

1
63
1905/1910
P.P.S.
4/10/42
EK - P.P.S. 4/10/42

Experiment Station Library.



Class ~~639.73~~

Number ~~453~~ esp. 3

Volume ~~Bulletins 152-168~~

Source

Received June 1915 (real)

Cost

Accession No. 3417 Ex. S.

NEW HAMPSHIRE
AGRICULTURAL EXPERIMENT STATION
DEPARTMENT OF CHEMISTRY

The Feeding Stuffs Inspection

For 1911

MADE FOR THE
STATE BOARD OF AGRICULTURE

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

NEW HAMPSHIRE COLLEGE
OF
AGRICULTURE AND MECHANIC ARTS
DURHAM, N. H.

NEW HAMPSHIRE COLLEGE OF AGRICULTURE
AND THE MECHANIC ARTS.

NEW HAMPSHIRE
AGRICULTURAL EXPERIMENT STATION

DURHAM, N. H.

Board of Control

HON. JOHN G. TALLANT, <i>Chairman</i> ,	West Concord
HON. WARREN BROWN,	Hampton Falls
HON. N. J. BACHELDER, A. M., M. S.,	East Andover
HON. E. H. WASON, B. S.,	Nashua
PRES. WILLIAM D. GIBBS, D. Sc., <i>ex-officio</i> ,	Durham

The Station Staff

JOHN C. KENDALL, B. S., *Director*.
FREDERICK W. TAYLOR, B. Sc. (Agr.), *Agronomist*.
CHARLES BROOKS, Ph. D., *Botanist*.
FRED RASMUSSEN, B. S. A., *Dairyman*.
B. S. PICKETT, M. S., *Horticulturist*.
B. E. CURRY, A. B., *Chemist*.
T. R. ARKELL, B. S. A., *Animal Husbandman*.
W. C. O'KANE, M. S., *Entomologist*.
CHARLES W. STONE, A. M., *Farmer, and Vice-director*.
W. H. WOLFF, M. S., *Assistant Horticulturist*.
DAVID LUMSDEN, *Assistant in Floriculture*.
T. O. SMITH, A. B., *Assistant Chemist*.
J. J. GARDNER, B. S., *Assistant in Olericulture*.
O. L. ECKMAN, B. S., *Assistant Animal Husbandman*.
CAROLINE A. BLACK, A. M., *Assistant Botanist*.
MIRIAM L. HOBBS, *Purchasing Agent*.
LAURA B. BICKFORD, *Stenographer*.
M. GENEVIEVE BURT, *Bookkeeper*.
S. EDNA DAVIS, *Stenographer*.
ELIZABETH E. MEHAFFEY, *Librarian*.

The bulletins of the Experiment Station are published at irregular intervals and are sent *free* to all residents of New Hampshire requesting them.

The Feeding-Stuffs Inspection for 1911.

In 1911 the secretary of the State Board of Agriculture through the official inspector turned in 166 samples of feeding-stuffs. Sixty-eight samples were licensed. Twelve of these samples were composed of whole or coarsely ground grains, the nature and composition of which were apparent. Accordingly, a chemical analysis was not made. Thirty samples represented duplicates. Fifty-six samples were analyzed and the results are tabulated in the following table.

In general the feeds analyzed were in accordance with the guarantee. A number were well above the guarantee while a few were below. As usual the inspector reported a large number of low grade feeds but all of these do not appear in this report.

At the last session of the New Hampshire legislature the feeding-stuffs law was amended so as to require an inspection of a wider range of feeding-stuffs, also a guarantee of the maximum percentage of crude fiber is now required. The law is still inadequate. If the law were to require a statement of the specific ingredients of which any particular feeding-stuff were compounded the interest of both the consumer and manufacturers of high grade feeding-stuffs would be protected. A number of states now require a statement of the specific ingredients of which a feed is made. New Hampshire consumers of feeding-stuffs should demand a proper revision of the feeding-stuffs law at the next session of the Legislature and secure what some of the neighboring states demand and get.

The following is a copy of the present New Hampshire feeding-stuffs law.

