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Curry, B. E.

Smith, T. O.

New Hampshire Agricultural Experiment Station

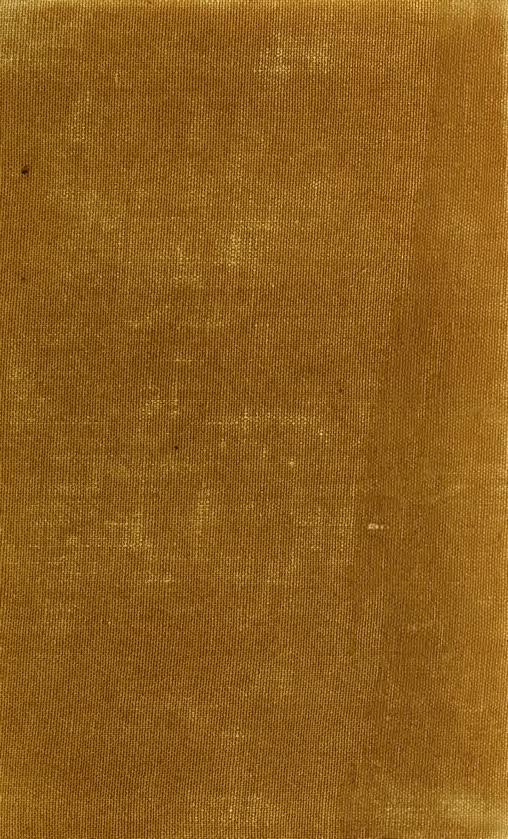
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NEW HAMPSHIRE AGRICULTURAL EXPERIMENT STATION

DEPARTMENT OF CHEMISTRY

Analysis of Feeding Stuffs

MADE FOR THE

STATE DEPARTMENT OF AGRICULTURE



BY B. E. CURRY AND T. O. SMITH

New Hampshire College

OF

AGRICULTURE AND THE MECHANIC ARTS

DURHAM, N. H.



Feeding Stuffs Inspection for 1918.

The samples of the various brands of feeding-stuffs for the 1918 inspection were collected by representatives of Mr. Andrew L. Felker, Commissioner of Agriculture. Two hundred and eighty-eight samples were received and analyzed at the Experiment Station. The analytical data in this report have been prepared with the assistance of E. N. Sanders, P. B. Place, J. Bloomfield, C. L. Lane and W. L. Owen.

A list of the ingredients of the compounded feed-stuffs, as certified by the manufacturers, will be found on pages 16 to 20, and some suggestions concerning the other classes of feeds on pages 4 to 6.

Copies of this report will be sent free upon request to the Commissioner of Agriculture, Concord, N. H., or to the Director of the New Hampshire Experiment Station, Durham, N. H.

COTTONSEED MEALS.

There has been a decided drop in the quality of cottonseed meals. Lots containing 41% protein have entirely disappeared from the market. The 38% grades have almost disappeared. Much of the meal which comes into New Hampshire is "off" color and flavor. Nearly all lots contain large quantities of ground hulls.

COTTONSEED FEEDS.

These products are coming upon the market in various forms. Many carry about 20% protein and consist of a mixture of low-grade cottonseed meal and ground cottonseed hulls. One-fourth to one-third of the total weight may be cottonseed hulls. Cottonseed feed corresponding to the above description should not cost more than one-half as much as a good grade of cottonseed meal. The cottonseed meal in these products usually is "off" color and flavor.

WHEAT BY-PRODUCTS.

The wheat feeds are being milled more closely than heretofore and nearly all of the starchy portion of the wheat berry is removed. This is in keeping with the government milling requirements.

CORN PRODUCTS.

The corn products are of good quality.

OAT PRODUCTS.

The feed-stuffs which contain oat products should be scrutinized with much care. Some of these are very good in quality. Others are poor and carry large quantities of oat hulls. Oat hulls are now sold at wholesale at about \$20 per ton. When they are mixed with other products and sold as a compounded feed, the consumer pays \$40 to \$50 per ton for them.

The extended use of oat products for human consumption has created a tremendous output of oat by-products, especially oat hulls. These are being ground and sold both as such and in mixtures. They move more readily when mixed with more valuable products and consequently they are being found in

larger quantities in the compounded feeds.

At present there is not a very wide difference between the selling price of some stock feeds which contain large amounts of oat hulls and some thoroughly good products.

DISTILLERS' GRAINS.

Distillers' grains are of good quality but scarce.

FLAXSEED MEAL.

The flaxseed meals have been uniformly good.

GLUTEN FEED.

Gluten feeds and meals have maintained their quality.

PEANUT FEEDS.

Peanut feeds are coming into the state; some of these are of excellent quality, some are not.

BARLEY FEEDS.

Barley feeds are coming into our markets. These vary widely in composition. Some lots are ground hulls and screenings; other lots are much better. The feeds which contain barley products should be examined before they are purchased. They may or may not be desirable when the price and quality are considered.

HIGH-GRADE COMPOUNDED FEEDS.

The producers of the high-grade and high-protein dairy feeds are maintaining the quality of their products.

MOLASSES FEEDS.

The price and composition should largely determine whether they should be used.

POULTRY FEEDS.

Poultry feeds are very high priced. Usually they sell for about the price of the most expensive ingredient they contain even when that is present in very small quantities. The poultryman should examine what he buys and the price of the constituents of which it is composed.

THE GUARANTEE.

All feed-stuffs sold in New Hampshire should be guaranteed, both in respect to their chemical composition and the ingredients of which they are composed.

CRUDE FIBER.

The higher grades of compounded products contain relatively small amounts of crude fiber. The statement covering the ingredients of any mixture will show from what principal sources the fiber comes. The crude fiber appears in the guaranteed amount of carbohydrates. When the amount of crude fiber is deducted from the amount of earbohydrates, more accurate information is had about the amount of good carbohydrates the product contains. The crude fiber has little value because it has a very low digestibility.

The consumers of this state have access to information before buying. It is of little value to the consumer to know that he has bought badly after the article has been bought and paid for. He should be especially discriminating while prices are high. Freight rates are the same for both poor and good products. Also commissions and selling charges are as much, if not more, on the poor products, because they are more difficult to sell. The consumer should keep in mind the fact that oat and barley hulls, corn-cob meal and cottonseed hulls are no more valuable in a mixture than when they are unmixed.

