

OF INTEREST TO FARMERS

DAIRY PRODUCTS EXPORTATION. Official Grading to be Undertaken With a View to Improvement and Uniformity.

As the Dairy and Cold Storage Commissioner of the Dominion Department of Agriculture states, the development of the dairy industry in New Zealand during the last twenty years is of great significance to Canada. In 1904 that country exported 35,203,728 pounds of butter and 9,691,920 pounds of cheese. Seventeen years later it exported 72,824,752 lbs. of butter and 15,188,204 lbs. of cheese. This enormous increase of over a hundred per cent. in one instance and fifteen hundred per cent. in the other, is attributable to management, industry, and climatic and pastoral conditions, and to the fact, in the case of cheese, that their product is better seasoned on leaving than our own. The last fact the Commissioner is inclined to attribute in a measure to the greater distance the cheese has to be carried, and to the care that is taken in temperature during transportation. Whatever the cause, it is plainly up to Canada to adopt every measure that is calculated to bring about not only improvement but stability in the situation as far as she is concerned. One step in this direction, and a most beneficial step it is hoped it will prove, is the proposed grading and standardization of dairy products sent from this country. Nothing of this nature emanates from the Department at Ottawa without consulting the interests concerned. Conferences are held to which representatives of dairy and allied associations are invited, as well as both Dominion and provincial officials. At the most recent gathering of this kind held in Ottawa, upwards of sixty delegates were present and the consensus of opinion proved to be overwhelming in favor of grading. Addresses were delivered by Hon. W. R. Motherwell, Dominion Minister of Agriculture, Dr. J. H. Grisdale, Deputy Minister, Miss Melen G. Campbell, milk specialist of the Department, and Mr. J. A. Ruddick, Dairy Commissioner, who presided. Discussion of the question in all its phases took place, and it was understood that regulations under the Dairy Products Act would be formulated as regards the grading of exports and put in force as soon as a staff of thoroughly qualified graders could be got together. It is proposed that there be four grades each for butter and cheese, the butter being designated as specials, firsts, seconds, and off-grades, and the cheese as finest, fine, seconds and off-grades.

BRUSHES AND COMBS FOR USE ON HORSES.

For removing dust, the bristle brushes are the best, for while the fibre brush does very well at first, it soon flattens down and the fibres will not penetrate the hair. The bristles will wear off, but will not flatten down. It is well to keep in mind that at the bristles get shorter in a bristle brush they become stiffer, and if used on a thin-skinned horse care must be used. The common type of currycomb is made from several blunt-tipped blades; others are circular and flexible, being made from light spring steel; they also have blunt teeth. One of the best types, however, is the humane currycomb, which consists of a number of circular cup-shaped pieces of metal, arranged

in consecutive circles and having no teeth. The edges of these cups, which are on a level with each other, are simply crumpled or creased. This cleans the hair very well, and there are no teeth to injure the animal's skin. The water brush is made of long, finer and more flexible bristles than the body brush; it is used mostly for wetting the mane and tail, also for washing the feet. It is a fine brush for cleaning the head and face. It may also serve for a thin-skinned, ticklish horse that has a light coat. The daily brush is made of coarse, heavy fibres. It should only be used for removing the mud from the legs, but as the bristles are stiff, it penetrates the hair very readily, and in stables where a quick grooming is desired it is usually used in conjunction with the currycomb. Its chief advantage is that it saves time and labor. Sponges are used about the head in cleaning the eyes, face and nostrils. The greatest objection to them is the fact that infection is very apt to be carried from one animal to another by their use. At the first sign of any disease among the horses, they should be discarded. Their greatest objection is the fact that they are very unsanitary. A rubber consists of a fair-sized piece of cloth that is used to give the horse's coat a good polish. It should be the most convenient size to be easily handled. The use of the rubber greatly improves the appearance of the coat. Sweet scrapers are of two kinds. One has a flexible blade and the other has a stiff blade made of wood or aluminum and is slightly curved. It is claimed that the flexible one gives the best satisfaction as it conforms to the curves of the body and limbs. The scraper is used to remove sweat and lather. It may also be used for removing the water and mud from the horse's legs. They are not really necessary in work-horse stables, but in cases where they are of value, especially if horses are being prepared for showing.

