AGRICULTURAL

Feeding Dairy Cows.

BY C. P. GOODRICH OF WISCOUSIN.

To make the greatest profit in dairying the cow should be fed and managed in such a way as to make her consume as much as possible of good milk-producing foods. To do this she should have the greatest possible variety of foods. Her appetite—her likes and dislikes—should be catered to as much as can be consistently.

In summer her pasture should contain a great variety of grasses. And when my cows are put in the stable to milk twice a day they have some good clover hay, and they never fail to eat some, no matter how good the grass in the pasture is. They also are fed in summer, except some of them that are dry a short time at that season, all the grain—corn and oat meal or bran—they will eat, which, of course, is not nearly as much as they eat in winter.

In winter they have as great a variety of fodder as possible each day—clover and meadow hay, corn fodder and straw, with a grain ration, in two feeds of from twelve to fifteen pounds. I observe the grertest regularity possible in feeding, having the same kind of food given at exactly the same time each day, so that they never worried or disappointed by having one kind of food thrust before them when they are expecting another kind.

To produce milk as economically as possible I try to provide the necessary elements in that food which will cost the least, having due regard all the while for the likes of the cow herself, for I believe her pleasure should be consulted as much as the housewife consults the pleasure of her family when providing food for them.

If oats are cheaper than corn meal and bran, I feed oats mainly for a grain ration; but if two tons of oats will buy three tons of bran, then I make the exchange. Chemical analysis seems to indicate that good clean wheat bran is fully as good as oats for milk production, but my observation seems to prove that oats are, at least a little better. Corn is usually a very cheap grain food, but it is carbonaceous and should not be used for more than about one-third of the grain ration.

Corn ensilage made from well cured corn is the cheapest food I can provide for my cows, but it is not of itself a perfect ration but needs to be balanced up with bran or oats or clover hay.

I have been trying to tell you how I feed my dairy cows, but I am sensible that I have failed to give more than a slight general idea of it, for each cow has her own individual capacity which differs from every other cow which must be studied by close observation and acquaintance, before the feeder is able to do the best that can be done.

I never could tell anybody just how to feed my cows. I never dare give instructions to have as much grain fed as I feed, for no one who is not intensely interested in it and in full sympathy, I might term it, with the cows, will be able to feed just right. Some cows might be fed a little too much grain and it not be observed until she refuses to eat, when it will probably be two late—her digestive organs permanently injured. When I wish to instruct anybody how to feed my cows I have to go, taking him with me and show him, and show him more than once, too.

Every milker has the same cows to milk each time. He commences in the same rate, never hurries and never lags, but as near as possible every time alike. If they are going to talk at all they must talk all the time. Sometimes we have had a boy and a girl out there milking. Now then if they are going to do any sparking, they have got to keep it up, but as a rule that does not work very well. The best milker I ever had was a very musical fellow. He used to sing, but he had a different tune for each cow. Now if he had changed his tune and sung Old Hundred to the Yankee Doodle cow you see the motion of his hand would have been slower, the milking would have been different, the cow would not have been pleased at all, would not have given so much milk, and it would not have been as good.

The Apple is King.

I sing not the fruitage of old Yucatan,
The circus of Spain or the Plums of Japan;
The Florida Orange may grow in the South,
The Peach of New Jersey may melt in your mouth;
The broad-breasted Quince has a heavenly smell,
And I love California Apricots well:
Bananas of Nassau and Malaga Grapes
In clustering richness and lavishing shapes,—
They're beautiful all, but bepraise them who will
A ruddy old monarch outranks them all still;
A fruit universal, coeval with man:
'Tis the blessed old apple; gain say it who can.

Farm Field and Stockman.

Winter Dairying on the Farms.