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|--------------------|------------------|--|
| Crude Fibre. | Guaranteed. | 68848 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 |
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| ture | Guaranteed. | |
| Moisture | Found. | ### ### ############################## |
| ı i | Guaranteed. | |
| Ash. | Found. | 00000040000000000000000000000000000000 |
| bo- ates. | Guaranteed. | 4.00 68.22 52.00 69.22 52.00 6 |
| Carbo- hydrates | Found. | 4.00 6.3 2.5 6.5 6.5 6.5 6.5 6.5 6.5 6.5 6.5 6.5 6 |
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| Fat, | Found. | #46644466664446666 4 46 664444 666666666 |
| in. | Guaranteed. | 44.8.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4. |
| Protein. | Found. | 14.08 13.49 14.71 14.71 14.71 14.71 14.71 14.71 15.70 15.70 15.70 15.70 15.70 15.70 15.70 15.70 15.70 15.70 15.70 15.70 15.70 15.70 15.70 15.70 15.70 15.70 15.70 16.80 17.43 17.43 17.50 17 |
| | Address. | Troy. Ohio Springfield. Ohio Springfield. Ohio Springfield. Ohio Springfield. Ohio Springfield. Ohio Minwankee. Wis. Montpelier. Vt. Montpelier. Vt. Montpelier. Vt. Montpelier. Vt. Minneapolis. Minn. Winneapolis. Minn. Winneapolis. Minn. Vinonto & Peterboro. Canada. Peterboro. Canada. Peterboro. Toronto & Peterboro. Canada. Minn. Minneapolis. Minn. Boston. Miss. Boston. Miss. Boston. Miss. Boston. Miss. Boston. Mich. Duluth. Minn. Duluth. Minn. Jaskson. Mich. Ja |
| | Manufactured by. | The Allen & Wheeler Connected & Burk Connected & Connected |
| Name of Sample. | | WHEAT FEEDS. Trojan Bran. William Tell Bran. William Tell Bran. William Tell Bran. William Tell Wheat Kiddlings. Atlas Wheat Flour Middlings. Atlas Wheat Flour Middlings. Balley's Fancy Mixed Feed (Nes) Mixed Feed White Satin Mixed Feed Winnan Pure Winter Bran. Wheat Rad Dog. Winter Bran. Bull Rush Bran. Bull Rush Bran. Bull Rush Bran. Wheat Standard Middlings. Wirthmore Wheat Feed Wirthmore |

| 8 | | N. H. EXPERIMENT STATION [Dulletin 10) |
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| Crude Fibre. | Found. Guaranteed. | 4.7. 1.4. 4.8. 1.0.0 1.0 |
| are. | Guaranteed. | |
| Moisture | Found. | 11100000000000000000000000000000000000 |
| ų | Guaranteed. | |
| Ash. | Found. | ις το το 4 το 4 το 4 το επείνου 4 4 4 το το το 4 4 4 το 10 το 4 το |
| bo- ates. | Guaranteed. | 51.79 52.89 55.80 56.82 56.82 56.82 56.82 56.82 56.83 56 |
| Carbo- hydrates. | Found. | 601.75 602.75 603.809 604.11 604.11 604.11 604.11 605.11 |
| ثه | Guaranteed. | 0.0140144444884444488444488900000 |
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| ein. | Guaranteed. | 18.000 15.00 |
| Protein. | Found. | 15. 20 11 15. 20 |
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| | Manufactured by. | Pederal Milling Co. Garland Milling Co. Garland Milling Co. Garland Rolling Mills Co. Grafton Rolling Mills Co. Gwinn Milling Co. Gwinn Milling Co. Gwinn Milling Co. Gwinn Milling Co. Hecker-Jones-Jewell Milling Co. Hill Fedd Mills. Kemper Mill & Elevator Co. Listman Mill Co. Listman Mill Co. Maple Leaf Milling Co. Mational Milling Co. National Milling Co. National Milling Co. National Milling Co. National Milling Co. Northwestern Consol Milling Co. The Oglivie Flour Mills Co. The Oglivie Flour Mills Co. |
| Name of Sample. | | WHEAT FEEDS.—Continued. Lucky Spiring Wheat Bran. Lucky Spiring Wheat Bran. Carlton Wheat Feed. Gwinn's Dairy Feed. Gwinn's Dairy Feed. Gwinn's Wheat Bran. Gwinn's Wheat Bran. Gwinn's Wheat Bran. Fancy White Middlings. Mixed Feed. Ica Dog Flour. Standard Middlings. Kind Dog Flour. Standard Middlings. Fine Tag Mixed Feed. Lucky Strike Stock Feed. Show Flake Wheat Bran. Fine Red Dog Flour. Fine Red Dog Flour. Fine Red Dog Flour. Mixed Feed. Show Flake Wheat Bran. Francy Canadian Middlings. Maple Leaf Wheat Bran. Wheat Bran. Middlings. Mixed Feed. Francy Canadian Middlings. Maple Leaf Wheat Bran. Wheat Mixed Feed. Prancy Canadian Middlings. Mixed Feed. Prancy Canadian Middlings. Middlings. Mixed Feed. Pure Wheat Bran. Wheat Mixed Feed. Pure Wheat Bran. |

