada	G. F.	14.00 15.24	3.00 5.78	57.00 62.75	6.13 10.10	10.00	Ground screenings not exceeding mill run.
Wheat Middlings Ogilvie Flour Mills Co., Ltd. Montreal, Canada	G. F.	15.00 17.04	4.00 4.67	57.00 64.05	4.35 9.89	8.00	Red dog flour, wheat bran with mill run of screenings.
Pretty Special Mixed Feed Park and Pollard Co. Boston, Mass.	G. F.	16.00 16.51	4.00 4.84	50.00 64.20	3.26 11.19	9.00	Screenings not exceeding mill run.
Wheat Flour Middlings Park and Pollard Co. Boston, Mass.	G. F.	16.00 16.59	5.00 4.57	63.80	2.80 12.24	6.00	Hard wheat bran and ground cleaned wheat screenings not exceeding mill run.
Pillsbury's Bran Pillsbury Flour Mills Co. Minneapolis, Minn.	G. F.	14.00 15.20	4.00 4.94	51.00 63.83	5.99 10.04	12.00	Low grade wheat flour.
Pillsbury's XX Daisy Pillsbury Flour Mills Co. Minneapolis, Minn.	G. F.	16.00 16.42	4.00 4.56	58.00 64.10	2.19 12.73	4.00	Low grade wheat flour, hard wheat bran with ground cleaned wheat screenings not exceeding mill run.
Pillsbury's Fancy Mixed Feed Pillsbury Flour Mills Co. Minneapolis, Minn.	G. F.	15.00 16.95	4.00 5.11	55.00 64.19	4.27 9.48	8.50	Low grade wheat flour, hard wheat standard B middlings. Reground cleaned wheat screenings not exceeding mill run.
Pillsbury's A Middlings Pillsbury Flour Mills Co. Minneapolis, Minn.	G. F.	16.00 16.64	4.00 4.42	56.00 63.57	4.87 10.50	6.00	Hard wheat standard middlings and ground cleaned wheat screenings not exceeding mill run.
P. Bran Geo. P. Plant Milling Co. St. Louis, Mo.	G. F.	15.00 15.90	3.00 3.47	55.00 63.32	7.04 10.27	11.00	Wheat bran with wheat screenings not exceeding mill run.
Champion Mixed Feed Portland Milling Co. Portland, Mich.	G. F.	13.56 16.64	3.58 4.96	56.60 64.05	5.21 9.14	8.47	Ground screenings not exceeding mill run.

Brand and name and address of manufacturer	Pounds in 100 lbs. of Feed Stuff						Certified by manufacturer to contain
	Protein	Fat	Carbo- hydrates	Ash	Moist- ure	Crude Fiber	
Champion White Middlings	G. 15.10	3.00	64.50	2.90	10.85	2.90	Certified by manufacturer to contain
Portland Milling Co. Portland, Mich.	F. 15.11	3.29	68.73	2.02	10.85	.....
Bran	G. 13.00	3.00	50.00	10.50	10.69	10.50	Winter wheat.
Quaker City Flour Mills Co. Philadelphia, Pa.	F. 15.33	4.25	64.03	5.70	10.69	.....
Bell Cow Bran	G. 15.00	3.50	57.00	10.00	9.17	10.00	Wheat bran with ground screenings not ex- ceeding mill run.
Quaker Oats Company	F. 15.50	5.69	63.99	5.65	9.17	.....
Bell Cow Shorts	G. 16.00	4.00	.....	8.00	9.30	8.00	Made from shorts with ground screenings not exceeding mill run.
Quaker Oats Company	F. 18.13	6.19	62.50	3.88	9.30	.....
Buckeye Feed	G. 15.50	4.50	53.00	11.00	10.89	11.00	Wheat mixed feed with ground screenings not exceeding mill run.
Quaker Oats Co. Chicago, Ill.	F. 16.90	4.80	61.48	5.93	10.89	.....
Red Wing Special Bran	G. 13.50	4.10	62.30	15.60	10.43	15.60	Ground screenings not exceeding mill run.
Red Wing Milling Co. Red Wing, Minn.	F. 15.15	5.53	62.77	6.12	10.43	.....
Red Wing Special Standard Middlings. Red Wing Milling Co. Red Wing, Minn.	G. 15.00	5.10	60.00	9.50	10.81	9.50	Pure wheat.
Red Wing Special Standard Middlings. Red Wing Milling Co. Red Wing, Minn.	F. 16.11	6.14	62.22	4.72	10.81	.....
Black Hawk Pure Bran	G. 15.00	5.10	60.00	9.50	10.81	9.50	Pure wheat.
Robin Hood Mills, Ltd. Moose Jaw, Canada	F. 16.25	5.27	63.23	5.77	9.48	11.50	