Let me say a few things as to how this winter dairying presently can be carried on with advantage on the farms: because in connection with that scheme of helping farmers to make butter in winter by furnishing cream to creameries, I would like to see the farmers helped in some practical way to make more and finer butter at their own places. Notwithstanding the importance of the creamery industry and the advantages that flow from its development, I think one-half of the butter will be made in home dairies for some time to come—in my life time any way. From isolation settlement, from various causes, about one-half of all the butter product in Canada will be made in private dairies. Now I think that the farmers' wives are eager to learn when they get a fair chance, but the trouble has been that the men have had all the good things They had to have the horses, and the reaping. and mowing machine, and the driving sheds, and everything else they wanted, while their wives had to get along with one pantry for keeping the milk, the butter, the cold vegetable, the pies and everything else. Then the cream took in the mixed flavour. If the farmer would give the wife a small milk house, I will warrant that it would be kept far more tidy than his driving shed; and she would take such a pride in it that it would make a man look after his part of the business better. Go round and see the women struggling with an old fashioned churn, working twice as long in churning the butter as there is any need for, and until it is not so nice as as it would be if churned more rapidly—all because the man had to buy a new top buggy and build a new driving shed, &c., never thinking that his wife should have her strength spared and the needs of her department provided for. Get rid of these old-fashioned churns and milk houses, and you will revolutionize the butter trade at once. I am not in favour of strikes; but if I could reach the ears of the good women that are such an ornament and joy to the households of Canada, I would have them strike and say:—"We won't do anything until you give us new churns and milk-houses." Men would likely stand out for awhile, but they would have to give in.—[From Address by Prof. Robertson.

The Future Wheat Supply.

The following letter from the County Gentleman explains itself:—I am sure you, readers must feel grateful to Mr. C. Wood Davis for the large amount of interesting reading with which he has amused, if he failed to instruct, them during the past few months. The intelligent readers of the Country Gentlemen, no doubt, early discovered that Mr. Davis was an adept at cooking and serving up statistics so as to make them interesting to those of us who believe that it is about time the American farmer had his innings, or at least got better paid for his labors

But it seems to me that he overdoes the thing, and that we can scarcely hope to see during the present generation, the average farmer get the inside track in his race with the stock gamblers, railway boomers and protected monopolists in general, for his just proportion of the national wealth. Mr. Davis' Mathusian ideas are not new by any means, for it is evident that they existed long before the Christian era, if not before the flood, but even hoary nonsense may be made to appear plausible, and even pleasurable, to the average reader by a clever writer like Mr. Davis. But they seem to fail miserably in what seems to be the intent of the writer, viz, to "bull" the prices of grain and farms.

"Well-informed cultivators of the soil know that scarcely any material portion of the earth's surface is cultivated so well as to produce the possible maximum yield of food for man, and that without drawing very largely on the possible abundance which the waters may bring forth, our little planet might be induced to feed comfortably at least ten times the number of its present inhabitants. Since the time when Joseph made serfs of the Egyptians by a clever deal in grain, there have been numerous and marked fluctuations in prices, but the tendency has been all along toward a lower standard, and during the past decade, Hodge could secure more bread by a day's labor than could have been done by him or his ancestors since Adam was a boy, and we are not so sure that this downward tendency has been permanently checked.

"So friend Davis may banish his fears about the early advent of a *depressed standard of living*, although a little of the so-called "lowering" might result advantageously to the health and happiness of not a few American citizens. But is it just to call the standard of living which raised a Lincoln, a Garfield or a Franklin, lower than that which produces so many dyspeptic drones in $5-a-day hotels? And it would certainly be a raising of the standard of living if the consumption of intoxicating liquors and tobacco were abandoned forever by every one claiming to be a free American citizen, and the billion and a half of dollars annually wasted in that direction turned into a more profitable channel.

"But there is one thing about Mr. Davis' writings which we Canucks dislike, that is, his habitual ignoring or belittling the wheat-producing possibilities of the Dominion, although it lies right alongside his own country, from the Atlantic to the Pacific oceans. Mr. Davis might get his idea about the future wheat supply of this continent expanded and corrected by taking a journey next August to the Peace River country which lies about 1,000 miles directly north of the State of California—where the first-prize wheat at the Philadelphia centennial was grown, and whence will probably come the prize wheat at Chicago in 1893. In making this journey he will see a country containing over 10,000,000 acres of good wheat land—equal to any in the known world—and quite capable of producing 1,000,000,000 bushels of wheat annually. After his return from such a survey of Canadian territory, if not blinded by prejudice, he will not feel like repeating the statement made by him in the Country Gentleman for June 25. "It is barely possible that in twenty years the European product [of bread making grains] may increase 30,000,000 bushels, that of North-America 50,000,000, that of South-America 40,000,000, that of Australasia 50,000,000," &c.

