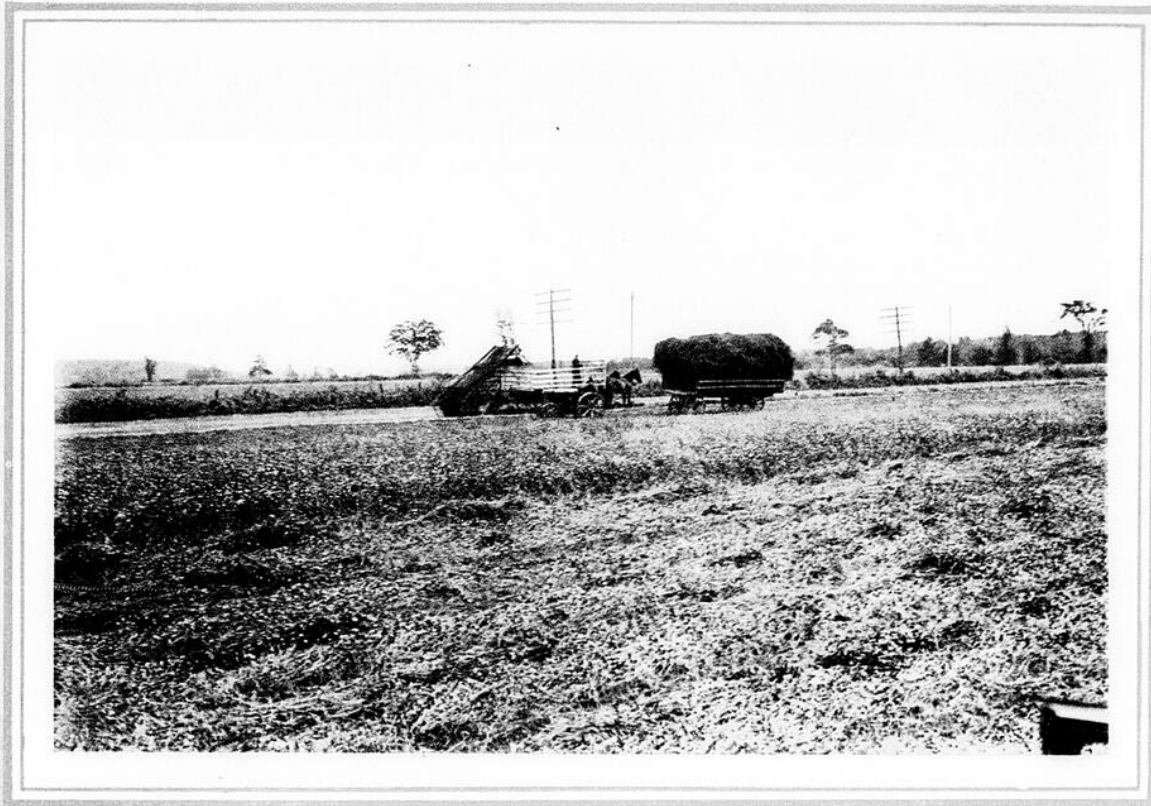


Volume 37 - Number 12

June 9th, 1934

THE
JOURNAL
OF AGRICULTURE
AND HORTICULTURE



Published by the Department of Agriculture of the Province of Quebec



A Wider Market for your Better Produce, Mr. FARMER !

Dear Mr. Farmer:

Do you remember the old days, when every man traded in a small area, selling his produce to people within easy reach of the spot where it was raised?

Those days have gone forever, and new conditions demand new efforts from you. . . just as from us.

Improved means and methods of transporting farm produce have given you new opportunities and new difficulties. They have opened up **wider markets** for you, but they have also **increased competition** in your own home area.

Consumers are no longer forced to accept local produce, if it does not please them. They have a choice now, and, naturally, they choose the best.

They have been steadily demanding higher and higher standards, and more and more information about the quality of the food stuffs they buy.

The result has been the development of systems of grading produce, chiefly in accordance with Government-set standards.

Grade "A" means something very definite to the public; so does Grade "B"; and no food store can afford to disregard the desires of its customers. It must give them what they want. It cannot force upon them merchandise that does not please them. It cannot vary standards.

Mr. Farmer of Quebec, WE WANT TO BUY FROM YOU, but we must have the things our customers will buy from us. . . good produce, properly graded.

Whether you wish to win new business in distant markets, or merely to hold your own ground at home, it is in your own interests to see that your produce conforms to the standards consumers demand.

We can offer you wider markets, if it does!

Faithfully yours,

DOMINION STORES
LIMITED
STOP and SHOP STORES
THRIFT STORES
LIMITED

The JOURNAL of AGRICULTURE AND HORTICULTURE

Number 37

JUNE 9th, 1934

Volume 12

EDITORIAL COMMENT

THIS issue of the The Journal carries fewer articles than usual but more official announcements from the Department of Agriculture. For the past few months we have had so many articles of timely interest that everything else was pushed aside to make room for them, but now that the planting season is past we hasten to present a number of announcements that deserve the careful consideration of all our readers—*notices of grants for the encouragement of land drainage, of the use of chemical fertilizers and lime, of bacon-hog production.*

Space is further cut by the necessity of printing our annual index this month, for with this issue Volume 37 of The Journal ends. We believe that this year's index will be found especially valuable by our readers because of the large number of interesting and well-illustrated articles carried since The Journal changed its dress for a brighter one a year ago. In keeping with its improved appearance, we have endeavoured to make its contents as readable and useful as possible—and from letters received from various parts of the province during past months, we believe that our efforts have been appreciated by our readers. The index will enable those who file their Journals to turn up quickly those articles that have appeared in former numbers, when needed for reference.

May we draw the attention of readers living in the Oka-St. Jerome district to a word of warning on possible white grub damage which we print in this issue. A year ago we carried an article on this pest in which it was stated that 1934 would see considerable damage caused by it in the area cited. Where control measures have not been taken, the advice given is to make special provision this summer for extra forage crops to take the place of those crops of corn and timothy that may be destroyed by the grubs.

We present a two-page table dealing with insect pests and diseases that attack garden crops, and that gives full directions for the control of these. This will be found valuable, we feel sure—particularly in view of the importance that vegetable crops are assuming in various parts of the province as a consequence of the opening of canning plants. We printed a similar table last year, but if our readers are as careless of information as we are personally, we believe that they will appreciate having the information repeated at this season when the pests are still controllable.

This issue will be mailed to our readers on June 9. This means that it will be on the press at the time of the holding of the Ormstown Exhibition. While we cannot give any news

of the awards in this number, then, we promise a full list of the winners in our July issue. An advance note from Mr. W. G. McGerrigle, secretary-treasurer of the board, states that judges for the various classes will be as follows: Heavy Horses, T. W. Devlin, Winnipeg; Light Horses, Ed. Watson, Toronto; Ayrshires, Rene Trepanier, Oka; Holsteins, R. P. Charbonneau, Montreal; Jerseys, L. C. McOuat, Montreal; Beef Cattle, Prof. A. R. Ness, Macdonald College; Canadian Cattle, Andrea St. Pierre, St. Hyacinthe; Sheep, Prof. E. W. Crampton, Macdonald College; Swine, L. H. Hamilton, Macdonald College; Poultry, Lucien Crevier, Ste. Martine College.

Much valuable missionary work has been done recently by the Honourable Adelard Godbout, Minister of Agriculture for Quebec, through addressing of business men in Montreal and Quebec on the importance of buying Quebec farm and garden produce. While the Minister does not expect Quebec merchants to buy and feature Quebec goods unless they are up to as high standards as those coming in from other sources, he does feel that in many lines our own producers are meeting the strictest requirements for quality—and so deserve to have their products attractively displayed in their own markets. "Every time I go to a farmers' meeting in the country," the Minister told a Montreal audience a few days ago, "I tell them of the opportunities they have of capturing markets and what they must do to hold them. I tell them also that you city dwellers are ready to do your part. Now I ask your co-operation in giving the preference to Quebec goods where it can be done, in fairness."

A few months ago we published an article on the new provincial cow-testing scheme. That many of our readers found our article of interest is evident from the fact that, according to Mr. Adrien Morin, Chief of the Quebec Live Stock Branch, a large number of English-speaking farmers from various parts of the province wrote in immediately afterwards and signed up their herds. There are now over 1,800 farmers enrolled, we understand, with some 24,000 cows on test—the counties standing first for membership being Lake St. John, Nicolet, and those making up the St. Hyacinthe district. This response, though making for much work at the central laboratories, is very gratifying to all concerned. Experience has shown in many countries the great value of the information gained through cow-testing, not only in enabling the farmer to get rid of his poor producers and to breed from his high testers, but also in enabling the agronomes and live stock promoters to check up on feeding and cropping practices on the farms where testing is being done.

The JOURNAL of AGRICULTURE

AND HORTICULTURE
Issued Monthly By

THE DEPARTMENT OF AGRICULTURE OF THE PROVINCE OF QUEBEC

For advertising rates, address

THE CANADA PUBLISHING CO., Limited
33, St. James St., West - - Montreal

All matters relating to the reading columns should be addressed to S. R. N. Hodgins, Editor, Macdonald College, P.O., P. Q.

NOTICE TO SUBSCRIBERS

Subscribers and members of agricultural societies, of farmers' clubs and of the Provincial Dairymen's Association, who do not regularly receive either the English or the French Journal of Agriculture and Horticulture are requested to address their complaints to the Secretaries of their respective Societies, who will transmit them to the Secretary of the Council of Agriculture at Quebec.

ON MY WAY

THERE is a pleasing parable set down in one of the New Testament gospels that has a very appealing atmosphere for peoples who after long winter are again beholding all about them the revival of a spring-time earth.

"Now learn a parable of the fig tree: When his branch is yet tender, and putteth forth leaves, ye know that summer is nigh." No more impressive an illustration could be given to these least of men, followers of the greatest spiritual leader the world has ever known, for it would be to them, even as now it is to me, a lesson full of meaning, well within my scope of understanding.

So again, in my travel with mankind across the plain of life, I am possessed of what is a rare experience among men, the certainty of one thing at least of which thus far there had been only expectation and hope — that summer is nigh, perhaps distant only a matter of brief days. I know, because the telling tenderness of leafing branch has told me so. It scarcely occurs to me in my wide unbounded domain that there could be even one of all the earth's great family that could not likewise know the happy pleasure that such a verdant scene affords, yet I suppose there are those who, with all the stirring branches, the spreading leaves, have never thrilled to this glorious loveliness which we call Spring. It should not be so, for the great good that comes to everyman as he walks in the wide open places beneath the high heavens, detached for even an hour from all that binds him to the sameness of the everyday, cannot be compensated for by any substitute. There are no substitutes for the beauty of a countryside in May, the secluded paths among distant hills and hollows, the deeps and shallows of strange streams that sing their song to the tall trees around whose feet they wend their winding way.

I might have said there are no substitutes for a day's fishing, for it was on such a jaunt that I saw all these things anew and realized again, as I have done before on such occasions, that even in the country one may lessen in his appreciative ability if he does not move out beyond his own field and farmyard. I set out to find a new stream, and on my way to this I looked upon new countryside. Not so far distant was this unfamiliar territory but in what is commonly called a backward place, not on the highway, nor near the railway, beyond the reach of the social rural telephone and where the yellow light of lamp still shines from the window into the night.

So I turned to my pleasure and went on with no more degree of ease than one may

find along a pathless, alder-tangled brook, angling in hopeful-looking deeps, trying here and there between, where rippling currents swiftly ran, to hook the lively trout, being rewarded just enough to keep my interest and expectation keen. Often times there was the pleasant smell of earth, fresh and new, as if a furrow had just been turned by the plough, a clean, sweet scent, as of things washed and blown dry in the cleansing wind. Perhaps, thought I to myself, there are many things in this old world a man may neither understand nor discern, but who is there that may not or cannot know the inward joy that comes to the human heart as Spring prepares the universe for Summer?

H. H.

List of Agricultural Fairs to be held in 1934 under the Auspices of the Agricultural Societies of Quebec

SOCIETY	PLACE	DATE	SECRETARY AND ADDRESS
ARTHABASKA	Victoriaville	August 21-22	C.R. Garneau, Arthabaska.
BAGOT	St. Liboire	September 11-12	Rod. Gévry, Acton-Vale.
BEAUCHE, Div. A.	Beauceville	September 18	Josaphat Roy, Beauceville-West.
BELLECHASSE, A.	St. Michel	August 30	Caius Lacroix, St. Michel.
BONAVENTURE, A.	Shigawake	September 25	Geo.-M. Kempffer, New Carlisle.
BONAVENTURE, B.	New Richmond	September 18	W.-H. Willett, New Richmond West.
BROME	Brome	September 3-4-5	Ed. Caldwell, Knowlton.
CHAMBLY	St. Bruno	September 11	Albert Bernard, St. Basile le Grand.
CHAMPLAIN	St. Stanislas	September 13	J.-T. Jacob, St. Stanislas.
CHICOUTIMI	Chicoutimi	September 13-14-15-16	J.-A. Gobeil, Chicoutimi.
COMPTON, No. 1	Cookshire	August 21-22-23	T.-O. Farnsworth, Cookshire.
COMPTON, No. 2	Scotstown	September 5-6	Geo.-F. Cowan, Scotstown.
TWO-MOUNTAINS	Ste. Scholastique	September 10-11-12-13	Léo. Beaudet, Ste. Scholastique.
DORCHESTER, Div. A.	Ste. Hénédine	August 21	Oscar DeBlois, Frampton.
DRUMMOND	L'Avenir	September 3	J.-C. St. Aamant, L'Avenir.
GASPE-SUD, Div. A.	Cape Cove	October 10	Sydney L. Case, Cape Cove.
GATINEAU, Div. A.	Aylmer	September 13-14-15	R.-K. Edey, Aylmer, Box 114.
GATINEAU, Div. B.	Maniwaki	September 4-5-6	Palma Joanis, Maniwaki.
HUNTINGDON, Div. A.	Huntingdon	September 13	John Small, Huntingdon.
HUNTINGDON, Div. B.	Havelock	September 11	W.-P. Fisher, Hemmingford.
IBERVILLE	St. Alexandre	September 11	Alcide Guintin, St. Alexandre.
JACQUES-CARTIER	Dorval	September 13-14-15	J. Boileau, 118-2ème Avenue Ville St. Pierre.
JOLIETTE, Div. B.	St. Jean de Matha	September 20	J.-O. Leveillé, St. Jean de Matha.
KAMOURASKA	St. Pascal	September 11-12-13	P.-W. Lévesque, St. Pascal.
LAC ST. JEAN	Hébertville	September 18	J.-E. Simard, Hébertville Station.
LAPRAIRIE	Laprairie	September 18	Raoul Lussier, St. Philippe.
L'ASSOMPTION	L'Assomption	August 15	P.-J. Marsan, L'Assomption.
LEVIS	St. Romuald	September 12-13	Tél. Carrier, Pintendre.
LOTRINIÈRE, No. 1	Parkhurst	August 21	L.-A. Dumont, Ste. Agathe.
MASKINONGE	Louiseville	September 11-12	J.-E. Roy, Louiseville.
MEGANTIC, Div. A.	Inverness	September 6	H.-A. Welch, Inverness.
MEGANTIC, Div. B.	Plessisville	August 14-15	Théodore Fortier, Plessisville.
MISSISQUOI	Bedford	August 21-22-23	C.-O. Jones, Bedford.
MONTCALM	St. Julienne	September 18	Hon. J.-F. Daniel, St. Esprit.
MONTMAGNY	Montmagny	September 18	Paul Carignan, Montmagny.
MONTMORENCY, Div. B.	St. Famille	September 26	Albert Faucher, Ste. Famille.
NAPIERVILLE	St. Edouard	September 26	Arthur Collette, St. Rémi.
NICOLET, Div. A.	St. Léonard	August 9	Henri Leblanc, Grand St. Esprit.
NICOLET, Div. B.	Gentilly	August 15	Achille Turcotte, Gentilly.
PAPINEAU	Papineauville	September 5-6	J.-N. Vallière, Ste. André Avellan.
PONTIAC, Div. A.	Shawville	September 20-21-22	R.-W. Hodgins, Shawville.
PONTIAC, Div. B.	Chapeau	September 18-19-20	Edwin McMahon, Chapeau.
PONTIAC, Div. C.	Quyon	September 5-6	M.-J. Muldoon, Beechgrove.
PORTNEUF, Div. A.	Pont Rouge	September 11	Roméo Piché, Pont Rouge.
PORTNEUF, Div. B.	St. Casimir	September 11	J.-A. Folev, St. Thurbie.
PORTNEUF, Div. C.	Montauban	September 18	Théodule Châteaufort, Montauban.
QUEBEC	Quebec	September 26	J.-B. Martel, 98, St. Joseph St.
RICHELIEU	Ste. Victoire	September 11-12	J.-U. Girouard, St. Ours.
RICHMOND	Richmond	August 17-18	W.-R. Stevens, Richmond, Box 213.
RIMOUSKI	Rimouski	August 17-18-19-20	Alfred Dubé, Beauséjour.
RIVIERE DU LOUP	Isle Verte	August 22-23	Edmond Côt, Isle Verte.
ROBERVAL	St. Félicien	July 18-19	Jos.-Ed. Boily, Roberval.
ROUVILLE	Rougemont	August 28	C.-E. Levesque, Rougemont.
SHEFFORD	Waterloo	August 13-14-15	R.-R. Bhand, Waterloo.
SOULANGES	Pont Château	September 3	Laurier Léger, Coteau Landing.
STANSTEAD	Ayer's Cliff	August 23-24-25	Homer G. Curtis, Stanstead.
ST. JOHN	St. John	September 3-4	J.-R. St. Arnaud, 112-Richelieu, St. John.
ST. MAURICE	St. Barnabé	September 18	Charles Marcoulier, St. Barnabé North.
TEMISCOUATA	N.-D. du Lac	August 28-29	L.-J. Dubé, N.-D. du Lac Station.
THREE RIVERS	Three Rivers	September 12	Médrie Pothier, Three-Rivers.
VAUDREUIL	St. Lazare	September 11	Henry Reid, Vaudreuil Station.
VERCHÈRES	Ste. Théodosie	August 22	Lotis Daldé, Verchères.
WOLFE, No. 1	Marbleton	September 12-13	C.-G. Skinner, Bishopstown.
WOLFE, No. 2	Ham Nord	September 11	J.-A. Comtois, Ham Nord.
YAMASKA	St. Frs. du Lac	August 15-16	Alfred Allard, Blondin.

Provincial Spring Exhibition

ORMSTOWN, County of Châteauguay, June 5-6-7-8, W.-G. McGerrigle, sec., Ormstown, Châteauguay.

REGIONAL FAIRS

LACHUTE, Argenteuil County, June 13-14-15-16, J.-A. Bothwell, sec., Lachute, Argenteuil.

ST. HYACINTHE, St. Hyacinthe County, July 30 to August 3, A.-R. Demers sec., 33, St. Dominique St., St. Hyacinthe.

VALLEYFIELD, Beauharnois County, August 13 to 17, Jacques Malouin, sec., Valleyfield, P.-Q.

SHERBROOKE

PROVINCIAL EXPOSITION

QUEBEC

OSCAR LESSARD,

Secretary of the Council of Agriculture.

Quebec, May 14, 1934.

Visitor from Denmark

In an Informal Address to the Staff of Macdonald College, Peter Manniche Discusses Danish Land Policy, Co-operation, and the Folk High Schools.

(Reported by The Editor)

ONE of the most interesting and inspiring addresses that we have listened to for some time was that delivered before the staff of Macdonald College last month by Peter Manniche, principal of the International People's College, Elsinore, Denmark. Speaking without notes, Mr. Manniche succeeded in imparting to his hearers something of the spirit, as well as much interesting information on the set-up of the organizations, that has characterized Danish rural life for more than half a century — and that has enabled the small country of Denmark to take such an important place in the world market.

Though particularly interested in the Danish Folk High Schools, the source of that national spirit that has made Denmark so eminently successful in the field of co-operation, Mr. Manniche sketched briefly for his audience the changing system of land tenure in his country, mentioned in passing something of what co-operation has meant to his rural countrymen, and then showed the part played by the schools in awakening the souls of the people and in preparing the ground for the political and economic harvests that have been the cause of so much admiration by Canadian worker in agriculture.

An Enlightened Land Policy

In the Middle Ages, pointed out the speaker, Danish land was divided into large estates, to which the peasants were tied. The three-field system of culture, so well-known to students of early English agriculture, was followed, and the peasant labourers were forced to work three days a week or so for their lords before giving attention to their own allotments of the common land of the estate.

Towards the close of the eighteenth century, however, the landed proprietors themselves brought about certain reforms, through which the tenants were freed from personal service to the manors; and during the first half of the nineteenth century free holdings amongst the

former tenants were established. The manors kept the land that had been attached to them, but the fields which had formerly been worked in common by all the peasants of a given village on an estate now came into the personal possession of the workers — with a scattering of the buildings to the freeholds, where before they had been clustered in the village because of the communal system of work.

This setting up of freeholds has been the result of state credit, under which the tenants could secure free deeds to their lands in sixty years; while since 1860 they have been able to get capital from their own co-operative credit associations.

In Denmark, said the speaker, all parties now wish to have as many as possible live in the country. It is realized that the nation's future rests in agriculture, and that the best Danish stock is rural. So during the later years of the nineteenth century credit for the purchase of land was widened to embrace the small holders as well as the larger farmers. In 1899 a law was passed whereby any man or unmarried woman who had worked five years in agriculture and had one-tenth of the capital needed might obtain from the state the money required for the purchase of a holding, at three per cent interest plus one per cent installment on the principal, land ownership to become free as soon as the principal was paid off. Some 16,000 took advantage of this, and it is interesting to note that by 1916, there were in Denmark less than 2,000 freeholds of more than 250 acres, some 76,000 between 30 and 250 acres, and 106,000 of less than 30 acres.

(The way in which the co-operative credit scheme works is this: The farmer, or prospective farmer, secures from the association a bond, the interest upon which is paid by the association, thus making the bond readily negotiable in any money market — and in return the borrower issues a mortgage on his land in favour of the association.)

Co-operation in Denmark

IN one sphere after another of Danish agriculture, co-operative ideas have victoriously won their way. A Danish farm is now connected with a net-work of co-operative organizations. The numerous threads by which a modern agricultural undertaking is linked economically with the world around are almost all spun by a co-operative organization. Let us follow some of them. A farmer buys goods at a co-operative store; he borrows money from a co-operative credit association; he obtains his seed from a co-operative seed supply, his fertilizers from the Danish co-operative jodder association, his cement from the co-operative cement works, his electricity from an electrical company established on a co-operative basis; and when he wants to sell his produce, he sends his milk to a co-operative dairy, his pigs to the co-operative slaughter house, his eggs to the Danish Co-operative Egg Export, and his cattle to the Co-operative Agency for Cattle Export. His savings he places in the co-operative savings banks, and from the different co-operative breeding associations he is able to get information about the best breeding stocks; he gains his knowledge regarding the amount of milk each cow should yield from the control unions, and he has at his service the best and most up-to-date theories of agriculture, brought to him through the consultants appointed by the agricultural unions.

