



Address communications to Agronomist, 73 Adelaide St. West, Toronto

A MATTER OF URGENCY IN LIVESTOCK PROMOTION.

Probably every farmer knows that a hog may be spoiled by wrong feeding. Yet somehow few producers or even men officially engaged in livestock promotion have given enough thought to the other side of the same truth—that proper feeding builds up not merely the hog but hog type, shown outwardly by conformation and balance of parts, and shown inwardly by balance of lean and fat and by appetizing quality. Choosing the right sort within the right breed is not enough; the right feeds in right order must be given at the right time.

In building up the frame of the export bacon hog—the "select" in our Canadian grades—special attention has to be given to the amount of lean meat and muscle tissue. This means that feeds in general should contain a high ratio of protein, which is the general name for foods containing nitrogenous compounds. In the same way there must be ample but not overmuch bone; this means minerals in the feeds. Corn has a low content of both these elements. But corn is rich in carbohydrates, that is, the nutrients used by the animal body for heat and for fat production. Hence excessive corn feeding is less desirable for lean hogs than for those in which heavy fat is required.

With, as an incentive, the steady cash returns which have come to Danish hog raisers through the general adoption of tested methods of feeding it is timely that the best information in the Dominion should be re-collected and put into convenient form for our farmers. To quote Mr. E. C. Fox, when speaking to the Yorkshire Breeders at Guelph: "There is a great deal of data on this subject but it is scattered and uncoordinated. I believe that here especially the industry needs the help of government, both Dominion and provincial. Too many hogs show signs of the wrong kind of feeding and there is immediate need for something to be done. Cannot the government officials disseminate what information they have? An improvement, even if not complete, is better than nothing."

Our store of information should be codified for two reasons. First that it may be accessible in handy form to the man for whom it was first intended, and secondly, that as soon as possible we should be able to get a recognized standard basis of feeding with peculiarly Canadian feeds.

SHEEP

Sheep should have a frequent change of pasture during the summer season. Where pasture is grazed for any length of time it becomes what English flockowners term "sheep sick," or dry and woody. Sheep do better if changed from one pasture to another, thus allowing the pasture to rest and recruit a new growth of tender palatable feed.

Pastures grazed by sheep for months at a time are subject to parasitic infection which often causes loss to the flockowners. There is no method of ridding pasture when once infested; the only effective means of combating the evil is prevention. Where sheep are kept on the farm year after year every precaution

The second of these reasons is the more important in the cultivation of the export bacon feed. Evenness of product, the certainty in the mind of an English bacon curer that he can always get similarity in his purchases, is apparently the main reason why Danish bacon no better than our own should always command a wholesale price of between ten to twenty shillings a hundredweight over Canadian. It is for the individual farmer to decide whether a uniform feed method will pay on his particular farm, but if the Danish standard of uniformity in bacon is to be attained—uniformity of quality and taste under the stern test of the frying pan—then uniformity in feeding must be a condition of production. In such work only tests made under the direction of the Department of Agriculture can carry confidence and it is in this point that the importance lies of prompt action by government officials. Experiments already made are on record and should be broadcast. They should also form the basis of further work. The work will take a long time and must be carried on over a series of years. In Denmark that work has been done for thirty years and is still being done patiently and doggedly. The farming Dane without reluctance makes changes in his methods where changes are found necessary. Danish ways will not necessarily be ours. For instance, there are many parts of Canada where milk, as the by-product of dairying, is not available as it is throughout Denmark and in such places any standard hog feed must differ radically from a standard where milk is the basis. We must work out our own ration. It will not do to take Danish, English or American practice in conditions different from our own and apply them, ignoring those differences, in the expectation that the result will be the same.

Uniformity is something that may seem new in the list of hog raising requirements. In reality it is as old as our export trade. Grading so far as shown that only one hog in eight on stockyards is a "select." Packers have reported that the number even among so-called "selects" yielding soft pork has for some time been unduly high. Now a soft side of bacon is as undesirable for export as that from a heavy hog. When therefore the grading of a hog is suggested as a cure-all the fact is overlooked that the first step in large scale classification of bacon is uniform breeding and feeding of the hogs on farms.

should be exercised not to allow the flock to graze for long periods on the same pasture, but alternate frequently as the change is not only a preventive to pasture infection, but stimulates appetite and promotes the growth of grasses.

Holds on Loads.

For tying on loads, rope cannot be beaten. I am thinking particularly of loads of baled hay. Any person who has had experience in drawing baled hay over rough roads knows how difficult it is to keep the top tier in place. A rope about fifty feet long, drawn tight around the top course of bales will hold them in one solid cluster. Each bale then helps to hold the other.—A. E. E.