Brand and name and address of manufacturer	Pounds in 100 lbs. of Feed Stuff							Certified by manufacturer to contain
	Protein	Fat	Carbo- hydrates	Ash	Moist- ure	Crude Fiber		
Dakota Maid Pure Bran	G. 14.00	5.00	50.00	6.43	10.72	13.20	Wheat bran.	
State Mill and Elevator	F. 14.94	5.74	62.17	6.43	10.72	13.20		
Grand Forks, N. D.								
Dakota Maid Durum Standard Mid- dlings	G. 15.00	4.00	52.00	2.83	11.07	11.00	Ground screenings not exceeding mill run.	
State Mill and Elevator	F. 16.90	4.30	64.90	2.83	11.07	11.00		
Grand Forks, N. D.								
Dakota Maid Standard Middlings	G. 16.10	5.70	52.00	3.95	10.40	8.10	Hard wheat standard middlings with mill run cleaned ground wheat screenings.	
State Mill and Elevator	F. 17.21	5.94	62.50	3.95	10.40	8.10		
Grand Forks, N. D.								
Bran	G. 14.00	3.00	45.00	5.87	10.38	10.00	Made from pure wheat with mill run screenings.	
F. W. Stock and Sons	F. 16.20	4.35	63.20	5.87	10.38	10.00		
Hillsdale, Mich.								
Flour Middlings	G. 17.00	4.00	50.00	3.47	10.97	7.00	Made from soft Michigan wheat.	
F. W. Stock and Sons	F. 17.91	4.96	62.69	3.47	10.97	7.00		
Hillsdale, Mich.								
Middlings	G. 16.00	4.00	50.00	3.47	10.24	7.00	Pure soft Michigan wheat.	
F. W. Stock and Sons	F. 17.91	4.86	63.52	3.47	10.24	7.00		
Hillsdale, Mich.								
Monarch Fancy Feed	G. 16.00	4.00	50.00	4.66	10.67	10.00	Mill run screenings.	
F. W. Stock and Sons	F. 17.58	4.27	62.82	4.66	10.67	10.00		
Hillsdale, Mich.								
Superior Wheat Feed and Flour	G. 16.00	4.50	50.00	3.93	9.64	7.00	Mill run screenings.	
F. W. Stock and Sons	F. 17.43	4.50	64.50	3.93	9.64	7.00		
Hillsdale, Mich.								
Bran	G. 14.50	4.00	52.00	6.07	9.49	12.50	Wheat bran with ground clean wheat screen- ings.	
David Stott Flour Mills, Inc.	F. 16.07	4.52	63.85	6.07	9.49	12.50		
Detroit, Mich.								

Pennant Middlings David Stott Flour Mills, Inc. Detroit, Mich.	G. F.	15.00 17.34	4.00 4.62	57.00 63.78	4.64 9.62	9.00	Brown wheat middlings with screenings not exceeding mill run.
Stott's Fine White Middlings David Stott Flour Mills, Inc. Detroit, Mich.	G. F.	15.50 17.82	4.00 4.42	60.00 63.43	3.47 10.86	6.50	
Fancy Bran Stratton and Co. Concord, N. H.	G. F.	15.00 16.20	4.00 4.44	64.00 64.20	5.54 9.62	11.00	Mill run of screenings ground in.
Middlings Stratton and Co. Concord, N. H.	G. F.	16.20 16.51	4.26 4.77	66.00 65.24	2.85 10.63	6.60	Screenings not exceeding mill run.
Mixed Feed Stratton and Co. Concord, N. H.	G. F.	15.29 16.03	4.30 4.38	63.00 64.77	5.03 9.79	7.93	Screenings not exceeding mill run.
Angelus Bran Thompson Milling Co. Lockport, N. Y.	G. F.	15.50 15.50	4.00 4.67	63.00 63.47	7.22 9.14	11.50	Hard wheat bran and ground screenings not exceeding mill run.
Angelus Mixed Feed Thompson Milling Co. Lockport, N. Y.	G. F.	15.50 16.03	4.50 5.18	64.00 62.70	5.33 10.76	11.00	Hard wheat bran, hard wheat middlings, and ground screenings not exceeding mill run.
T. and C. Bran Thornton and Chester Milling Co. Buffalo, N. Y.	G. F.	14.00 14.71	4.00 5.58	50.00 62.42	5.84 11.45	11.00	Ground screenings not exceeding mill run.
T. and C. Mixed Feed Thornton and Chester Milling Co. Buffalo, N. Y.	G. F.	16.00 16.16	5.00 5.48	50.00 62.29	5.09 10.98	9.00	Wheat bran and middlings with screenings not exceeding mill run.
Bran Elzebert Turgeon Montreal, Canada	G. F.	15.00 15.46	3.50 4.86	62.99 62.99	6.24 10.45	11.50	
Shorts Elzebert Turgeon Montreal, Canada	G. F.	16.00 16.95	5.00 6.02	61.37 61.37	4.23 11.43	8.00	