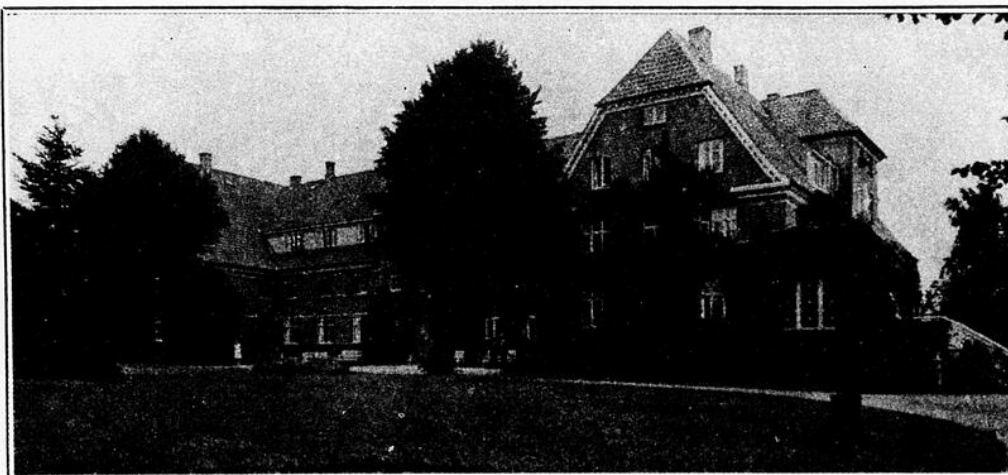
By joining such a comprehensive system of co-operation, he brings to his farm all the advantages of large-scale farming. The growth of agricultural co-operation in Denmark has been conditioned by the large number of comparatively small holdings; on the other hand, the co-operative movement has equipped the small holdings for the competitive struggle at a time when large holdings were gaining great advantage through the application of up-to-date machinery. Thanks to co-operation, the adherents of large-scale farming in Denmark are easy to count. Co-operation has succeeded in giving produce from many small farms a uniformity and stability of quality which make it well fitted to maintain a place in the open world market, and this has been a decisive factor in Denmark's position in world economy...

Hans Lund, in *The Folk High Schools of Denmark and the Development of a Farming Community*.

Unfortunately, in the early days, many of the holdings secured were too small. The owners of the large estates insisted that the small holders be given not more than four acres of land — thus providing themselves with a source of labour, since four acres would not support a family. So, in view of rising land prices, a new law was passed in 1919 by which a new class of rural citizen was provided for. Instead of his buying a freehold, he became a tenant of the state — a scheme of which 6,000 have now taken advantage. The tenant pays a rent based on the quality of the land, the value of the currency, etc., paying a good rent in good years and a small rent in poor years — for revaluation takes place yearly, and only the unearned increment is considered in setting the rates. These tenants, by the way, have all the rights of land owners.

The source of land for these successive waves of land-hungry folk has been three-

(Continued on page 18)



Frederiksberg Folk High School, Zealand, a modern, well-equipped building, typical of the best high schools now found in Denmark. There are 60 of these Folk High Schools in Denmark, with a total annual attendance of 10,000.

New Agricultural Survey

All readers of The Journal urged to make returns on cards distributed through teachers in rural schools.

DURING the early part of this month, all farmers in Quebec province, and in fact throughout Canada, are urged to fill in the questionnaires distributed through the teachers in our rural schools for the purpose of gathering statistics on the extent of crops grown on our farms and the numbers of live stock kept.

These agricultural statistics are of the utmost importance in enabling our provincial and federal officials to draw up intelligent programmes for production and for marketing; and every farmer should do his bit to make these statistics as complete as possible.

Quebec stood foremost in 1933 in supplying these valuable figures, and it is hoped that an even larger proportion of our farmers will respond this year—especially when the survey is for the good of every producer. In a recent interview, Dr. L. P. Roy, director of the Branches of the Quebec Department of Agriculture, stated: "In the survey of June 1933, 40,987 Quebec farmers filled in the questionnaire. The total returns received by federal authorities for the Dominion, was 149,127. The percentage of the Province of Quebec was 28% of the national grand total, and our

farmers obtained the first rank. The Province of Alberta obtained the second rank with 23,839 answers. The Provinces of Ontario and Saskatchewan obtained the third and fourth rank respectively with 22,159 and 21,521 answers. Such results show that our farmers realize the importance of agricultural statistics established through inquiries gathered at fixed periods and furnished by the greater majority of the interested parties. We hope that our farmers will not do less this year, and that they will, in fact, increase the number of answers obtained last year.

DOMINION OF CANADA

SURVEY OF CROPS AND LIVE STOCK JUNE, 1934

Collected under authority of the Statistics Act of the Dominion, 1918, 8-9 Geo. V, cap. 43

PROVINCE OF QUEBEC

Schedule to be returned to Local School Teacher if possible by Monday, June 4, 1934. If delayed beyond this date, return as early as possible.

Name of Farmer.....
 Post Office.....
 County..... Parish.....
 Acres in farm..... Acres Cultivated.....

The schedule, which is presented herewith for your considered attention is almost identical with the schedule used in June, 1933. It retains the questions on marketing and breeding intentions with respect to live stock and poultry included for the first time in 1932. This information is vitally needed in the planning of our livestock industry.

These cards have absolutely no connection with taxation.

The individual reports submitted will not be divulged in any way; only the sum of the schedules is used and these strictly for statistical purposes. The distribution of these cards is accomplished largely through the rural schools and your co-operation with the teachers in prompt and careful attention will be much appreciated. We stress promptness especially because speed of publication is a main essential in our work.

R. H. COATS,
 Dominion Statistician,
 Ottawa.

J. THEO. LAMONTAGNE,
 Agricultural Statistician,
 Department of Agriculture,
 Quebec.

POULTRY ON HAND

	Over 6 mos. old	Under 6 mos. old
Turkeys.....		
Geese.....		
Ducks.....		
Other fowl.....		

FIELD CROPS	Acres
Wheat.....	
Oats.....	
Barley.....	
Rye.....	
Flax.....	
Buckwheat.....	
Peas.....	
Mixed grains.....	
Dry beans.....	
Corn for fodder and for ensilage.....	
Alfalfa.....	
Timothy and clover.....	
Other hay.....	
Land for pasture.....	
Potatoes.....	
Turnips, swedes, etc.....	
Mangolds.....	
Tobacco.....	
Fallow.....	
Area of farm garden.....	

EGGS—

Total production for the last twelve months doz.

Sold during the last twelve months doz.

Number of maple trees tapped.....

Maple syrup..... gals.

Maple sugar..... lb.

Pulpwood..... cords

Firewood..... cords

CATTLE

	Number
Give numbers of the following classes of live stock on hand, June 1, 1934: x x x x x x x x x x x x	x x x
Bulls, 1 year old and over: a. Pure bred.....	
b. Grade.....	
Cows and heifers, 2 years old and over: x x x x x x	x x x
a. Kept mainly for milking purposes.....	
b. Kept mainly for beef purposes.....	
Yearling heifers: a. Being raised mainly for milk purposes.....	
b. Being raised mainly for beef purposes.....	
Heifer calves.....	
Bull calves.....	
Steers, 2 years old and over.....	
Yearling steers.....	
Steer calves.....	

Number of cows milked on this farm yesterday.....

Total production of milk by this herd yesterday (pounds).....
 (NOTE.—Allow 10 pounds per gallon)

Number of cows bred to calve in the next 6 months.....

HORSES

Stallions on this farm, 2 years old and over.....

Mares on this farm, 2 years old and over.....

Geldings on this farm, 2 years old and over.....

Colts and fillies on this farm, under 2 years old.....

SWINE

Total number of all swine over 6 months old on this farm....

Total number of all swine under 6 months old on this farm....

Number of sows which gave birth to pigs since December 1, 1933.....

Total number of pigs these sows had.....

Total number of pigs saved.....

Number of sows expected to farrow in the next 6 months....

SHEEP AND LAMBS

Over 1 year a. Ewes..... b. Rams.....

Under 1 year a. Ewes..... b. Wethers..... c. Rams.....

Ewes, bred or to be bred to lamb before November 30, 1934..

MARKETING INTENTIONS

State numbers of the following kinds of live stock intended for market or for home or local killing within the next 6 months, that is, until November 30, -934 x x x x x x x

(Not numbers on hand)

a. Steers and heifers, 2 years old and over.....

b. Yearling steers and heifers.....

c. Calves.....

d. Cows, 2 years old and over.....

Sheep and Lambs: a. Over 1 year.....

b. Under 1 year.....

Swine: Total number.....

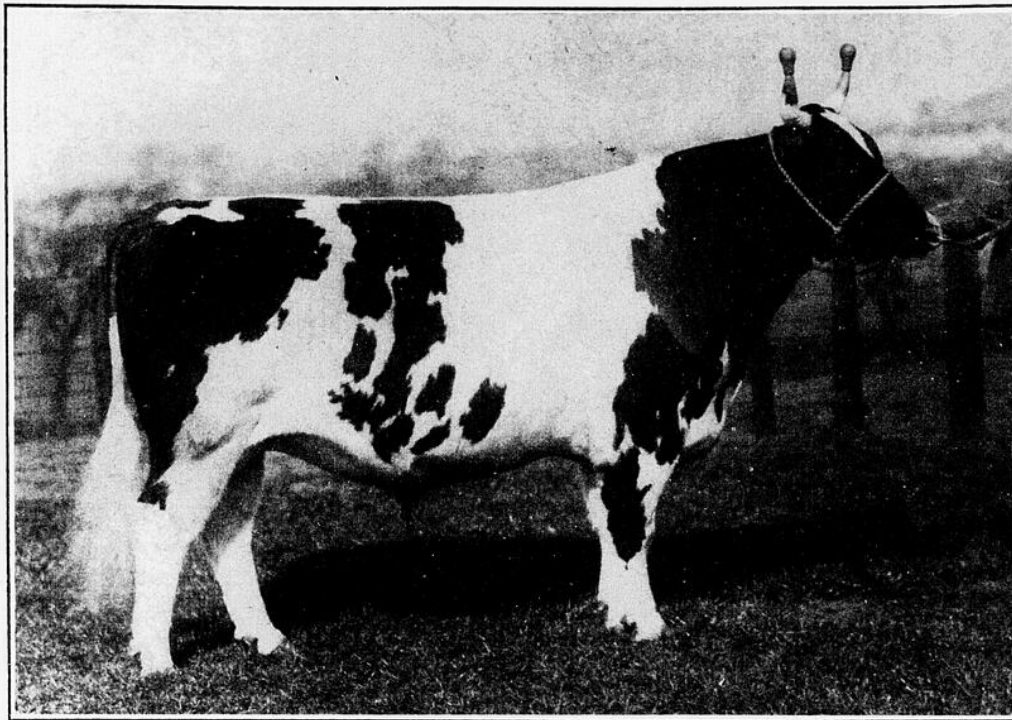
Poultry: a. Turkeys.....

b. Geese.....

c. Ducks.....

d. Other fowl.....

How many bushels of wheat produced on your farm were fed or will be fed to live stock and poultry on your farm between August 1, 1933, and July 31, 1934?.....



Bargenoch Blue Ribbon, champion Ayrshire bull at Scottish and English shows last year, has just arrived in Canada. He was bought and imported by J. H. Black, Lachute, his former owner being Adam W. Montgomerie, owner of the famous Lessnessock Farm, Ochiltree, and of Westburn Farm, Cambuslang, at which "Blue Ribbon" was herd sire at the time of our visit last summer. Bargenoch Blue Ribbon was champion Ayrshire male in 1933 at Ayr, Glasgow, the Highland, and the English Royal shows. — The Editor.

How An Expert Does It

Adam Montgomerie, of Lessnessock Farm, Ayrshire, Scotland, explains his system of calf-rearing.

THE name of Adam Montgomerie and of his Lessnessock Farm are well known to all breeders of Ayrshire cattle in Canada — and to those who have seen stock from his byres there is not question of his ability at rearing calves. It may then be of interest to know the system of feeding followed on this famous farm.

All calves to be reared are given whole milk for a couple of months, and are then gradually changed to skim-milk. When young, this is supplemented by a meal mixture recommended by the Rowatt Institute, and made up as follows:

Ground maize (corn)	2 cwt.
Linseed cake	2 "
Soya bean cake	1 "
Bran	2 "
Ground oats	2½ "
Fish meal	33 lbs.
Chalk	14 "
Salt	9 "
Ferric oxide	2 oz.
Pot. iodide	1 "

Then to each cwt. of this whole ration is added 1 pint cod liver oil.

After the calves have been weaned, the following ration is used:

Ground maize (corn)	2 cwt.
Oats	1¼ "
Bran	1 "
Fish meal	14 lbs.

All calves are given some well-cured hay after the first six weeks of life.

Mr. Montgomerie is not in favour of turning the young calves out to grass too soon. In fact, a calf born, say at the end of May, is better not turned out to grass at all that season, he believes. —THE EDITOR.

Preparation of Bordeaux Mixture

(See page 12)

Two different strengths of Bordeaux mixture are mentioned in the spray calendar. These are (1) bluestone 3 pounds and hydrated lime or fresh stone lime 6 pounds in 40 gallons of water, and (2) bluestone 4 pounds, and hydrated lime or fresh stone lime 8 pounds in 40 gallons of water. It is more convenient to use hydrated lime than unslaked lime, as the hydrated form does not require slaking. Keep the hydrated lime in a dry place.

In preparing the Bordeaux, first dissolve the bluestone required for a tank of the spray machine. This can be done most easily in a little hot water. Nearly fill the tank of the machine with water and add the right amount of the dissolved bluestone. While the agitator in the tanks is running, add the proper amount of hydrated lime and keep the mixture agitated for a few minutes longer. Do not use Bordeaux that has been standing in the tank for any length of time. A very finely ground bluestone is most convenient to use, as it dissolves easily.

Insect poisons may be added in the proper strength, as required, to the Bordeaux for the control of insects.

Marketing Early Lambs

By A. A. MacMILLAN,
Associate Chief, Live Stock Branch,
Ottawa.

EA O H year the demand for early lambs increases. This year as high as \$12.00 a carcass was paid for lambs for the Easter market, the carcasses to weigh over 40 lbs. During the month of April early lambs weighing 60 lbs. and over live weight, brought up to \$9.50 at Toronto. Even at these values the demand exceeded the supply.

Light Unfinished Lambs Not Wanted

Certain farmers appear to have the idea that if a 60 pound lamb is worth \$9.00, a 40 pound lamb should be worth \$6.00 or a 30 lb. lamb \$5.00. This is not so. Early lambs are required to be of very special quality. In order to secure the right finish and the desired weight the lamb must weigh at least 60 lbs. live weight; 70 lbs. is better. Since lighter weight lambs do not dress out with the desired carcass they are not in demand and the price paid will not be remunerative. Farmers have to keep in mind that the sheep produces only one lamb crop a year and that it is necessary so to market the lamb crop that a good return is made.

May and June Good Months to Market Early Lambs

As a rule lamb prices gradually adjust themselves to lower levels as the season advances and the volume of supply becomes greater. May and June or even July are months when the supply of choice, fresh-killed, early lamb is of very limited volume. During the past few years there has been a growing demand for spring lamb; consequently, those farmers who raise early lambs of choice quality can be assured of a good price if they are in a position to market at this time.

Early Lambs Require Special Care

Raising and fattening early lambs to be profitable requires special planning and careful feeding and management. Alfalfa hay and plenty of grain for feeding before and after lambing are essentials for success. Ewes should be bred as early as possible in the fall, and if due to lamb early in the spring a warm box-stall or shed should be available at lambing time.

Ewes should be well fed on a high protein ration before lambing to ensure a good supply of milk. After lambing, the best of alfalfa hay with a gradually increasing grain ration up to two pounds daily will be necessary to keep up the milk flow. As soon as the lambs are ten days to two weeks of age they will begin to nibble some grain and a lamb creep should be provided where the lambs can be fed additional feed by themselves. After ewes raising early lambs are turned to pasture they should still be fed some grain and provision should be made so that the lambs still have access to grain feed through the lamb creep.

Use Scales Before Marketing

Check weighs should be taken from time to time on early lambs. The time factor is important because in all probability the price will be dropping from month to month. It is advisable, therefore, to lose no time in marketing once the designed weight is reached. Always keep in mind that an early lamb is a

Departmental Announcements

Encouragement for the Use of Lime and Lime Products in Agriculture

IN order to encourage the liming of sour soils, the Honourable Minister of Agriculture is willing to reimburse to farmers the freight charges on lime or limestone, according to the following plan:

- 1—If the freight charge is less or equal to \$1.10 per ton, the total cost of transport will be refunded to the buyer or to the vendor, as the case may be;
- 2—If it costs more than \$1.10 per ton, the Department of Agriculture shall refund \$1.10 plus half of the amount exceeding \$1.10 per ton, but its contribution shall not exceed \$1.30 per ton.

This reimbursement of the cost of the freight will be made only in favor of lime or crushed limestone used for agricultural purposes, and applied only in the case of carloads weighing a minimum of thirty tons.

Regulations

- 1—The lime must meet the following requirements:
 - (a) **Pulverized limestone:** To contain a minimum of 85% of calcium carbonate (CaCO₃);
To be ground so fine that: 100% will pass through a screen with 10 meshes to the linear inch, and 30% through a screen with 100 meshes to the linear inch.
 - (b) **Quick lime:** To contain at least 85% of calcium oxide (CaO).
 - (c) **Hydrated lime:** To contain at least 85% of calcium hydrate (CaOH).
- 2—The maximum selling price, f.o.b. shipping point (bags or barrels not included), must not be in excess of the following for the various categories of lime:
 - \$2.50 a ton for pulverized limestone;
 - \$3.50 a ton for hydrated lime;
 - \$5.50 a ton for quick lime.
- 3—It will be lawful for the purchaser to place his order wherever he believes it to be most desirable, provided that the merchandise bought corresponds to the required qualities and that the purchase price does not surpass the maximum set up;
- 4—The purchaser must procure, for each order of a car of lime, a permit from the Department of Agriculture, issued through the office of the county agriculturist. This permit will be attached to the order before it is sent to the shipper;
- 5—Upon the receipt of the merchandise, the buyer will take a representative sample of at least one pound and mail it to the Chief of the Rural Economics Branch, Parliament Buildings Quebec.

Procedure

To simplify the procedure in reimbursing the freight charges, vendor of the lime must himself pay the total amount of the freight for each shipment, according to tariffs lawfully

(Continued on page 34)

Encouragement for the Use of Chemical Fertilizers

THE rational use of chemical fertilizers ensures a reduction in the cost of production of the crops. In order to aid agriculture, by facilitating the purchase of fertilizers, the honourable J. Adelard Godbout, Minister of Agriculture, places at the disposition of farmers the following grant:

The Department of Agriculture will reimburse three quarters of a cent for each pound of water soluble nitrogen, half a cent for each pound of available phosphoric acid and half a cent for each pound of water soluble potash, to any farmer who will have purchased and received on his farm, during the course of the year beginning July 1st. 1934 and ending on July 1st. 1935, chemical fertilizers to apply on his soil.

The grant will be paid when the buyers have fulfilled the following conditions:

The grant will be paid when the buyers representatives of the buyers such as designated in paragraph 4;

2.—Dealers in chemical fertilizers and farmers selling such fertilizers cannot demand any of the advantages offered by this circular for the fertilizers that they have bought for commercial purposes;

3.—Each claim should be presented in duplicate by using the official form prepared for this purpose and which must be signed by the applicant, also by two farmers as witnesses, by the agronomist and by the dealer. These forms can be procured by applying to the county agronomist;

4.—The purchases should be made through the appointed representative of an agricultural society, or of a cooperative society, or of a farmers' club, or of a cooperative syndicate, or of any other recognized agricultural organization, or through the representative of a group of farmers;

5.—The secretary of the organization or the representative of the group who forwards to the Department the claim for the payment of the grant will receive the amount of money to which the farmers are entitled and will have to take the necessary steps to assure the distribution of it to the beneficiaries mentioned on the form;

6.—At the same time as the cheque, two memoranda will be sent. One will accompany the cheque and the other will be addressed to the county agronomist;

7.—Claims will not be accepted for quantities less than fifteen tons of chemical fertilizers;

8.—All correspondence on the subject of the application of the decisions contained in this circular should be addressed to the Chief of the Rural Economics Branch, Department of Agriculture, Quebec, Que.;

9.—These regulations became effective on July 1st. 1933, and have been extended for another year.

J. Antonio GRENIER,
Deputy Minister of Agriculture.

Grants to Farmers' Clubs for the Maintenance of Pure Bred Bacon Type Boars

offered by

THE PROVINCIAL DEPARTMENT OF AGRICULTURE, QUEBEC.

ALL regulations previously in force concerning boars for which premiums have been granted or which have been kept by Farmer's Clubs are cancelled.

The number of premiums payable to each Club for the maintenance of pure bred boars of the bacon type is based upon the membership of the Club for the current year, according to the sworn list of members forwarded to the Secretary of the Council of Agriculture, Department of Agriculture, Quebec.

Number of Members	Number of Premiums	Premiums for Boars	
		7 to 19 Months Old	19 Months and Over
30 members	1	\$10.00	\$20.00
31 — 40 membres . .	2	"	"
41 — 60 "	3	"	"
61 — 80 "	4	"	"
81 members and over	5	"	"

REGULATIONS

1.—All boars for which premiums are granted shall, at time of purchase, meet with the approval of the Live Stock promotor or special agronomer of the district or by the County agronomer duly authorized by the Live Stock Branch.

2.—The Club shall sign an agreement in duplicate, with each owner or caretaker of boars on a special blank provided by the Live Stock Branch.

3.—All young boars shall be kept for breeding purposes the following year, otherwise the Farmers' Club shall have no right to bonus a young boar intended to replace the first one, unless for some serious reasons approved by the Live Stock Branch.

4.—This agreement shall stipulate:

(a) That owner or caretaker agrees to keep said boar in good condition during at least one year beginning November 1st of the current year; however, a boar which the Department's Inspector no longer recommends for another service period may be castrated before the close of the service period, if deemed advisable by the Club;

(b) That the service fee for each sow belonging to non-members shall be at least \$1.00. These service fees shall belong to the owner or caretaker;

(c) That the owner or keeper of a boar shall furnish the Live Stock Branch, Sheep and Swine Division with a record of the names and addresses of owners of sows bred to this boar, on special forms furnished by the Live Stock Branch, Sheep and Swine Division;

(d) That the premium granted by the Department for a boar shall be paid in full by the Club to the owner or caretaker of the boar;

(e) That these grants shall be paid ONLY upon receipt of a favorable report from the Inspector of the Department.

5.—A copy of the agreement duly signed between the Farmers' Club and the owner or owners of the boar or boars shall be for-

(Continued on page 27)

Departmental Activities

Beautifying Dairy Products Factories

A GRAND competition for the beautification of dairy products factories is being organized by the Dairy Industry Society of the Province of Quebec in the counties of St. Hyacinthe, Rouville, Iberville, Brome, St. John, and Missisquoi which contain a total of 71 butter, cheese or combined factories.