The best time for grooming is at the close of the day's work, unless the work has been very exhausting and the animal is tired. In this case it should be allowed to rest first. By giving the animal a thorough grooming at night it will need but a light one in the morning.

FUNGUS DISEASES OF THE FOREST.

(Experimental Farm Notes.) Each year in our forests large amounts of timber are destroyed by fungi and while these losses are not usually as spectacular as those caused by insects they are quite as important and deserving of attention. It is only within recent years that fungus and insect depredations in the forest have been given any thought. This is due to a realization of the fact that timber supplies in this country are becoming increasingly scarce and that every agency which is responsible for destruction in the forest should be carefully studied. From an economic standpoint the most important group of forest fungi is that which causes the decay of wood. The fungi in this group are mostly of one general type known as bracket fungi or polypores. Some of the mushrooms, however, are also capable of destroying wood. These forms may either work in the heartwood or in the sapwood of the tree, though sometimes the same fungi will attack both heartwood and sapwood. Most of them are capable of living either upon living or dead wood. Trees are protected from the attack of wood-destroying fungi, by the bark but it is usually the case that in one or more places the bark is broken or wounded and it is at these places that the spores of the fungus gain entrance to the tree. Such wounds may be caused by birds, animals, insects, wind, snow or the natural death of limbs due to lack of light. The spores of a wood-rotting fungus, lodging on such wounds, germinate if sufficient moisture is present and the resultant mycelium grows into the wood. The mycelium is enabled to utilize the wood tissue as food material by means of the secretion of various enzymes or ferments which dissolve the elements com-

posing the cell walls. Each fungus possesses a number of different enzymes each of which is capable of reducing certain elements of the wood—thus one enzyme will abstract lignin and another cellulose. When the lignin has been taken from the wood it becomes soft, spongy and without strength. In addition to these chemical changes, there is usually a change in colour of the affected wood. It may be left either white, yellow or brown. This change in colour may be due to the colour of the mycelium of the attacking fungus, to secretions by the fungus or by the wood itself or to chemical changes induced by the action of the mycelium. In most cases the phenomena of decay are characteristic for each species of fungus so that, usually, the responsible organism can be determined merely by an examination of the affected wood. After a sufficient amount of wood has been used as food the fungus commences to reproduce itself. This is accomplished by means of the fruiting bodies or brackets which are commonly to be seen on the sides of the trees and stumps. The stored food materials are usually carried to the point of original infection and there the mycelium undergoes changes which finally result in the production of fruiting bodies. These produce spores in immense numbers which are borne by the wind for long distances. A few of them are deposited in wounds in trees and the life cycle commences again.

Some of these fungi commonly invade the roots and lower portion of the trunks, but the majority of them affect the tree above ground. Of the latter two of the most destructive are *Trametes pini*, which causes a pecky wood rot of conifers and *Fomes ignarius*, which causes a white heart rot of hardwood trees. *Polyporus schweinitzii* causes a brown heart rot of conifers and *Acmittaria melaleuca* causing a yellow sap rot of both conifers and hardwoods are the most important of the former. While these wood rots are of more frequent occurrence in the forest than in shade trees owing to more favorable moisture conditions, greater chances for infection due to development of fungi upon the windfalls and debris of the forest floor and to more frequent wounding yet they sometimes become a menace to valuable shade or ornamental trees. In such cases, if the expense be justified, tree surgery methods may save the tree if taken early enough. In the farmer's woodlot the appearance of fruiting bodies upon a tree should be followed by the removal of the tree as it will continue to be a source of infection for the remaining stand. If this cannot be done at least the lot should be kept free of fruiting bodies. They should be collected and burned. In the forest the control of these and other tree diseases is intimately connected with the problems of forest management, and until such time, as we have regulated forests what must be done is to accumulate a thorough knowledge of the pathology of each of the important timber-producing species.

