

HINTS FOR THE FARMER.

THE RELATION OF FOOD TO MILK FAT.

This subject has been before us as one of the most interesting problems of the industry of feeding cows for the dairy, for fully a score of years and more, but it was many years before it was regarded as one of the problems to be studied and settled by the medical profession and physiologists generally, writes Dr. Henry Stewart. It might seem to be really a subject better fitted for the attention of such experts rather than for persons who do not make their experiments in a truly scientific manner.

The question to be put accurately is, does the cow extract the fats from her food by ordinary process of assimilation convey, we cannot say convert, the fats thus consumed into that part of the milk which we call the butter fat? In other words, is it possible to increase the quantity of butter a cow will yield by feeding foods rich in fat? The question is not whether we can make a cow eat animal fats or oils and thus increase the proportion of fats in her milk, but this simple proposition—can the dairyman, by feeding foods naturally rich in fat, and such foods as the cow naturally is able to digest and assimilate, increase the proportion of fats in the milk, or increase her yield of butter in any way?

Dairyman generally believe this, and feed their cows in accordance with that belief. As it is a common practice among the most intelligent of butter-makers to choose these foods quite as much for the quality of the butter made as for the quantity, and it has been a result of long practice to find that the choice of foods has been one of the most important parts of their business, they have come to the reasonable conclusion that they are acting in strict conformity with a natural law, that the fats in the food do increase the proportion of butter in the milk as well as affect its quality.

The scientific physiologists and the medical profession are a unit in the belief that the fats of the food go directly into the blood, and are thus assimilated into the system directly, without change. It was not always so however. I remember during my training as a physician, that this was a moot question, then under the most skilful study and experiment, and after a series of tests most carefully conducted, under the control of the British medical members of the Royal Association, the conclusion—quite unavoidable—was unanimously arrived at that the fats of the food were assimilated without digestion into the blood directly, and then distributed through the body.

Of course, if this is true, the fats of the food go into the milk. Dairy-men in practice know, beyond question, that the quality of the butter is varied as the fats of the food vary. The oily beechnut makes soft butter, as it makes soft, oily pork. The butter made from cotton seed meal is soft, while it has precisely the same reaction with nitric acid as the cotton seed oil has. Indeed, there are such an abundance of proofs to support this that it is the practice among intelligent butter-makers to choose such foods as contribute the best flavor and consistency to the butter, and it is a matter of rather considerable indifference to them what scientific chemists say to the contrary of their belief.

But it may be well to point out the fact that a bulletin has been issued by the New York Experiment Station on this subject, giving a great variation in the beliefs of some of those scientific students who are investigating this matter, some of them agreeing with the contention of the practical business dairymen, while others differ. But one point I think will have great weight with those who are on the fence, and this is that while the New York Station decidedly affirms the belief that the kind of food as to the fat in it has no relation to the proportion of fats in the milk, nevertheless it gives, as the result of a test the clearest evidence and figures to support it, that the feeding of palm-nut meal does increase the proportion of fats in the milk. Here are the figures:

	Per Cent. Fat.
Usual ration, three weeks.....	5.28
Same, next three weeks	5.80
Palm-nut meal ration, three weeks.....	5.80
Same, next three weeks	5.80
Usual ration, three weeks	5.80
Same, next three weeks	5.80

It is stated as extraordinary, and, as I understand, as an objection to

the belief that the palm-nut meal had the effect of increasing the proportion of butter percentage of fat in the milk for the two periods of three weeks next after the test was made, that the increased quantity of fat in the milk was maintained. I say extraordinary, because it is a part of the contention of those who believe in this effect of the fats in the food, that the cows not only yield more fat in the milk, but at the same time accumulate a surplus which inures to the increased quantity of fat in the milk for a considerable time after the feeding of the meal has been suspended.

It might be urged that the feeding of the foods rich in fat, for short intervals of three weeks, is not so satisfactory a test as the feeding through some months, during which, in my own practice when feeding palm-nut meal having 12 per cent. of fat in it, comparison with corn meal having half as much fat in it, for six months steady, the yield of butter from one cow increased nearly 50 per cent., or half as much as the difference between the corn meal fed and the palm-nut meal fed afterwards.