This information has been communicated to journalists, by M. Alexandre Dion, the secretary of the Dairy Industry Society who said: "The organizing of such a competition by our Society is no innovation. For in 1929, 1930, and 1931, we organized similar competitions and obtained good results. The first one, which included all the territory comprised between the countries of Lotbinière and Gaspé, both counties included, brought in 155 competitors. The second one, comprising the counties of Mégantic, Nicolet, Arthabaska, Wolfe, Richmond and Sherbrooke brought in 71 competitors; and the third one, including Bagot, Compton, Drummond, Richelieu, Shefford, Stansted and Yamaska, 57 competitors. The decrease in the number of competitors for the last two contests, as compared with the first, is due to the fact that we were then inviting competitors in smaller districts than the first which extended over all the region of the Lower St-Lawrence.

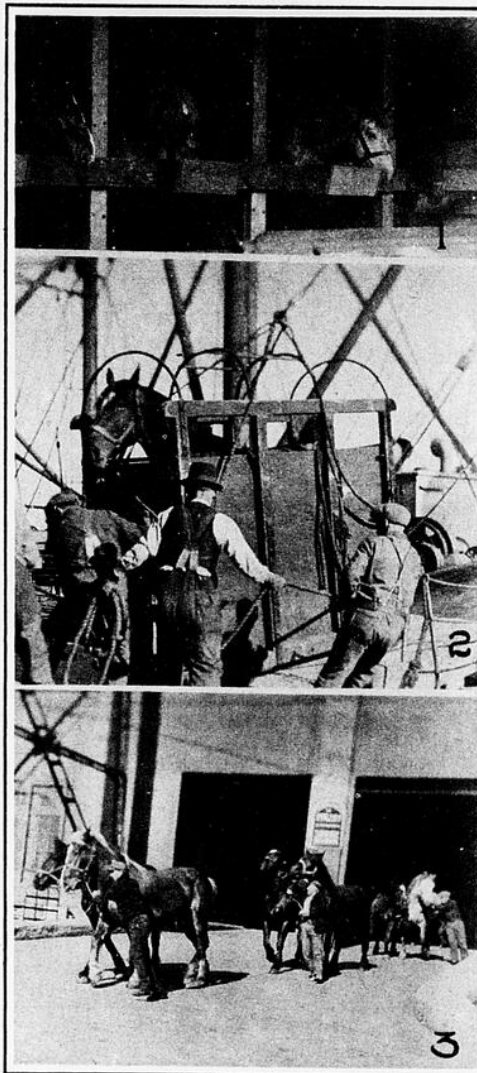
"During 1932 and 1933, we were obliged to suspend the contests, our Society having to meet some more urgent expenses. But this year, with improved business, our directors have decided to reopen this yearly competition, believing it to be an act of good cooperation with the provincial authorities, who are doing their best to encourage tourists through beautifying our Province. We do not ask those who enter this contest to engage in expensive improvements as may be judged from the scale of points that we have arranged:

General appearance	50 points
Paint or Lime	10 "
Plantations	10 "
Grass or Flowers	10 "
Access to Factories	10 "
Whitening of fences	10 "

"We want our factories to be clean, their access to be well kept, to prove, in short, that their owners are desirous that these factories be not a blot on a nice countryside. Moreover, our Society does not ask something for nothing since it offers this year a total of \$661 in prizes. This amount will be paid to the best 15 competitors as follows: \$75, \$65, \$60, \$55, \$50, \$45, \$43, \$41, \$39, \$37, \$35, \$33, \$20, \$28, and \$25. The offer of such attractive prizes should induce manufacturers to join in great numbers in this contest and to do their best to secure a reward.

"The 1934 competition opens with the season of manufacturing and will be judged during the course of this summer. The result will be known next Fall, when we shall publish a complete list of the competitors and pay the prizes awarded. M. E. U. Chevalier, deputy-inspector general of said district, will judge this contest, the survey of which is entrusted

to the Inspectors of above mentioned counties; viz, Messrs. Wilson St-Aranud, Joseph Pellant, and Adélard Hamel. The intention of the Dairy Industry Society is to continue the series of these improvement contests in following years, so as to enlist the whole Province by proceeding gradually."



A shipment of 57 Belgian and Percheron horses, destined for the stables of members of various breeding clubs throughout the Province of Quebec, arrived in Montreal on the S. S. Beaverhill which docked on May 8. In the shipment were four Belgian stallions and 39 Belgian mares, one Percheron stallion and 13 Percheron mares. These were selected in Belgium and France by J. J. Gautreau and Dr. Vigneau for the Quebec Government, and came out in charge of L. Gillis and his son George, of Antwerp. Despite their rather long voyage—they left Antwerp April 27, but were delayed somewhat by heavy weather for four days and by fogs when coming through the ice area—the animals came off in splendid shape. The Percherons are for the Rimouski club, while the Belgians go to the clubs at Yamachiche, St. Hyacinthe, and Pike River.

The accompanying photographs, taken by The Editor, show: 1, four of the mares in their stalls in the hold of the ship, just as they stood during the crossing; 2, the comfortable crate in which, by means of a derrick, the horses are lifted from the hold and swung from the ship; 3, some of the mares leaving the docks for the quarantine stables at the stockyards nearby.

Wickham-West Club Shows Initiative

"Here is a Club which has understood the importance of agricultural education and has given a fine example of initiative to the Farmers' Clubs of the Province of Quebec" declared the Honourable Adélard Godbout, when interviewed by the press, in mentioning a report which had just been submitted to him by M. l'Abbe Jean M. Rousseau, Secretary of the Farmers' Club of Wickham West, County of Drummond.

"Our Clubs," stated the Minister, "have not only been organized to allow their members to receive allowance from the Government: they have been organized in order to bring the farmers together; to allow them to study the Agricultural problems of the day and to support them in their work for progress. The Club of Wickham West has understood the intention of the Ministry and has given it practical application. Its directors are to be congratulated. Without doubt other clubs are also trying to teach the farmer, but I do not believe that one of them has been as ambitious as the Wickham West Group. If all our Clubs followed the example given by the farmers of Wickham West, we would be assured of an improvement in our agricultural economy."

The effort towards "Agricultural Science" made by the above mentioned Club deserves to be known by the public. In 1933, a monthly lecture was given to the members by the Agronomist of the County or by instructors of the Ministry of Agriculture. Since about 75 to 80 farmers attended each time, the directors decided at the end of the year to give their members two lectures each month in January, February, March and April 1934 to prepare them for the coming season. The attendance was as great and the members interested.

Acknowledging receipt of this report, the Honourable Minister of Agriculture answered to the Secretary as follows: "Your directors have fulfilled a commendable work in inaugurating such lectures on agricultural problems. It is an excellent way to awake interest in our agricultural problems and to complete the education of the farmer."

The Agricultural Club of Wickham West was founded in 1893 and has 73 members today. Amongst its principal activities, in addition to agricultural lectures, are: old and young bulls contests, the maintenance of a Young Breeders' Club and a Young Farmers' Club specially devoted to the culture of the potato, a lucerne contest, encouragement to Cattle-breeding, and others.

We may say that this Club does much for modern agriculture, not only theoretically but practically.

Trimming Ewe's Feet

Attention should be given to trimming ewe's feet at time of shearing. A good, sharp jack knife may be used to remove all superfluous hoof material. Long toes should be trimmed off. Attention to the feet at this time often prevents broken toes and other forms of lameness. Well-trimmed feet are also a safeguard against foot rot.

Live Stock Foster Fruit

A Few Observations Made During a Day's Visit to the Farms of Chivers & Sons, Histon (near Cambridge), England

By S. R. N. HODGINS, Editor

TO the housewives of England, the name Chivers stands for many toothsome delicacies, for Chivers & Sons are, "by appointment, purveyors of jams, jellies, and canned English fruit to His Majesty the King." To breeders of farm live stock throughout Britain and many other countries, however, the name stands for breeding stock—stock that carries off many important prizes at the Old Country "Royal" each year, and that is serving as foundation stock on breeding establishments in many countries.

The connection between toothsome jellies and good horses, cattle, hogs, and poultry may not appear plain at first thought; but when I say that Chivers & Sons produce about eighty per cent of the fruits used in their great factories at Histon — that they farm somewhere in the neighbourhood of 9,000 acres, of which 3,500 are devoted to fruits such as cherries, gooseberries, and strawberries, it will not seem so strange.

Oddly enough, apart from the need of much horse-power to care for the vast acreage of fruits and to haul the products to and from the factories, the demand was originally not so much for live stock as for livestock by-products. Fruit plantations which run to more than 3,000 acres require a great deal of manure. Further, the various kinds of fruits grown demand different types of manures — horse, cattle, sheep, pig, and poultry manures all have their place. So Chivers & Sons went in heavily for live stock; and, shrewd operators that they are, they decided that they might as well have good stock as mediocre. Hence their place to-day amongst Britain's foremost breeders.

In horses, they have a breeding stud of 150 Percherons, including the largest group of Percheron mares to be found in Europe. Not only are Percherons relied upon to do the farm work and the road work for the firm, but Chivers stallions are being widely used for crossing on the Shire mares of the district with a view to producing draught horses that walk faster and that have less hair on their legs. And in addition to the regular offerings of Percheron colts from the hundred or more mares on the place, imported stock, selected in France by Mr. J. Stanley Chivers, director in charge of the estate office, are put up at auction at two great annual stock sales held on the place.

In cattle, Chivers herds include 150 head of Dairy Shorthorns, distributed amongst several farms; an equal number of Lincolnshire Red Shorthorns; a few Jerseys at the home farm at Histon; and scores of fattening animals from Irish cattle dams and Angus sires— for England is still the land of roast beef. Hundreds of sheep, too, graze in the orchards, but these are market sheep only, usually from Suffolk rams on ewes of a Border-Leicester-Cheviot cross.

Even better known to Canadian breeders, perhaps, are the hogs bred here. Literally hundreds of Middle White (resembling our Chester Whites) and Large White (our bacon-type Yorkshires) pigs are to be found on the Chivers farms. Many of the "Royal" winners

come from these pens, while to them scores of pig fanciers in Britain and abroad look for their foundation stock.

And, finally, to the poultry lover Chivers & Sons cater with various sex-linked strains of Light Sussex, Rhode Island Red, and White and Black Leghorn hens, Khaki Campbell ducks, and American Mammoth Bronze turkeys.

It is because of the many interesting things seen by an agriculturist during a day's visit

to the Chivers' farms that I am writing these notes for Journal readers; and it is because of the very size of the project visited that I shall have to compose my observations in the form of "notes" rather than that of a well-rounded article.

A courteous welcome

To Canadians who have not yet visited the Old Country, it may be interesting to know that a certain formality precedes calls upon breeders, workers at experimental stations, and so on "over there." The chance visitor who arrives unannounced should not expect to find the fatted calf already dressed; but to the visitor who approaches decorously behind a telegram — which in England takes the place of our telephone call — unstinted hospitality is extended.

Apprized of this, I called upon Mr. W. A. Wilson, our genial Canadian Animal Products Trade Commissioner in London, and told him of my desire to visit the Chivers' herds and flocks. Next day I was informed from his office that I would be expected to arrive on the 9:58 train at Cambridge the following morning, that I should be met by a chauffeur wearing green livery who would place himself and car at my disposal for the day, and that I was invited to take lunch with Mr. and Mrs. J. Stanley Chivers.

Next morning, then, accompanied by Col. W. G. Mackendrick, of Oakville, Ontario, who likewise wished to see the Chivers' breeding stock, I arrived at Cambridge and found, in addition to the chauffeur in green livery, Mr. Toppe, chief herdsman for Chivers & Sons, who was to be our guide for the day. Moving out through the beautiful medieval town of Cambridge, with its historic colleges and famous "backs," or lawns running back to the little river Cam, we entered the open country and took the road to Histon, six miles distant.

Cambridgeshire, in the eastern part of England, proved to be much more level than anything that we had seen during our visits to the southwestern counties, with their great rolling Downs — and more given over to grain-growing. Harvesting was in progress, and on every hand could be seen the stacks of golden grain. We were therefore not surprised to learn that, in addition to breeding stock of horses, cattle, pigs, and poultry, and to nursery stock of many types of fruit trees and bushes, Chivers & Sons sell large quantities of seed wheat, oats, barley — in other and more English words, of seed corn.

A practical concern

Our arrival at the first of the farms to be visited brought a surprise. There were no "show" buildings! Most Canadians are acquainted with at least a few of the farms on which Canadian business men have established breeding herds, and are prepared to view these to some extent as show places which may or may not pay their owners in dollars and cents. But the Chivers' project does not belong in this company. Their farms are a part of the business: they must pay profits, just as the factory does! Hence we found

Cambridge Dairy Ration

The herd of Dairy Shorthorns kept on the Cambridge (England) University Farm has given a good account of itself for several years now in the London Dairy Show milking trials. Journal readers may then be interested in the following notes on their feeding and general management which we picked up during our visit to Cambridge last year.

The EDITOR.

The feeding and general management are briefly as follows. Half the cows calve in the autumn, and the remainder throughout the year, avoiding May and June. Each cow is given a rest of at least eight weeks in which to repair body tissues, and build up reserves. During this period the cow is fed liberally, the diet including a balanced ration of concentrated food, always containing 2 per cent. of Sterilised Bone Flour. The quantity of concentrates fed depends upon the condition of the cow.

After calving the cows are milked three times daily, and carefully rationed for high milk yields. The winter feeding is based mainly on hay, sugar beet pulp and concentrates, the amount of hay fed to the high yielding cows being carefully controlled.

The concentrated ration in use at the present time for all high yielding cows is as follows:—

5 parts, by weight,	Flaked Maize.
3 "	Cracked Beans.
3 "	Palm Kernel Cake.
2 "	Bran.
2 "	Crushed Wheat.
2 "	Crushed Oats.
2 "	Undec. Cotton Cake.
1 "	Linseed Cake.
1 "	Dec. Gr. Nut Cake.
½ "	Dec. Cotton Cake.
½ "	Meat Meal.

STERILISED FEEDING BONE FLOUR 2 PER CENT.

Rock Salt and Water are always available.

During the summer grass provides the bulk of the food, though it has been found necessary to restrict the grazing of any cow giving over 6 gallons of milk, if such a yield is to be maintained.

It is assumed that grass alone is sufficient to provide all the nutrients that are required up to 2½ gallons. For the next 1½ gallons over and above the first 2½, a mixture rich in starchy foods is fed, in order to balance the high protein content of well-grazed pasture. For additional milk over four gallons a balanced ration of concentrates is used.

the herds of heavy-milking and highly-bred cattle, the hundreds of pigs, and even the champion Percheron stallions housed in the simplest of sheds.

Our first visit was to a herd of a dozen Jerseys producing "certified" milk. These were at grass, but are brought in to a byre for milking. Summer and winter, they are hosed down before milking, and apparently without any ill effects. In winter they run in an open shed during the day. A few Shorthorn cows were with the Jersey cattle; from these Shorthorns comes the milk for the Jersey calves. One thing that interested us was the type of milking-stool used here. This is the "Everlast," an all-steel stool, which may be placed in the sterilizer along with the cans and other utensils — for in the production of certified milk absolute sterilization of all utensils is imperative.

The pasture on which these cows were grazing was interesting. Nine acres, laid down to pasture thirty or more years ago, were supporting twenty cows. It is gone over each spring with a chain harrow; there years ago it had a dressing of basic slag to bring on the white clover, and last spring it had a dressing of Kainite.

On this and an adjoining farm were most of the fat cattle and the pigs. Much beef is turned off these pastures. The Shorthorn heifers are each given a calf to raise in addition to their own, these extra calves being

bought in; Irish heifers, which are of the Shorthorn type, are bred by Anges bulls to produce strong and quick-fattening stock — to be marketed as baby beef. The Belgian bloodless castrator is used on the bull calves when they are three weeks to a month old, and no trouble has been experienced so far. Its use is simple. It is simply made to nip the cord, left in that position for one minute by the watch, and is then removed. The testicle then wastes away.

The bulls, we noticed, are kept outside all year. They are provided with little shelters, open on one side, for bad weather. In summer time they get nothing but grass; in winter they are given a few mangolds and a little grain, mainly flaked maize (corn), of which a large amount is used in England. Incidentally, throughout the Old Country roots, turnips and mangolds, fill the place that silage does with us — as much as fifty pounds roots being given per head to cows that are milking heavily during the winter season.

Literally hundreds of pigs are to be seen on these "home" farms at Histon, for this is the section that produces most of the fruit for the factory—and a tremendous stock is needed to supply the necessary manure. Pigs and poultry are allowed to run in the orchards to gather the fallen fruit, while large flocks of sheep — cross-bred for quick gains, as the usual Old Country custom goes — keep the grass from growing too long beneath the trees.

Pig-breeding practices

As indicated earlier, two types of pigs are bred at Histon — the Middle White and the Large White. The former produces what we would call the "shop hog," while the latter is our bacon-type Yorkshire. In view of the tremendous importance of the fresh-pork market for local stuff, Middle Whites are bred here in numbers — and many of the "Royal" winners come from the Chivers' pens. Fordon Marmion, a four-year-old boar who has himself been a champion, was the sire of all the Chivers' winners at last year's "Royal," including the supreme champion of the breed.

We in Canada, however, are more interested in the bacon-type hog, or the Large White, and here we saw stock that would make any Canadian swine breeder envious. More than 100 Large White sows are kept on the various Chivers' farms for breeding, while large numbers of gilts are prepared for sale in-pig at the annual spring and fall sales. At the time of our visit, for example, 70 Large White gilts in-pig to Large White boars (for breeding stock), and 40 Large White gilts in-pig to Middle White boars (for commercial stock) were awaiting the September sale, while numbers of young boars of splendid type were ready to go out to improve other herds.

The usual age at which these young in-pig gilts are sold runs from nine to twelve months, while the boars are usually sold at about six months of age for prices ranging from 12 to 20 guineas at the farm. With the English

(Continued on page 30)

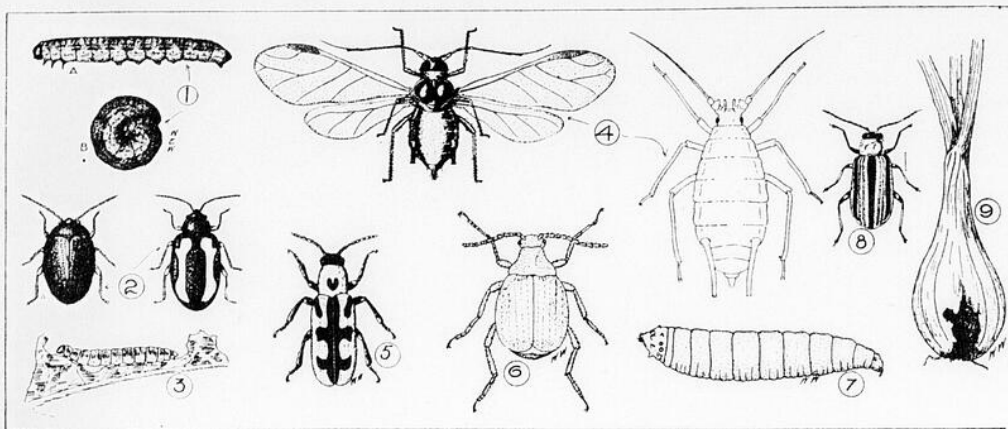


Caught by camera at Histon — 1. The covered auction ring in which are held the sales of Percheron horses, Large White and Middle White pigs, and store cattle that feature the livestock year at Messrs. Chivers; 2. A thatcher at work, while Mr. Toppe, chief herdsman for Messrs. Chivers, and Col. Mackendrick, of Oakville, Ontario, look on; 3. One of the all-steel milking stools mentioned in the accompanying article; 4. Censé, at the head of the Chivers' Percheron stud; 5. Histon Wild Queen, one of the good Dairy Shorthorns of Messrs. Chivers, averaged 12,669 lbs. milk with six calves; 6. Part of the group of Large White (Yorkshire) two-year-old sows at the time of our visit; 7. Thornby Royalist Foggathorpe, one of the Dairy Shorthorn sires at Histon.

For the Control of Garden Pests

Vegetable Spray Calendar

By J. G. COULSON and W. H. BRITAIN
Macdonald College



(Numbers correspond to figures as illustrated above)

A. Insects Pests

PEST	INJURIES	CONTROL
1. Cutworms: Greasy looking caterpillars found in ground at base of plant.....	Cut off seedlings or transplants at the ground level.	Mix 5 ozs. Paris Green with one peck of bran; add 1 pint of molasses sufficient water to moisten mixture, stirring well. Sprinkle thinly about plants or along rows, in late afternoon or evening.
2. Flea Beetles: Small, dark, jumping beetles.....	Eat small holes in leaves of potatoes, turnips, beets, etc.	Bordeaux mixture, repels all species; lead arsenate, 15 parts, mixed with slaked lime, 85 parts, is useful for turnip species. Dust on when leaves are wet with dew. <i>See page 7 for preparation of Bordeaux mixture.</i>
3. Cabbage Worm: Green caterpillar developing from eggs laid by common white butterfly.....	Eat leaves and burrow in head, filling it with excrement.	Arsenate of lead, 1½ lbs.; soap (dissolved), 4 lbs.; water 40 gals.; use as a spray. Or dust with 1 lb. lead arsenate mixed 5 lbs. hydrated lime when leaves wet with dew. Treat before heads are fully formed.
4. Aphids or Plant Lice: Small soft bodied insects, green, black or red, with 2 tiny tubes on back.....	Found on undersides of leaves, causing curling, wilting or withering of plant. They do not eat the leaves but suck the sap.	Spray as soon as insects appear with nicotine sulphate, 7 fluid ozs.; 2 lbs. dissolved soap to 40 gals. of water. Direct spray to underside of leaves and wet all insects well.
5. Asparagus beetle: Small beetles, spotted a brilliant red, yellow and black appearing in spring, laying eggs on ends or shoots; larvae slug-like.....	Tips made unsaleable by deposition of eggs; tender tips gnawed out and scarred; beetles and larvae eat leaves and surface of stems; larvae stain stems with black fluid excrement.	Spray as soon as beetles appear with arsenate of lead, 2 lbs.; soap 3 lbs.; water 40 gals. Keep shoots cut clean. Keep down volunteer plants. Dust plants after cutting season with arsenate of lead 1 part, lime 9 parts.
6. Bean Weevil: Small brown weevil laying eggs in green pods which give rise to footless white grubs that develop in beans.....	Larvae feed inside beans which may be stunted and malformed. Infested beans returned to storage continue infection.	Don't plant infested seeds. Treat seed by (1) heating to 125° F. for 4 hrs.; or (2) immersing in water, bringing to 140° F. and drying; or (3) fumigate with carbon disulphide 3 lbs.—160 cubic feet in tight box or barrel. (Keep fire away when using this gas).
7. Cabbage Maggot: Headless, footless maggots burrowing in roots of cabbage, cauliflower, radishes, etc.....	Cause wilting and stunting or death of plants.	Water plants with corrosive sublimate solution, 1 oz. to 10 gals. of water, about ½ pint per plant; apply 4 days after plants are set and again at intervals of 1 week until 2 or 3 applications are given.
8. Striped Cucumber Beetles: Familiar striped beetles found on squash, cucumbers, etc.....	Voraciously attacks leaves of mentioned plants in spring.	Several materials are same benefit, viz.; (1) nicotine dust applied quickly and forcefully in liberal quantities to plant and ground; (2) flowers of sulphur; (3) lead arsenate 1-5 with lime.
9. Onion Maggot: White maggots boring in roots of onions	Cause wilting and death of plants.	Hard to control satisfactorily in gardens. Watering with corrosive sublimate 1 oz. to 10 gals. water at frequent intervals may be of some use. On large scale Bordeaux oil-emulsion made from 4-4-40 Bordeaux by mixing with lubricating oil emulsion stock at rate of 1½ gals. to 38½ gals. of Bordeaux, 3-5 applications at intervals of a week has been recommended.
Carrots Rust Fly: Yellowish pointed maggots burrowing in carrots.....	First generation maggots may cause death of early carrots; second generation infect the stored roots.	Corrosive sublimate 1 oz.—10 gals. water, applied to wet soil about plants. Begin when plants are an inch high and give 2 further treatments at intervals of 5 days.
Onion Thrips: Tiny insects 1/25 inch long with narrow fringed wings; adults yellowish brown; young pale yellow...	Onions become whitened and wilt and whole fields may be severely injured or even destroyed.	Difficult to control. Destroy crop remnants. Plant early and force ahead. Spray carefully with nicotine sulphate 1 pint, soap (dissolved) 4 lbs., water 100 gals., or dust plants with naphthalene, 3 applications.
Potato Beetle: Too well known to need description.....	Young plants first attacked by "hard shells" that winter in ground, later by "grubs" that devour tops.	Hand picking of adults in spring is only feasible on a small scale. Spray with arsenate of lime, 1½ lbs. to 40 gals. of water or Bordeaux, or the equivalent of other poison. Repeat if necessary. "Catch them young".