HOG RATINGS AND METHODS OF FEEDING AS THEY AFFECT THE FINISHED PRODUCT. (Experimental Farm Notes.) Food supply as well as heredity exercises a controlling influence on the character and development of the growing animal. In order to attain maximum development, the normal individual requires certain specific food constituents in well defined quantities. A failure to supply these or an abnormal supply of one or more of the required elements will result in more or less altered character and development. The animal body is constructed from fourteen chemical elements and because these are not available in any one food it is necessary to resort to a variety of feeds in order that the body tissues may be permitted to function normally. The fact that some foods contain certain of the elements in greater proportions than other feeds has been utilized as the basis from which the proper computing of rations for the needs of the particular individual has been derived. It has been convincingly demonstrated that different animals and also the same animal at different stages of development require the various elements in different proportions. Through-out the earlier stages of an animal's life, while the body tissues are growing and developing, there is a proportionally greater miner-

al and protein requirement, these being utilized in the formation of bone and muscle, and a relatively smaller amount of energy-producing food requirements such as is obtained from the fatty portion of the feed.

For the production of pork, particularly the early part of a pig's life, feed with a high content of protein and mineral matter should be supplied. In this connection, it is noteworthy that the feeds which are rich in protein are also general high in mineral matter or ash, while the feeds which are fat are relatively deficient in mineral matter. As the pig develops and matures, the proportion of the protein and mineral matter is decreased and the fat or energy-producing part of this ration is increased to satisfy the body requirements. Should the young growing pig be reared on a ration materially deficient in the bone and muscle forming material, the individual thus fed will be undersized, fine boned, lacking in musculature and will mature earlier than would a similar individual fed a good growing ration high in protein and mineral matter content. Young breeding stock which has been reared on a highly fattening ration such as corn frequently suffer from impaired fecundity. It will, therefore, be observed that while a hog destined for the block at the earliest possible date may be forced for bacon production must be fed a higher protein ration which is conducive to the production of a longer pig and also one that is less heavily fleshed. Self-fed hogs in the main make greater gains than trough or hand fed hogs, but these gains frequently cost more to produce. The trough feeding method, on the other hand, is more suited to produce bacon hogs because the feed, or can regulate the feed to the needs of the hogs and keep them without their becoming gorged as is frequently the case on the feed.

HAMES MUST FIT INTO THE COLLAR.

The proper adjustment of the hames straps should assist in the fitting of the collars to horses. After the fit is made the top strap should remain the same. However, when using the same harness upon different horses, it may be necessary to readjust the hames. They must be large enough so that they will fit snugly into the collar. When too small, the hames will be held out at the bottom and the point of draft will be thrown too high, thereby causing a sore shoulder. If carried too high on the collar the hames may be lowered by lengthening the strap at the top; but if the hames are too small, this is of but little avail. When hung too low, thus bringing the point of draft too low, the hames may be raised by shortening the strap at the top. The correct point of draft should fall at the pivot point of the scapula, which point is about one-third of the distance from the shoulder blade. Ill-fitting collars or hames are generally the cause of sore shoulders, so be sure to have these parts fit properly.

CONSERVING HOOF HEALTH.