It is true that but a small fraction of this enormous bread-producing territory has yet been brought under cultivation, but we have the land, and we shall soon have the people to cultivate it, when our government gets into more honest hands, who will not permit hard-working farmers to be legally plundered for the benefit of a few monopolists and protected manufacturer. When that time comes, Uncle Sam will pay us back four-fold for the hundreds of thousands of enterprising Canadians who have gone from "our side" to help develop "the land of the free and the home of the brave."

In the meantime I hope that Mr. Davis will not slacken his hand in making war on grain gamblers, and the many other vampires who rob the honest farmer of the legitimate products of his farm and the sweat of his brow.

Montreal, Dec. DAVID CURRIE."

Next to Canada and the United States, the country to which there is the largest immigration of Europeans in these times is Brazil. Notwithstanding all the disturbances of the year in Brazil ship loads of steerage passengers have been put ashore every week at Bahia, Rio, and other ports on the eastern seaboard. We judge by the monthly returns thus far received that the year's immigration will run up to 200,000 mostly from Italy, Portugal, and Spain. The republican Government holds out even greater inducements to immigrants than were held out by the Government of Dom Pedro. It pays a proportion of their passage money; it gives them land on easy terms; it promises to provide them with employment, and it relieves them from military service for a term of years. Over 80,000 Italians have taken advantage of these offers this year, and the Government, amid all the troubles and changes of the times, has striven to keep the promises made to them. It is a curious fact that while there were many German immigrants to Brazil during the reign of Dom Pedro, German immigration has almost entirely stopped since the setting up of the unsettled republic.

NEW DIPHTHERIA REGULATIONS.

The Ontario Health Authorities on the Alert to Stamp out the Disease.

The following are the amended regulations re diphtheria adopted by the Provincial Board of Health of Ontario, and approved by an order in Council dated Dec. 23rd, 1891:—

1. Wherever diphtheria is present in any municipality in Ontario, the Council of every such municipality shall at once appoint one or more sanitary policemen for the purpose of assisting to arrest the spread of the disease, and the Council of any municipality in Ontario where the Provincial Board of Health deems the appointment of one or more sanitary policemen necessary, shall also make such appointment.

If the medical health officer of the municipality, or the Provincial Board of Health, requires the appointment of any specified number of sanitary policemen, then such number shall be appointed.

In case the Council of any municipality neglects or refuses to make the required appointments, the Provincial Board of Health may appoint as many sanitary policemen for such municipality as it deems necessary.

2. Any default on the part of the authorities of any municipality in taking immediate and effective action in carrying out the regulations of the Provincial Board of Health, or any of the health Acts of this province or of any health by-law in force in the municipality, shall be at once reported by the medical health officer to the secretary of the Provincial Boad of Health, in order that the said board may take such measures as it deems requisite for placing the said municipality in a position, as regards its sanitary arrangements, to effectively combat the said disease.

3. The medical health officer of every municipality having received information of a suspected case of diphtheria shall immediately enquire into the facts, either by consultation with the attending physician or by his own personal observation, or by both.

If the characteristic symptoms are sufficiently developed at the time of investigation, the medical health officer shall keep the case under his personal observation until the true nature of the disease is discovered.

Until the time arrives when, in the opinion of the medical health officer, all cause for suspicion of danger is past, the suspected case shall be isolated and otherwise dealt with in the same manner as prescribed for diphtheria.

4. On the occurrence of the first or any case of diphtheria in a municipality the medical health officer shall at once remove the person attacked to the isolation hospital, tent, or other place provided under sec. 97. cap, 205, R. S. O., 1887, or cause such person to be otherwise efficiently isolated in the house where the disease exists, and shall take proper measures for placarding houses, or, if necessary, the destruction of all clothing which may have been exposed to the contagion, and for the disinfection and purification of every conveyance, rail car, steamboat, sailing vessel, carriage or other vehicle which may have been exposed to the contagion. (Vide sec. 84, 85, 86 and 87, etc., cap, 205, R. S. O. 1887.)

5. Whenever, in the opinion of the medical health officer, it is absolutely necessary for the safety of the public that a case of diphtheria be isolated in a hospital or hospital tent, he shall be empowered to supply, at the expense of the municipality, a vehicle for the purpose of carrying said person to the hospital. He shall also supply nurses and such medical aid and other neccessaries as in his judgment are required, and charge the cost of same as provided in sec. 84 of the Public Health Act.—(Vide sec. 84, 97, cap. 205, R. S. G., 1887.)