B. Fungus and Bacterial Diseases

DISEASE	SYMPTOMS	CONTROL
Asparagus rust.....	Reddish or black elongated pustules scattered over the stems.	In fall carefully gather and burn all stems from affected plantations. Plant resistant strains such as the Mary and Martha Washington.
Bean anthracnose.....	Roundish sunken spots with a dark-brown or black border and pink centres, on the pods. Elongated dark-red cankers on stems and leaf veins. Rusty appearing spots on seeds.	Disease is seed borne. Select healthy seed from healthy pods. Rotate crops. Do not cultivate when plants are wet. Spraying is not considered to have any real economical value.
Bean blight.....	Appears much the same as anthracnose. Spots without pinkish centre. Large areas on the leaf may become brown and papery with a yellowish border.	Disease is seed borne. Select seed from healthy plantations.
Bean mosaic.....	Leaves mottled with light and dark green areas. Accompanied by curling and stunting of the foliage and plant. Yields are reduced.	Disease is carried in seed from diseased plants. Plant disease free seed saved from healthy plants. The robust bean is resistant.
Celery early and late blight..	Rusty appearing spots on leaves.	Thoroughly spray the plants with Bordeaux in the seed bed. Use Bordeaux mixture made of 3 pounds of Bluestone and 6 pounds of hydrated lime to 40 gallons of water. Make the first application when plants are about 2 inches high and the second application a short time before setting the plants in the field. The plants should be sprayed in the field with Bordeaux made of 4 lbs. of copper sulphate, 8 lbs. of hydrated lime and 40 gals. of water. Applications of spray should be made throughout the growing season at intervals of a week or ten days according to rains. The plants may be dusted with a 20 per cent copper lime dust in place of spraying with Bordeaux. Rake up and burn all diseased debris in the fall.
Corn smut.....	Black sooty outbreaks on various parts of the plant above ground.	Go through the field from time to time and collect and burn all smut growths as they appear. Practise a 3 or 4 year crop rotation and do not use fresh manure with the corn crop, as it is apt to contain the spores of the fungus.
Cucumber wilt.....	Leaves of plant suddenly wilt and dry up. Sometimes all of the vine is quickly killed. This disease is spread by biting insects-particularly the striped cucumber beetle.	Spray to keep insects off the plants. Pull up and destroy all the wilted vines as they appear.
Onion Smut.....	Appears as black dusty streaks or masses on seedlings and growing bulbs. Seedlings are frequently killed off. The black masses are made up of millions of spores which will live in the soil for many years.	Plant onion sets in infected soil, or transplant seedlings at least 3 weeks o.d into the field. A formalin solution applied to the soil by means of a tank and drip attachment attached to the seed drill at time of planting has given good results. Apply formalin solution 1 pint to 10 gals. of water, at the rate of 100 gallons to the acre. The formalin treatment is rather difficult to carry out and so it is best to choose soil free of the smut spores.
Pea root rot and blight.....	The lower leaves become grey or white and the plants soon wilt down. Roots are usually browned and rotten.	Practise crop rotation. If disease has been serious use a five year crop rotation. Use resistant varieties such as Green Admiral, Yellow Admiral, Rice's 330 and Horal.
Potato late blight and rot....	Causes a sudden blackening and drying of leaves and vines. Causes also a brown rot to tubers.	Spray thoroughly with Bordeaux mixture containing 4 lbs. of copper sulphate, 6 to 8 pounds of hydrated lime and 40 gallons of water. Make first application when plants are 6 to 8 inches high and every 10 or 14 days after in order to keep plants well protected throughout growing season. Add poison for beetles as required. When the vines are diseased allow them to die and become thoroughly dry before picking the tubers. Store tubers in a cool place.
Potato early blight.....	Brown spots with concentric rings on leaves.	Spray as for late blight.
Potato common scab.....	Scabby spots on tubers.	Use clean seed. There is some doubt as to the actual value to be derived from the commonly used seed treatments with formalin or bichloride of mercury.
Potato black scurf or rhizoctonia	Black specks or lumps adhering to the tubers. Plants sickly and yellowed.	Use clean or certified seed. Some value may be derived from seed treatment.
Potato mosaic.....	Leaves mottled with light and dark green areas. Plants show poor growth die early.	Disease carried in the tubers. Use certified seed or seed from disease-free fields.
Potato leaf roll.....	The leaves are rolled a long the midrib. The plant is dwarfed, yellowed and dies early.	Disease carried in the tubers. Use certified seed.
Tomato blight or leaf spot....	Small grayish-brown angular spots on leaves and stems. Leaves may wither and die and the foliage be completely destroyed.	Spray plants in the seed bed when they are about 3 weeks old and again about a week before setting out in the field. This should control the trouble in early varieties. For late tomatoes spray them a few days after they have been set in the field and about 10 days or two weeks later. Use in all spraying Bordeaux, 3 lbs. of copper sulphate 6 lbs. of hydrated lime and 40 gals. of water. The plants may be dusted with a copper-lime dust if preferred.
Tomato black rot or target spot	Circular dark brown spots with concentric rings or markings on leaves. Black rotten areas on fruit.	Spray or dust as for tomato blight.
Tomato mosaic.....	Leaves mottled with light green or yellow areas. The leaves are often dwarfed, fern-like or slender. Plants are reduced in size.	Disease seems to be seed borne. Plant seed from healthy plants and rogue out diseased plants in the field early in the season.

Soft-Curd Milk



By REDVERS THOMPSON

THE physical character of the curd is one of the main factors to be considered in the digestibility of cows' milk for infants. Practically all methods of modifying milk for infants are based on known methods of rendering the curd softer when it is coagulated in the child's stomach. The two methods most frequently employed are boiling and the addition of lime water. Very great difficulty has been experienced in adapting cows' milk to the needs of very young infants and also in its use by older infants at weaning time. Usually the transition period from mothers' milk to cows' milk is accompanied by little or no gain in weight.

Despite all the known methods of modifying cows' milk in attempts to make it comparable to the mothers' milk, a great many delicate infants do not properly digest cows' milk. It is a common practice for physicians to advocate mixed milk from the entire herd in preference to the milk of any one animal chosen at random. Experience has taught that more uniform growth has resulted, but the reason for this, in the majority of cases, has not been understood. It has frequently been observed that the milk of one particular cow in a herd is especially suited for a child. An explanation for the above observations will become apparent to the reader in the course of the following article.

Variations in the toughness of the curd of the milk from different cows were first observed by S. S. Buckley, of the Maryland Agricultural Experiment Station, in 1914. At that time he suggested that the milk of the Holstein and the Ayrshire might be superior to that of the Jersey or Guernsey for baby feeding. Two German scientists, O. Allemann and H. Schmid, when studying the factors influencing the coagulation of milk in the manufacture of cheese, independently observed a wide variation in the hardness of the curd from different animals; they were the first workers to develop an apparatus for determining the elasticity of the curd.

The importance of the above observations in connection with infant nutrition was first suggested and stressed by Professor R. L. Hill, in charge of human nutrition investigations at the Utah State Agricultural College. His investigations have shown that the digestibility of a milk depends on the softness of the curd; that the curd from individual cows in any given dairy breed vary greatly as to its softness; that certain breeds yield milk that averages a softer curd than does the milk from other breeds.

THE TEST FOR SOFT-CURD MILK

The test used in this country for the detection of soft-curd milk is one developed by Hill, and so is known as the "Hill" test. The principle of the test embraces the amount of tension (in grams) required to draw a special curd-knife through a given volume of artificially prepared curd. The curd-knife is a star-shaped, ten-bladed knife, two inches in diameter, and having a six-inch verticle handle which is used to draw the knife through the curd. The coagulant is a pepsin-calcium-chloride mixture, which causes complete coagulation in a period of ten minutes.

The variation in "tension" required to pull this knife through the curd from the milk of different cows may be from 16 to 250 grams. The low figures represent a soft-curd and the high ones a hard-curd. A milk having a curd-tension below 30 grams is considered a soft-curd milk.

BREEDS MOST SUITED FOR PRODUCTION OF SOFT-CURD MILK

Soft-curd is not a characteristic peculiar to any one breed of dairy cattle, but is an individual characteristic within the breed. Generally speaking, however, breeds which produce milk having a lower fat content tend to produce a softer-curd milk. Thus, the milk of the Holstein produces a softer curd than that of the Guernsey or Jersey. Figures collected from a large number of tests indicate that the milk of the Holstein breed produces a curd with an average tension of 38 grams, where-

as that of the Jersey breed was 86 grams. The individual variation within the breed is quite astonishing; the milk of certain animals may frequently have a curd tension or toughness ten times that of other animals in the same herd.

If a curd-tension of 30 grams or less is considered a soft-curd, then the Holstein breed will contain a higher percentage of individuals producing soft-curd milk than will the Ayrshire, Guernsey or Jersey breeds. Probably, however, not more than five per cent of animals in any breed will produce a soft-curd milk. It has been stated by some workers that not more than one per cent of Jerseys will produce a soft-curd milk; the author has found the percentage to be somewhat higher. The characteristic is fairly uniform and is apparently permanent.

The author does not wish to infer that because the milk of a certain breed produces a softer curd than the milk of other breeds, that it is superior for infant feeding; other properties, such as sugar and fat, must be taken into consideration.

The period of lactation has little effect on the curd characteristic of the milk except at the beginning and at the end of the lactation period, when the curd is harder than normal. The curd characteristic is independent of the feed given the cow. There is some evidence to indicate that the physical curd characteristic is hereditary.

EFFECT OF BOILING AND PASTEURIZATION

Contrary to general belief, boiled milk is more easily digested than is raw milk. It has been shown by Dr. Brennemann, of the United States, that raw milk forms larger, tougher curd particles, requiring a longer period to digest than those obtained from boiled milk. He states that milk which has been boiled for five minutes forms small, soft, flaky, yellow curds which are more easily digested than the curds from raw milk.

The curds of milk which was pasteurized at 143 to 145°F for 30 minutes showed little variation from the curds of raw milk. In a few instances, a softening of the curd has been shown, but in no instance has pasteurization resulted in a hardening of the curd.

INTRODUCTION OF SOFT-CURD MILK IN CANADA

Soft-curd milk was first introduced to the consuming public in Canada on March 1st, 1934, by the Jersey Health Farms, owned by J. E. Thompson of Montreal. The herd in question consists of about 100 Jerseys, five of which, according to tests, carried out at Macdonald College, were shown to produce milk having a curd-tension sufficiently low to be classified as "soft-curd" milk. Some of the cows in this herd produced milk having a curd-tension of 250 grams. The mixed milk had a curd-tension of 150 grams.

The retail price at the present time is 24 cents per quart, or 12 cents per pint, whereas the "special" milk produced at the same farm and under similar conditions retails for 14 cents per quart. Neither the "soft-curd" nor the "special" milk is pasteurized.

Merits of Soft-Curd Milk

THE merits of soft-curd milk are not confined to infant nutrition alone. In cases of adult indigestion, and in gastric ulcers, it has been used with beneficial results. The merits of soft-curd milk in infant nutrition have been clearly shown by experiments conducted by Dr. Eilker H. Blood, Utah, a specialist in infant nutrition. Dr. Blood has probably had more experience on the use of soft-curd milk in infant feeding than any other physician; he states that he has found soft-curd milk of inestimable value in the nutrition of the following groups of infants:

GROUP I — Newly-born and other healthy infants who have been deprived of mothers' milk. These thrive on undiluted whole milk of very low curd tension with no modification except the addition of carbohydrate.

GROUP II — Persistent vomiters of whey and leathery curds. The great majority of these babies cease vomiting within 48 hours of the change from regular to soft-curd milk and within ten days they begin to show a gain in weight.

GROUP III — Those babies who fail to gain, or gain very slowly, on any modification of cows' milk, thrive on low-tension curd milk with a slight addition of carbohydrate.

GROUP IV — The colic cases and other chronic intestinal indigestion cases. These seem to favour the protein products of soft-curd milk.

GROUP V — Colic babies. These cases respond, almost without exception, immediately when placed on the more easily digestible protein of soft-curd milk.

GROUP VI — Infantile exzema cases. Many such cases show marked improvement by a change from regular to soft-curd milk.

Food Problems With Children

By MISS T. HANKE

Macdonald College, P. Q.

I won't eat my spinach and carrots or drink my milk," calls little four-year-old Mary when she sees these foods appearing on her luncheon tray. This is a daily problem with which the mother has to struggle. She realizes that without the proper and correct amounts of food her child cannot grow and develop as she should — and already signs of inadequate nourishment have begun to appear. "What can be done when Mary absolutely refuses to eat? When she refuses certain foods or eats such small quantities and sometimes spends hours in doing so?" asks this worried mother who seems to have done everything in her power to provide the ideal diet but who finds that the daily battle of making the child eat it continues and is growing more intense. Often the mother who is so concerned over her child's welfare — and what mother is not? — fails to see or to understand that the causes of this reaction may be attributed to a greater extent to factors in the child's environment, rather than to the child himself.

Sometimes a child uses mealtime as a situation in which he can attract much attention. If we keep in mind that children have certain instinctive strivings toward power and recognition, and that they are rather limited in the ways in which they can gratify these strivings, it is not at all surprising that they may use this means of asserting themselves and dominating the situation. A mother may fail completely to see that her small daughter, for example, by not eating, can control a great deal of her activity. She can make her sit down and feed her, tell her stories, coax her, bribe her — or arouse her anger. The child may not at all be aware of the motives which influence her conduct any more than she is aware of the physiological processes by which food is digested. She is, nevertheless, conscious of her power and the sense of gratification that this power gives her. Then, too, hearing her mother telling others what a terrible time she has getting her to eat will again make her feel that this behaviour puts her in the centre of the stage.

By assuming that the child will eat his food, showing him you expect he is going to eat it, is one of the greatest helps in getting him to eat well. If you show anxiety about his eating or show you expect to have trouble making him eat he will surely live up to your expectations. Be calm and treat the situation in a matter-of-fact way.

When children refuse to eat a meal, provided they are otherwise thoroughly healthy and adequately nourished, missing a meal or two will do no harm. They should be supervised, however, so that they positively don't get any food between meals; for if they do, naturally their appetites are dulled and meals are uninteresting.

Children shouldn't be asked whether they will have certain foods or not; if they are good for them simply set before them. Often there is less difficulty when children eat by themselves when they are very young, rather than at the family table where there are choices. If he does eat with others, we should see that a good example is set by all members of the family. When older people do not eat certain foods, the child may be led through imitation to dislike and refuse those same

foods. If he has heard an adult say a food makes him ill, he may also insist that it makes him feel ill. There are times, however, when children as well as grown ups do have a real



food idiosyncrasy. Many digestive upsets and cases of hay-fever and asthma have been traced to the reaction of certain foods. In such cases a physician should be consulted and the particular food eliminated from the child's diet and other foods substituted which supply the same dietary factors if possible. However, if the rejection cannot be attributed to these causes we should endeavour to have the child cultivate a taste for all kinds of food. In so doing we are building up good food habits for the rest of his life. Many trying situations often present themselves in later life when out of courtesy we feel obliged to eat certain disliked foods which are set before us.

Encouragement, praise and rewards are often sufficient incentives to use. You may encourage him to eat by suggesting how good the food is and that it will help him be big and strong some day like his father or someone he admires. Praising him when he has cleaned his plate is desirable. The dessert may be withheld and used as a reward for eating the first course of the meal. Serving the disliked food first while the child is still hungry is a good procedure.

Meal time should be also made a pleasant time for the child. Disciplinary measures, scolding and punishment should be avoided. Do not argue with children over their meals. Neither should they be worried too much about their table manners even though it is desirable that we should begin having him cultivate nice ways of eating and handling his food; we must realize that these processes are very complicated to the child. To try making him sit up straight, to stop kicking the rungs of his chair, to take small bites, not to spill food from his spoon, not to speak while masticating the food — to do all these in a perfect manner at the same time is asking too much. A better procedure would be to concentrate upon a few of these at a time and then introduce others when the first ones have become firmly established and are automatic reactions on the part of the child.

Let the child feed himself and experience the joy of selfhelp. Children love doing many things for themselves when they are given

the opportunity. To be sure the first attempts are crude and may be disastrous, but greater efficiency develops gradually. There are many ways in which a child can help with his meals. Often if he is permitted to help in the preparation of a disliked food, a great interest in that food may be created. "Carrots aren't carrots," when the small cook helps prepare them.

Then, too, the work of setting his table, or of carrying food to the table may be given to the child. This to him is play. Let him pour his own milk into his glass from a suitably sized jug. The pleasure of performing this action may be great enough to stimulate his desire for more milk or at least for the quantity we know he needs. Children enjoy this feeling of responsibility and of doing things for themselves or of helping mother.

Perhaps when a child does not eat what he should the fault may lie with the child himself. He may have been playing vigorously and comes to the table too tired to eat well. He may be trying to keep up with older children in their play and is exhausted nervously as well as physically. It is a good plan to see that he does something of a quiet nature before meals such as lying down and relaxing while he listens to a story or music. If it is not practical to carry out such a plan, he may be encouraged to look at his books or to play with other playthings that do not involve strenuous exercise. Perhaps the child is tired from not having a good routine, plenty of sleep, rest and fresh air. Adults sometimes do not take serious enough account of events in the lives of children that are real tragedies for them and are the causes of worry, unhappiness and lack of appetite.

Again he may be too excited or too much interested in other things at mealtime. He may be so interested in what he has been playing that he does not want to take time to eat. He may be fascinated by the conversation being carried on by adults at the table or by what other children at the table are doing. Consequently in some cases it is a good plan to have a small child eat at a little table by himself or to eat his meals before the family eats. Whether or not these plans are practical will depend on many other factors.

When a child does not eat what he should, the fault may lie with the food or with the way it is served. If foods are attractive in colour, odour, and flavour they will undoubtedly tempt his appetite. Variety of foods in feeding problem children is a factor which should not be overlooked. Maybe because carrots and spinach are good vegetables for children, they are served too often. So much stress have they been given to them that some mothers may feel that without them their children would be undernourished. But we must remember that even though they are very good vegetables the same food values can be derived from other foods if one knows how to make the correct substitution.

Vegetables may be served in a variety of ways. They may be served with other foods as in meat loaf, or they may be creamed or moulded in gelatin or chopped and served as sandwiches. They may be cut in different shapes and forms; garnished in different ways.

(Continued on page 23)

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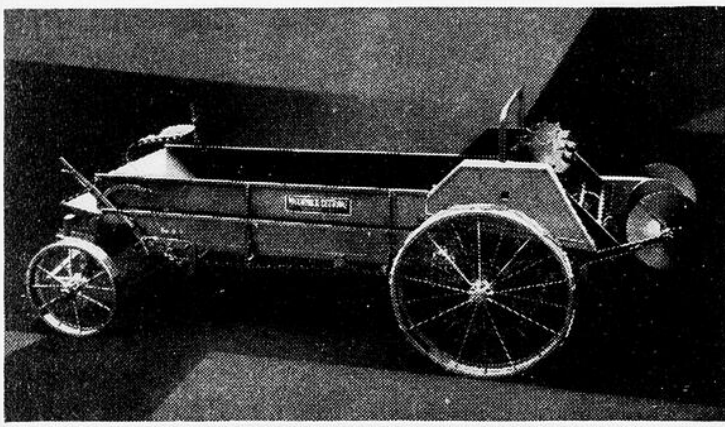
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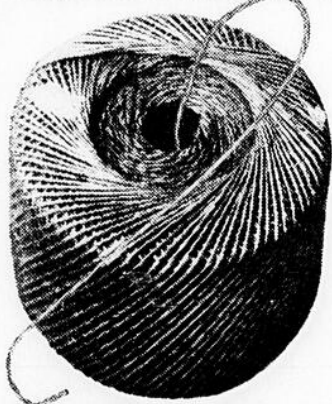
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Visitor From Denmark

(Continued from page 5)

fold: 1. from rectories, church lands having been taken by the state and the rectors placed upon a salaried footing; 2. from feudal estates, which in 1919 were forced to relinquish one-third of their land and one-quarter of their capital (the value of their buildings, etc.), part of this capital being used for buying more land where no feudal estates existed, and part for providing building funds for the newly established farmers; 3. from reclaiming heaths, etc., thus making more land.

The Co-operative Urge

The setting up of a large number of small holdings brought with it the problem of helping these small holders to make a living in competition not only with the larger farmers, to whom machinery was giving great advantages as the nineteenth century progressed, but also with other countries. And this was accentuated by a severe economic crisis in the 'seventies and 'eighties caused by a flood of cheap grain in the European markets, coming first from the countries round the Black Sea and the Baltic and shortly thereafter from the prairies of North America and the Argentine. Grain prices in Europe fell below the European cost-of-production margin — and up to that time grain had been the most important article of export from Denmark.

There was only one thing to do—and the Danish peasants did it. Grain-growing for export ceased, and the cheap foreign grains were imported to help feed the increased livestock population. If primary agricultural products could not be produced with profit, the Danes determined to exploit the world market for finished products: bacon, butter, eggs, would take the place of the grains and live animals heretofore exported. Whereas in the years 1865-70 the average annual export of grains and live animals amounted to 49 million kroner out of a total export return of 61 million, in 1922 bacon, butter, and eggs were responsible for 835 million of the total of 909 million kroner from exports.