Brand and name and address of manufacturer	Pounds in 100 lbs. of Feed Stuff						Certified by manufacturer to contain
	Protein	Fat	Carbo- hydrates	Ash	Moist- ure	Crude Fiber	
Rowena Cow Feed	G. 13.50	3.75	55.00	5.24	9.02	8.75	Ground screenings not exceeding mill run.
Valley City Milling Co. Grand Rapids, Mich.	F. 16.62	4.14	64.98	5.24	9.02	.....
Eagle Brand Wheat Bran	G. 15.00	4.00	50.00	5.76	9.97	11.00	Ground screenings not exceeding mill run.
Vannater and Ham, Ltd. Toronto, Canada	F. 15.85	5.76	62.66	5.76	9.97	.....
Victor Bran	G. 16.00	4.00	53.30	5.68	10.29	11.00	Ground screenings not exceeding mill run.
Victor Flour Mills, Inc. Victor, N. Y.	F. 14.37	5.29	64.37	5.68	10.29	.....
Victor Flour Middlings	G. 14.00	3.90	53.30	3.10	10.46	5.00	Ground screenings not exceeding mill run.
Victor Flour Mills, Inc. Victor, N. Y.	F. 15.94	4.94	65.56	3.10	10.46	.....
Victor Mixed Feed	G. 15.00	4.50	53.30	4.57	10.28	10.00	Wheat bran, wheat middlings, low grade flour with ground screenings not exceeding mill run.
Victor Flour Mills, Inc. Victor, N. Y.	F. 15.02	5.28	64.85	4.57	10.28	.....
Voigt's Bran	G. 14.50	4.00	52.20	6.05	12.32	10.00	Ground screenings not exceeding mill run.
Voigt Milling Co. Grand Rapids, Mich.	F. 17.43	4.28	59.92	6.05	12.32	.....
Voigt's Middlings	G. 14.50	4.00	52.20	3.45	10.63	10.00	Ground screenings not exceeding mill run.
Voigt Milling Co. Grand Rapids, Mich.	F. 17.51	5.08	63.33	3.45	10.63	.....
Gold Medal Adrian Red Dog	G. 16.00	4.00	60.00	2.86	11.31	4.00	Pure hard wheat only.
Washburn-Crosby Co. Minneapolis, Minn.	F. 16.99	4.24	64.60	2.86	11.31	.....
Gold Medal Mixed Feed	G. 16.00	4.00	58.00	4.44	10.08	7.50	Hard wheat bran, flour middlings and mill run cleaned ground wheat screenings.
Washburn-Crosby Co. Minneapolis, Minn.	F. 15.77	3.79	65.92	4.44	10.08	.....

Gold Medal Standard Middlings Washburn-Crosby Co., Minneapolis, Minn.	G.	15.00	4.00	53.00	4.47	11.92	9.50	Hard wheat standard middlings and mill run cleaned ground wheat screenings.
	F.	16.79	5.69	61.13				
Gold Medal Wheat Bran Washburn-Crosby Co., Minneapolis, Minn.	G.	14.00	4.00	51.00	5.70	10.22	12.00	Mill run ground screenings.
	F.	14.95	5.64	63.49				
Pioneer Pure Bran Western Canada Flour Mills Co., Winnipeg, Canada	G.	15.00	3.50	62.72	6.23	10.46	11.50	
	F.	14.83	5.76					
Bran Wolverton Milling Co., Wolverton, Ont.	G.	16.29	6.11	60.98	5.96	10.66		
	F.							
Shorts Wolverton Milling Co., Wolverton, Ont.	G.	16.11	5.61	62.89	4.07	11.32		
	F.							