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| | 67.53 | 62.96 64.08 63.74 | 52.91 | 68.66 69.67 69.68 69.69 |
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| | WHEAT FEEDS.—Continued, Pillsbury's Durum Wheat Bran Pillshury's Fanor Wheat Mix | Institute strancy wheat surved Fleed Pillsbury's Wheat A Middlings Pillsbury's Wheat Bran | Middlings Wheat Standard, Brov | Allings Pilishury's (XX) Daisy Middlings Pilishury's (XX) Daisy Middlings Champion Mixed Feed Richardton Mixed Feed Royal Bran Royal Bran Four Middlings Cocident Wheat Feed Stook Bran Four Middlings Stook Bran Four Middlings Stook Bran Roy Bran Royal Mixed Feed Stook Bran Royal Mixed Feed Standard Mixed Feed Rod Dog Feed Rod Dog Feed Roy Bran Bran Bran Royal Bran Bran Royal Bran Bran Royal Bran Bran Royal Bran Bran Bran Royal Bran Bran Bran Royal Bran Bran Bran Bran Royal Bran Bran Bran Bran Royal Bran Cocis Mixed Feed Stratton & Co.'s Mixed Feed Crescout Middlings Pure Crescent Middlings Vieter Suring Wheat Bran Mill Run Bran Mixed Feed Mill Run Bran Mixed Feed |
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| Crude Fibre. | Guaranteed. | 4.0 1110.0 1110.0 13.0 13.0 13.0 | 12.0 14.0 14.0 14.0 | 2011111121 21 21 21 21 21 21 21 21 21 21 2 |
|---------------------|------------------|---|---|---|
| Cri | Found. | 10.41 | 53.9 | 0.63 |
| ture. | Guaranteed. | | | |
| Moisture. | Found. | 10.54 10.53 10.53 10.11 10.11 10.11 | 9.2 9.2 10.1 9.6 9.7 8.5 1.8 6.1 | 0.00 10 10 10 10 10 10 10 10 10 10 10 10 1 |
| p. | Guaranteed. | | | |
| Ash. | Found. | 8.23.0.4.0.0.0.4.0.0.0.0.0.0.0.0.0.0.0.0.0. | 6000 000000000000000000000000000000000 | 0.000000000000000000000000000000000000 |
| bo- ates. | Guaranteed. | 50.00 50.00 50.00 50.00 50.00 50.00 | | 44.06 45.49 30.00 42.88 95.00 42.88 95.00 44.34 95.00 63.92 92.00 40.83 92.00 63.20 63.20 63.20 63.20 63.20 63.20 63.20 63.20 63.20 63.20 63.20 63.20 63.20 |
| Carbo- hydrates. | Found. | 62.68 64.89 65.46 65.46 65.21 62.53 64.77 66.19 | 43.00 62.86 62.86 62.86 36.88 39.52 444.57 444.57 444.57 | 6.00 44.06 5.00 44.18 5.00 44.18 5.00 44.18 6.00 6.00 40.88 22.00 6.00 40.88 22.00 6.00 40.89 22.00 6.00 40.89 22.00 6.00 40.89 22.00 6.00 40.89 22.00 6.00 40.40 80 22.00 6.00 40.40 80 22.00 6.00 40.40 80 22.00 6.00 40.40 80 22.00 6.00 40.40 80 22.00 6.00 40.40 80 22.00 6.00 40.40 80 20.00 6.00 40.40 80 20.00 6.00 40.40 80 20.00 6.00 40.41 80.00 |
| i. | Guaranteed. | 4444444 0 000 0000000000000000000000000 | 6.00 6.00 6.00 6.00 6.00 6.00 6.00 6.00 | 00000000000000000000000000000000000000 |
| Fat. | Found. | 744477774 477 7524491901 000 8477491919 00 | 0004 877000 0000 80000 0000 80000 0000 80000 | 66.00 |
| in. | Guaranteed. | 16.00 113.00 113.00 114.00 115.00 12.00 | 36.00 36.00 36.00 36.00 36.00 | 00000000000000000000000000000000000000 |
| Protein. | Found, | 17.74 17.30 14.67 11.63 11.93 16.93 16.73 16.73 16.73 16.73 16.73 16.73 16.73 16.73 16.73 16.73 17.73 | 2003 2003 2003 2003 2003 2003 2003 2003 | 77.56 35.00 |
| | Address. | Minneapolis, Minn. Kent. Ohio. Kent. Ohio. | Montneller, Vt. Montneller, Vt. Huntsville, Ala. Memphis, Tenn Memphis, Tenn Cincinnati, Ohio Cincinnati, Ohio Little Rock, Ark | Nat. Stock Yards, III Nat. Stock Yards, III Nat. Stock Yards, III Adlanta, Ga. Memphis, Tenn Meridian, Miss. Meridian, Miss. Meridian, Miss. Meridian, Miss. Meridian, Miss. Memphis, Tenn. Boston, Mass. |
| | Manufactured by. | Washburn-Crosby Co. Washburn-Crosby Co. Washburn-Crosby Co. Washburn-Crosby Co. Washburn (Trosby Co. Washburn (Trosby Co. Tir Western Star Mill Co. Tir Western Star Mill Co. Williams Bros. Co. | E. W. Bailey & Co. E. W. Bailey & Co. Union Seed Fert. Co. F. W. Brode & Co. F. W. Brode & Co. F. W. Brode & Co. The Brokeye Cotton Oil Co. The Buckeye Cotton Oil Co. S. P. Davis. | East St. Louis Cotton Oil Co. East St. Louis Cotton Oil Co. Empire Cotton Oil Co. Famire Cotton Oil Co. Humphreys Godwin Co. Humphreys Godwin Co. J. M. MacDonald. Meridian Grain & Elevator Co. Meridian Grain & Elevator Co. C. L. Montgomery & Co. Planter's Oil Mill & Gin Co. |
| | Name of Sample. | WHEAT FEEDS.—Continued. Adrian Red Dog Flour Adrian Red Dog Flour Mheat Bran. Wheat Bran. Wheat Bran. Wheat Standard Middlings Blue Seal Wheat Feed. Stan Vinter Wheat, Iran and Stan Vinter Wheat. Kent Mixed Feed. Nokomas Wheat Bran. | | 9 : : : _d : : : : : : : : : : : : : : : |