And the thing that made possible this success in the world market was the growth of the co-operative system. By banding together in co-operative organizations, the Danish small holders (who are vastly in the majority) not only were able to compete with their own large-scale farmers, but were also able to present their produce in such form that it could more

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In butter, for example, twice as much was paid, in the 'seventies, for that from the manor farms as for that produced by small holders. The manor-farm butter alone was considered fit for export, and it took all the prizes at Danish exhibitions. With the coming of co-operative dairies, however, the thousands of small farmers came into their own. In 1894 the co-operative dairies (handling the milk of small holders) secured 6 out of 7 silver, and 14 out of 16 bronze medals at the national show; while at the 1900 exhibition the co-operative dairies made a clean sweep of the silver medals and took 202 of the 206 bronze medals available. And the same applied to bacon and egg production. Through their co-operatives the small producers of these share in the advantages of large-scale production, and so are able to take an important place in the export market.

Ninety per cent of the dairy farmers in Denmark (owning 87 per cent of Denmark's 3,500,000 cows) are members of co-operative dairies. A very large proportion of these belong to the co-operative cow-testing associations, which have been responsible for raising the annual production of Danish cows from 112 lbs. butter each to 250 lbs., while the cows entered in the control plan average to-day 301 lbs. Eighty-five per cent of the farmers belong to co-operative bacon-producing associations. And so on. As will be seen from a paragraph set into this article, the Danish farmer is now completely surrounded with co-operative organizations. Not only are his products manufactured and marketed co-operatively, but his seeds, his fertilizers, his breeding stock are purchased co-operatively, while the household goods come from co-operative stores and his electricity from co-operatively-owned electrical stations.

To repeat, without co-operation, the Danish small holders couldn't exist; and, on the other hand, the existence on the land of so many small and medium size farmers is good for co-operation, since all have the same social needs. Today, out of a total of 200,000 holdings in Denmark, at least 180,000 are linked up with the co-operative movement, the remainder being mostly the larger estates. And the Danish spirit of co-operation grew out of economic needs — plus the influence of the Danish Folk High Schools in preparing the soil for the movement.

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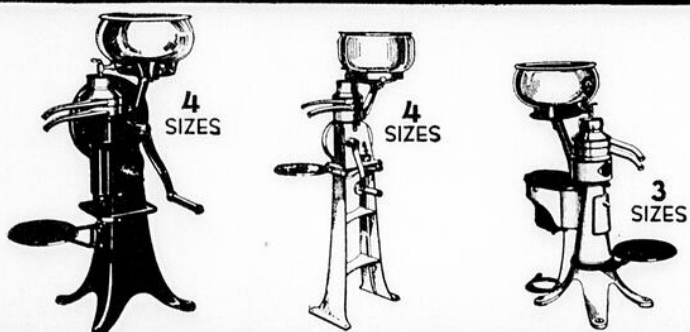
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Influence of Folk High Schools

We come now to one of the secrets of Denmark's success in agricultural work and in co-operation—her Folk High Schools. For the co-operation movement in Denmark has grown up from the farmers themselves — and the Danish farmers would not have been able to provide the leadership necessary to organize co-operatives and to carry them on year after year had they not possessed a culture that is traceable to the Folk High Schools. In these they have learned to appreciate the viewpoints of their fellows, to work together for the common good. And it is interesting to note that as early as the 'nineties, when but 16 per cent of rural Danes between the ages of 20 and 50 years had as yet been touched by this new but growing force in education, all but 10 per cent of the managers of co-operative dairies had attended a Folk High School, an agricultural school, or a dairy school — while some had attended all three. Today, practically all leaders in the co-operative movement and in the farmers' political movement in Denmark have been educated at these Folk schools.

Yet students at these Folk High Schools do not learn either agriculture or co-operation as such there. The attempt is not to make better farmers, but to make better men and women. As one of the teachers has put it, the purpose is not to enlighten but to enliven. In other words, if the soul is awakened a student will go on to secure the information he needs, while no amount of information will be of use to one who lacks inspiration. And it is interesting to know that Denmark's agricultural schools have usually been established by men who have been inspired by these Folk schools, and that many of the men and women go on from the Folk schools to complete their technical knowledge of their life's work in the schools of agriculture or household science.

These Folk High Schools owe their existence to the vision of Bishop Grundtvig (1783-1872), poet, priest, patriot, and educationalist. Deeply impressed with the numbing despair into which the Danes had been thrown by a series of disastrous wars culminating in that with Germany in 1864, when Denmark lost two of its most fruitful provinces, Holstein and Slesvig, he sought means for arousing the souls of his people—and since the peasants were vastly in the majority, he turned particularly to them as a promising field. He dreamed of a series of high schools for the Folk — where all the people of Denmark, irrespective of their stations in life,

might come together to hear "the living word" as used in making clear the meaning and the glory of life.

Not information, but inspiration—this was Grundtvig's aim. And from his original idea have come two features of Danish life: first, some 1,000 "lecture associations" covering the country, each with about 100 members and holding about 10 meetings with lectures annually; second, the Folk High Schools, of which there are now 60, with an annual attendance of 10,000 young men and women. In each the stress is placed on "the living word"; and in each the favourite subjects are the history of mankind, literature and art, ethics and religion, political economy.

It is to be noted that Grundtvig's hope was to have schools established for all the Folk — but so far it has been the rural dwellers who have attended most largely at these Folk High Schools. And what wonders these schools have worked amongst the rural people of Denmark! In half a century, Denmark has turned from a land of peasants to one in which the land-owning middle classes are in the majority; the spirit of the people has been awakened; and the economic benefits of this awakening are known to the world.

The essence of these Folk High Schools, as presented by Mr. Manniche, is that they are personal in their methods—that is, they stress the spoken word rather than books, while the residential life brings out the personality of the students; individualistic in method — subjects being *a la carte*, rather than *table d'hote*, so that the student thinks about what most concerns him; and ethical in teaching. Students come between the ages of 18 and 25, after working on their farms from the time they leave the elementary schools at 14, thus they will have already had enough contact with life to be interested in solving some of its problems. There are no examinations, diplomas, or degrees — for education is held to be an end in itself, not a stepping stone to a position. And, finally, the teachers are chosen more for their ability to inspire than for their academic learning.

These schools are privately owned, usually by the warden, but supported largely by the state. This is considered by the Danes to be one of their secrets of success. Governments do not interfere with the subjects taught. The winter term is open to young men, the summer term to young women. A few inspiring lectures are given each day, and some portion is spent by all — teachers and students alike — in manual labour; the re-

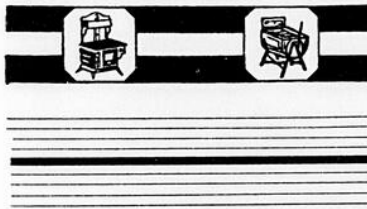
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remainder of the day is devoted to discussions by small study groups. According to Mr. Manniche, the chief question of the students is, "What is the meaning of life?" And it is notable that the teachers are expected to answer questions rather than to ask them.

This is the basis of Denmark's agricultural success. With an "enlivened" rural population — a great body of men and women who have spent a winter together in discussing their own problems — they have the groundwork for co-operative enterprise. Recognition of the "other fellow's" problem, and an aroused interest in the welfare of the community and of the nation — these are important by-products of the Danish Folk High Schools which make co-operation easy.

How To Fight White Grubs in 1934

Special Circular Directed To The Counties of Montcalm, Laval, Terrebonne, Two - Mountains, and Argenteuil, From The Quebec Plant-Protection Bureau.

In the June 1933 issue of The Journal we carried an article entitled "The White Grub Situation for 1933", by G. H. Hammond, of the Dominion Entomological Branch, who has made a specialty of these pests, more particularly as they effect Quebec and Ontario. In that article Mr. Hammd pointed out that the Oka-St. Jerome area would have a major flight of June Beetles (the adult form, of which the familiar white grubs are the larvae) in 1933, while 1934 would bring serious damage from the second-year grubs, particularly to certain susceptible crops on loam, sand or gravel. It was recommended that land intended for corn in 1934 should be ploughed in the spring of 1933 if light, while various other recommendations for advance control were made as well.

Following up this work, Georges Maheux, Provincial Entomologist for Quebec, has just issued a circular to all agronomes and their assistants working in the five counties listed in the heading, bringing up-to-date the information provided last year, and suggesting special control measures for 1934.

The situation, states the circular, is grave in the five counties mentioned above. White grubs will be in their second year (the dangerous year of their three-year life cycle) throughout the district named. White grubs will be an epidemic on many farms with light soil and indications are that meadows and pastures will suffer severe injury. It is necessary that interested farmers take steps



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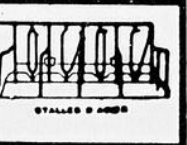
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to insure that they will not be without sufficient corn or hay for the coming winter. Different measures may be applied, but primarily we indicate the necessity of increasing the area in forage crops wherever the population of white grubs is more than two per square foot.

The chief recommendations applicable to zone No. 2 North of Montreal - Oka - St. Jerome are as follows.

CONTROL MEASURES FOR 1934

1. Keep for forage production well-established clover, sweet clov-

er, alfalfa, and meadows which are chiefly clover. These plants resist the attacks of the grubs well.

2. Look for the grubs in the soil at the time the dandelions are in flower. Any field showing more than two grubs per square foot is exposed to appreciable damage.

3. Wherever it is possible sow potatoes, corn, strawberries and timothy on heavy soils, on land that was in hoed crops in 1933, or on land that shows little or no white grub infestation.

4. Sow no annual plants no land that was follow in 1933 — unless it has less than two grubs per square foot.

5. Treat infested land as follows before seeding: plough shallow after the 15th of May (the grubs have come to the surface to feed), then cross 4 or 5 times with the disc harrow to kill the grubs.

6. Lacking this preparation, infested land should be sown to nothing but buckwheat or sunflowers — plants which are not attacked by the grubs.

7. On all parts of the farm free from white grubs increase the area in ensilage and forage crops by ¼

or ½ to compensate for poor yields of hay, grain and pastures.

8. Chickens following the plough will eat the grubs, and pigs are especially partial to them.

9. Maintain high fertility in all fields, meadows and pastures. This is very important to neutralize the damage and to help the plants to recover. Use the correct fertilizers generously.

10. Modify the rotation so that heavy land is fallow and light land is in hoed crops during the years of mass flight by the adults, i.e. in 1936, 1939, and 1942.

Remember that light soils (sands, open soils, gravels and mucks) which are unbroken or in fallow are sought out by the females for egg laying. They are therefor those most affected by the grubs.

There are also susceptible and resistant plants:—

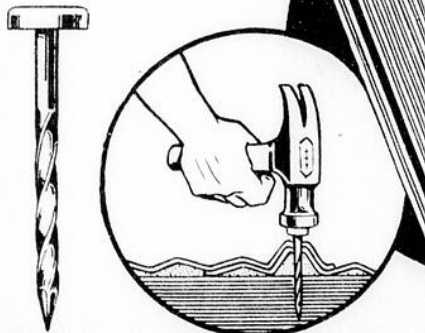
Very susceptible: corn, potatoes, timothy, strawberries, bent grass, and vegetable seedlings.

Moderately resistant: wheat, clovers, cereals in general.

Very resistant: sunflowers, buckwheat, sweet clover, alfalfa, and orchard grass.

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LED-HEAD NAILS

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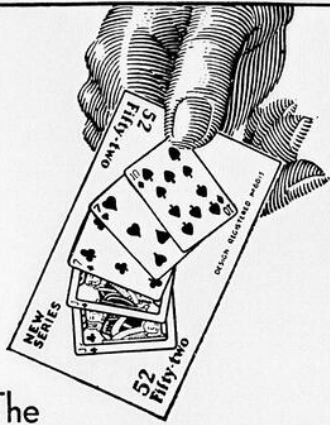
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Food Problems With Children

(Continued from page 15)

Milk may be given in soups, puddings and creamed dishes. Letting a child drink milk through a straw often makes a great appeal. Serving milk slightly sweetened in sherbert glasses, a spoonful of beaten egg white on top, placed on a pretty plate with gay paper napkin, the whole set on a silver tray and called fairy ice cream, is another suggestion. Sometimes a bit of jelly, date, raisin or slice of ripe, fresh fruit dipped in gelatin and fastened to the bottom of the cup will encourage the child to drink to the end and find the surprise.

Eggs may be served in a variety of ways: boiled, poached, creamed omelets, and custards. Placing several rings of cooked spaghetti around a poached egg makes a novel and more interesting dish.

Cereals may have a greater appeal if different kinds are served from day to day and small bits of fresh fruit, raisins, dates or stewed fruits are added. We much remember, too, that children are often more sensitive to textures of foods than grown ups, and lumpy cereals are disagreeable to them as well. Foods should also be of pleasing temperatures. Soups and cereals that are too hot, potatoes and other foods that are cold are unpalatable and are disliked by a small child. Large servings often discourage children with small appetites. It is always best to give a very small serving of a new food and encourage him to have a second serving. The size of servings may be gradually increased from day to day.

The following are food suggestions which are particularly desirable or undesirable for young children:

Foods which children should not have

Fresh or hot breads, except well baked muffins or crisp corn bread. Raw fruits and vegetables should be avoided for young children; coarse vegetables and seedy fruits or those with tough skins should be used cautiously or strained to remove irritating portions. Avoid giving fatty meats, fried foods, rich pastries and desserts, preserves and other concentrated sweets, pickles and highly seasoned foods, tea or coffee, and large quantities of candy.

Foods which children should have

Bread, preferably whole wheat and at least twenty-four hours old. Toast, rusks, hard crackers which give him chewing exercise. Cereals well cooked, vegetables and fruits of all kinds if properly prepared



LESS THAN 1¢ WORTH OF MAGIC ASSURES SUCCESSFUL RESULTS

Don't risk failures with inferior baking powder

- Recipes for all these delicious layer cakes are in the **MAGIC COOK BOOK**
- LADY BALTIMORE CAKE —see page 9
 - ORANGE SPONGE CAKE —see page 12
 - MAHOGANY CAKE —see page 10; and Fudge Frosting, page 14
 - CHOCOLATE LAYER CAKE —see recipe for Plain Layer Cake, page 8; and Chocolate Butter Icing, page 13
 - DEVIL'S FOOD LAYER CAKE —see page 10; Botted Frosting, page 14

THE average cake recipe calls for only two or three teaspoons of baking powder—but how important that small quantity is!

For a *baking powder failure means a poor-quality cake*... sometimes even the complete waste of all your other materials—fresh butter, eggs and milk; fine sugar, flavouring and flour!

Not surprising, then, is it, that Canada's leading cookery authorities stress the importance of using the best baking powder—MAGIC. Constant testing of this fine product has proved beyond a doubt that Magic is always uniform... that it gives consistently better baking results. That's why they use and recommend it *exclusively*.

Don't risk failures with inferior baking powder. Magic costs so little.

It actually takes *less than 1¢ worth* to bake a luscious big cake. And think what that fraction of a penny assures—cake that is extra fine in texture and flavour—uniformly good every time!

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Well Fenced Fields and Pastures are Your Summer Barn

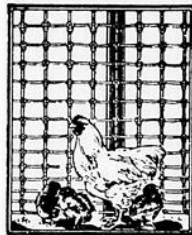
YOU wouldn't dream of keeping your harvested crops and livestock in a barn that offered no protection against the elements and against theft and escape. It is important that they be protected when in your barns, and just as important when in your fields and pastures. They should be enclosed with a neat, strong wire fence — a fence that will keep your livestock where you intend they should be, that will protect your field crops, that will enable you to get the most out of your acreage and be a distinct asset to your farm.

Such a fence is Frost Tight Lock. It has every feature you want. **STRENGTH** because of its non-slip Tight Lock. **LONG LIFE** because of its unequalled, rust-preventing, Zinc-Bonded Galvanizing that is obtainable only on Frost Fence. **HIGH QUALITY** because of Frost manufacture right through from wire rod to finished fence. Of course, you are looking for value in your farm equipment purchases this year. That's what you get in Frost Zinc-Bonded Fence — highest value — whatever gauge of fence you buy. There is a weight and style for every 1934 farm budget. Go to your nearest Frost Fence dealer — he's a "Fence Specialist" — enquire for prices, inspect his stock of Tight Lock Fence, ask for a copy of our interesting catalogue. This year be sure you get **VALUE** — get **FROST!**



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No more bother with gates! Rust Resisting! Strong! Stand up under heaviest strains. Last many years. Various widths and heights. Write for particulars.



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8c—Seiling's Summer Chick Sale—8c
BARRED Rocks, White Rocks, R. I. Reds, Leghorns, any quantity. You can now buy Seiling's Hi-Quality Government Approved chicks at these bargain prices. We have two hatches a week and can give prompt delivery. All stock Blood Tested. Order direct. \$1.00 per 100 with order balance when you receive chicks. We guarantee 100% live arrival and chicks to be satisfactory to you on arrival. **SEILING FARMS AND HATCHERY**, Elmira, Ontario.

Nervous Passenger: "Don't drive so quickly around the corners. It makes me frightened."

Chauffeur: "You don't want to get scared. Do as I do — shut your eyes when we come to corners."

for the child's age. Soups, especially vegetable and cream. Eggs usually once a day in some form. Cheese — only cottage and cream cheese given in early years. Later use small amounts of other cheeses in starchy dishes as meat substitutes. Nuts may be used also as a meat substitute, but only in ground forms like peanut butter until the child can masticate more thoroughly. Simple desserts like junket, custards, blanc mange, rice, bread and other puddings. Use fruits often for dessert. Milk, one quart daily in some form, as beverage, on cereals, in soups, puddings and other things.

Farm Drainage Competition

In order to stimulate better farm drainage in the counties throughout the Province, the Honourable J. A. Godbout, Minister of Agriculture, authorizes the agronomists to organize three farm drainage competitions in their respective districts. In organizing these competitions they may follow one or more of the subjected plans. The competition can be held under the auspices of the farmers' club and will be limited to residents of the parish. The minimum number of competitors is set at 10 and the maximum at 20.

If organized under the auspices of the agricultural society the contest must group at least 40 farmers and not more than 60. In this case, no farmers' club is allowed to organize a farm drainage competition. Superintendents of demonstration farms are debarred from these contests.

GRANT

A grant of \$12.00 will be given to each competitor who secures 60% of the points allotted. In order to obtain this grant, it is necessary that at least five members entered in each competition score 60% of the points allotted, if the organization has been made by a farmers' club, and at least (30) thirty farmers if the competition is under the auspices of the agricultural society.

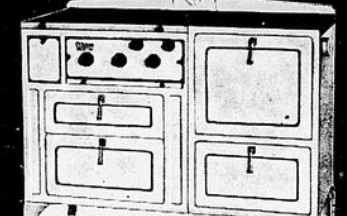
No individual can enter a drainage competition more than one time and benefit by more than one grant.

PLAN "A" — Drainage of flat areas (lands rounded off by means of the horse-drawn scraper)

This plan involves:

1.—The spreading in the middle of the field or in low spots of the surplus soil accumulated on the sides of main ditches or cross-ditches. This work, carried out with a horse-drawn scraper, will

BETTER COOKED FOODS for Your TABLE



NEW BEAUTY for Your KITCHEN

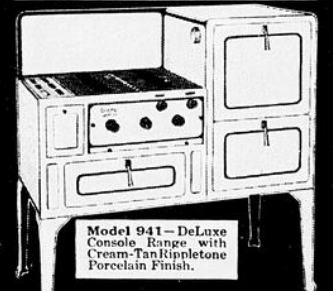
BETTER Cooked Foods for your table... happier hours in the kitchen... meals prepared in less time with less work at less cost. Foods cooked so that they retain all their natural delicious flavors. That's what the new Coleman Instant-Gas Range brings you. It provides the finest kind of modern gas-cooking service... wherever you live... lights instantly, like gas... cooks like gas... makes its own gas. It is safe, dependable and easy to operate. And it brings sparkling new brightness and beauty into your kitchen.

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One of the amazing features of these new ranges is the new Band-A-Blu Burner which produces a band of clear-blue, carbon-free flame; saves 20% on fuel cost; gives a wider range of cooking heat. Other improvements add safety, economy and simplicity of operation.

There are models to fit every kitchen and every purse, all handsomely finished in porcelain enamel in pleasing color combinations. Send coupon for **FREE Illustrated Folder** and name of the Coleman dealer nearest you.



Model 941—DeLux Console Range, with Cream-Tan-Rimstone Porcelain Finish.

New Book on Modern Cookery

Contains nearly 200 Special Tested Recipes. Full of valuable information on how to prepare Better Cooked Foods. Sent on receipt of 10¢ in coin or stamps to cover postage, packing and handling expense. Mail coupon.

Enclosed find 10¢ for postage and handling costs on my copy of the New Coleman Book on "Better Cooked Foods".

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 Recruit: "No, but I can give you a cigarette."

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She Gained Energy

This young woman's method of reducing overweight is evidently as beneficial as it is effective, and a letter she writes is therefore worthy of publication:—

"I am 24 years of age; height 5 ft. 5 1/2 ins.; and a short time ago my weight was 28 lbs. above normal. I was listless and without energy. Now after taking Kruschen Salts regularly I have lost 28 lbs. in weight, and have much more vitality. Also I have a very good complexion and I do not have face blemishes of any kind. Surely this must be due to my having pure blood, and I attribute the fact to my taking Kruschen Salts." —(Miss) M. S.

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LISTEN to this, late buyers. Mr. Thompson of Hillsburg bought 500 Tweddle Chicks 8 weeks ago. The cockerels at 8 weeks weighed 2 1/2 lbs, pullets 2 lbs. He bought more. If you have any doubt about all we've said, surely the testimony of our thousands of customers have some weight. Well effective at once our highest grade Tweddle Chicks are being reduced \$5. per 100. Every chick sired by an ROP Government Approved Cockerel from a 200-egg (and over) hen. No wonder Mr. Thompson's chicks weighed 2 lbs and over. Get your order in soon at these special prices as we are sure to be swamped with orders and the first order is the first to be sent out. Also 10 day old chicks. Booklet, price-list. J. G. TWEDDLE, Box 6, Fergus, Ont.

SIX breeds, chicks, Pullets all ages Ducklings, duck eggs, White Giants, Black Giant, hatching eggs. Catalogue saves you money. PEERLESS HATCHING, Petersburg, Ont.

\$35.00 weekly growing mushrooms for us, free spawn, 100-500% stronger than spawn sold, according to Dominion patent. Results guaranteed. Five cents postage brings illustrated booklet and complete proposition. NORTH AMERICAN SPAWN CO., Toronto and Winnipeg.

ensure proper slopings for the ditches.

2.—Sufficient deepening of the existing ditches and the digging of new ditches deemed necessary.

3.—Removal of the headlands running in the same direction as the cross-ditches of the fields, when possible to cross them in ploughing, once the surplus soil has been removed and the banks worked to a point where they will present a reasonable slope.

4.—The reshaping of the ridges to a uniform width and in even numbers for the same field. The widths allowed will vary from 45 to 65 feet.