POULTRY

By far the most dangerous intestinal parasite is the tapeworm, which is coming to be more prevalent in chickens each year. The tapeworm may be found anywhere in the intestinal tract and may vary greatly in size, depending upon the age of the worm. The injury from the tapeworm is the fact that it absorbs much nutriment by burying its head in the intestinal wall. The tapeworms are segmented and each segment has the property of absorbing nutriment from the intestinal wall, independent of the balance of the worm. The tapeworms multiply very rapidly, although they are rarely found to exist in any fowl to the extent of more than three or four worms. In the handling of any worm infection the problem which we face is twofold: First, we must eliminate the worms from the intestinal tract of the infected bird; and secondly, we must clean up the yards, ranges and houses to prevent reinfection. While there has been no absolute method yet developed to rid the birds of worms, it is probable that the tobacco treatment will accomplish this most effectively. The treatment for worms is divided into two distinct parts: First, an emergency treatment which is designed to rid the birds of most of the active worms which are in their intestinal tracts. This consists of giving them a mash at ten o'clock in the morning, composed of ordinary dry mash mixed with tobacco tea to a creamy consistency.

The tobacco tea is made by boiling one pound of tobacco stems in water for at least two hours. The birds should be given no feed whatsoever during the morning previous to the feeding of this wet mash. The feeding of this tobacco mash should be followed five hours later with a moist mash mixed with a solution of Epsom salts dissolving one pound of Epsom salts in water for each 100 birds to be treated. They should be given no

other feed than here specified during the day that this emergency treatment is given. Then for about a month following this emergency treatment, it is well to put into your regular dry mash, which is kept before the birds all the time, tobacco dust at the rate of 2 per cent. of the mash mixture. When feeding these mashes be sure to spread them out over a good surface so that all the birds can get their share. Repeat the treatment once a week for three weeks. If the treatment is properly given the birds will show a decided improvement from the very beginning.

When it is thought that worms are present in the poultry yards or runs, it is the best plan to proceed as follows: First, apply a heavy application of air-shaked lime. Do not be afraid to put it on the rate of two or three tons to the acre. Plow the land carefully and rather deep, turning under the lime. After harrowing, re-lime the new soil with at least 1,000 pounds of lime to the acre and sow some quick-growing green crop, such as rape, buckwheat, cowpeas or soy beans, singly or in combination.

Much of the heavy infestation of intestinal parasites is in all probability due to the very intensive use of our poultry yards, which is coming to be the general practice in the East today. We must spread our birds out more, place our houses farther apart, run our birds in smaller units, give them more and cleaner land to run upon.

Keeps Lice From Pigs.

Bury one-half of an old wagon tire in the ground. Wind a piece of rope about the other half, and then soak the rope thoroughly with old oil taken from the crank case of the car. This will give you a hog oil which will keep the lice thoroughly cleaned from the little pigs as well as from the larger hogs.—R. W.

Home Education

"The Child's First School is the Family"—Froebel.

The Business of Being a Child—Red-Strapped Overalls.

BY JOSEPHINE WEYMAN.

A man who, by the general world, is accounted a successful man, once said to me: "I never had a chance to play."

That statement was, in some way, the most appealing, the most pathetic remark that this man ever made in my hearing. Successful as he is in the business world, this man misses (and the pity of it! knows that he misses) some of the joyous careless comradeship which makes life sweet. Others may sometimes taste the sugar icing of the cake; for him, life is merely bread-stuff, substantial but rather tasteless. He misses the thrill of the unexpected nuts and raisins in the cake, the hearty slap on the shoulder, the easy joy of living which is the heritage of those who learned to play when they were children. Now that he is grown up, this man is too "grown-up" for a long, long time, and I am afraid now that he will never know the utter joy and relaxation to be found in playing.

But he knows—this man who "never had a chance to play"—he knows that he has missed something, and something infinitely precious for I heard him say not long ago in speaking of his infant son:

"That kid is going to have a pair of red-strapped overalls, and I'm going to send him out every morning to get his hands dirty! If he doesn't find a mud-puddle or a sand-pile inside of five minutes I won't think him worth very much!"

What an extraordinary remark, some people might think! Indeed! sending a child deliberately out to get his hands all dirtied up!

But the man's wife turned to me and said:

"You know my husband always said that when he was a child they kept him too dressed up to play; Lord Fauntleroy suits, and Buster Brown collars!"

The explanation was not necessary for me, for I had never forgotten that previous remark of his, "I never had a chance to play," and to me this man's sand pile and mud-puddle were should do.