It is not altogether the hammer on the hard highway that the horse's hoofs. Much more is it the removal of the natural defenses of the hoof against evaporation and corrosion. That a horse may work efficiently and last long for labor it is of the utmost importance that the hoofs be given intelligent care and attention. The use of a collar oil of the hoof leads inevitably to contraction of the walls, heels, frogs, bars and soles. When that occurs the horny hoof no longer perfectly accommodates the sensitive structures. Like tight shoes on a person's foot, they pinch, bruise, interfere with movement of the joints, induce pain

They Helped Father Mother and Daughter

Why Quebec Man Praises DODD'S KIDNEY PILLS. Honoré Gervais who suffered from Kidney Disease and Rheumatism Tells of the Relief he got from Dodd's Kidney Pills. 'St. Casimir, Que., May 5th. (Special)—The value of Dodd's Kidney Pills as a household remedy is splendidly shown by the statement of Mr Honoré Gervais, a well known resident here. 'I suffered from kidney disease and rheumatism,' Mr. Gervais states, 'I used Dodd's Kidney Pills for my trouble and with such benefit that I recommend them to all others who suffer as I did. 'My wife and my little girl have also used Dodd's Kidney Pills and found them good. My wife has also been much benefited by the use of Dodd's Dyspepsia Tablets.' Dodd's Kidney Pills act directly on the kidneys, strengthening them so that they do their full work of straining all the impurities, all the seeds of disease, out of the blood. Ask your neighbors about Dodd's Kidney Pills.

A PADRE IN THE GREAT WAR

Being the Reminiscences and Recollections of the Veteran Chaplain, Canon F. G. Scott. (Copyrighted in Canada by F. G. Scott; Book rights reserved).

Continued

AN ELOQUENT SPEECH

On the following afternoon, which was Sunday, I had a curious experience. The Y. M. C. A. of Florence and I were going off to see the great church of Santa Croce, which is the Italian Westminster Abbey, many great Italians having been buried there. As we passed down the street my friend went into a shop to buy some chocolates. While I was waiting, I heard the stirring notes of the *Marsellaise*, and looking round I saw a band coming up the street followed by three Italian flags, a number of soldiers, and a rabble of men, women and children. I called to my companion to come out quickly and salute the Italian colors. As they passed we stood on the curb and saluted with strict military precision. In fact we saluted so well that the delighted members of the procession grabbed us by the hand and finally dragged us into their midst, others clapping their hands and shouting, "Viva l'Italia!" I was separated from my companion in the rabble and called over to him and asked him what it was. He said, "I think it is a Socialist demonstration." This rabble dismayed me, but I turned to one of the people by side and asked him in French what the crowd was. He told me it was the society for finishing the war, so I called out to my friend, "It's all right, Captain, it is the society for finishing the war. I have wanted to join that society for some time." I saw at once that the procession was an attempt to pull the Italians together and rouse them to a supreme effort to resist the enemy and save Italy. The crowd was so enthusiastic about the presence of representatives of the British Army, that they finally caught us by the legs and carried us on their shoulders through the streets. It was an amusing incident. I could not help thinking that the crowd were the descendants of the men who had burnt Savonarola at the stake. My friend, who had no sense of humor, shouted out to me, "If I had been made a fool of like this, I told him not to be rude as it was helping on the cause of the Allies. Finally, overcome by our struggles the men let us down, and we were pushed along in the crowd to the square in front of the Hotel Minerva. Here the leaders of the procession invited us into the hotel and we were taken upstairs to the front room out of which opened a balcony overlooking the square. A young Italian officer, who had been a lawyer before the war and had lost both his eyes, went on to the balcony and made a most impassioned appeal to his countrymen. The crowd in the square was now very dense, and received his speech with great enthusiasm. When it was over one of the officers of "the society for finishing the war" came and urged me to address the crowd. I was so pleased to find that my French was better understood in Italy than in any place except England, that

name of the man who, when Italy was lying prostrate at the feet of the advancing foe, shouted into her dying ear the startling words "Viva l'Italia!" and set her on her feet.