Be it Enacted by the Senate and House of Representatives in General Court Convened:

SECTION 1. That section 1 of chapter 35, session Laws of 1901, be amended by inserting after the words "and of crude fat," the words and of crude fiber, so that the section a

amended shall read: Every manufacturer, company, or person, who shall sell, offer, or expose for sale or for distribution in this state any concentrated commercial feeding-stuff used for feeding farm live-stock, shall furnish with each car or other amount shipped in bulk and shall affix to every package of such feeding-stuff, in a conspicuous place on the outside thereof, a plainly printed statement clearly and truly certifying the number of net pounds in the package sold or offered for sale, the name or trademark under which the article is sold, the name of the manufacturer or shipper, the place of manufacturer, the place of business and a chemical analysis stating the percentages it contains of crude protein, allowing one per centum of nitrogen to equal six and one fourth per centum of protein, of crude fat and of crude fiber, both constituents to be determined by the methods prescribed by the associates of official agricultural chemists. Whenever any feeding-stuff is sold at retail in bulk or in packages belonging to the purchaser the agent or dealer, upon request of the purchaser, shall furnish to him the certified statement named in this section.

SECT. 2. That section 2 of the same act be amended by inserting after the words "corn and oat chops," the words wheat, rye and buckwheat bran and middlings, and by striking out the words "neither shall it include wheat, rye, and buckwheat brans or middlings, not mixed with other substances, but sold separately, as distinct articles of commerce, nor pure grains, ground together," so that section 2 shall read: The term concentrated commercial feeding-stuffs as used in this act, shall include linseed meals, cottonseed meals, pea meals, coconut meals, gluten meals, gluten feeds, maize feeds, starch feeds, sugar feeds, dried brewer's grains, malt sprouts, hominy feeds, cerealine feeds, rice meals, oat feeds, corn and oat chops, wheat rye and buckwheat bran and middlings, ground beef, or fish scraps, mixed feeds and all other materials of similar nature; but shall not include hays and straws, the whole seeds nor the unmixed meals made directly from the entire grains of wheat, rye, barley, oats, Indian corn, buckwheat and broom corn.

SECT. 3. That section 4 of said act be amended by substituting for the words "a license" the words an analysis

throughout the section; by substituting the word fifteen for the word "twenty:" and by inserting after the word "dollars" the words for each brand offered for sale within the state so that section 4 as amended shall read: **SECT 4.** Each manufacturer, importer, agent, or seller of any concentrated commercial feeding-stuffs, shall pay annually during the month of December to the secretary of the board of agriculture an analysis fee of fifteen dollars, for each brand offered for sale within the state. Whenever a manufacturer, importer, agent, or seller of concentrated commercial feeding-stuff desires at any time to sell such material and has not paid the analysis fee therefor in the preceding month of December, as required by this section, he shall pay the analysis fee prescribed herein before making any such sale. The amount of analysis fees received by said secretary pursuant to the provisions of this section shall be paid by him to the treasurer of the state of New Hampshire. The treasurer of the state of New Hampshire shall pay from such amount when duly approved the moneys required for the expense incurred in making the inspection required by this act and enforcing the provisions thereof. The secretary of the board of agriculture shall report biennially to the legislature the amount received pursuant to this act, and the expense incurred for salaries, laboratory expenses, chemical supplies, traveling expenses, printing, and other necessary matters. Whenever the manufacturer, importer, or shipper of concentrated commercial feeding-stuff shall have filed the statement required by section 1 of this act and paid the analysis fee as prescribed in this section, no agent or seller of such manufacturer, importer, or shipper shall be required to file such statement or pay such fee.

Approved April 15, 1911.

Messrs. J. E. Robinson and D. B. Keyes have assisted in the preparation of the following analytical work.