5.—Raising the level of the ridges with the soil from the dead furrows dug to a sufficient depth, the soil being deposited where required by means of the horse-drawn scraper. The sides of the ridges must slope well. The minimum difference between the middle of the ridges and the bottom of the dead furrows must be 20 inches.

6.—The improvement of existing trenches or the digging of new trenches. These trenches will be improved or excavated with the horse-drawn scraper to a depth sufficient to carry off the water from the furrows to the neighbouring ditches. The sloping of the trench sides must be similar to that of the dead furrows.

7.—The drainage improvements must cover a minimum area of 4 acres.

8.—The agronomist will judge the results of this competition at the close of the Autumn season if the improvements are completed and at the latest in May or June of the following year. The official reports must reach the Rural Economic Branch no later than the fifteenth of June.

THE SCORE-CARD

	Points
1.—Area improved	15
2.—Spreading of excavated earth from ditches	20
3.—Digging of new ditches or improvement of existing ditches	10
4.—Good banks to ditches and trenches	10
5.—Reshaping of the ridges and removal of the headlands running along the cross-ditches	10
6.—Satisfactory raising of the lands	25
7.—Apparent efficiency of the works	10
	100

PLAN "B".—Drainage of flat land.

This plan involves:

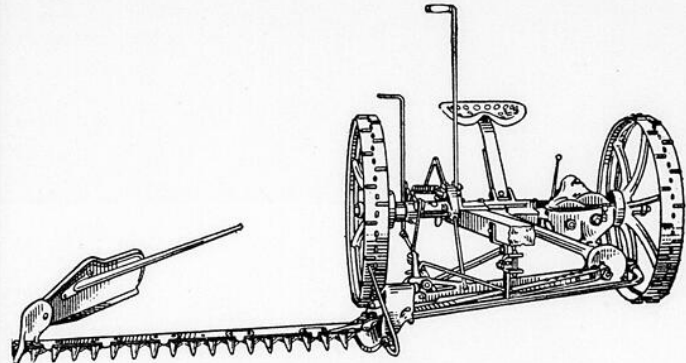
- 1.—The same work as plan "A".
- 2.—" " " " " "
- 3.—" " " " " "

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The latest and *greatest* development in mowing machinery is now ready for Canadian Farmers. Our special "long life" gear arrangement, with its small oil requirement, its smooth "flowing power," special Cutter Bar construction and easy accessibility of all parts, are outstanding features that will interest you.

IT RUNS IN OIL

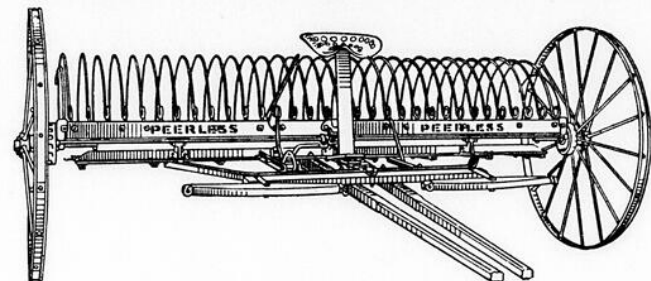
And the smooth, quiet hum of the perfectly meshing gears in their sealed case sounds more like an automobile than a mowing machine.



No. 10 OIL BATH MOWER

Don't fail to see for yourself this outstanding development by Canada's oldest Agricultural Implement Manufacturers. Note the handsome appearance, the splendid balance, the high lift, the safety levers, the automatic pitman, and the positive action—you'll be delighted.

THE PEERLESS RAKE



IT'S A BETTER RAKE

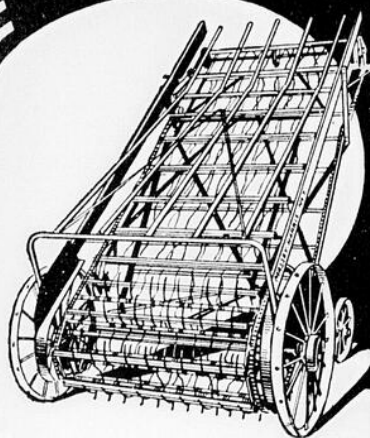
The *double wear* made possible by the reversible features of the Peerless, means a *fifty per cent* reduction in cost of upkeep, you simply reverse the worn part; Besides it "bunches" perfectly, is adjustable for all conditions, and is a joy to operate—you'll sure like it.

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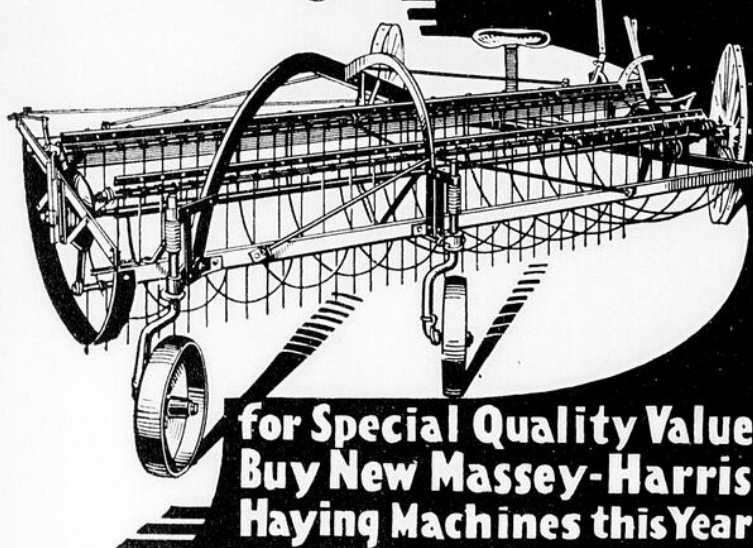
COCKSHUTT PLOW CO. LIMITED
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TWO NEW MASSEY-HARRIS HAY TOOLS



No. 7 CYLINDER LOADER

No. 7 SIDE RAKE AND TEDDER



for Special Quality Value Buy New Massey-Harris Haying Machines this Year

Here is a pair of Hay Making Machines with the capacity to do a quick, thorough job of handling heavy crops. They are sturdy yet light in weight, easy to operate, and are light in draft. Smooth in operation they handle the hay surely and without damage.

THE No. 7 SIDE RAKE and TEDDER has a rigid, rugged frame—the non-sag cylinder does not droop in the centre—teeth are secured to steel angles and coiled around steel pipes—more fender rods and a shield prevent winding in the cylinder—levers are convenient and a wide range of adjustments is available for various crop conditions.

MASSEY-HARRIS No. 7 HAY LOADER is light draft—has a large cylinder with eight bars—picks up clean—drop deck can be quickly set for low or high loading—handles light or heavy crops—and is strong and sturdy in construction.

Ask the Massey-Harris Agent for Particulars

MASSEY-HARRIS CO., Limited

ESTABLISHED 1847

Toronto, Montreal, Moncton, Winnipeg, Brandon, Swift Current, Regina, Saskatoon, Yorkton, Calgary, Edmonton, Vancouver

4.—Reshaping the ridges to uniform widths and in even numbers for the same field. The widths allowed shall vary from 35 to 50 feet.

5.—The ridges must be suitably rounded off after repeated ploughing according to the Richard System.

6.—The same work as Plan "A".

7.—The drainage improvements must cover a minimum area of 10 acres.

THE SCORE-CARD

	Points
1.—Area Improved . . .	20
2.—Spreading earth removed from ditches .	25
3.—Digging of new ditches and improvement of existing ditches . . .	15
4.—Good banks to ditches and trenches	15
5.—Reshaping of ridges and removal of headlands running along cross-ditches	15
6.—Apparent efficiency of the works	10
	Total 100

PLAN "C".—Drainage of rolling land.

This plan involves:

1.—The digging of ditches or trenches with a horse-drawn scraper, and satisfactory grading of rolling land and hillsides and mountain slopes.

2.—These ditches must be so situated and dug to such a depth as will ensure the holding of the water running from the uplands either on the surface or in the subsoil.

3.—The total length of one or several ditches or trenches must constitute a minimum length of 1,800 feet. Common or joint boundary ditches must not be included in this length.

THE SCORE-CARD

	Points
1.—Total length of excavated ditches . . .	40
2.—Good situation and good depth of ditches .	30
3.—Good banks to ditches	20
4.—Apparent efficiency of the works	10
	Total 100

PLAN "D".—Drainage improvements by means of underdrains.

This plan involves:

1.—The digging of suitably located underdrains at a minimum depth of 2½ feet.

2.—The diameter of the tiles must be proportionate to the quantity of water these drains will receive.

3.—The minimum length of the drains must be 1,200 feet.

THE SCORE-CARD

	Points
1.—Total length of drains	40
2.—Good situation and good depth	30



Don't be DOWN on your UPPERS!

Lengthen the wear of your shoes — with —



"Nugget" water-proofs your shoes, keeps your feet dry in rainy weather and preserves the leather—thus prolonging its wearing qualities. Shoes last longer, saving money for the family that uses "Nugget" regularly. "Nugget" gives your shoes the best of shines as well as great protection, at a cost of next to nothing.

NUGGET SHOE POLISH

THERE'S A "NUGGET" SHADE FOR EVERY SHOE MADE

Your white shoes can easily be kept trim and spotless with



Put away your fear of failure

Success is the rule when you use Diamond Dyes. And there is good reason for it. Diamond Dyes actually do contain a greater amount of the finest aniline coloring matter. This is why materials take Diamond Dyes so evenly. No spottiness, no streaks. Colors true, deep, rich. No off-casts; no dull, dead tones. Remember, Diamond Dyes are for deep, dark colors made permanent by boiling. When you want dainty, light shades without boiling, for lingerie, blouses or dresses, use the new Diamond Tints. At all drug stores, 15c.

DIAMOND DYES

MADE IN CANADA
better because richer in pure anilines



Fire Marshal Urges Use of Salt When Storing Hay

The Fire Marshal of Ontario recommends that for each load (1½ tons) of timothy hay, not less than 10 lbs. of salt should be distributed over the mow and for mixed or clover hay, not less than 20 lbs. per load.

The big advantage of this salting method is that practically no extra cost is involved. Cattle require salt in any event. Its addition improves the flavor of the hay as well as preventing the particular type of fermentation that leads to spontaneous combustion. But sufficient must be used if all danger from this source is to be removed. Use Purity Salt.



RELIEVE STRAINS

WHILE HORSE WORKS

Don't let lameness caused by strain or sprain lay up your horse. Apply Absorbine. Finest thing in world for quick relief. Great antiseptic, too! Healing aid for cuts, open sores, galls, boils. Won't blister or remove hair—and horse keeps at work during treatment. Economical. Little goes far. Large bottle, \$2.50. All druggists'. W. F. Young, Inc., Montreal, Canada.

USE ABSORBINE

3.—Sufficient diameter of tiles and good state of outlets	20
4.—Apparent efficiency of the works	10
Total	100

Freight charges on drain tiles will be paid to competitors who have to put in underdrains, provided the quantities purchased form a carload shipment. A maximum of \$150.00 may be allotted to each competitor to pay shipping charges upon presentation of the railway's receipt.

**The Deputy Minister
of Agriculture.
J.-ANTONIO GRENIER.**

Quebec, February 1st 1932

Grants to Farmers' Club...

(Continued from page 8)

warded to the Live Stock Branch, Sheep and Swine Division before November 15th of the current year.

6.—That no grant shall be paid to a Club which has neglected to forward to the Live Stock Branch, before November 15th, the agreement between the Club and EACH OWNER of boars.

IMPORTANT

Documents Required to Obtain Grants

At the close of the breeding season, THE DECLARATION BLANK provided by the Department duly filled and signed shall be addressed to the Live Stock Branch, Sheep and Swine Division, by the Secretary of the Club.

GRANTS TO FARMERS' CLUBS FOR THE PURCHASE OF PURE BRED BOARS OF THE BACON TYPE.

Since the purchase of young boars is not recommended, the Live Stock Branch of the Provincial Department of Agriculture, in order to encourage the purchase of older boars, grants a premium of \$7.00 for each boar, 4 months of age and over, at time of purchase and out of a dam which has qualified in the Advance Registry for Swine. For all other pure bred boars of the bacon type, 4 months of age and over, at time of purchase, a premium of \$5.00 will be paid.

REGULATIONS

1.—The number of premiums for the purchase of boars shall be calculated on the same basis as for the number of premiums for maintenance. "In the case of a Club granting premiums for boars over one year of age, the number of aged boars bonused by the Club

ARE YOUR HOGS SALT HUNGRY?

OVER a period of five years of scientific experiment, the Dominion Government Experimental Station, Lacombe, Alberta, proved that salt-starved hogs take weeks longer to finish! They fed hogs 2½ pounds of salt to the hundred-weight of grain, and finished them from an average initial weight of 49 pounds to market weight in 125 days! And finer, long sided "Wiltshire" Quality hogs would be hard to obtain. No generally available supplement approached the early finishing results obtained with salt!

In 1929, the Lacombe Experimental Station obtained these remarkable results with only \$2.20 worth of salt, and heavily increased the profit! They saved weeks of extra feeding. Salt costing \$1.80 per hundredweight had an actual value in grain saved of \$25.38 in this year of good prices. The depression years have also given enormous profit on the trifling investment in salt!

Would you like to see the figures! Read our 24-page booklet explaining the results of the famous Lacombe Experimental Station trials over five years! Don't hesitate a moment to send the coupon below! We want you to have this valuable booklet without fail!

FOR GOITRE PREVENTION: Experience at Olds, Alta., an area very deficient in Iodine, shows that the controlled feeding of loose Iodized Salt is more effective than if fed in block form. Iodized Salt of similar concentration now available in 100 lb. bags. Write for article on "Mineral Starvation."

Windsor Salt is invariably maintained uniformly pure by C-I-L laboratories. It makes feed taste better—sharpens appetite—hogs feed better, grow better, pay better.

SEND COUPON NOW FOR SPECIAL BOOKLET SALT for HOGS

Canadian Industries Limited, Dept. J.A.
Windsor Salt Section, Windsor, Ontario.

Please send free booklet, "Sooner to Market with the Salt Ration".

Name.....

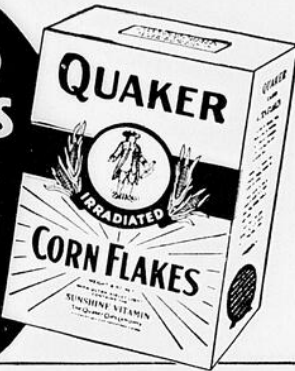
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CANADIAN INDUSTRIES LIMITED, WINDSOR SALT SECTION, WINDSOR, ONTARIO

**THE BEST
FLAVOURED
CORN FLAKES
YOU EVER ATE
OR YOUR
MONEY BACK**



Quaker Corn Flakes

For Delicious Bread, Cakes and Pastry use

**OGILVIE'S
"ROYAL HOUSEHOLD"
and "GLENORA" FLOURS**

Send 30c for
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100 pages of
excellent re-
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occasion.

THERE are no finer flours than these — milled in Quebec by Quebec millers — and used in Quebec homes for generations. Support the industries of your own Province and be sure of satisfaction in all your baking. Order Ogilvie's and accept no other.

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P. O. Box 2080, MONTREAL, QUE.



1. "Aren't you going to eat your ice-cream, dear?" —Polly, I don't know what ails Tommy—He isn't a bit like himself. He won't eat, and he's lost all his pep!"



2. "Alice, I wouldn't worry about Tommy. Jack was the same way a month ago, and I found all he needed was a laxative. Give him some Castoria."



3. "You're just the person I wanted to see, Polly! Tommy's been out playing all morning. I gave him some Castoria last night, and it's certainly wonderful!"

● "Yes, it certainly is, Alice. Castoria is the ideal laxative for children. It's pleasant to take, too—because it tastes awfully good. You know, it hasn't any of the harsh drugs in it that are in some grown-up laxatives. Don't forget that it's just the thing for colic in little babies, too!"

CASTORIA
The children's laxative
from babyhood to 11 years

Don't miss the tuneful Castoria Music Festival—Albert Spalding, Conrad Thibault, Don Voorhees' Orchestra, and the Castoria Singers, Every Wednesday evening, 10.30 to 11 P.M. (E.D.S.T.), Columbia Network, including Station CKAC, Montreal

Ad. No. 56-H
Journal of Agriculture—June, 1934

shall be deducted from the number of purchase premiums to which the Club is entitled."

3.—All boars for which a premium is granted shall be kept for breeding purposes for at least two years, unless for some serious reasons approved by the inspector.

4.—This purchase premium shall be paid only upon receipt of the following documents by the Live Stock Branch of the Department of Agriculture, Quebec:

(a) Sworn list of members of the Club for the current year, to be addressed to the Secretary of the Council of Agriculture, Parliament Buildings, Quebec;

(b) A duly signed agreement mentioning all the boars which are bonused by the Club for the current year;

(c) The registration certificate of the boar duly transferred to the name of the buyer;

(d) Report of inspection approving the purchase, signed by the Live Stock Promotor or by the Special Agronome of the district.

THESE THREE LATTER DOCUMENTS shall be forwarded together to the Live Stock Branch, Sheep and Swine Division, Quebec.

5.—No application for purchase premium shall be accepted later than 60 days after the boar has been bonused by the Club.

J. Antonio GRENIER,
Deputy Minister
of Agriculture.

Quebec, February 15th, 1934.

**FEDERAL ASSISTANCE TO
OWNERS OF BOARS OF
BACON TYPE**

(a) For approved boars, \$5.00.
(b) For approved boars out of a dam which has qualified in the Advance Registry for Swine, \$7.50.

REGULATIONS

To be entitled to a grant, a boar:

- 1.—Shall be bonused by the Farmers' Club.
- 2.—Shall be bought during the current year.
- 3.—Shall be over 6 months of age at time of inspection.

Premium will be paid to owner according to the name appearing on the Registration Certificate after the boar has been approved by an Inspector authorized by the Federal Department of Agriculture.

G. B. ROTHWELL, B.S.A.,
Live Stock Commissioner.
Ottawa, February 15th, 1934.

Further tests in packing eggs for transit have corroborated the original observations that packing eggs broad end up is superior to placing them broad ends down.



It costs less to use horses for power. Moreover, they restore soil fertility.



Alvarez Thelland, Mont Carmel, Comté Champlain, Bureau de Poste Valmont, is one of the important farmers of his district. His farm has been under cultivation for more than 50 years.

**"Collar Pads
make my
collars fit"**

"THE collar that fits in the beginning of the spring season, soon becomes too large as the horse loses flesh. A collar pad quickly makes such a collar fit. My horses do better work. I get more service from collars." That's the way Alvarez Thelland, Mont Carmel, Comté Champlain, sums up his use of collar pads.

There's nothing like Tapatco Stuffed Collar Pads for making collars fit. They fill up the looseness. Guard against the rubbing and chafing which causes galls and sore shoulders. Add to the life of old, worn collars.

Have a Tapatco Stuffed Collar Pad in good condition for every animal you work. Better still, have two pads so that you can alternate them.

It's economy to buy good pads, whether filled with regular stuffing, or genuine deer hair. Tapatco Pads are made from excellent quality drill. Stuffing is specially prepared. Hooks are rust-proofed and attached by patented staple and felt washer. At dealers everywhere.



FREE

Booklet on working horses more profitably



32 pages. Many illustrations. Written by experts, in most cases heads of Animal Husbandry Departments. Articles on taking care of horses, breeding, reducing costs, multi-hitches, first aid, etc. Mail coupon for free copy.

THE AMERICAN PAD & TEXTILE CO., Dept. 209, Chatham, Ontario.

GENTLEMEN:—Mail me FREE copy of "How to work your horses more profitably." Write name and address plainly on the margin.

If you find the articles in the Journal of Agriculture helpful, why not recommend the magazine to friends not now receiving it? Subscriptions should be sent to The Journal of Agriculture, 33 St. James Street West, Montreal.

Parliament Buildings, Quebec, Que.

"CO-OPERATIVE ACTIVITIES"

AS our readers have no doubt learned from the newspapers, we have recently assisted in the organization of five agricultural cooperative societies in the district of Joliette. Mr. Charbonneau, the active district agricultural representative has done much to promote the success of these enterprises and we sincerely congratulate him.

After St. Liguori, which was amongst the first to be organized last spring, there was added St. Henri de Mascouche with 61 members, whose directors are as follows:

J. Bte. Lapointe, President;
John W. Alexander, Vice-President;
Jos. Dugas, Secretary;
Leopold Allard, Director;
Thomas Houle, Director;
Rosario Cadieux, Director.

Later, Ste. Marie Salomé changed its old cooperative at \$10.00 to one at \$50.00 per member and bought a dairy already established there, which they have been able to make up-to-date.

Then there was St. Thomas de Joliette where the old dairy of Mr. Coutu became the property of a cooperative society of 58 members, the names of whose directors I will soon be able to give.

We have to add also Ste. Elizabeth which already had a cooperative society for the

production of seed grain but which is going to form a special one for the manufacture of butter, or cheese.

Apparently all is going well in Mr. Charbonneau's district and the Cooperative Fédérée hopes to be in a position to give satisfaction to these new societies of which two are already affiliated with us and we trust the other will soon follow.

I had the pleasure last week of assisting at the first meeting of the Cooperative Agricultural society of Matane, which elected its directors on May 8th. Mr. J. N. Albert, district agricultural representative from Rimouski, presided and the election was conducted by Mr. J. B. Milette, local district agricultural representative. Mr. Belzile, our propagandist, as well as Mr. Arthur Rioux, assistant district agricultural representative, were present. The following directors were elected by acclamation:—

Mr. Charles Tremblay, President;
Mr. Michel Philibert, Vice-President;
Mr. J. Bte. Milette, Temporary Secretary;
Mr. George Harrison, Auditor;
Mr. C. Alph. Beaulieu, Avocat, Solicitor;
Mr. Joseph Garon, Director;
Mr. Horace Bouffard, Director;
Mr. David Gauthier, Director.

It was a great pleasure to speak to such a friendly and attentive meeting. Considering the good work done by Mr. Milette, I felt I should impress on the assistants the desirability of the farmers paying careful attention to the advice received from the district representatives not only in regard to cooperation but also in regard to the technical information so necessary for the efficient production of crops essential to our rural prosperity. I stressed the necessity of cooperation between the various classes of society and insisted that it is among agricultural workers that cooperation is most needed.

Mr. J. N. Albert held a very interesting conference on his particular subjects, especially on the branches important in this locality, as hog raising and egg and poultry industries. Mr. Belzile explained to the directors the functions of the society, showing carefully the procedure under most circumstances. Mr. Beaulieu, advocate, legal adviser of the society, told his hearers of his interest in it and the importance of solidarity among professional and agricultural people.

Finally Mr. Milette added a few words of encouragement and thanks to those who had helped him in the good work accomplished.

L. P. D.

"HERE AND THERE"

GOING through the papers this morning I noticed complaints from certain Ontario representatives in regard to the Stevens inquiry. They complain of a monopoly in chemical fertilizers and from what they say it appears that fertilizers are dearer in Ontario than in Quebec. It is true.