THE VISIT ENDS

Two days afterwards, accompanied to the station by an admiring crowd and three ladies carrying the Italian flag, we bade farewell to Florence and started on our return journey. We spent the afternoon at Pisa, and after a night's journey arrived at Turin in the morning. Our men got out of the train and were making their way to the station when they were met by the British R. T. O., a very large officer who wore an eyeglass. He brought them quickly to attention by calling out, "Who are you?" They told him they were Canadians on leave, and I, feeling bloodshed, went up to the officer and explained who they were and why they had come. He told me there had been a revolution in Turin that summer and relations between the British and Italians were very much strained, owing to the action of German agents. He said he had been living on the top of a volcano for the past three months, and was afraid to allow any large body of troops to go about the town, lest there might be trouble. I assured him that our men would behave with great circumspection. He then told me that they would have to be back in rest billets, near the station, not later than ten o'clock. I asked if he could not make it eleven, because I knew that the men wanted to go to the theatre. He agreed to this and asked me to tell them that roll would be called in the rest billets at eleven o'clock. I halted the men and said, "Boys, roll will be called in the rest billets tonight at eleven o'clock sharp." Whether it was or not we never knew, for none of us was there to hear. The men went to the theatres and to the various hotels afterwards. No trouble ensued and when we left the following afternoon the R. T. O. was most friendly and gave us a hearty send-off, no doubt feeling too relieved at our departure to make any inquiries. Although we had had a most delightful trip I was really thankful we were at last setting our faces towards the North. We arrived in Paris the next morning and before we left the station I told the men that every one of them had to be at the train that evening. I had taken it upon myself to extend their leave as I thought their presence in Italy was beneficial to the cause, but I asked them to show their gratitude by not failing to return all together. That night my intense satisfaction they all turned up at the station at seven o'clock and we started for Calais. We arrived there the next morning and in the afternoon left for the front.

BACK AT THE FRONT

We arrived at Poperinghe that night at six o'clock. It was dark and a drizzling rain was falling and the mud was thick. We could hear big guns firing, and men were coming and going in all directions. We took a hasty farewell of one another and then parted. No one cared whether we had come from Italy or were going to Jericho. The men did not know where their headquarters were, and I was particularly anxious to find mine. I went over to the Officer's Club and secured a shake-down in the garret, but as I heard that our Division had made an attack that day, I determined to go up to the line. I started off after dinner in an ambulance to the old mill at Vlamertinghe where there

Power Man's Pliers Slipped From His Grip

HANDS GOT STIFF AND PAINFUL FROM RHEUMATISM BUT TANLAC BROUGHT COMPLETE RELIEF. DECLARES DANIEL MYETT

"Speaking for myself and wife, we just think there is nothing in the world like Tanlac," said Daniel Myett of 121 Somerset St., St. John, N. B., a valued employee of the St. John Power Co. "For ten years I suffered from rheumatism in my shoulders and arms clean down to my finger tips. I have been in such pain many a night I couldn't sleep a wink and have been forced to lay off work often. My fingers got so stiff I sometimes couldn't hold my pliers. My wife also suffered much the same way I did, maybe worse, for her lower limbs were very badly swollen."

"Well, I am just now buying my fourth bottle of Tanlac and I don't feel an ache or a pain any more. Another thing that makes it seem so wonderful is that it has had the same fine results in my wife's case. We are both well and happy. Tanlac is grand."

Tanlac is sold by all good druggists.

was a repetition of the sights and sounds which I had experienced there on two previous occasions. Later on I went forward in another ambulance through Ypres to an advanced dressing station. Then I started to walk up the terribly muddy roads till I came to the different German pill boxes which had been converted into headquarters for the battalions. Finally after wading through water and mud nearly up to my knees, I found myself the next afternoon wandering through the mud and by the shell holes and miserable trenches near Gudeberg Copse, with a clear view of the ruins of Passchendaele, which was held by another Division on our right. The whole region was unrecognizable. Rain was falling, the dreary waste of shell ploughed mud, yellow and churning, stretched off into the distance as far as the eye could see. Bearers parties, tired and pale, were carrying out the wounded on stretchers, making a journey of several miles in doing so. The bodies of dead men lay here and there where they had fallen in the advance. I came across one poor boy who had been killed that morning. The body was covered with a shiny coating of yellow mud, and looked like a statue made of bronze. He had a beautiful face, and looked more like some work of art than a human being. The huge shell holes were half full of water, and many of the wounded had rolled down into the pools and been drowned. As I went on someone met told me that there was a wounded man in the trenches ahead of me. I made my way in the direction indicated and shouted out asking if anybody was there. Suddenly I heard a faint voice replying, and I hurried to the place from which the sound came. There I found, sitting up in the mud of the trench, his legs covered with water, a poor lad who told me that he had been there for many hours. I never saw anything like the wonderful expression on his face. He was smiling most cheerfully, and made no complaint about what he had suffered. I told him I would get a stretcher and so I went to some trenches not far away and got a bearer party and a stretcher and