And suddenly he was Grown! A boy, six feet tall, who had never known the joys of marbles, football, swimming; a man who lacked the spirit of friendly co-operation, of ready judgment, of quick self-reliance which strengthens growing boys for coming manhood. And he was lonely, just as he had been when but a child. He had been grown-up so long! He had worn stiff white collars since he was three years old, and he felt uncomfortable in flannel shirts and old felt hats which are spiritual delight to the ordinary man! He had been an onlooker for so many years, that he still feared the taunts and mud-spattering of those men who might have been his friends and comrades; and while they admired his business skill they felt uneasy doubt of the quality of his sportsmanship, even in the line of business!

No wonder he's going to put red-strapped overalls on his baby son.

But if he does, he makes stranger of his son, unless, happily, he has the sense to get out in the sand pile and learn to play with the youngster, which after all is what all fathers should do.

Elevator Screenings Excellent for Sheep Food

Frequently, a long-heralded boon is not recognized when finally it makes an unexpected appearance. For years, those directing the affairs of Fort William has stressed the value of the city's location from an industrial viewpoint without realizing to the full one advantage peculiar to the head of the lakes.

The potential food value of elevator screenings, which are one of the by-products of the local terminals, has been common knowledge to those in the grain business, and many efforts have been made to convert these screenings into prepared stock food with the addition of molasses and other constituents. A method still more economical has successfully been proven during the last twelve months. Livestock have been shipped here under stop-off privileges, fattened on local food-stuffs and then rebilled to the Eastern markets for sale, with extremely gratifying results to the operator.

APPLIES TO CATTLE, TOO. M. R. Mayes has introduced Western cattle into the district this year and has leased what is known as the "Parker dairy farm" for the present season, feeding there some 400 head of cattle. These cattle were fed over the winter to be shipped in a finished condition to the Toronto Exchange for sale. Mr. Mayes has studied the situation, and is so certain of the value of his ideas that he is in the market for permanent quarters.

The most widely advertised stock-feeding proposition has been that of R. C. Harvey's sheep, now in the second year of operation.

Mr. Harvey is an Alberta sheep rancher of considerable magnitude, handling three ranches with a combined acreage of seventy thousand. A little over a year ago, he brought to Fort William six thousand sheep from his ranches and kept them over winter in the grounds of the Algoma Agricultural Association. There the sheep were fed upon a diet consisting of a screenings mixture with a certain allowance of hay. After being fed for the winter months on this concentrated ration, the animals, which now showed a profitable increase, were

reloaded for Eastern markets. About half the output was sold in Toronto and the remainder were exported to Buffalo, Boston and New York, where they were snapped up by eager buyers.

MOVES TO BETTER QUARTERS. This project received a great deal of publicity, and the local fair grounds with their slowly-moving mass of thousands of sheep was centre of great attraction. In the meantime, Mr. Harvey has secured more permanent quarters of a larger nature on the "J. I. Case" property, adjoining the westerly limits of the city and in close proximity to a number of the larger producers of elevator screenings. This year's operations will be enlarged to ten thousand head.

The major portions of these blocks present to the public an interesting phase of R. C. Harvey's activities. After many years' experience in the raising of Western sheep, Mr. Harvey commenced the development of a distinct type of sheep suitable for prairie range conditions and also possessing superior wool and mutton qualities.

NEW TYPE OF SHEEP. With a beginning some seven or eight years ago by crossing the Romney-Marsh with the Rambouillet, he has produced what is known as the "Romnellet." It is understood that this breed has sufficiently developed as a distinct type to be shortly admitted to Canadian registry, as Mr. Harvey has produced a splendid type of animal with fixed characteristics by careful selective breeding. This will be a distinct advantage to local and Western ranchers. On account of the high quality of the mutton from the Romnellet sheep, it has commanded a premium of a cent a pound, which is indicative of its merit. These sheep have a medium staple wool which is of a quality to place the raiser in a fortunate position.

Mr. Harvey has secured a premium over the open market of as much as twenty cents a pound for his wool. Some idea as to the possibilities of the industry may be gleaned when it is known that Mr. Harvey's annual wool-clip alone totals one hundred and twenty thousand pounds.

Useful Items.

When calves scour cut down the amount of milk one-half and give one ounce of castor-oil in milk. Follow this treatment with one tablespoonful of formalin solution, made by adding one ounce of formalin to fifteen and a half ounces of water, in each pint of milk fed. For mild cases of scours a teaspoonful of dried blood in the milk at each meal is all that is necessary.