| £ | August | , 19. | 18] | ANAL | YSIS | OF F | EEI |)1N | G-S | TUFFS. 1. |
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| | : : : | 5.77 | 16.81 14.92 13.86 | 14.83 15.00 18.31 14.00 15.45 16.00 18.08 16.00 12.41 8.00 | 8.64 | 9.36 7.94 5.69 | 7.57 | : | 6.35 | 99.57.7 10.68.7 10.69.58.8 10.69.68.9 10.69.68.9 10.69.99.9 10.69.99.99.9 10.69.99.99.99.99.99.99.99.99.99.99.99.99. |
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| | 8.3 | 9.8 | 9.4 8.9 11.6 | 8.1 8.1 10.7 9.4 8.9 | 0.6 | 9.8 9.8 | 8.6 | 10.5 | 10.1 | |
| | | : | : : : | | : | : : : | : | : | : | |
| | 6.2 6.1 6.1 | | 11.2 6.8 9.3 | 8.00 0.03 8.00 8.89 | 3.7 | 10.00 | 10.6 | 11.5 | 8.6 | 611.0 46.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1 |
| | 46.79 25.00 74.94 27.00 39.97 27.00 | : | 50.00 37.00 45.00 | 65.00 50.00 47.50 47.50 67.00 | 60.00 | 52.00 | : | : | 50.00 | 59.19 50.00 9.2 58.41 45.00 60.3 57.55 60.00 11.4 55.28 40.00 11.40 58.63 52.00 8.90 61.50 52.00 8.90 61.50 60.00 73.0 59.15 45.00 10.00 59.15 45.00 10.00 61.57 66.29 |
| | 46.79 74.94 39.97 | 69.03 | 58.56 58.56 58.55 | 63.80 60.72 59.70 58.95 71.95 | 70.88 | 53.78 56.05 65.94 | 57.07 | 56.76 | 59.97 | 6.1.50 |
| | 5.00 | 6.00 | 8.80 8.50 0.00 | 2.477.22 00.02.22 00.23 | 2.50 | 4.00 | 3.50 | 4.00 | 4.50 | |
| | 5.61 6.15 7.83 | 66.9 | 4.38 3.76 5.57 | 3.36 5.50 5.75 3.76 | 5.04 | 4.89 4.79 5.67 | 4.90 | 3.11 | 5.43 | 2.7.7. 1.3.4.69 1.4.8.9.9. 1.4.8. |
| | 36.00 | 10.00 | 13.50 22.00 20.00 | 9.00 15.00 16.00 9.70 | 11.00 | 19.00 | 20.00 | 17.00 | 15.00 | 9.70 20.00 1.677150 5.76 35.00 1.01 11.00 8.21 18.00 8.21 18.00 8.74 17.50 6.00 18.00 6.00 18. |
| | 33.10 36.00 34.41 36.00 38.00 36.00 | 13.08 | 16.46 22.47 19.98 | 13.04 9.00 15.68 15.00 17.95 15.00 16.46 16.00 10.59 9.70 | 11.38 | 21.33 19.00 19.18 20.00 15.59 15.00 | 18,83 | 18.13 | 15.90 | 119.70 11 |
| | New Orleans, La New York, N. Y | Co Baltimore, Md 1 | Co Minneapolis, Minn | Co. Minneapolis, Minn. Co. Chicago, Ill. Chicago, Ill. St. Louis & Buffalo. | Chicago, Ill1 | Factory. Wankegan, III | Woreester, Mass 1 | Boston, Mass | Boston, Mass | Boston, Mass. Marblehend, Mass. Chicago, Ill. Somerville, Mass. Manchester, N. H. Manchester, N. H. Boston, Mass. Portland, Me. Chicago, Ill. |
| | The Southern Oil Co Union Seed & Fertilizer Co | Baltimore Pearl Hominy | Clover Leaf Milling Co International Sugar Feed International Sugar Feed | International Sugar Feed International Sugar Feed Quaker Oats Co Ralston Purina Co., Inc. | The Albert Dickinson Co. | Blatchford Calf Meal Fac Blatchford Calf Meal Fac Buffalo Cercal Co | E. A. Cowee Co | Chas. M. Cox Co | Chas. M. Cox Co | Chas. M. Cox Co. Greene Clike Feed Co. Hales & Edwards Co. Hinekley Rendering Co. Manchester Rendering Co. MacQuesten & Lewis. Park & Pollard. Park & Pollard. Portland Rendering Co. Quaker Oats Co. Ralston Purina Co. Inc. Ralston Purina Co. Inc. Russia Cement Co. Stratton & Co. Stratton & Co. Stratton & Co. Ticga Mill & Ellevator Co. H. K. Webster Co. H. K. Webster Co. Whitman & Pratt Rendering |
| | COTTONSEED MEAIS.—Cont'd. Good Cottonseed Meal No. 7 Cottonseed Reed Meal Surety Brand Cottonseed Meal | HOMINY FEEDS. Spring Garden Hominy Feed | MOLASSES FEBDS. Clover Leaf Dairy Feed International Planter's Dairy Feed International Planter's Bairy Feed | International Special Dan Facen, Horse Feed. International Special Dairy Feed. Quaker Dairy Feed with Molasses Quaker Dairy Feed. Purina O-Molene Feed. | Queen Poultry Mash. | Blatchford's Fill the Basket ERR Mash Blatchford's Wilk Mash Buffeco Poultry Mash | E. A. Cowee's Climax Poultry Mash | try Mash. | Wirthmore Growing reed with Seraps | Wirthmore Mash Feed (fish and Serap). Green's Meat Mash for Poultry. Red Comb Meat Mash with Shell Hinekley Poultry Feed. Manchester Poultry Feed. Lay or Bust Dry Mash. Lay or Bust Dry Mash. Lay or Bust Dry Mash. Portland Poultry Mash. Portland Poultry Mash. Portland Poultry Mash. Portland Chicken Chowder Feed. Chie Chuk. Stratton's Poultry Mash with Shell Stratton's Poultry Mash. Stratton's Poultry Mash. Tro-Ga Laving Food. Rue Seal Dry Mash. Tro-Ga Laving Food. Mast and Bone Poultry Scrap. |

| Crude Fibre. | Guaranteed. | 18. 69 10.00 | 35.00 30.00 30.00 | 6.75 |
|--------------------|------------------|--|--|---|
| Cr | Found. | 10.00 | | 7.63 |
| Moisture. | Guaranteed. | | | |
| Mois | Found. | 18888888888888888888888888888888888888 | 8.4.0.8 0.0.1.0 | 9.8 7.0 |
| ίħ. | Guaranteed. | | | |
| Ash | Found | $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | 8.9 10.7 8.0 | 5.0 |
| bo- ates. | Guaranteed. | | 64.82 35.00 67.18 40.00 60.83 | 56.38 53.00 54.93 53.00 |
| Carbo- hydrates | .bano | 74.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 | 64.82 67.18 60.83 65.51 | 56.38 |
| Fat. | Guaranteed. | cd. cd. cd. cd. cd. cd. cd. cd. cd. | 1.00 | 5.00 |
| Ē | Found. | ₹ 6 4 4 4 7 7 4 4 7 6 5 7 7 4 7 6 5 9 9 4 6 7 7 6 4 7 7 4 4 7 7 4 4 7 7 4 7 7 7 7 | 2.74 2.64 2.40 | 8.54 |
| ein. | Guaranteed. | 8.8.8.5.0000000000000000000000000000000 | 12.00 | 24.00 |
| Protein. | Found. | 8.557 8.557 8.557 8.557 8.557 8.557 11.59 11.59 11.50 11 | 15.54 12.0 16.25 12.0 16.73 | 20.58 |
| | Address. | Indianapolis, Ind. Chicago, Oho Chicago, Oho Swanton, Vi. Swanton, Vi. Buffalo, N. Y. Buffalo, N. Y. Buffalo, N. Y. Buffalo, N. Y. Boston, Mass. Walton, N. Y. Boston, Mass. Walton, N. Y. Boston, Mass. Walton, N. Y. Indenester, Pa. Jamestown, N. Y. Gricago, Ill. Buffalo, N. Y. Boston, Mass. Chicago, Ill. C | Wichita, Kans Boston, Mass Concord, N. H Wichita, Kans | Wankegan, Ill |
| | Manufactured by. | Acme Evans Co. Aknon Feed & Milling Co. The Abbert Dickinson Co. E. W. Barley. E. W. Barley. Buffalo Cered Co. Buffalo Cered Co. Buffalo Cered Co. Chas. M. Cox Co. Charles Cox Co. Charles & Eschelman. D. H. Grandin's Milling Co. D. H. Grandin's Co. Charles & Edwards Co. Holor & Co. Co. Co. Co. Co. Co. Co. Co. | The Otto Weiss Milling Co The Park & Pollard Co Stratton & Co Wichita Alfalfa Stock Food Co. | Blatchford Calf Meal Factory |
| Name of Sample. | | Acme Stock Feed Portace Stock Feed Portace Stock Feed Ohio Farm Feed Pennant Stock Feed Buffeco Horek Feed Buffeco Horek Feed Buffeco Stock Feed Wirthmore Stock Feed Wirthmore Stock Feed Crawford's Stock Feed Grandin's Stock Feed Grandin's Stock Feed Alaryna Milk Feed Jucky Strike Stock Feed Grandin's Stock Feed Grandin's Stock Feed Harvest Hores Feed Jucky Strike Stock Feed Jucky Strike Stock Feed Domino (formerly) Stock Feed Buckye Feed Schunacher Feed | ALFALFA MEALS, O'to Weiss Alfalfa Meal, The Park & Pollard Co. Alfalfa, Alfalfa Wichita Pure Alfalfa Meal. | CALP MEALS. Blatchford's Calf Meal Blatchford's Calf Meal |