However, it is amusing. I do not intend to make any comment or write anything of a controversial nature but there is evident the usual attitude to our province. Any good accomplished is criticized and we find jealousy of any advantages the Quebec farmers may enjoy. We have, in the province of Quebec the advantage of the city of Montreal as the centre of distribution for a very considerable area and naturally as much merchandise as possible is handled through this market. If Quebec by means of a more efficiently organized agricul-

tural service, with plenty of casual labour, is able to produce canned goods more cheaply than the other provinces, a cry of exploitation is raised.

If we are able, with the help of the Department of Agriculture to organize cooperative societies which allow the Cooperative Fédérée to buy chemical fertilizers more cheaply than individuals in other provinces, each buying for himself, can do it, then again, there is dissatisfaction.

Last fall the Federal Government passed a law for the grading of eggs, which is neither more or less than a means to make the market — which after all belongs to the province of Quebec in regard to perishable products which the Hon. Mr. Godbout asks us so persistently and reasonably to buy at home — more easily accessible to the people of the West than it

is to us. They have cancelled regulations which formerly prohibited the sale on the Montreal market of eggs which had suffered depreciation through the length of time spent in transit. The words "Fresh" and "Extra Fresh" are no longer insisted on, so that the storage plants in Montreal may be filled and the consumer will have to buy eggs which may be three or four months old, graded only according to size. No doubt the faith of the Federal Government has been abused, but the effects, as usual, are detrimental to our province.

There has been no protest against this but ours and now we begin to realize, through the reports which come to us from our graders, the extent of the harm from this regrettable regulation (or lack of regulation) of which I will speak again.

L. P. D.

MILDER — BETTER — FRESHER

ROXY CIGARETTES

SAVE THE "BRIDGE HANDS"

10 for 10c — 20 for 20c — 25 for 25c.

Manufactured by L. O. Grothe Limited, makers of the famous PEG TOP and WEBSTER Cigars.

FOR SAFETY AND INCOME

We recommend for safe investment Dominion and Provincial Government, Municipal and sound Public Utility and Industrial bonds yielding from 5% to 7%.

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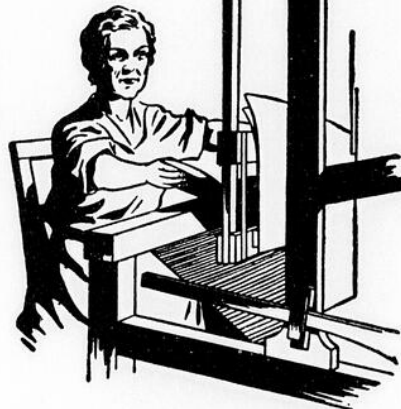
68

The art of the weaver depends upon the skill of the dyer...

The Brightest Homespuns are dyed with
DY-O-LA

Ask those who are famous for their colorful homespuns and ten chances to one they'll tell you they dye their yarns with DY-O-LA.

This dye first came from Europe. There is no other quite the same. It has great strength. Dissolves immediately and perfectly. It penetrates the fibres of the yarn. Dyes evenly and absolutely fast. Whether your shades are light, medium or deep, DY-O-LA will give you the bright, lovely colors that make homespun so attractive. For carpets, curtains, rugs and garments... the dye that is always thoroughly dependable in every way... is DY-O-LA, the true aniline dye. Price 10c a package.



At your nearest store there are samples of white flannelette dyed with DY-O-LA in 32 shades. These samples show dye colors truly.

DYES IN BOILING WATER

TINTS IN COLD WATER

DY-O-LA DYES

Live Stock Foster Fruit

(Continued from page 11)

pound at its present price of \$5.10, this means from \$65 to \$105 F.O. B. Histon, England, for boars six months old.

I know few more agreeable sights for pig lovers than that of a group of these Large White gilts or sows at Histon; all are bred to a type, and all present good length, perhaps a bit more depth than we are accustomed to see in our extreme bacon type in Canada, and excellent bone. One group of sows coming into their second litter pleased me particularly; these I tried to photograph with my vest-pocket kodak for Journal readers.

A splendid farrowing house is provided, but beyond that the pigs are not "babied" very much. The young pigs get no milk at all — all water and meal. Mash is fed warm to the young pigs at all seasons, and to all pigs in winter. A boiler at the main piggery supplies the steam for heating this mash, and the steam is applied by means of a flexible pipe which is stuck into the square wheeled vats in which the mash is mixed, and from which it is distributed to the various groups of pigs as it is drawn about on narrow-gauge tracks by a pony.

This great pig population plays an important part in the Chivers' orchard economy. Not only do the pigs supply valuable manure for the small fruit plantations, but they consume many hundred-weights of garden and orchard by-products, including all the waste potatoes.

PERCHERONS INTRODUCED

It is at one of the Histon farms, too, that the principal Percheron breeding stud is located. We saw dozens of mares with foal at heel on our visit, then went on to the unpretensions sheds to look over the eight or ten stallions kept at service. These were headed by Censé, former Royal Champion, and sire of another champion in Histon Grey Friar, who was being prepared for shipment to Australia at the time of our visit.

The introduction of Percherons at Histon came after the war. During the War, a great number of artillery horses had been brought over from North America, and many of these were Percherons or Percheron crosses. Their capacity for thriving under difficult conditions was appreciated, while the ease of keeping their feet and legs in good condition in spite of mud that caused trouble amongst the more hairy-legged animals won wide approval. Hence the decision on the part of Messrs. Chivers to establish a stud of Percherons in England.

The foundation horses were five fillies purchased in France in 1918. Their brisk gait appealed to the men, as did their clean legs, for after a hard day's work on heavy land it was found that they could be groomed much faster than could horses of the Shire breed, for example. As a result of favourable experience, then, more Percherons were imported — mares for use on the Chivers' farms and for sale to surrounding farmers, stallions for breeding these mares and for crossing on the Shire stock of the district. Today, Chivers and Sons are amongst the important importers of Percherons into England, and in their great covered auction ring two Percheron sales are held yearly.

These Percherons have proved remarkably adaptable and quiet in the various types of farm and road work on the Chivers' farms, the young horses are broken to work at two to two and a half years of age, and engage in the full work of the farm at three and a half years. Mating of fillies is practised at three years of age, while not only do all mares work up to the time of foaling, but also all stallions are worked save during the season of service — following the custom in France.

SHORTHORNS FOR MILK

Most of the milking herds are kept at outlying farms. So, following a very pleasant luncheon with Mr. and Mrs. Chivers, we drove out through the fruit plantations, where hundreds of women and girls were at work harvesting the berries and cherries to several of these commercial units.

At the first of these visited, we had the privilege of seeing a thatcher at work on a hay stack. Little hay is housed in Britain, hence the complete absence of the great storage barns that are such a feature of the Canadian rural landscape — but all hay is kept in good condition under thatch. Wheat or oat straw (wheat straw is best, but is usually reserved for thatching cottages) may be used, and for stacks, which are usually used up within a year or so, a thatch of three inches or so is usually sufficient. Working from the top down, the thatcher lays his straw in little bundles and "sews" it to the stack by twine twisted about the tops of three-foot willow wands which are thrust into the stack. With this "stitching" process carried across the stack at intervals of a few feet, the thatch stays well in place, and when combed down, runs water off perfectly.

OAK RIDGE CHICKS

Live—Lay—Pay

Because Oak Ridge Farm is
"Not Just Another Hatchery"

But has been many years one of Canada's biggest and best equipped Trapnest Breeding Farms under constant Gov't R.O.P. inspection. All stock Pedigree Mated, blood tested.

TOM BARRON WHITE LEGHORNS

Big bodies—big winter eggs.

O.A.C. BARRED PLYMOUTH ROCKS

For meat and eggs.

Get our new Price List. Lowest prices ever for EGGS, CHICKS, PULLETS, BROODERS. Poultry advice free—let us help you make more money from Poultry.

OAK RIDGE FARM

(Reg'd)

Box 504 Port Credit, Ont.

WOMEN wanted to sew for us at home. Sewing machine necessary. No selling. ONTARIO NECKWEAR COMPANY, Dept. 193, Toronto 8, Ont.

AGENTS wanted to sell silk neckties for us. We sell you at a price that allows to make 100% commission. Write to-day for FREE sample and particulars. ONTARIO NECKWEAR COMPANY, Dept. 617 Toronto, 8, Ont

Farms for Sale

THE Canadian Agricultural Loan Commission offers for sale few farms in culture with all necessary buildings, in the counties of Portneuf, Compton, Shefford, Montmagny, Missisquoi, Brome, Temiscouata, in the Province of Quebec at prices varying from \$800 to \$6,500. Terms: 10% cash and the balance in approximately 20 years, with interest. For further information, apply at P. A. ANGERS, Superintendent, 2 Chauveau Ave., Québec, P. Q.

WHITE Leghorn and Barred Rock Chicks 10¢ each hatching eggs 4¢ each, White Rock and Reds, Chicks 12¢ each hatching eggs 5¢ each, Jersey Black Giant Chicks 14¢ each, eggs 6¢. White runner ducklings 15¢, eggs 8¢ each. Satisfaction guaranteed or replacement. These are from best laying strains, 1¢ a chick less on orders of 500 or more. Cash with order or \$1.00 deposit per hundred and balance C.O.D. SERVICE POULTRY FARM, New Dundee, Ont.

BE SURE to get full price for your old gold jewels, gold teeth, etc. Try us and get your money. Our price at ounce, 9 karats, \$7.50, 10 karats, \$8.00, 14 karats, 12.00, 18 karats, \$15.00. Guaranteed satisfaction — or money refunded prepaid. PROVINCIAL REFINERS, 361 L, Yonge, Toronto.

FOR SALE.—Fine plants, Newman Raspberries, certified, \$3.00 for 100; \$25.00 for 1,000. Strawberries, Dunlap Senator, 0.75¢ for 100; \$5.00 for 1,000. Five year old Asparagus plants. Apply to ALFRED ALLARD, Blondin, Yamaska Cty.

ANY ROLL developed and eight prints 25c, including one tinted Free. Reprints 3c, tinted 6c. SUPERIOR STUDIO, Orange-dale, Nova Scotia.

160 ACRES clay land, water, buildings, with or without stock, machinery. S. LARDEN, R. 1, Verner, Ont.

GIANT BRONZE turkey eggs \$2.50 dozen, safe delivery, free booklet raising; Strawberry plants, 100-\$1.00; 1,000-\$4.00, Wm. CAMPBELL, Cornwall, Ont, Route 1.

TOBACCO (LEAF) CUT, CIGARETTES AND CIGARS.—Price list sent on request and sample on receipt of 10¢; 5 lbs of tobacco for \$1.00; 14 lbs for \$2.25. Shipped postpaid. J.-A. PILON, St. Roch de l'Achigan, P. Q.

8 cent Baby Chicks from one of the oldest Bred-to-lay strains in Canada for June. May 9 cents. Barred Rocks, White Rocks, White Leghorns. W. R. CARTON, Rockwood, Ont.

IF you want heavy winter layers of large eggs try our Stock, CHICKS? Pullets or Hatching Eggs. Barred Rocks 11-9¢ White Leghorns 10-8¢. 100% live arrival \$1.00 per 100 books your order. Balance C.O.D. Express paid on 300 or over. FAIRVIEW POULTRY FARM, St. Mary's, Ontario.

ANY ROLL developed and 8 Hi-gloss prints 25c. Reprints 3c. ELCO PHOTO CO., Box 685J., Toronto.

It was at this farm, too, that we saw the only silo that we noticed in England. The silage was made up of oats, vetches, and horse beans — a type of bean that we are not acquainted with in this country.

The Dairy Shorthorns seen on this and other Chivers' farms were all of deep milking strains. All are of Bates breeding lines, and include representatives of the Wild Eyes, Barrington, Duchess, Darlington, Foggathorpe, and Oxford families. With many of the cows running well over the thousand-gallon mark (10,000 lbs.), there is a good demand for young bulls for breeding, and we saw more than a score of vigorous youngsters being prepared for disposal.

I was particularly interested in the senior herd sire, Thornby Dauntless Dairyman, a sixteen-year-old bull that, while showing his age, still carried a good top-line and showed plenty of vigour. Messrs. Chivers are great believers in proved sires. When they sell a young bull that proves up well as a breeder, they usually try to get him back again. Thornby Dauntless Dairyman had as dam Thornby Lady York 2nd, with 1300 gallons in her first lactation period, 1500 in her second, and 1550 (15,500 lbs.) in her third, while his sire, Histon Milkman, sold for 600 guineas after getting many prize-winning milkers for the herd. This sixteen-year-old sire has been used on the herd for the past six years, and has produced many cows that give good account of themselves each year at the London Dairy Show and the Royal. In fact the average yield for the herd at this farm runs well over 10,000 lbs.

Space will not permit of a more exhaustive treatment of the interesting Shorthorns seen here and at other farms. But many individuals, both bulls and cows, take the eye of the visitor as he moves through the herds — and the records named by the herdsman make one realize why the Dairy Shorthorn still holds her place as the great source of milk for England's millions of consumers.

From this farm we drove on to another located several miles off, over moderately rolling country. Here again we saw many splendid Shorthorns, but the thing that remains in my memory from this visit is the beauty of the steading, with large house and barn softened by the thatch roofs — the only thatch roof I saw on a large barn in my travels.

Then we turned back towards the four spires of King's College Chapel which beautify the sky-line of Cambridge, and, after a memorable hour in the cloisters and chapels of the historic university, we journeyed back to London.

Hogarth says:—

Fall Egg Money Now Depends on Fast Growth of Chicks.

MORE than a million dozen fewer eggs in cold storage this year, than at this time last year, and May egg prices several cents a dozen above last May's. That's a most promising outlook for Fall prices. To reap the fullest advantage of this situation, you want fast-growing chicks — that will develop into layers at 5 months. Write or phone for details about Hogarth SUPER-SIZE chicks. They are building up a wonderful reputation for fast growth. Prices now lower.

Hogarth Baby Chick Hatchery

BOX 44, EXETER, ONT. PHONE 184

National Breweries YEAST

Health • Energy

Clear Complexion

An Aid for Constipation

Less than One Cent a Dose

... How one man found MUTUALITY PAYS

The following simple statement shows the result of one man's policy with The Mutual Life of Canada.

(\$5,000 Endowment in 30 Years—Issued in 1904—at age 25)

This Man Paid

30 annual premiums of \$159.75	\$4,792.50	
Less special 1928 dividend	23.00	\$4,769.50

He Received in Return

Face Value of policy	\$5,000.00	
Accumulated dividends	3,223.20	\$8,223.20

He Gained **\$3,453.70**

This is a return of \$172.41 for every \$100 of premiums paid. In addition, he received life insurance protection during this 30 years. If he had died while his policy was in force, his family would have received \$5,000, plus the accumulated dividends to the date of death.

Would you like to know more about Mutual Life of Canada policies—how they protect and make money for you while doing so? Clip coupon and mail it for free booklet.

The Mutual Life Assurance Co. of Canada, Waterloo, Ont.

Gentlemen: Please send me free book explaining your policies, without obligation.

Name

Address

Age J.A.

MUTUAL LIFE OF CANADA
 Established 1869

FARM PRODUCE MARKETS

Summary On Market Conditions Issued By The

Coopérative Fédérée de Québec

Receipts on the Montreal Stockyards,
Monday, June 4th, 1934:—

Cattle..	913
Calves..	1,443
Hogs..	1,896
Sheep..	403

LIVE CATTLE

Receipts were too heavy for the demand and for this reason and also because of heavy direct shipments of Western cattle, trading was very slow and prices 25c lower on cows and common steers and 50c lower per hundred pounds on medium and good quality. Good steers sold mostly at a top of \$5.50 although some loads were held for higher prices; medium steers brought from \$4.50 to \$5.00 and common \$3.00 to \$4.00. Good cows were mostly \$3.75 with an odd small lot at \$4.00; medium quality sold from \$3.00 to \$3.50 and common \$2.25 to \$2.50. Cannery and cutters sold from \$1.50 to \$2.25. Bologna bulls brought from \$2.00 to \$2.75 with butchers up to \$3.50.

LIVE CALVES

In this class also due to heavy supplies prices were 50c lower. Good quality brought from \$4.00 to \$4.50 with choice up to \$5.00. Medium grades were mostly from \$3.50 to \$4.00 with common \$2.50 to \$3.00. Only light supplies will bring improved conditions and prices on this market.

LIVE LAMBS

Lambs lost 1c per pound, the best quality weighing over 50 pounds sold for 9c per pound and lesser quality from 6 to 7 cents. Sheep also were lower ranging from \$2.00 to \$3.00 with an odd choice light up to \$3.50.

LIVE HOGS

Although supplies were much heavier than what was expected, prices held steady at \$9.25 for hams. The demand was fairly strong though buyers were very cautious and rather taking their time in getting their requirements. When reports started coming in from Western points things became more active and a clean-up was effected by noon. The ordinary \$1.00 per head premium was paid on Slects, while Heavies, Lights and Butchers were cut one half of one cent per pound, and Extra Heavies one cent per pound. It is expected that hog prices will hold firm for the balance of the week. Sows were selling quite freely at prices ranging from \$6.25 to \$7.00.

DRESSED CALVES

Market steady at present prices.

DRESSED HOGS

Arrivals have been very light and with a good demand this market has maintained a firm undertone.

LIVE POULTRY

Demand for fat hens has been good and prices steady; on the other hand, the demand for broilers has been rather quiet and it is with difficulties that we have been able to maintain prices. Arrivals will increase shortly and with the advance of the season, we advise to ship only birds weighing at least 2 pounds each and over, delivered Montreal.

If the quality is not up to the standard, we expect lower prices.

EGGS

This market has been steady; arrivals have been higher than last week, but the demand has continued very good and prices have been easily maintained.

BUTTER

Our butter market has been firm during the last few days. With the arrivals of grass butter, demand for storage purposes has been very active and prices have recorded another advance.

Monday, June 4th, wholesale quotations range from 21¼c to 21¾c per pound.

CHEESE

Our operations with the english market have been rather limited, but with large decrease in production since the beginning of our season make and a very active demand especially from grinders of Ontario points, our market has been very firm and higher prices prevailed in the last few days.

POTATO NEWS

The market is steady for large firm No. 1 potatoes. Small or soft stock are not wanted. New potatoes are rapidly replacing old supplies in the chain stores.

Montreal received this past week, 19 Quebec, 87 New-Brunswick, 9 Prince Edward Island; a total of 115 compared with 114 cars a week ago.

Shippers should not load over 40,000 lbs. in a car as the hot weather causes the potatoes to sprout quickly and dealers are refusing to purchase large cars.

Today's prices .70c per 90 lbs. bulk for No. 1 Green Mountains from Quebec; New-Brunswick .75c per 90 lbs. bulk.

Growers should not rush supplies to market as the demand for old potatoes will continue later this year due to the late, dry spring.

Beginning August 27th buyers will pay two cents per pound less for bucks than for ewes and wethers.

Lamb is a meat that depends to a great extent on its flavor and quality for popularity.

Consumers are showing their appreciation of the better quality by buying and consuming more lamb meat.

Progressive producers of lambs have a special interest in maintaining the quality of lamb meat so as to secure the full benefit of the market for this appetizing product.

The number of buck lambs marketed in Canada is each year becoming less. The quality of dressed lamb is, in consequence, steadily becoming better.

Buck Lambs do not please consumers and discourage buying of lamb meat by consumers. To encourage Canadian farmers to market only wether and ewe lambs, buyers will discriminate in price between these and buck lambs.

Beginning August 27th buck lambs will be cut two cents per pound as compared with ewes and wethers.

The weight and quality of lambs produced are most important in encouraging the consumption of lamb meat.

Light thin lambs do not produce good quality lamb meat.

Heavy lambs are also undesirable for the market.

Lambs which yield a dressed carcass from thirty-eight (38) to forty-two (42) pounds are most desirable. The limit of acceptable weight is forty-five (45) pounds.

The corresponding live weights are from seventy-five (75) to eighty-five (85) pounds for the most desirable, with ninety (90) pounds as the top limit at the market.

Lambs of light weight, and thin lambs, are bought at lower prices than those of good quality.

Buyers will pay up to two cents more for well finished lambs up to ninety (90) pounds and up to one cent more for well finished lambs up to one hundred and ten (110) pounds.

For some years lamb buyers have been urged by progressive producers to discriminate in price between the qualities, weights and finish of lambs which will encourage an increased consumption of lamb meat.

This has been difficult to do because of the fact that some producers and sellers of lambs still appear to think that buck lambs, unfinished, and heavy lambs are as useful as any other lambs and because of the difficulty of sorting out the lots at the yards.

However, buyers realize that as the undesirable lambs are worth less for the trade, those producers who handle their lamb crop so as to supply lambs of the proper quality, weight and finish should receive more for their lambs than those who do not.

Furthermore, there is no need to suffer loss. The remedy is simple. Castrate all male lambs and market at the proper weights and finish.

Remember

Should you have lambs that have not been castrated, see to it that they are marketed before August 27th. After that date you may expect to take a cut of two cents per pound on your buck lambs.

PRICES RETURNED BY THE Coopérative Fédérée de Québec

130 St. Paul E., Montreal
For Week Ending June 2nd., 1934

<p>LIVE HENS</p> <p>A 17c. per lb. B 15c. " C 13c. " Rousters 10c. "</p> <p>LIVE DUCKS</p> <p>A 20c. B 18c. C 16c.</p> <p>BROILED CHICKEN (Colored)</p> <p>Should weigh at least 2 pounds each delivered in Montreal</p> <p>A 25c. B 22c. C 19c.</p> <p>(White)</p> <p>A 22c. B 20c. C 17c.</p>	<p>LIVE RABBITS</p> <p>Must weigh at least 5 pounds 8c to 10c per lb.</p> <p>EGGS</p> <p>A (large) 22c. Doz. A (medium) 20c. " B 19c. " C 17c. "</p> <p>LIVE PIGEONS</p> <p>Per couple, 25c.</p> <p>PORK (dressed)</p> <p>No. 1 13c. per lb. No. 2 12c. " No. 3 11c. "</p> <p>MILK FED VEAL (dressed)</p> <p>Good 7½c. per lb. Medium 5½c. " Common 3½c. "</p>
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For Week Ending May 29th., 1934 inclusively

FRESH BUTTER

No. 1 Pasteurized	20 15/16
No. 1 Ordinary	20 7/16
No. 2	19 15/16

CHEESE

WHITE	COLORED
No. 1	No. 1
No. 2	No. 2

VERY IMPORTANT: No commission or warehouse charges are deducted from our prices for butter and cheese.

LIVE STOCK

Prices obtained on the Montreal Stockyards
MONDAY, JUNE 4th., 1934

By The Canadian Livestock Co-operative of Quebec, Ltd.