Name of Brand.	Manufactured by	Percent Protein.		Percent Fat.		Retail Price per 100 lbs.
		Guaranteed.	Found.	Guaranteed.	Found.	
Cotton Seed Meals						
Choice Cotton Seed Meal.....	American Cotton Oil Co.	41.00	42.73	9.00	11.62	1.65
Dixie Brand Cotton Seed Meal.....	Humphrey's Godwin Co.	38.00	41.32	6.00	7.65	1.75
Owl Brand Cotton Seed Meal.....	F. W. Brodie & Co.	41.00	41.00	6.00	7.65	1.85
Pioneer Cotton Seed Meal.....	J. E. Soper & Co.	41.00	42.72	8.00	9.35	1.65
Soper's Choice Cotton Seed Meal.....	J. E. Soper & Co.	41.00	42.38	8.00	8.44	1.55
Gluten Feeds						
Buffalo Gluten Feed.....	Corn Product Refining Co.	23.00	27.84	2.50	2.34	1.45
Clinton Gluten Feed.....	Clinton Sugar Refining Co.	20.00	24.08	3.00	6.22	1.45
Crescent Gluten Feed.....	Corn Product Refining Co.	23.00	28.37	2.50	2.50	1.40
Poultry Feed						
Buffalo Poultry Feed.....	Buffalo Cereal Co.	15.00	15.63	4.00	5.25	2.10
Wirthmore's Growing Feed.....	Chas. M. Cox Co.	13.00	11.51	5.01	3.51	2.00
Husted Laying Mash.....	Husted Milling Co.	15.00	16.90	3.00	4.79	2.00
Growing Feeds.....	Park & Pollard Co.	14.00	14.15	3.00	1.70	2.25
Dry Mash.....	Park & Pollard Co.	20.00	17.60	3.00	3.47	2.25
American Poultry Feed.....	Quaker Oats Co.	12.00	12.68	3.50	4.31	1.90
Algrame Poultry Feed.....	H. O. Co.	17.00	16.20	5.50	5.51	2.30
Meat Scraps, etc.						
Blue Ribbon Beef Scraps.....	Park & Pollard.....	50.00	56.48	10.00	15.00	3.00
Whitman & Pratt's Beef Scraps.....	Whitman & Pratt.....	40.00	44.27	10.00	15.00	3.25
Swift Lowell Meat Scraps.....	Swift's Lowell Fertilizer Co.	40.00	39.58	8.00	12.31	2.50
Ground Fish Scraps.....	International Glee Co.	.....	47.40	.....	3.42	2.50
Dow's Ground Beef Scraps.....	John C. Dow Company.....	43.00	44.04	13.00	16.47	2.65
Beef Scraps.....	Beach Soap Company.....	.....	40.11	.....	21.00	2.50
Swift's Lowell Bone and Meat Meal.....	Swift's Lowell Fertilizer Co.	35.00	40.11	8.00	12.26	1.90
Hinkley Cooked Beef Scraps.....	Hinkley Rendering Co.	35.00	36.95	5.00	10.37	2.50
Bowler's Animal Meal.....	Bowlers Fertilizer Co.	40.00	32.34	5.00	9.27	2.60
Hinkley's Beef Scraps.....	Hinkley Rendering Co.	.....	36.12	6.00	8.64	2.65
Miscellaneous Feeds						
William Tell Mix Feed.....	W. F. Anstead & Bank Co.	15.00	15.77	5.00	4.56	1.55
Creamery Feed.....	Buffalo Cereal Company.....	18.00	19.24	4.00	4.90	1.65
Buffalo Horse Feed.....	Buffalo Cereal Company.....	10.00	11.25	4.00	5.27	1.75
Schumaker Stock Feed.....	Quaker Oats Co.	10.00	10.66	3.25	3.35	1.35
Victory Corn and Oats Feed.....	Quaker Oats Co.	7.50	7.52	3.00	3.01	1.66
Buckeye Mix Feed.....	Quaker Oats Co.	.....	16.32	.....	4.32	1.50
Pearl Horse and Cow Feed.....	Chapin & Company.....	7.00	8.41	.....	2.89	1.25
Wirthmore's Stock Feed.....	Chas. M. Cox & Co.	9.00	9.36	4.50	7.95	1.45

Miscellaneous Feeds—Continued.

Wirthmore's Balanced Ration.....	26.00	26.11	5.00	5.03	1.60
Haskell's Stock Feed.....	8.00	9.11	4.60	6.94	1.40
H. O. Algram Milk Feed.....	14.00	16.46	4.00	4.03	1.50
Husted Stock Feed.....	8.00	11.03	4.00	5.82	1.55
Sterling Mix Feed.....	10.00	9.80	3.00	3.00	.....
Sterling Stock Feed.....	10.00	10.42	4.00	4.10	1.35
Star Feed.....	7.00	8.72	4.50	6.38	1.50
Wirthmore Wheat Feed.....	16.00	16.46	4.00	5.03	1.55

Molasses Feeds

Dairy Molasses Feed.....	16.00	14.55	3.50	4.17	1.25
Sucrose Dairy Feed.....	16.50	16.30	3.50	4.38	1.40
Sucrose Horse and Mule Feed.....	10.00	10.51	3.00	2.74	1.40

Brewers' Grains

Union Dairy Ration.....	26.00	26.02	5.50	6.86	1.05
Biles Ready-Mixed Union Grains.....	24.00	24.78	7.00	7.19	1.70
Biles XXXX Grains.....	31.00	31.79	12.00	13.63	1.40

Hominy Feeds

Wirthmore Hominy Feed.....	9.50	10.23	7.50	7.45	1.30
Hominy Feed.....	.....	9.40	.....	7.50	1.45
Cream of Corn.....	23.00	24.91	2.50	2.78	1.50

Oil Meals

Old Process Oil Meal.....	30.00	33.10	5.00	6.13	1.65
Old Process Oil Meal.....	32.00	38.18	5.00	5.45	2.10

Calf Feeds

Selmaacher's Calf Feed.....	19.00	18.95	8.00	7.24	3.30
Calf Meal.....	25.00	23.00	5.00	5.26	4.00
Dried Beet Pulp.....	8.00	9.02	.50	.59	1.35

The following chicken feeds were licensed but were composed of coarsely ground or whole grains and were not analyzed.