| August | , 1918] | ANALY | ANALYSIS OF FEEDING-STUFFS. | | | | | | | | | |
|--|---|--|---|-------------------------|--|---|--------------------------|--|--|--|--|--|
| 10.00 4.00 6.00 6.00 | 220.00 20.00 20.00 20.00 20.00 00.00 | 22.00 15.00 19.00 9.00 | 88.00 88.00 88.00 10.00 10.00 9.50 10.00 | 10.00 | 8888884488 000 6 6 6 7 7 7 0 0 0 0 0 0 0 0 0 0 0 0 | : | : | | | | | |
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| 6.34 | 00000000000000000000000000000000000000 | 61 60 60 60 1 60 61 60 | 1.0 & 4.0 0 1 | 5.1 | ###################################### | 61 63 8 | 20.4 | | | | | |
| 46.00 | 58.00 58.00 58.00 58.00 58.00 | | | : | 52.00 | : | | | | | | |
| 54.88 53.99 54.85 54.85 54.85 | 74.43 78.60 76.92 78.09 78.56 | 67.25 55.53 63.25 44.86 | 744484444 7444884444 764488769 7646869 7668469 7668469 7688469 7688469 7688469 7688469 | 14.85 | 663.38 663.38 66.1000.000 66.1000.000 66.1000.000 66.1000.000 | : | : | | | | | |
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| 5.9 5.65 5.05 5.05 5.05 | 0.55 0.69 0.69 0.69 0.69 0.69 | 5.40 7.54 5.68 12.68 | 6.00 6.00 6.00 6.00 1.00 1.00 1.00 1.00 | 6.03 | 22.02.02.03.03.03.03.03.03.03.03.03.03.03.03.03. | 13,39 | 55.00 16.94 10.00 | | | | | |
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| 25.00 16.73 24.61 25.25 | 10.59 9.43 9.42 8.58 22 22 | 17.25 27.23 19.53 28,46 | 6 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | 32.75 | 22222222222222222222222222222222222222 | 57.79 | 54.20 | | | | | |
| Co Minneapolis, Minn Oblicago, III. Chicago, III. | Blissfield, Mich. Milwandee, Wis. O. Detroit, Mich. Co. Menominee, Mich. Sebewaing, Mich. Bay Gity, Mich. | Washington, D. C. New York. Chicago, III. Detroit, Mich. | New York New York New York Oo Birfalo, N. Y. Co., Buffalo, N. Y. nets Co. Minneapolis, Minn. uefs Co. Minneapolis, Minn. | Inc Buffalo, N. Y | s Co. New York. co. New York. Co. Ninton, Iowa Co. New York. Co. New Yor | New York. | New York | | | | | |
| International Sugar Feed The Quaker Oats Co. Ryde & Co. | Continental Sugar Co. The Hottelet Co The Larrowe Milling Co. Meloninee River Sugar Michigan Sugar Co West Bay City Sugar Co. | The Corby Co. Farmers' Feed Co. The Fleischmann Co. The Larrowe Milling Co. | American Linseed Co Archer-Daniels Linseed Archer-Daniels Linseed Midlands Linseed Prod Midlands Linseed Frod Spencer Kellogg & Sons | Spencer Kellogg & Sons, | American Maize Products (Clinton Suzar Refining Co-Corn Products Refining Corn Brudlas Co | Amer. Agri. Chemical Go | Amer. Agri. Chemical Co. | | | | | |
| CALF MEALS.—Continued. International Grofast Calf Meal. Intern Schumacher Calf Feed. Ryde's Cream Calf Meal. Ryde's Cream Calf Meal. Ryde's Cream Calf Meal. | BEET PULP. Dried Beet Pulp. | Octy Dried Brewers' Grains The Gorby Co. Bull Brand Dried Brewers Grain Farmers' Feed Fleischmann's Dried Grains The Fleischmann Brownie Distillers' Grains The Larrowe Mi | FLANSEED MEALS, Myrno Pure Old Process Linseed Mad. Old Process Linseed Oil Med. Old Process Ground Oil Calc. Old Process Ground Linseed Calc. Kellogg's Pure Old Process Oil Kellogg's Pure Old Process Oil Kellogg's Pure Old Process Oil | Meal | GLUTEN FEBEDS. ('ream of Corn (fluten Feed C'ream of Corn (fluten Feed Clinton (fluten Feed Buffalo Corn (fluten Feed Feed Crescent Corn (fluten Feed Diamond Corn (fluten Feed Diamond Corn (fluten Feed Diamond Corn (fluten Feed Douglas Corn (fluten Feed Jenks' Corn (fluten Feed | MEAT AND BONE FERDS. Protex Pure Ground Meat Scraps | A. A | | | | | |