It should be borne in mind that cows may be educated to consume a greatly increased quantity of food and turn it to profit; also that cows differ in their natural ability to make profitable use of food, and while some will respond favorably to a test of this kind, others will not; and that some dairymen are obliged to discard some cows on this account, while they keep others year after year, and find them often to be steadily improving by the culture they are subject to in this way of feeding. Some of my cows have continued to improve with high feeding until they were old-aged, and their calves improved in respect to habit of profitable feeding year after year.

THE PRINCE OF WALES.

Some Unique Distinctions of His Royal Highness.

Here are some interesting facts about the Prince of Wales, which are condensed from his biography as written by his private secretary.

He is a Colonel eight times over.

He has one private secretary, two assistant secretaries, and a staff of clerks to assist him.

He receives 200 letters a day and answers most of them.

He has every order of knighthood in Europe.

His uniforms are worth \$500.

He is the chief horse owner, dog owner and yachtsman in England.

He goes to church every Sunday morning.

He started life, with an income of \$55,000 a year.

He loves to travel incognito in Paris.

His favorite vehicle in London is a hansom cab, yet his stables cost \$75,000 a year.

He has friends in every nation and speaks German, French, Italian and Russian.

He is 5 feet 6 inches tall and weighs 180 pounds.

He is 57 years old and has four grandchildren.

When he was young he was very tender-hearted and cried for days when a tutor left him.

He is said to be one of the best shots in England.

He sets the fashions in clothes for the whole world.

He has thirteen university degrees.

He has made more speeches than any other man in the world, but mostly short ones.

He owns the deepest mine in England.

He was the first Christian to dine with the Sultan.

BRIEFLY MENTIONED.

The fire department of Chicago has ninety-eight steam fire engines.

Cigarettes are smoked almost exclusively in Germany, Austria, Russia and Greece, and generally through Europe.

The city of Cleveland is the first to create a department whose sole object is the abatement of the smoke nuisance.

The Panama Canal Company of France has secured a six years' extension of its grant from the Colombian government.

Supt. Quigley, of the Indianapolis police force, has given orders to enforce the anti-spitting ordinance by arresting all offenders.

The city of Rochester, with an estimated population of 180,000, pays \$1,575 per month for the collection and disposal of its garbage.

Boston has an ordinance restricting the height of buildings, which has recently been put to the test and sustained by the courts.

THE NEWS IN A NUTSHELL

THE VERY LATEST FROM ALL THE WORLD OVER.

Interesting Items About Our Own Country, Great Britain, the United States, and All Parts of the Globe, Condensed and Assorted for Easy Reading.

CANADA.

At Dawson \$8,000 was subscribed for the fire sufferers at Ottawa.

C. P. R. employes have contributed nearly \$12,000 to the patriotic fund.

The Patriotic Fund at Ottawa now amounts to \$298,000.

C. P. R. land sales for May were 66,000 acres, for \$215,000, or \$8,000 over April.

Russia has opened an Imperial Consulate at Montreal. Hitherto there has only been a Vice-Consul at Halifax.

The Welland Vale bicycle manufactory will be removed from St. Catharines to Brantford.

The bill to tax banks, fire, life, loan and other companies is being considered in the Manitoba Legislature.

Lord Minto has received from the Mayor of Port Elizabeth, South Africa, \$3,500, for the Ottawa fire fund.

The biggest nugget yet found in the Klondike was picked up on Gold Hill recently. It weighed 77 ounces, and was valued at \$13,000.

Some London, Ont., confectioners are charged with violating the liquor law by selling "brandy chocolates," said to be made in Toronto.

The promoters of the electric railway between Woodstock and Ingersoll expect to begin the construction of the road in about two weeks.

Gold in considerable quantities is coming from the creeks in the Yukon to Dawson City. The output is estimated by the banks at \$25,000,000.

Forest fires are doing a great deal of damage in different parts of New Brunswick. Sixty-five buildings were burned at St. Martin's Village.

Ottawa moulders have demanded an increase of 15 per cent. in their wages, and the employers offer 10 per cent., which has been rejected. The builders ask 20 cents an hour, and will strike if their demands are not met.

Edward Joy, watchman at the Grand Trunk crossing at King street east, Hamilton, was presented with the Humane Society's bronze medal for saving the life of a little girl named Sullivan, at the crossing, on April 30th.

Crop reports from Manitoba show that rain is badly needed in nearly all districts. Despite the dry season, however, crops have advanced nicely, and with showers within a week no great damage will be done. The hay crop will be light.