Wirthmore Scratch Feed.....	10.00	.....	3.00	.....	1.00
Wirthmore Chick Feed.....	11.00	.....	3.00	.....	2.25
Buffalo Scratch Feed.....	10.00	.....	3.00	.....	.....
Cyphers Chick Feed.....	10.50	.....	3.00	.....	2.15
Sterling Chick Feed.....	10.33	.....	3.00	.....	2.15
Sterling Scratch Feed.....	10.00	.....	3.00	.....	1.75
Scratch Feed.....	10.00	.....	3.00	.....	1.80
Parima Chick Size.....	11.00	.....	3.00	.....	.....
Selmaacher's Little Chick Feed.....	10.00	.....	3.00	.....	2.00
Selmaacher's Scratchling Grains.....	10.00	.....	2.50	.....	1.80
Wyandotte Brand Scratch Feed.....	8.25	.....	2.25	.....	2.25

AVERAGE COMPOSITION OF COMMON CATTLE FOODS

	Water.	Ash.	Protein.	Soluble Carbohydrates.	Fibre.	Fat.
Alfalfa	8.4	7.4	14.3	46.0	25.0	14.0
*Hay, red top.....	8.9	5.2	7.9	47.4	26.6	1.9
*Hay, Timothy.....	13.2	4.4	5.9	45.0	29.0	2.5
*Hay, clover.....	15.3	6.2	12.3	38.1	24.8	3.3
*Hay, Hungarian.....	7.7	6.0	7.5	49.0	27.7	2.1
*Oat fodder.....	8.9	6.2	7.6	45.1	29.3	2.8
*Rye fodder, in bloom.....	8.5	5.9	9.7	43.4	30.2	2.3
*Corn stover.....	40.1	3.4	3.8	31.9	19.7	1.1
‡Corn silage.....	80.5	1.5	1.6	10.0	5.8	0.6
*Corn, N. H. Flint.....	10.1	1.5	11.6	70.2	1.1	5.5
*Corn, Western Dent.....	10.6	1.5	10.3	70.4	2.2	5.0
*Corn meal.....	15.0	1.4	9.2	68.7	1.9	3.8
*Hominy feed.....	9.0	2.8	11.0	65.0	3.6	8.6
*Oats, whole.....	11.0	3.0	11.8	59.7	9.5	5.0
*Corn and oats, pure.....	12.0	2.2	9.8	68.5	3.3	4.2
§Wheat bran, spring.....	10.6	6.0	16.3	53.0	9.4	4.7
§Wheat bran, winter.....	11.7	5.9	15.2	54.8	8.5	3.9
*Wheat middlings, white..	11.3	2.7	15.8	62.5	3.5	4.2
Wheat middlings, brown..	10.6	3.8	17.8	57.0	5.5	5.3
*Wheat feed.....	10.8	4.3	17.0	58.1	5.1	4.7
Gluten feed.....	8.6	1.2	26.3	53.4	6.9	3.6
Gluten meal.....	8.8	0.7	35.5	50.3	1.6	3.1
‡Distillers' Grains.....	8.8	1.8	32.1	34.9	11.0	11.4
Brewers' Grains.....	8.0	3.8	23.1	49.4	10.8	4.9
‡Malt sprouts.....	11.0	5.8	27.1	42.6	11.9	1.6
*Linseed meal, old process	9.8	5.5	33.9	35.7	7.3	7.8
*Linseed meal, new process	9.1	5.8	35.2	38.4	8.5	3.0
*Cottonseed Meal.....	6.9	7.2	44.6	25.1	5.6	10.6

*Composition of American Feeding Stuffs. Jenkins and Winton.

‡Analyses made at the N. H. Expt. Sta., 1895-1899.

§Penn. Expt. Sta. Bull., No. 48.

*Compiled from Feed Inspection Reports of various states.

‡Hatch Expt. Sta. Bull., No. 94.

630.72

N532

no.152-168

DATE DUE

A fine of Two Cents will be charged for each day the book is kept overtime.

FEB 1 1 58			
FEB 1 1 60			
FEB 1 1 60			