Broodiness is an instinct which causes a hen to remain on the nest for the purpose of hatching eggs. By remaining on the nest, the lack of exercise, the loss of appetite, etc., cause the hen to re-absorb the eggs which are in the process of development, and use them as food. A broody hen not incubating eggs is a clear loss. The quicker the hen is broken from broodiness, the more feed she will eat, and the quicker she will begin laying eggs again.

Free range will not aid much in the development of chicks these warm days if the youngsters are confined to the colony houses in the morning and released only when the sun is high enough to drive them to the shade. Free range from daybreak to noon is worth more than all the rest of the day, in the feed and exercise afforded.

The green food available on the range during hot weather is apt to be dry and tough, so it will be a treat to give the fowls some tender lettuce or greens from the garden. It will be a greater treat if chopped or shredded and fed at noon, when the fowls are resting in the shade.

Doctored heaves: Mix in each feed of dampened crushed or whole oats and bran, one teaspoonful of a mixture of equal quantities by weight of chloride of ammonia and powdered stramonium leaves. This you can buy at a drug-store. In winter, feed oat straw and corn-stover, moistened with lime-water; in summer, let the mare live on grass. Carrots may be fed and are a good feed for "heavy" horses. Keep rock salt where the horses can help themselves. Keep the bowels active. Do not work immediately after a meal, and do not feed bulky roughage at noon when the beast has to work hard.

Resetting Bolts in Concrete.

It probably has been necessary, at some time in the experience of every farmer, to reset bolts in concrete floors to fasten down a small mill, cream separator or gas engine. There are, of course, several ways in which this can be done, but the one which I have found most satisfactory in every respect is by melting ordinary sulphur, as it is bought at the drug store, in a small pan over a slow flame and pouring it around the bolt as it sets in its proper place in the hole in the concrete. As sulphur cools into a solid crystal almost instantly, it is necessary to have the bolt exactly in its proper place.

The advantages of using sulphur over lead, which is most commonly used, is that it is cheaper; the hole in the concrete need be only large enough to accommodate the head of the bolt, whereas the hole for the bolt when lead is to be used had best be conical in shape—that is, the bottom of the hole larger than the top. Sulphur in hardening does not shrink, lead does; and to offset its list of merits, a little water in the hole when sulphur is used makes no material difference.—H. D.

A Silo for Chickens.

A supply of green feed for laying hens in winter is sometimes hard to get; but if winter eggs are to be expected, there must be a green ration fed along with other feeds.

For a number of years I gathered green material during the summer months, and dried it for winter use. This plan was very successful, but last winter I tried a different plan—a poultry silo in which I kept my green ration in its natural state. Old barrels were used for the silos.

First, I make an opening about four inches above the base of the barrel, to get at the silage. The opening is then fitted with a flap that fits snugly, and can be closed after each feeding. A hole is then bored in the bottom of the barrel to drain off excess fluid. The silo is then ready for filling.

I used green feed of all descriptions, such as clover, grass from the lawn, beet-tops, cabbage leaves—in fact, almost anything that a chicken would eat. After the barrel was filled, a lid that could be removed readily was made to fit snugly on top and within the barrel. A weight was then placed on the cover to pack down the contents.

As the feed is taken out from below, the contents of the barrel will be pushed downward. It is not necessary that the barrel be filled all at one time. It can be partly filled, and more green stuff added as opportunity offers. A barrel of this feed will furnish enough green stuff for thirty or forty hens during the winter.

Cover Drilled Grains.

In drilling corn or beans with a grain drill tie a horse-shoe at one end of a piece of rope and fasten the other so the shoe will follow in the drill mark.

Says the smart young man to the simple-minded girl: "Why does a black cow eat green grass and give white milk that makes yellow butter?" Says the simple-minded girl to the smart young man: "For the same reason that black raspberries are red when they are green."

THE CHILDREN'S HOUR

THE ELF AND THE DORMOUSE. Under a toadstool crept a wee Elf, Out of the rain to shelter himself. Under a toadstool, sound asleep, Sat a big Dormouse all in a heap.

Trembled the wee Elf, frightened and yet

Fearing to fly away lest he get wet. To the next shelter—maybe a mile! Sudden the wee Elf smiled a wee smile.

Tugged till the toadstool toppled in two,

Holding it over him, gaily he flew.

Soon he was safe home, dry as could be.

Soon woke the Dormouse—"Good gracious me!

"Where is my toadstool?" loud he lamented,

—And that's how umbrellas first were invented.

BABIES.

Did you ever stop to think how many different kinds of babies there are in the world?