It is said that the Allans of Scotland and Canada are behind the proposed new Royal Ulster Steamship Company, Limited, which was recently incorporated under the laws of New Jersey to run boats between British ports and Montreal, Boston and New York.

GREAT BRITAIN.

Hon. Joseph Chamberlain is said to be suffering from gout.

For painting the words "I am a Boer" on the gate of a Wick, England, nurserman, Miss Dorothy Chute was fined \$20.

Under municipal ownership the wages of Liverpool Street Railway employes have been increased and hours shortened.

The Free Church Assembly of Scotland approved by 592 votes to 29 the union with the United Presbyterian Church. The union will be effected in October.

A rumor is current in the lobbies of the Houses of Parliament, London, that the Marquis of Salisbury will retire from politics after the next general election.

John Redmond, who is in Ireland, arranging for the Irish National Convention, says that the Nationalists are unprepared for the election, and will lose several seats in the event of an early dissolution of Parliament.

UNITED STATES.

Colorado wolves are being exterminated by inoculation with virus of rabies.

Nearly 55,000 men will take the United States census, which will cost \$15,000,000.

The State of New York has expended in the last twenty years \$953,520 for investigating committees of various kinds.

Senator Clark, of Montana, has settled a dowry of \$14,000,000 upon his daughter, who was married on Monday.

The eight-year-old daughter of James Brown, was pushed into a bonfire by a playmate and burned to death at Amsterdam, N.Y.

New York State apples have been awarded first prize at the Paris Exposition.

A negro woman, at Richmond, Va., dropped dead from fright on seeing the eclipse.

Four of a family of six while sitting at the supper table at Anoka, Minn., were shot and killed by neighbours.

Carl Raub of Cleveland shot and killed his niece, Miss Bertha Yucker, a teacher, and then killed himself on Thursday.

Thomas Muncey, aged 99 years, is dead at Little Creek, Del. He never saw a railroad train, and never used liquor or tobacco.

At Media, Pa., a boy aged eight, saved his two little brothers from being burned to death. But his mother and a baby perished.

U. S. Senator Jones says U. S. Commissioner Peck has only accounted for \$400,000 of the \$1,400,000 appropriated by the U. S. Government for the Paris Exposition.

The law is after a brick manufacturer in Appleton, Wis., who dressed up his adopted fourteen year old daughter in boy's clothes and put her to work in the brickyard.

Twelve members of two families were found dead near Montgomery, W. Va. They had eaten provisions stolen from railway contractors, who had poisoned the food.

A lone desperado held up the passengers in a sleeping car on the Missouri Pacific Railroad, between Falls City and Stella, Nebraska, but did not secure much plunder.

The Haines Gauge Company, of Philadelphia, declines to furnish apparatus for ships of the United States navy on the ground that the proprietors are members of the Society of Friends and are opposed to war.

GENERAL.

Spain is erecting forts under range of Gibraltar's guns.

A crisis is impending in Corea, owing to execution of two Japanese refugees.

There are now 5,730,000 persons in India receiving relief. Cholera in Bombay and Rajputana has not abated.

The Grand Vizier of Morocco, who died recently, left a fortune of \$5,000,000 stored in the fortress of the palace of Marekosch.

Germany has hundreds of millions invested in various parts of the globe, and is rising in importance as a money-lending nation.

The official organ of the Bond Ministry in Newfoundland strongly advocates a union with Canada, and foreshadows political action to that end.

FIGHTING THE CODLING MOTH.

Regulations Adopted for the Suppression of this Destructive Pest.

One of the most destructive of the insect pests which assail the fruit crop is the codling moth, the ravages of which detract greatly from the profits of apple raising. At the recent session of the Ontario Legislature an act for the prevention and destruction of noxious insects was adopted, in pursuance of which steps are being taken which, it is anticipated, will greatly lessen the evil. The Act provides that such regulations as may be issued by the Lieutenant-Governor-in-Council on the recommendation of the Minister of Agriculture for the purpose shall have the force of law in those municipalities which have adopted the Act by by-law.