<p>HOGS</p> <p>Select bacon ... { 180 to 220 lbs. Good 4½c. to 5c. lb. \$9.25 Medium 4c. to 4½c. " Common 3c. to 3½c. "</p> <p>Premium per head ... \$1.00</p> <p>Bacon { 180 to 220 lbs. \$9.25</p> <p>Butchers { 160 to 230 lbs. \$9.25</p> <p>Lights { 120 to 160 lbs. Cut ½c. per lb. { \$9.25</p> <p>Heavies { 240 to 270 lbs. Cut ½c. per lb. { \$9.25</p> <p>Extra Heavies.. { 270 lbs. or more Cut 1c. per lb. { \$9.25</p> <p>Sows \$6.25 to \$7.00</p> <p style="text-align: center;">Cows</p> <p>Choice 3¾c. to 4c. Good 3¼c. to 3¾c. Medium 2½c. to 3c. Common 1¾c. to 2c. Very common . 1½c. to 1¾c.</p>	<p>Milk fed Calf</p> <p>Good 4½c. to 5c. lb. Medium 4c. to 4½c. " Common 3c. to 3½c. "</p> <p>Grasser Calf</p> <p>Good 2½c. to 3c. " Medium 8c. to 9c. "</p> <p>Spring Lambs</p> <p>Good 8c. to 9c. " Medium 7c. to 8c. " Common 6c. to 7c. "</p> <p>Sheep</p> <p>Good 3c. to 3½c. " Common 2c. to 2½c. "</p> <p>Steers</p> <p>Choice 5c. to 5½c. " Good 4¾c. to 5c. " Medium 4c. to 4½c. " Common 3c. to 3½c. " Common (light) . 2½c. to 3¼c. "</p> <p style="text-align: center;">Heifers</p> <p>4½c. to 5c. 3½c. to 3¾c.</p> <p style="text-align: center;">Bulls</p> <p>3½c. to 4c. 3c. to 3¼c. 2¾c. to 4¼c. 2½c. to 2¾c. 2¼c. to 2¾c. 2c. to 2½c.</p>
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**Prices of the Coopérative Fédérée de Québec
AT QUEBEC**

<p>EGGS Quebec</p> <p>A (large) 21c. a doz. A (medium) 19c. " C 17c. "</p> <p>PORK (dressed)</p> <p>No. 1 90 to 140 lbs. 13¼c. per lb. No. 2 140 to 175 lbs. 12½c. " No. 3 170 to 175 lbs. 11½c. "</p> <p>MILK FED VEAL (dressed)</p> <p>Good 8c. per lb. Medium 6½c. " Common 5c. "</p> <p>HEN (dressed)</p> <p>A 15c. per lb. B 13c. " C 11c. " Rousters 8c. "</p>	<p>CHICKEN (dressed)</p> <p>A 23c. per lb. B 19c. " C 16c. " D 10c. "</p> <p>DRESSED LAMB</p> <p>No. 1 25 to 45 lbs. 12c. per lb. No. 2 30 to 35 lbs. 10c. " No. 3 25 to 30 lbs. 8c. "</p> <p>DRESSED SHEEP</p> <p>No. 1 6c. per lb. No. 2 5c. " No. 3 4c. "</p>
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We do not handle live poultry at our Quebec Branch. See above for prices paid in Montreal.

1934 Price List — Insecticides and Fungicides

WRITE FOR PRICE LISTS.

<p>FERTILIZERS SEEDS</p> <p>BALANCED RATIONS AND FEEDS STOCKMEN AND POULTRYMEN SUPPLIES</p> <p>METAL ROOFING, HAY AND FENCING WIRE BINDER TWINE, PAINT SANITARY CANS FRUIT AND VEGETABLE SUPPLIES</p> <p>ARSENATE OF LEAD</p> <p>5 lb. pkg., per carton, 30 lbs. Quantity of 2,000 lbs. \$11.45 per 100 lbs. Quantity of 500 lbs. 12.75 per 100 lbs. Quantity of 30 lbs. 4.15 per carton 1 lb. pkg., 24 per carton 4.15 per carton</p> <p>CALCIUM ARSENATE</p> <p>5 lb. pkg., 6 per carton, 30 lbs. Quantity of 2,000 lbs. \$ 7.95 per 100 lbs. Quantity of 500 lbs. 8.80 per 100 lbs. Quantity of 30 lbs. 3.00 per carton 1 lb. pkg., 24 per carton 3.30 per carton</p>	<p>PARIS GREEN</p> <p>25 lb. steel drums (21c per lb.) \$ 5.25 per drum 1 lb. carton — 100 per case (24c per lb.) 24.00 per case</p> <p>COPPER SULPHATE (Bluestone)</p> <p>112 lb. jute bags (Small crystals) 5 bag lots (4½c per lb.) \$ 5.00 per bag 1 bag lot, (4½c per lb.) 5.30 per bag Less than a bag 0.05¼ per lb. 112 lb. jute bags, Snow (4¾c per lb.) .. 5.30 per bag Monohydrated Copper Sulphate, 150 lb. drums 0.15 per lb.</p> <p>HYDRATED LIME (Spraying)</p> <p>50 lb. paper bags, 2,000 lb. lots \$ 0.30 per bag 50 lb. paper bags, 500 lb. lots 0.35 per bag</p> <p>BORDEAUX MIXTURE (Powdered) (Without Poison) 4 lb. pkg., 6 per carton, 24 lbs. \$ 3.15 per carton</p> <p>BORDEAUX MIXTURE (With Poison)</p> <p>30 lb. drums (powdered) \$ 4.25 per drum</p>
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<p>DUSTING MIXTURES</p> <p>D-11 NICOTINE CONTACT (for aphid)</p> <p>100 lb. drums \$13.00 per drum 50 lb. drums 6.85 per drum 25 lb. drums 3.60 per drum</p> <p>COPODEX (Bordeaux with poison 20%)</p> <p>50 lb. paper lined jute bags \$ 4.00 per bag 25 lb. paper lined jute bags 2.25 per bag</p> <p>COPODUST (Bordeaux only)</p> <p>50 lb. paper lined jute bags \$ 3.25 per bag 25 lb. paper lined jute bags 1.90 per bag</p> <p>D-7 (BORDEAUX WITH 10% POISON)</p> <p>50 lb. paper lined jute bags \$ 3.05 per bag 25 lb. paper lined jute bags 1.80 per bag</p> <p>D-2 SULPHUR LEAD (Strawberry Weavils)</p> <p>25 lb. bags 2.10 per bag 100 lb. bags 6.50 per cwt.</p>	<p>Heifers</p> <p>4½c. to 5c. 3½c. to 3¾c.</p> <p>Bulls</p> <p>3½c. to 4c. 3c. to 3¼c. 2¾c. to 4¼c. 2½c. to 2¾c. 2¼c. to 2¾c. 2c. to 2½c.</p>
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COOPÉRATIVE FÉDÉRÉE DE QUÉBEC

130 St. Paul St., East

Tel. HArbour 4111

Montreal

Natural tea flavour

"SALADA" GREEN TEA

'Fresh from the gardens'

673

Cent a Mile Excursions To Western Canada

From All Stations in Eastern Canada

Tickets good going daily
June 10 to June 30

Return Limit:
45 days

EXAMPLES OF ROUND TRIP COACH FARES

FROM \ TO:	OTTAWA	MONTREAL	QUEBEC
Winnipeg	\$25.00	\$27.25	\$30.50
Regina	32.25	34.50	37.75
Saskatoon	34.50	36.75	40.00
Prince Albert	35.50	37.75	41.00
Calgary	41.75	44.00	47.25
Edmonton	41.75	44.00	47.25
Jasper	43.50	45.75	49.00
Kamloops	49.50	51.75	55.00
Vancouver	55.00	57.25	60.50
Victoria	56.75	59.00	62.25
Prince Rupert	55.00	57.25	60.50

PROPORTIONATELY LOW FARES BETWEEN OTHER POINTS

Children five years of age and under twelve, half adult fare.
Children under five years of age, free.

TOURIST SLEEPING CAR PRIVILEGES

Fares shown apply for tickets good in coaches only. On payment of a slight additional passage fare charge for each person, tourist sleeping car accommodation may be secured at regular rates.

STOPOVERS — will be permitted at Port Arthur, Armstrong and points west thereof, both going and returning.

Tickets, Tourist sleeping car reservations and full information from any agent of

CANADIAN NATIONAL

Encouragement for the Use of Lime . . .

(Continued from page 8)

lect from the Department of Agriculture the amount agreed upon.

The claims should be addressed to the Chief of the Rural Economics Branch, Department of Agriculture, Parliament Buildings, Quebec, and be accompanied with the following documents:

1—The original of the bill of lading;

2—The invoice in which must appear, under a separate item, the type of lime sold, the number of tons in the shipment, the sale price per ton (sacks or barrels not included), the total freight charges paid, the proportion due by the Department of Agriculture, the car number and initial, and the permit number corresponding to the shipment;

3—The duplicate copy of the invoice sent to the purchaser and on which must appear the number of tons in the shipment, the sale price per net ton, the balance of freight charges, if any, to be paid by the purchaser or the consignee;

4—The vendor must also produce a statement of account in duplicate for all the invoices sent to the Department of Agriculture, covering several shipments of lime ordered at the same time;

5—The vendor must see that the railway shows on the bill of lading the result of weight obtained over track scale such as the gross weight, the tare and the net for each shipment of lime; exception is made for the vendors having executed weight agreement with the Canadian Freight Association, and for the standard weight of lime shipped in sacks or barrels.

TRANSPORT BY MOTOR TRUCKS OR BY WAGONS

Whenever it would be more economical to utilize trucks or wagons, rather than the railway, for the transportation from the quarries to the farm, the Department of Agriculture will grant a subsidy of \$0.06 per ton-mile, up to a maximum of \$0.48.

This subsidy will be payable upon production of a report made in using the official formula. These formulas can be obtained by applying to the county agriculturist.

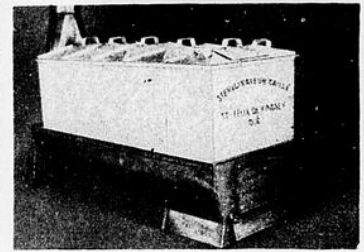
The lime must meet the requirements mentioned above, regarding its richness in calcium carbonate and the fineness of its grinding.

These regulations became effective on July 1st, 1933, and have been extended for another year.

J. Antonio GRENIER,
Deputy Minister
of Agriculture.

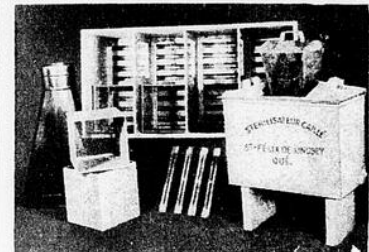
For Best Results

The New Caillé Sterilizer resolved the problem of sterilization.



Sterilizer Set up

A new application of an old principle. As the department Evaporator had change for the best the maple sugar industry, the new improved section sterilizer will perfect the canning industry.



Sterilizer Inside View

Write for our free Catalog.
"ALL YOU NEED FOR CANNING"
CAILLÉ FRÈRES
St. Felix de Kingsey, Qué.

Winter Injury

Has caused considerable damage. Don't run the risk of further damage to your crop by spraying with caustic materials.

USE

KOLOFOG

(Bentonite-Sulphur)

The Safe Summer Spray

Write for descriptive folder
Cooperative Federee de Quebec,
Montreal, P.Q.

Distributors of
NIAGARA BRAND SPRAYING
& DUSTING MATERIALS
For the Province of Quebec



Niagara Brand Spray Co.
Limited
BURLINGTON, Ontario

IT'S LIVER THAT MAKES YOU FEEL SO WRETCHED

Wake up your Liver Bile
—No Calomel necessary

For you to feel healthy and happy, your liver must pour two pounds of liquid bile into your bowels, every day. Without that bile, trouble starts. Poor digestion. Slow elimination. Poisons in the body. General wretchedness. How can you expect to clear up a situation like this completely with mere bowel-moving salts, oil, mineral water, laxative candy or chewing gum, or roughage? They don't wake up your liver. You need Carter's Little Liver Pills. Purely vegetable. Safe. Quick and sure results. Ask for them by name. Refuse substitutes. 25c. at all druggists.

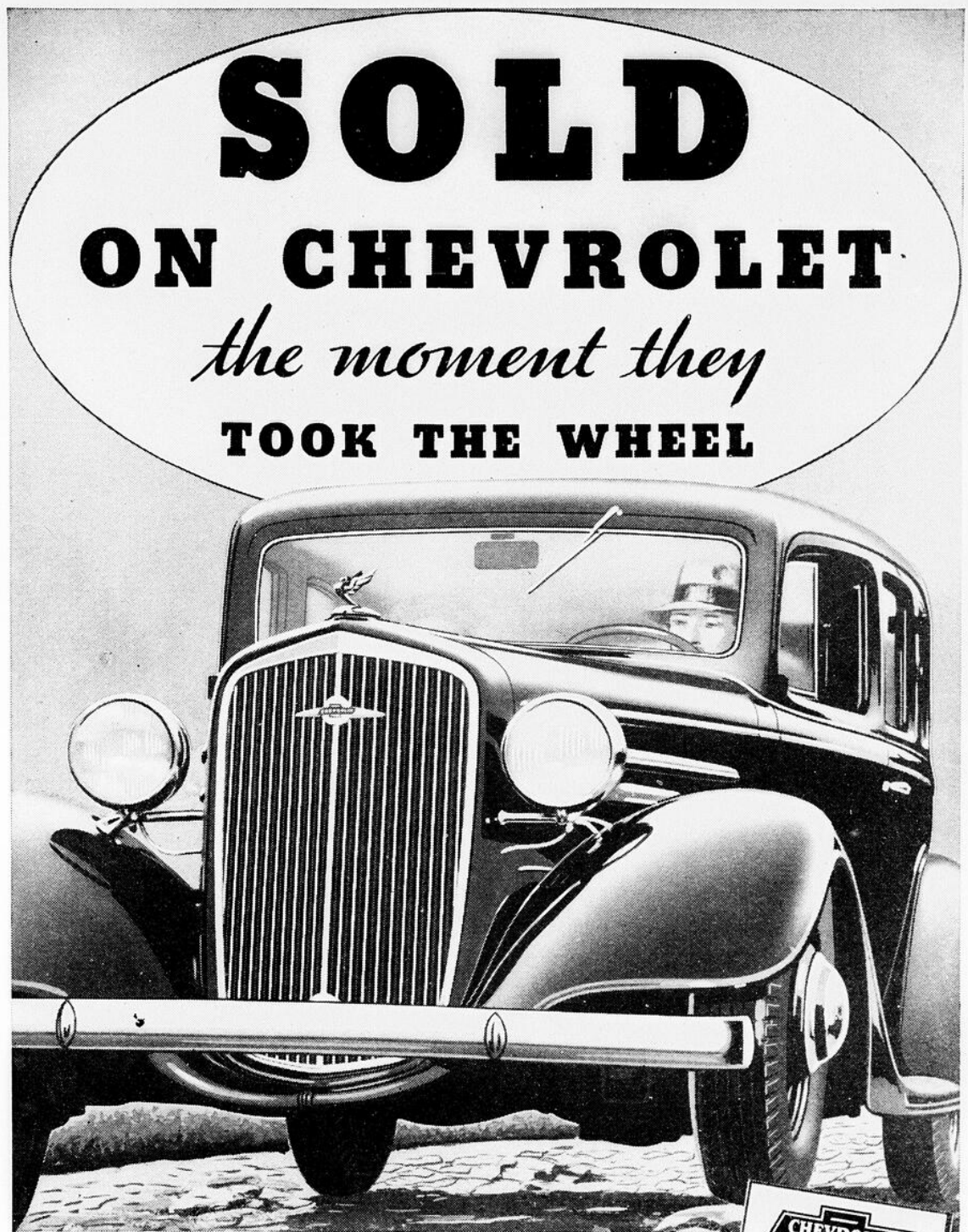
Accredited and Supervised Herds

Three plans are in operation by the Health of Animals Branch of the Dominion Department of Agriculture for the eradication of bovine tuberculosis, namely, the accredited herd plan, the supervised herd plan, and the restricted area plan. The object of the first plan is the eradication of the disease in pure-bred breeding herds. These herds are tuberculin tested free of charge by salaried veterinary inspectors. To be eligible for acceptance under this plan, a herd must contain at least five pure-bred cattle of one breed, registered in the applicant's name. The number of registered pure-breds must, however, comprise at least one-third of the total number of cattle in the herd.

As soon as a herd has passed two annual or three semi-annual tests without an animal showing signs of the disease, and contains at least ten registered pure-breds, it is designated a "Tuberculosis-free Accredited Herd". Compensation is paid for reactors — that is, those animals which show signs of the disease as a result of the test — and is based on two-thirds of the valuation placed upon the animals by veterinary inspectors of the Health of Animals Branch. The maximum amount of compensation-permitted under the Animal Contagious Diseases Act is \$100 for pure-breds and \$40 for grades. No compensation is paid, however, for cattle affected with lumpy jaw, for grade bulls which react to the test. Such animals, nevertheless, must be slaughtered under federal inspection.

The supervised herd plan is a single herd policy applicable to grade herds irrespective of the number of pure-bred or grade animals they contain. No compensation is paid for animals that react to the test, but the owner receives whatever proceeds there may be from the salvages. Owners placing their herds under this plan must agree to slaughter reactors, to promptly cleanse and disinfect their premises, and to keep their cattle from coming in contact with untested animals. If a herd sire is not maintained on the premises, breeding operations must be restricted to a tested animal.

The restricted area plan has for its object the eradication of tuberculosis in definite areas. At least two-thirds of the cattle owners in any definite area must sign a petition for the establishment of such an area under this plan. The petition must be forwarded by the Provincial Minister of Agriculture to the Minister of the Dominion Department of Agriculture requesting that the necessary action be taken.



There are 5 cars to choose from in the low-priced field . . . yet more than 1 out of 3 buyers pick New 1934 Chevrolets . . .



NATURALLY we are proud to have created Canada's most popular automobile. All the more so because people are counting values—comparing *quality*—checking on *delivered prices*—as never before in automobile history.

Chevrolet has always been stronger on *proof* of value than on mere "claims". People recognize this in Chevrolet's many exclusive features: Fully-enclosed, *protected* "Knee-Action", Body by Fisher, valve-in-head six cylinder engine with Blue Flame head, Fisher built-in ventilation, exclusive YK frame, to mention just a few.

And just as long as motorists go on comparing, checking and testing, Chevrolet will hold and *increase* its great sales leadership. *Because Chevrolet refuses to compromise on quality.* The industry's leading engineers . . . the great General Motors Proving Ground . . . and an organization with "an ear to the ground and an eye to the future" . . . take care of that. Low delivered prices—easy G M A C terms.

PRICES BEGIN AT \$844 for the Master Series Six \$710 for the Standard Series Six

Delivered, fully equipped, at factory, Oshawa, Ont. Freight and Government License only extra.

-  **CHEVROLET**
-  **GM**
- GENERAL MOTORS PRODUCTS
- FULLY-ENCLOSED KNEE-ACTION
- BLUE FLAME CYLINDER HEAD
- BIGGER POSITIVE BRAKES
- STURDY, SMARTER FISHER BODY
- EXCLUSIVE YK FRAME
- NO-DRAFT VENTILATION
- SAFETY GLASS WINDSHIELD & VENTILATORS

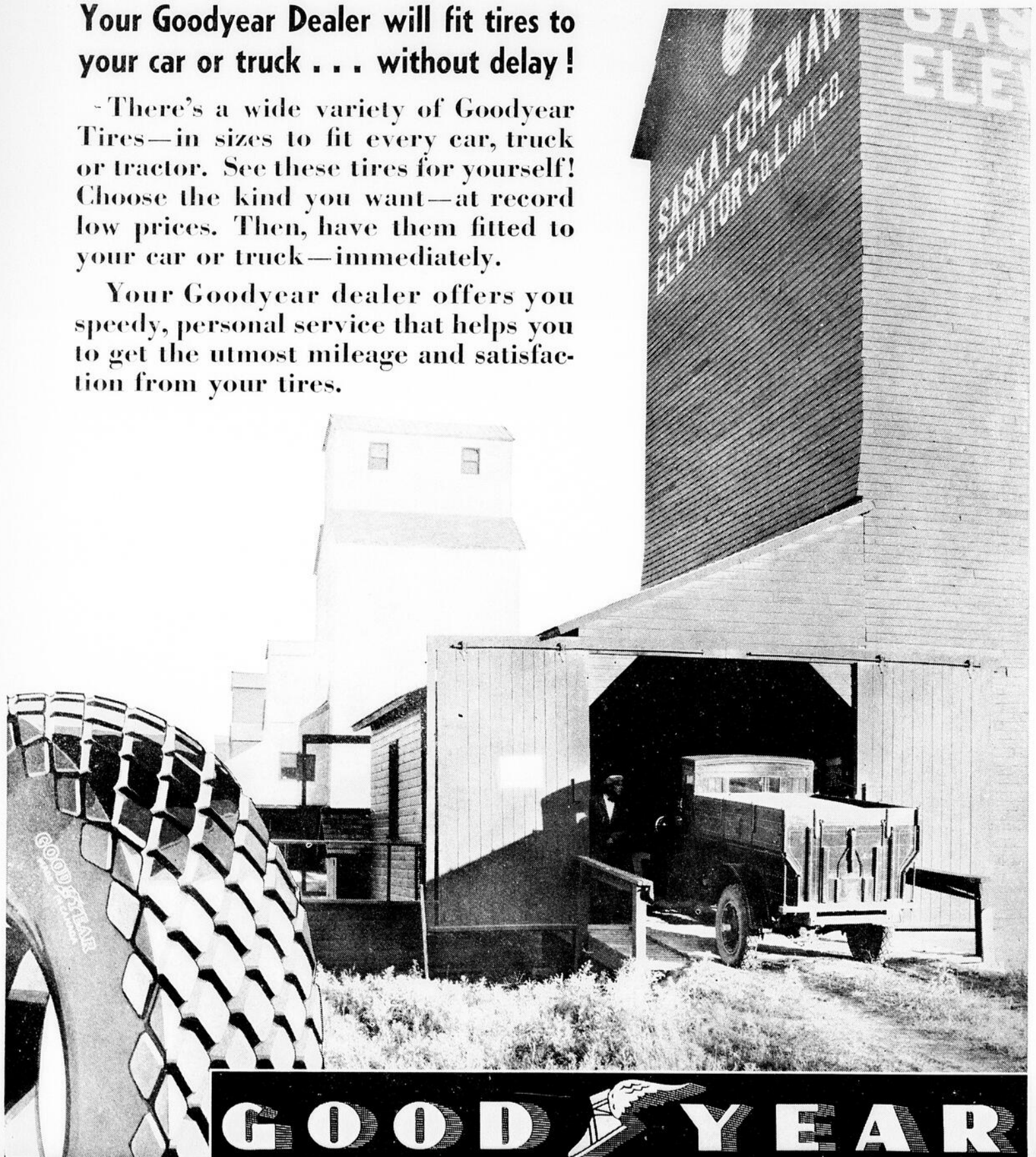
Tire Service T O D A Y !

NOT 3 OR 4 DAYS AFTER YOU WANT IT!

Your Goodyear Dealer will fit tires to your car or truck . . . without delay!

- There's a wide variety of Goodyear Tires—in sizes to fit every car, truck or tractor. See these tires for yourself! Choose the kind you want—at record low prices. Then, have them fitted to your car or truck—immediately.

Your Goodyear dealer offers you speedy, personal service that helps you to get the utmost mileage and satisfaction from your tires.



GOODYEAR