| <u>c</u> | | 211 | |
|---------------------|-------------|--|---|
| Crude Fibre. | Guaranteed. | 1,00 | 15.24 15.00 16.93 9.00 18.92 11.0 10.73 9.5 11.85 9.0 12.22 13.0 9.17 12.0 12.69 14.0 12.61 14.0 12.61 14.0 12.63 13.5 12.58 13.5 12.75 10.0 |
| P.E. | Found. | | 15.22 10.93 11.12 10.93 11.12 10.73 12.22 |
| Moisture. | Guaranteed. | | |
| Mois | Found. | 70 - 70 00 00 00 00 - 4 4 4 - 4 - 4 - 4 - 4 - | 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 |
| Ash. | Guaranteed. | | 3:0 |
| A | Found. | 0 8 8 8 8 9 8 8 8 8 8 8 8 8 8 8 8 8 8 8 | 6400 4 0040 00404000 4 0000 8 1000 000 00400000 0 |
| bo- | Guaranteed. | | 60.00 50 |
| Carbo- hydrates. | Found. | | 251.140 251.150 251.150 251.150 251.150 251.150 251.150 251.150 251.150 251.150 251.150 251.150 251.150 251.150 251.150 |
| -t- | Guaranteed. | 60000000000000000000000000000000000000 | 64.000 0 10000 0 000000000000000000000000 |
| Fat. | Found. | 11.30 11.30 11.30 11.30 12.02 12.03 17.62 10.03 10.03 11.06 11.06 | ### 100 ### 100 <t< td=""></t<> |
| in. | Guaranteed. | 50.00 15.04 43.00 11.37 43.00 11.37 43.00 15.12 43.00 15.12 45.00 17.62 45.00 17.62 85.00 10.06 85.00 10.06 85.00 10.06 85.00 10.06 85.00 10.06 85.00 10.06 85.00 10.06 85.00 11.08 | 116.000 116.000 126.0000 126.000 126.000 126.000 126.000 126.000 126.000 126.00000 126. |
| Protein | Found. | 51.01 50.00 15.04 15.0 38.88 4.000 11.37 10.0 38.61 40.00 11.37 10.0 40.11 44.00 11.37 10.0 42.99 43.00 20.20 12.0 15.00 43.00 18.32 12.0 15.00 40.00 17.32 12.0 15.18 45.00 10.06 18.0 22.16 25.00 10.08 15.0 54.38 45.00 10.84 5.0 15.88 45.00 10.84 5.0 15.88 45.00 11.84 5.0 | 198 198 198 198 198 198 198 198 |
| | Address, | Lawrence, Mass. Lawrence, Mass. Lawrence, Mass. Lawrence, Mass. Boston, Mass. Boston, Mass. Framingham, Mass. Roston, Mass. Harmingham, Mass. Roston, Mass. Roston, Mass. Roston, Mass. Roston, Mass. Roston, Mass. Lamningham, Mass. Roston, Mass. Lamningham, Mass. La | Roundout, Ill. Buffalo, N. Y. Hammond, Ind. Hammond, Ind. Boston, Mass. Brattleboro, Vt. Jamestown, N. Y. Jamestown, N. Y. Jamestown, N. Y. Detroit, Mich. Detroit, Mich. Boston, Mass. Roston, Mass. Rosto |
| Manufactured by. | | Beach Soap Co. Beach | Aready Farms Milling Co-Buffalo Coreal Co-Chapin & Co-Chapin Co-Chapin Co-Chapin Milling Co-Chapin Co-Chapin Milling Co-Chapin Co- |
| Name of Sample. | | MEAT & BONE FEEDS.—Cont'd. Beach's Superior Beef Scraps Star Brand Beef Scraps Breek's Ground Beef Scraps Breek's Ground Beef Scraps Journal Beef Scraps Individual Beef Scraps Meat Scraps Mark's Pure Ground Scraps Manchester Bone and Meat Meal. Minduckets Bone Medl Manchester Bone Medl M | Aready Dairy Feed Aready Dairy Feed Bufeceo Creamery Feed Unicorn Dairy Ration Wirthmore Bal. Ration for Milch Croshy's Quality Feed (Ready Ra- Croshy's Quality Feed (Ready Ra- Croshy's Wilk Maker Crandin's Milk Maker Larrondes Big 6 Complete Dairy Larro Feed Larron Feed Complete Dairy Complete D |

| | Augu | st, 1 | 918] | | Ź | ANALYSI | 2 |
|---|---|--|-------------------------------------|---|---------------------------------------|--|---|
| | 27.5 | | 24.5 | 20.0 25.0 | 12.40 27.00 | 5.98 5.20 13.80 13.00 15.00 25.00 | |
| | | 19.76 | 0 10 1 0 10 1 0 10 1 | 22.48 20.0 20.26 25.0 | 12.40 | 5.98 5.20 13.80 15.00 | |
| | | | | :: | | | |
| • | 8.4 | 0.0 | 6.0 | 61.00 | 6.8 | 4.40 71.66 2.4 10.6 3.81 3.00 64.94 65.00 4.9 9.1 5.72 4.00 62.89 45.00 4.9 10.2 5.73 1.00 71.26 5.7 | |
| | | : : | 6.0 | : : | : | | |
| | 6.8 | 5.4 | 0.9 | 8.7 | 10.5 | 4.04.0 4.00.7 | |
| • | 53.00 | : : | : : | 40.00 | : | 45.00 | |
| | 77.25 | 76.09 | 79.38 | 43.42 | 18.08 | 3.00 64.94 65.00 4.00 62.89 45.00 1.00 71.26 | |
| | 2.50 | 2.50 | | 6.00 | 4.30 | 4.40 71.66 3.81 3.00 64.94 65.00 5.72 4.00 62.89 45.00 3.03 1.00 71.26 | |
| | 1.82 | 1.88 | 2.14 | 6.98 | 4.41 | 3.81 5.72 3.03 | |
| | 5.43 6.5 1.82 2.50 77.25 53.00 6.8 7.88 2.65 76.07 5.0 | 5.43 1.88 76.09 7.09 5.25 2.89 2.50 76.42 | 6.08 2.14 79.38 | 36.00 | 30.00 | 16.03 17.00 8.00 | |
| | 5.43 | 5.43 | 6.08 | $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | 30.21 30.00 4.41 4.30 48.08 | 10.94 17.25 16.03 16.29 17.00 10.51 8.00 | |
| | Lancaster, Pa Cham. of Commerce. | | - CO | Berlin, N. H Suffolk, Va | Petersburg, Va | Concord, N. H St. Louis, Mo Boston, Mass. | |
| | Jonas F. Eby & Son Sold by R. G. Hardy | Park & Pollard Co Robin Hood Mills, Ltd | No address Sold by D. Whiting Sons. | Browns CoSuffelk Oil Mill | Southern Oil Feed Co | Stratton & Co Kehlor Flour Mills Co J. E. Soper Co Washburn-Crosby Co | |
| | OAT FEEDS. Oat Feed. Oat Hulls. | Oat Feed | Oat FeedReground Oat Feed | PEANUT FEEDS. Peanut Meal "Primo". Unhulled Peanut Oil Feed | Gubernut Peanut Meal and Peanut Hulls | Stratton & Co.'s Provender Kelhor's Rye Feed Jesco Velvet Bean Feed Barley Screenings | |