9. In the case of the death of any person suffering from diphtheria or croup, the medical health officer should at once be notified by either the physican or party in charge of the body, and the medical health officer shall take such steps in the preparation of the body as he may deem necessary. In case the disease be contagious, he shall cause the body to be enveloped in a sheet thoroughly saturated with a solution of mercuric chloride the proportion of one in 500 parts (two drams to the gallon). An outer sheet shall also be applied to prevent evaporation. As soon as possible the body shall be placed in a coffin, and surrounded by a quantity of chloride of lime. and the coffin shall be immediately thereafter permanently closed. It shall be the further duty of the medical health officer to see that the funeral be strictly private, and that the body be buried in some cemetary commonly used for the burial of persons, dying within the said municipality, and that all infected apartments, clothing and other effects be speedily and thoroughly disinfected, and that no such apartments be entered or occupied by members of the family or other persons until they shall have been so disinfected.

New York Public Schools.

The New York *Observer* says that any one who is at all familiar with the public school buildings in that city, cannot be surprised by the statements and illustrations now being published, showing the way in which the children of New York are besieged by the saloons. Any one who has ever tried to battle with the saloon power for the sake of a church or a school or a neighborhood knows the hopelessness of obtaining any justice or sympathy from the city officials. The mayor himself had been the proprietor of several saloons, and his personal and official associates for many years have been men to whom the atmosphere of a saloon is far more congenial than that of any educational institution. "Is it surprising?" asks the *Observer* "that men appointed to regulate the saloon business should scorn such considerations as the moral welfare of thousands of children when the prosperity of the rum-seller and the comfort of the ward politician are at stake? Within three blocks, on three sides of Grammar School No. 29, are eighty-five saloons, and some of these are of the lowest and most dangerous character. Other schools have a greater number within the same distance. There is no part of this metropolis where these gates of hell do not open at the very door of our schoolhouse. Our adjoining towns are no better. Yonkers has built a noble grammar school building which looks down on one hundred saloons within a few steps of its doors. These saloons have more to do with education than all the public and private schools in this region."

Of the 13,000 000 inhabitants of Mexico, it is said 10,000 own all the land outside the cities.

War Vessels on the Lake

It is pleasant to turn from the frantic and senseless utterances of some of the New York papers on the wise treaty between Great Britain and the United States that neither country shall place war vessels on the Great Lakes to a calm and common sense view of the case from an American standpoint. The Chicago *Times* in a recent issue, has the following to say on the subject:—"Treaties as a rule have mutualities like any other bargain. The treaty which prevented the United States from placing a fleet of war-vessels on the lakes also prevented Great Britain from doing likewise, and for more than seventy years the result has been highly beneficial to the contracting nations. There has been no war, no aggression, no menace, and no vast expense whereby Christian nations frowning at each other with increasing armament have increased the burdens of taxation upon peaceful and well-disposed people, who, in the sweat of their brow, toil for their daily bread. If there was any advantage to one of the parties in a treaty which all the long years of its existence has been salutary for both that advantage lies with the United States, for, having the command of the outlet of the lakes, the ability of Great Britain to crowd the lower of these with war-vessels was limited only by its willingness to incur the expense of their construction. There could be no possible use for the employment of any of them, yet but for this beneficent treaty they would have vexed the peaceful waters, and having done nothing would have been retired for new forms of naval architecture, each country justifying tremendous expenditure in this regard on the pretext of a menace from the other side. Statesmanship at its greatest utility was displayed in a treaty which has kept hostile fleets from the lakes since the close of the war of 1812, and he is a pettifogging scoundrel, not a statesman, a pitiable demagogue, who would move for the abrogation of that treaty, as may be done upon notice. Another journal, commending the suggesting to re-enforce armed vessels on the lakes, says: No such amount of wealth afloat and ashore is left with such a miserable pretense of national protection as that which is found in the lake cities and lake shipping. Canada has done better than the United States in this matter; besides which British gunboats can reach the great lakes by way of the Welland canal in the event of war, while a United States navy would have to be created for the lakes, and this could not be accomplished until much damage had been inflicted by the enemy. It is true that the treaty now in force prohibits either Great Britain or the United States from keeping more than one war-vessel afloat on the lakes. But revenue-cutters are not war-vessels, though they should be well armed. The long line of coast to be protected from the plots of smugglers requires the service of fast revenue-cutters, and the possibility of domestic disturbances justifies a thoroughly armed equipment of them. It is marvelous that we have been able to get on amicably these more than seventy years only to discover of a sudden at the suggestion of alarmists, prompted by demagogues, and jobbers, and junketers, that we are no longer safe unless we get another war-vessel or two or a whole fleet. The last official use made of the revenue-cutter Johnson, as far as *The Times* has observed, was to carry the Hon. Jeremiah Rusk and his family on a pleasure jaunt. Even in the event of war Great Britain could not crowd vessels into the upper lakes through the Welland canal unless the soldiers of the United States or its volunteers have no knowledge of the use of dynamite, that would empty that canal before Jack Tar could cry Jack Robinson. Suggestion that war-vessels are needed on the lakes is worse than humbug. It has the backing of jobbery, of plunder, of officialism anxious to aggrandize itself."