On the 24th of May an Order-in-Council was issued under the Act embodying regulations for the destruction of the codling moth. It is made the duty of every occupier of a lot, or the owner in case of non-occupation, within one week after receiving notice, to place bands upon all bearing apple and pear trees, and also upon all other orchard trees of bearing age within forty feet of them. The bands are to be of "burlap," sacking or other suitable material, not less than four inches in width and of three thicknesses, and are to be fastened on at a convenient point between the crotch of the tree and the ground. The occupant or owner is to have the bands removed and inspected, all larvae destroyed, and the bands replaced at intervals of not more than two weeks, during June, July and August.

Municipalities adopting the Act are required to appoint inspectors, who will see to the enforcement of regulations. In case the occupier or owner does not comply with the regulation the inspector may cause the work to be done, and the cost may be charged up against the owner in the collector's roll and collected as taxes.

About 50 per cent. of the school boys of the District of Columbia, use tobacco in some form.

PURELY CANADIAN NEWS.

INTERESTING ITEMS ABOUT OUR OWN COUNTRY.

Gathered from Various Points from the Atlantic to the Pacific.

Arnprior has a new dentist.

Forest wants a Board of Trade. Carleton Place's population is 4,022. August 6 will be Whitby's civic holiday.

St. Thomas possesses 22 barber shops.

Gravenhurst will build a \$10,000 town hall.

Ball playing is forbidden on Coldwater streets.

Forest will pay 25 mills on the dollar as a tax rate.

Georgetown will build granolithic walks on its streets.

John Ferguson is now assistant postmaster at Forest.

A hook and ladder company may be formed at Carleton Place.

The two hotels and liquor store in Ripley are managed by widows.

Nelson, B.C., City Council gave \$1,000 to the Sandon fire sufferers.

Charlottetown firemen have been insured to the extent of \$60,000.

Cobden boasts of a hen's egg about the size and shape of a peanut.

Orillia Board of Trade has secured a tri-weekly mail service for Ardréa.

William H. Shewman, formerly of Petrolia, died in the Philippine Islands.

Robert Knowles, Southampton, has been left an estate by relatives in England.

Robert Sheridan succeeds J. T. Craig as a member of the village council for Ashburnham.

W. E. Perdue has been elected president of the Benchers of the Law Society of Manitoba.

The North-west Government is being urged to appoint a bacteriologist for the Territories.

It will cost the city of Nanaimo, B. C., \$112,000 to purchase the water-works in that city.

Mr. Francis Blondin, of Pembroke, has been awarded a United States pension of \$12 per month.

Dr. George A. Robinson, a native of Newmarket, is a candidate for Assemblyman in New York State.

The little British Columbia town of New Denver gave \$560 to the sufferers from the fire at Sandon.

One of the homeless families at Ottawa numbers 20 persons, and H. F. Williams of Cowansville, has been appointed manager of the Eastern Townships back at Ormstown.

Charles Hathaway, assistant postmaster at Forest, has been appointed to a position as railway mail clerk.

Nelson, B.C., is to have a Congregational church, with Rev. William Munro, late of Montreal, as pastor.

Scott McDonald, who made his fortune in British Columbia mines, died recently. He was worth \$500,000.

Woodstock public library will substitute English for American magazines, on account of the unfriendly criticism by the latter.

There are 22 paid men in Dawson City's fire brigade.

Edward Johnson, a native of Guelph has been appointed a soloist at a large salary in a Jewish synagogue in New York.

The C.P.R. is erecting new offices at South Falls, at a cost of \$5,000.

T. J. O. Grondin, of Hull, succeeds the late Sheriff Coutlee, as sheriff of La Belle and Wright counties.

One hundred and seventy-five thousand salmon fry have been deposited in Charleton Lake, near Brockville.

Lieut. W. B. Everton, of Prince Alfred's Guards, who was taken a prisoner, near Kroonstad, formerly resided in Winnipeg. He is a brother of Rev. Samuel Everton, of Dauphin, Man.

A SUGGESTION.

Last spring a farmer's wife said to him: "We have only one life to live! There's the money in the bank. I think we would better take and remodel and build on to the house."

He replied: "I think so, too."

Last summer it was done and we heard her tell how convenient everything was and how much easier it was to do her work now that she had hot and cold water by turning a faucet, and drains to carry off the waste water. We heard her tell how she enjoyed the nice airy sleeping rooms in place of the little nine feet square bedrooms they had used for so many years till she rebelled and took the two small children with her and had slept in a tent from May till October.

Perhaps some other husband is waiting for his wife to suggest putting money into making the home comfortable rather than leave it in the bank or spend it for more land.