CERTIFIED COMPOSITION OF COMPOUNDED BRANDS.

| Certified to Contain. | | Cottonseed freed, ground delinted cottonseed hulls, molasses and sait. Cottonseed meal, molasses, ground elipped oat by-product, ground eleaned grain screenings, wheat, bran, linseed oil meal. | Oats, cracked corn, ground alfalfa, cane molasses, | Cottonseed meal, molasses, ground clipped oat by- product, salt, ground cleaned grain screenings. Molasses, corn, distillers' grains, ground grain screenings, cottonseed meal, palm kernel meal, tricalcium phosphate, oat meal mill by-product, oat middlings, oat hulls, oat short, ½ of 1% | sait. Cracked corn, oats, molasses, ground alfalfa, 1% sait. | Wheat, bran, wheat middings, alfalfa meal, ground corn, bran, corn feed meal, linseed oil meal, meat scraps, salt ½ of 1%. | Lo | cottonseed meal, Foenugreek dried milk, Blatchford's calf meal, also bone, corn and oat meals, wheat middlings, meat scraps, fish and powdered limestone. | Blatchford's calf meal, also alfalfa bone, corn and out meals, wheat bran, wheat middlings, meat | scraps, fish, capsicum and powdered limestone. Ground corn, wheat bran and middlings, hominy feed, corn, gluten feed, oat middlings and rolled oats. | Wheat bran, oats, barley, gluten, corn, meat and bone meal, fish scraps and salt, wheat middlings, alfalfa meal, linseed. |
|-----------------------|------------------------|--|--|--|--|--|---|---|--|---|---|
| Address. | Buffalo, N. Y. | Minneapolis, Minn. | Minneapolis, Minn. | Minneapolls, Minn. | St. Louis, Mo. | Chicago, Ill. | Waukegan, Ill. | Waukegan, Ill. | Waukegan, Ill. | Buffalo, N. Y. | Worcester, Mass. |
| Manufactured by. | Clover Leaf Milling Co | International Sugar Feed CoMinneapolis, International Sugar Feed CoMinneapolis, | International Sugar Feed Co | International Sugar Feed CoQuaker Oats Co | Ralston Purina Co., Inc | The Albert Dickinson Co | Blatchford Calf Meal Factory | Blatchford Calf Meal Factory | Blatchford Calf Meal Factory | Buffalo Cereal Co | Е, А. Сомеп Со |
| Name. | Mellasses feeds | International Planters Dairy Feed International Sugar Feed Co International Ready Ration International Sugar Feed Co | International Special Dan Patch Horse Feed | International Special Dairy Feed. Quaker Dairy Feed with Molasses | Purina O-Molene Feed | POULTRY FEEDS. Queen Poultry Mash | Blachford's Fill the Basset Egg Mash | Blatchford's Milk Mash | Blatchford's Fill the Basket Egg Mash | "uf reco Poultry Mash | E. A. Cowen's Climax Poultry Mash |

| Corn meal by-products, alfalfa meal, oil meal, glu- | သိ | ğ | grain soreconings. Meat scrap, oat meal, wheat bran, with grain screenings not exceeding mill run, alfalfa meal, yellow hominy feed, corn feed meal by-product, corn gruen feed, and ground grain screen- | A | | Ground oats, linseed oil meal, corn feed meal, meat scraps, wheat bran, wheat middlings, alfalfa | A | | meat and bone scrup, oats, barey, buckwheat. Wheat feed, corn meal, gluten feed, rolled oats, beef scraps, beet pulp, oil meal and Hen-E-Ta, bone composed of silica, lime and soda. | Corn, homlik (corn feed meal), hominy meal, wheat bran, wheat middlings, oat feed, oat hulls, oat | middlings and sait. Corn. barley, oat shorts, oat hulls, oat middlings, and 1% of 1% sait. | Corn feed meal, ground corn bran, ground corn screenings, ground barley, out meal mill by pro- | 0 | wheat servenings not to exceed in run. Fine white hominy and oat by-products (oat mid- dlines hulls and shorts) 3, of 1% salt. | Ground oars, corn and barley, wheat middlings, hominy feed, oat shorts, oat middlings, oat hulls, | G. |
|---|-----------------------------|---------------------------------|--|---------------------------------------|-----------|--|------------------------------------|--|--|---|--|--|------------------------------------|--|---|---------------------------------|
| McQuesten & Lewis, | Park & PollardBoston, Mass. | The Quaker Oats CoChicago, Ill. | The Quaker Oats CoChicago, Ill. | Ralston Purina Co., IncSt. Louis, Mo. | Ma | Stratton & CoConcord, N. H. | Syracuse Milling CoSyracuse, N. Y. | Tioga Mill and Elevator CoWaverly, N. Y. | H. K. Webster CoLawrence, Mass. | Acme Evans CoIndianapolis, Ind. | Akron Feed & Milling CoAkron, Ohio. | The Albert Dickinson CoChicago, Ill. | Ansted & Burk CoSpringfield, Ohio. | E. W. Bailey & CoSwanton, Vt | Buffalo Cereal CoBuffalo, N. Y | Buffalo Cereal CoBuffalo, N. Y. |
| Poultry Mash | "Lay or Bust" Dry Mash | Quaker Poultry Mash | Schumacher Poultry Mash | Purina Chicken Chowder Feed | Chic Chuk | Stratton's Poultry Mash with Shell | Syragold Dry Mash | Ti-O-Ga Laying Food | Blue Scal Dry Mash for Poultry | STOCK FEEDS. Acme Stock Feed | Portage Stock Feed | Stag Stock Feed | Ohio Farm Feed | Pennant Stock Feed | Buferen Horse Feed | Bufceco Steam Cooked Feed |