The Export Cattle Trade.

At a recent meeting of the Dominion Live Stock Association held at the Albion hotel, ex-Ald. Frankland, Toronto, presiding, the principal topic discussed was the advisability of paying the law costs, $9,000 in connection with the famous suit brought against Andrew W. Aikens, of Cooksville, and his partner C. Flanagan, members of the association, by the Allan line, to recover damages for alleged breach of contract. The circumstances of the case are as follows: Messrs. Aikens & Flanagan contracted with the Allan line for two ships in which to carry a large number of cattle to England from Montreal. Through the alleged negligence of the steamship company the cattle were allowed to stand in the sun for three days and one of them died. The cattle men then refused to ship, and the company sued them, the trial taking place in England. The Dominion Live Stock Association had been given such poor service that it agreed to make a test case of the matter and shoulder the law costs, if Aikens & Flanagan would pay the damages claimed by the company in the event of their losing the case. This was agreed to, and the suit was decided against the association much to its surprise. An assessment of $15 has been levied on the members to meet the bill, and for two hours this assessment was discussed yesterday with much feeling. Everyone present except A. C. Snell the rich Guelph breeder, thought the tax all right. It just took Mr. Frankland about 10 minutes, in his prayer meeting style, to convince Mr. Snell that it was a privilege to be allowed to contribute to this law bill. No one could withstand the specious arguments of the president, at which the assembly laughed most consumedly. Mr. Snell paid his $15 in amid a storm of applause, and thus a threatened break in the association was healed. A large number of members who have not had the case explained to them have failed to remit, but trouble is not expected.

A deputation, consisting of Messrs Dunn, Gilchrist, Snell and Crawford was appointed to go to Montreal to endeavor to get a 1 cent a mile rate on the railways, as was formerly the case.

These officers were elected: President, G. F. Frankland: vice-presidents, J. C. Coughlin, T. O. Robson: secretary, H. Gilchrist, Montreal; treasurer, A. J. Thompson; Executive Committee, J. Featherstone, James Aikens, William Hearn, W. W. Craig, C. Coughlin, W. J. MacClelland, A. Rawlings, John Dunn, E. O'Leary and E. Snell.

After the meeting Mr. Andrew W. Aikens of Cooksville, related an incident in which a Toronto man named Francis Shields lost his all, $38,000, through the alleged poor steamship service.

WERE THEY ABANDONED AT SEA

A Boat's Crew Arrive in Liverpool Exhausted and Frost-Bitten.

ON BOARD WAS THE DEAD BODY OF A CRAZY PASSENGER.

He Had Jumped Overboard and Six Men Tried to Rescue Him—Found Dead and Clutching a Buoy—Some of the Men Are Crippled for Life—They Will Sue the Captain Who Left Them.