There are human babies, first, of course, but babyhood does not stop there. There are baby birds, and baby kittens, and puppies, and chickens, ducks, calves, colts—oh, so many different kinds. And the funny part of it is, that they all act much the same. They whimper when they are cold, yell when they are hungry, sleep when they are comfy. They are fed and washed and scolded and caressed by their mothers; yes, and fought for. There is no animal so ferocious as a mother defending her young, and they will attack fearfully a creature many times their size.

A friend told us of watching a mother mouse running along a beam in their summer cottage and carrying a baby mouse in her mouth. Our friend caught her, and took the baby from her, whereupon the wee mother glared viciously at her, a desperate expression in her beady eyes. Then the lady gently restored the baby to her, and let her go. She seized it with a wild grab, and darted along the beam to safety.

When the dark curtain of night drops down on the world, and the Sandman goes on his rounds, and the stars come out, did you ever stop to think of all the babies, in cribs, and nests and tables, and hollow trees, even jungle caves, where the savage beasts cuddle their cubs,—all the babies snuggled close to their mother's warm breasts, mothers that sleep with senses alert to the slightest sound, the light mother-sleep, always on guard.

So we must be very careful not to hurt the feelings of any creature that is a mother, for mothers are mothers, whether furred, feathered, or human, and they grieve over their lost babies, unless one is left to comfort. Never take even one baby bird from a nest, for birds are very lovely, useful things, and eat the insects that destroy the plants.

If we jump at conclusions, we are pretty apt to go sneaking back to the starting point.

AN INDEPENDENT INCOME

through
Systematic
Saving

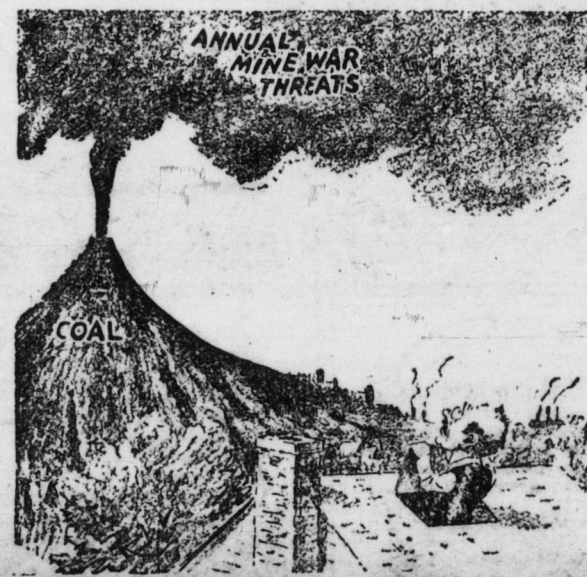
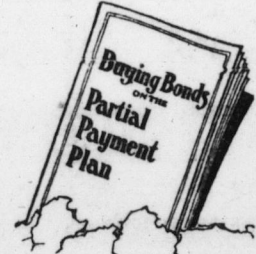
is possible for every individual who will plan and carry out a systematic, regular programme of saving and investing a fixed portion of his or her monthly income in safe bonds.

How to budget your income and determine, from the results of investigation into thousands of cases, the correct ratio between income and expenditure is completely described in our booklet "Buying Bonds on the Partial Payment Plan." Send the coupon below to our nearest office for a copy of the book and particulars of the plan.

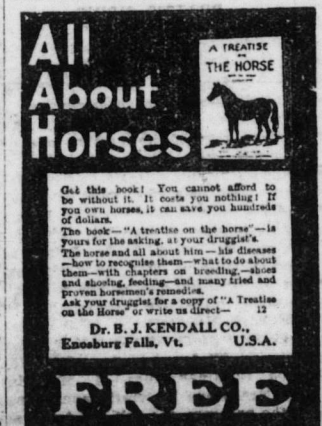
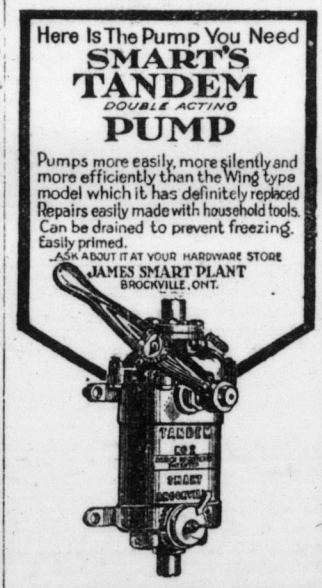
Amelius Jarvis & Co. LIMITED

Ottawa 263 Bay St. Montreal
New York Toronto London Eng

Please send me a copy of "Buying Bonds on the Partial Payment Plan"—No. X-119.
Name.....
Address.....



OUR OWN VOLCANO IS AGAIN THREATENING
—From the Brooklyn Eagle.



FREE
ISSUE No. 30-23.