| Certified to Contain. | Y. Ground corn, oafs and barley, wheat middlings, corn gither feed, lominy feed, oat shorts, oat med mills, ½ of 1% salt, dings, oat shorts, ½ of 1% salt, ground corn, oat meal mill by-products foat middlings, wheat brain, wheat middlings, re-middlings, oat middlings, wheat thalls, hominy feed, corn germ meal, oat middlings, wheat brain, wheat middlings, corn meal, oat hulls, hominy feed, corn gluten feed, oat meal mill by-products, oat middlings, oat shorts and salt. Y. Fine white hominy feed, corn gluten feed, oat meal mill by-products, oat middlings, oat shorts and salt. Alfalfa, molasses, cracked corn gluten feed, oat meal mill by-products, oat middlings, oat shorts and salt. Alfalfa, molasses, cracked corn, cats and barley. Y. Fine white hominy feed, cotnoseed meal, oat shorts, corn gluten feed, ground corn, ground oats, pround grain sereenings, molasses, clipped oats, ground grain sereenings, molasses, clipped oats, ground grain sereenings, molasses, clipped oats sugar starch and each corn are floor meal from shelled corn, oat middlings, oat ground erain sereenings, molasses, clipped oats sugar starch and each, of 1% salt, front seeding mill run, cottonseed meal, ground sereenings not exceeding mill run, cottonseed meal, ground and yes horts, ye of 1% salt, cround corn, hominy feed, corn feed meal, ground oats, pround oats, pround oats, pround oats, pround oats, pround oats, pround oats, bominy, oat meal by-yodders, oat middlings, oat shorts, at hulls), as shorts, ye of 1% salt. Reground each and glos salt, named we have an indilings, oat shorts, and hulls, and shorts, at hulls), as shorts, and hulls, and shorts, and the hulls, and shorts, and the hulls, and shorts, and h |
|-----------------------|--|
| Address. | K K K K K K K K K K K K K K K K K K K |
| Manufactured by. | Prince and the second s |
| Name. | Bufeeco Stock Feed |

| Winter wheat, bran, ground corn and cob. Ground oats, kiln dried hominy feed, wheat, bran, linseed meal, not over ½ of 1% salt. Pure oat feed | , T | | Foungreek seed locust bean, linseed oil meal, cleaned grain screenings. Out meal, wheat meal, ground flaxseed, milk, al- | bumen, cottonsced meal, and ½ of 1% bicar- bonate of soda. Ground flaxseed, wheat flour, locust bean meal, recleaned cottonsced meal, blood flour, bean len- tils, cocoa shell meal, hominy feed, Foenugreek, | anise and salt. | BB | sprouts. | | meal. Ground corn, wheat bran and middlings, hominy | shorts, out middlings, out hulls, ½ of 1% sail. Corn, diskillers' grains, cottonseed meal, guten feed, linseed meal, hominy meal, corn starch by products with corn, brain, barley feed, malt smeatls when corns meal self ed, malt | Choice cottonseed meal, linseed meal, gluten feed, | fancy distillers' grains, bran, choice malt sprouts, hominy or corn meal, % of 1% salt. Distillers' dried grains, oil meal, cottonseed meal, malt sprouts, wheat bran, wheat middlings, hominy feel, and ½ of 1% salt. |
|---|------------------------------------|--|---|--|--------------------------|---|---------------------------------------|---------------------------------------|---|--|--|--|
| A. Waller & Co Henderson, Ky. H. K. Webster Co Lawrence, Mass. | Blatchford Calf Meal Factory | Blatchford Calf Meal FactoryWankegan, Ill. | International Sugar Feed CoMinneapolis, Minn. Quaker Oats Co | Ryde & CoChicago, III, | | The Corby Co. Parmers' Feed Co. The Fleischmann Co. Chieschwann Co. | The Larrowe Milling Co Detroit, Mich. | Aready Farms Milling CoRoundout, Ill. | Buffalo Cereal CoBuffalo, N. Y. | Chapin & CoHammond, Ind. | Chas. M. Cox CoBoston, Mass. | E. Crosby CoBrattleboro, Vt. |
| Blue Grass Valley Feed | CALF MEALS. Blatchford's Calf Meal | Blatchford's Calf Meal | International Grofast Calf Meal Schumacher Calf Feed | Ryde's Cream Calf Meal | DISTILLERS' AND BREWERS' | Corby Dried Brewers' Grains Bull Brand Dried Brewers' Grains Fleischmann's Dried Grains | Brownie Distillers' Grains | DAIRY FEEDS. Aready Dairy Feed | Bufceso Creamery Feed | Unicorn Dairy Ration | Wirthmore Bal, Ration for Milch Cows | Crosby's Quality Feed (Ready Ration) |

| Name. | Manufactured by. | Address. | Certified to Contain. |
|---|---------------------------------------|--|--|
| Grandin's Milk Maker | D. H. Grandin Milling CoJamestown, N. | Jamestown, N. Y. | Linseed oil meal, cottonseed meal, gluten feed, dis- tillers' dried grains, brewers' dried grains, hom- iny feed, malt sprouts, wheat brain, wheat mid- dings and salt. |
| Larrowe's Big 6 Complete Dairy Ration | The Larrowe Milling Co | Detroit, Mich. | Linseed oil meal, cottonseed meal, corn, gluten feed, dried distillers grains (mainly from corn), howing from toot how in the corn), |
| Larro-Feed | The Larrowe Milling Co | Detroit, Mich. | when the read, where brain, wheat middlings, and \$\frac{x}{2}\$ of 1% sails, brain and middlings may contain ground screenings not exceeding mill run. Cottonssed meal, corn, guiten feed, old process linseed oil meal, dried beet mulp, standard wheat brain, standard wheat middlings. \$\frac{x}{2}\$ of 1% sail. |
| Larrow-Feed (Ready Ration) | The Larrowe Milling Co | Detroit, Mieh. | bran and middlings may contain ground screenings not exceeding mill run. Cottonseed meal, corn, gluten feed, dried distillers grains (mainly from com), dried beet pulp, standdryd wheat bran and wheat middlings may |
| Stevens 44 Dairy Ration Park & Pollard Co | • | Boston, Mass | run. Oil meal, hominv meal, cottonseed meal, buckwheat middlings, wheat bran with mill run of screen- ings, gluten feed havaever's evains, com, meal |
| Purina Cow Chow Feed | Ralston Purina Co., Inc | St. Louis, Mo. | eocoanut oil medi, pea meal, corn germ meal, distillers' grains, ground barley, wheat middlings and salt. Cottonseed meal, brewers' dried grains, gluten feed from corn, ground alfalfa, molasses, 1% salt. |
| Dairy Ration | Ubico Milling Co | Cincinnati, Ohio. | Fourex distillers' dried grains, choice cottonseed meal, old process linesed meal, white wheat middlings, winter wheat bran, hominy meal, giuten feed, brewers' dried grains, barley, malt smouts. |
| Big (Q) Dairy Ration | Quaker Oats Co | Chicago, III. | "y of 14% saft, form distillers, grains and solubles, corn gluten feed, old process linseed oil meal, by-product from the manufacture of hominy and corn meal, white middlings and wheat then been with the screenings, not meal mill by-product for the mill by-product for the mill by-product for the meal mill |
| | | The state of the s | (oat midulings, oat mills, oat shorts), 1% saft. |