LIVERPOOL, Jan.—A boat's crew composed of six men, belonging to the British steamship Eleanor, arrived here this morning in a half frozen condition. The sailors tell a tale of much suffering, from which experience several of them will be permanently injured. It appears that one of the passengers of the Eleanor, who had been acting in a strange manner on board that vessel suddenly jumped overboard on Sunday, while the steamers was going at full speed. The Eleanor at that time was off Greenore Light, County Louth, Ireland, but far out at sea. In addition, it was night time and a nasty sea was running. The weather was bitterly cold. In spite of these facts the captain of the steamship stopped and then reversed his engines and ordered a boat to be launched. He called for a volunteer crew and burned blue lights while the boat was being swung overboard and lowered. A crew of six volunteered, and, with the steamer still burning colored lights, the rescuers disappeared in the darkness, pulling in the direction in which the drowning man was supposed to be. Under the influence of wind, sea and a strong current the boat was soon so far away from the steamer that her lights could not be seen. The gallant seamen, however, continued their search for the passenger who had jumped overboard.

THE PASSENGER WAS DEAD.

When the first alarm of "Man overboard!" had been given on board the Eleanor a life buoy had been thrown overboard from the steamer, and after an hour of fruitless search the men in the Eleanor's boat found this buoy, and clutching it fiercely in his death agony was the unfortunate passenger. He died before he could be pulled into the boat. The six rescuers then turned their attention to their own safety and anxiously scanned the horizon in search of the steamer's light or of Greenore's beacon. Neither, to their dismay could be seen. By this time the men had become benumbed with cold.

The men shouted and shouted for hours without avail, and at last they recognized the fact that the Eleanor had abandoned them. Their chances of ever reaching shore were very slim. The boat was half full of water, and it required the combined strength of the six men forming her crew to keep her bow into the sea. To make matters worse, a drenching downfall of rain swept over them. Some of the men were so exhausted that they could scarcely grasp their oars. Some claimed that their bad luck was caused by the dead body in the boat, and it was proposed to heave it overboard. More humane counsel prevailed, and the six men, with their dead freight, continued the battle against cold and wave.

RESCUE AT LAST.

It was not until 10 next morning that the Eleanor's sailors, so weak and exhausted that they hardly had the strength of children, ran their boat ashore at Greenore where they were cared for by the coast guardsmen. The rescued men were badly frost bitten. As soon as possible they were forwarded to Liverpool, where that steamer was bound for. The Elearnor had, in the mean time, reached Holyhead and reported the loss of the six men and the passenger referred to. The greatest indignation is expressed against the captain of the steamship for having so hastily concluded that the six seamen were lost. He says that he cruised about for two hours in the vicinity of the spot where he expected the boat should be, and not finding her he concluded that she had been swamped and that all on board of her had been drowned.

The injured seamen propose to bring suits for damages against the Eleanor's captain and against the owners of that vessel, and it is said that the Board of trade will order an inquiry into the whole affair, with the view of suspending or taking away the captain's certificate should it be proved that he did not exhaust every means of finding the missing boat before he decided to proceed on his voyage to Liverpoor. The rescued mariners say that it is impossible for the Eleanor to have cruised two hours about the spot where her commander should have known they were to be found without actually finding them.

Is Iron Rust a Cause of Fire.

When oxide of iron is placed in contact with timber excluded from the atmosphere, and aided by a slightly increased temperature, the oxide will part with its oxygen, and is converted into very finely divided particles of metallic iron having such an affinity for oxygen that when afterward exposed to the action of the atmosphere from any cause, oxygen is so rapidly absorbed that these particles become suddenly red hot, and if in sufficient quantity will produce a temperature far beyond the ignition point of dry timber. Wherever iron pipes are employed for the circulation of any heated medium, whether hot water, hot air, or steam, and the pipes are allowed to become rusty, in close contact with timber, it is only necessary to suppose that finder these circumstances the particles of metallic iron become exposed to the action of the atmosphere—and this may occur from the mere expansion or contraction of the pipes—in order to account for many of the fires which periodically take place at the commencement of the winter.

A Centenarian Growing Young.

A Central American newspaper tells of a man living in San Paulo, Brazil, who is considerably over 100 years old and who is growing young again. He has recently grown a new set of teeth, and his hair, which had turned gray, is now almost black again. He is in active business as a horse trader and occasionally he rides over ten leagues in a day. He has been married three times, is now a widower and is quite wealthy. The paper casually remarks that the old man suffered greatly at one time with a tumor, "but this was cured by being gored by an ox.'

The Indian National Congress has formally approved of the great work done by the Salvation Army in India.