(Continued on Page Ten)

DOUGLAS EGYPTIAN LINIMENT THE FARMER'S FRIEND Relieves caked bag, garget, spider or infection of the teat, also thrush in horses' feet, fistula, etc. Stops bleeding at once. Removes proud flesh, soreness and swelling. At all Dealers and Druggists. Manufactured only by DOUGLAS & CO., NAPANEE, Ont.

THE SEEDS WITH THE PEDIGREE GROW FINEST CROPS STEELE, BRIGGS SEEDS Choicest Seeds from Selected Stocks For 50 years satisfied customers have been enjoying the benefits of increased crops through sowing Steele, Briggs' Seeds. Sold everywhere in Canada. Ask your dealer for them. Write for new illustrated catalogue STEELE, BRIGGS SEED CO. LIMITED HAMILTON TORONTO WINNIPEG

The Greatest Investment Opportunity Today is in Certain Well-Secured Corporation Bonds Municipal and Corporation bond prices were forced down by the following influences: 1. By tight money conditions. 2. By the fall in sterling exchange. 3. By Corporations and Municipalities having to finance at a time when confidence was disturbed. These adverse conditions are rapidly being corrected. The money market has eased a great deal and money is now available for all legitimate business. Sterling exchange has recovered much of its depreciation, and today the flood of securities from London to Canada has practically stopped. Business is now showing signs of improvement, and confidence is gradually being restored. As a result of the improved conditions outlined above, long-term municipal bonds have already advanced from ten to twelve points in the last eight months. The prices of Corporation bonds, on the other hand, being independent on public confidence that they are on the fluctuations of sterling exchange, or on the state of the money market, have not yet shown any material advance in price. But as business is now gradually improving, and as confidence is gradually being restored, the price of Corporation bonds, as a class, is bound to be moved upward very materially in the near future. In bringing this matter to your attention, we wish to point out that there are both good and bad Corporation bonds and careful discrimination is necessary. When purchasing Corporation bonds it is advisable to do so through an investment house of good repute and sound judgment. We have well-secured Corporation bonds to yield from 7% to 8% and would be pleased to discuss with you an exchange of Corporation bonds for Municipal bonds, whereby you can take a substantial profit on your Municipal bonds, reinvest the proceeds at a much higher rate, and secure an investment that will give every prospect for appreciation in value. Among these Corporation bonds which may safely be purchased for security, high income yield and reasonable prospects of appreciation in value, we recommend: Manitoba Power Co. Ltd., 7% First Mortgage Sinking Fund Gold Bonds, due Nov. 1, 1941. Price 100 and Interest to yield 7% (Guaranteed by the Winnipeg Electric Railway Co.) Howard Smith Paper Mills, Ltd., 7% First Bond-Redeeming Mortgage Sinking Fund Gold Bonds, due Jan. 2, 1941. Price 95 and Interest to yield 7.50% Wagsmack Pulp & Paper Co. Ltd., 6% First Mortgage Sinking Fund Gold Bonds, due Feb. 1, 1951. Price 77.50 and Interest to yield 8% We will be pleased to give you full particulars of the above Corporation bonds upon request; or if you will forward a list of your municipal holdings, we will advise you how you can make profitable exchanges.