

Soils & Crops

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

SPEEDING UP THE PIGS.

What factors make up the economic essence of the pig? Feed, man and horse labor, risk, interest, depreciation in capital and equipment, and general overhead cover all excepting the profit, which is elusive and oftentimes ephemeral. The time consideration may very well affect all of these items favorably to the grower, the shorter the time involved in taking the porkers from farrowing to market the less the expense.

Pushing on suitable feeds, though highly necessary, is not the only essential however. Good management must be practiced, and sanitation diligently and persistently exercised.

Delousing is good business procedure if lice are present. Crude oil kills the skin but deadens the parasites. It is applied easily by herding the hogs into a corner, oil-sprinkling them thoroughly and rubbing it in with a good broom. In badly infested herds the ears should be oiled to root the lice from one of their favorite dens. The leg pits and the tail ends are favorite hiding places too.

Try and get the litters out on clean pastures, preferably those that have not carried hogs heretofore. Emphasize the good pastures: Alfalfa, red and other clovers, rape, the blue grass, especially when it is young and tender, and other green pastures. But pasture alone is not sufficient. Neither is pasture supplemented with a quarter of a full grain ration enough to make the pigs go well. Even good pastures on which basal grains are liberally fed—grains such as corn, barley, milo maize and others—give much better results when there is added a little

skim or buttermilk, meat-meal tankage, fish meal or a combination of any one of these with linseed-oil meal, corn-oil-cake meal, soy-bean meal, ground soy beans, or wheat middlings. To make rapid gains on pastures, even the good ones, supplements are in order. Even on good alfalfa pasture the addition of a little tankage proves a fine pep producer.

To make sure that the hogs are properly supplied with minerals a suitable mixture should be at all times. Even on such a good pasture, minerals have given good results when added to a ration of corn, self-feed, plus a supplemental mixture of forty parts of blood meal, thirty parts of linseed meal and ten parts of peanut meal. The gains were somewhat more rapid, and the feed requirement less.

The mixture making the best showing was equal parts of limestone, bone meal and salt. We now suggest that the salt be not over 20 per cent. of the mixture. A half ounce of potassium iodide added to the hundred pounds of minerals is considered good practice, inasmuch as the iodine supplied by this potassium compound is often found to be lacking in sufficient quantity in the swine feeds as usually fed. Wood ashes may be used in place of the limestone, and rock or acid phosphate instead of the bone meal.

Do not forget that the pigs need shade and that plenty of good cool drinking water is absolutely essential to full speed ahead. The wallow of concrete will be helpful during the hottest months, stimulating the appetite and promoting gains. A combination wallow and feeding floor, with house over all, helps solve the high cost of the wallow.

THE CHILDREN'S HOUR

OUR FEATHERED FRIENDS—THE SWALLOW.

BY LEBERNE BALLANTYNE.

Each year the Department of Health spends a lot of money in their efforts to keep down mosquitoes and flies. Those who have visited their exhibit at the Canadian National Exhibition realize the work they are doing. To the boys and girls of our own district there is a very important phase of work in this connection which they could do to assist this splendid cause.

The greatest flycatcher which nature has provided for our use is the barn swallow. This beautiful bird, with its long, slender, forked tail, its black coat, and henna-colored throat, builds a truly remarkable nest on the side of an old beam of the barn or shed, and plasters it there with mud mixed so well with grasses and resting on a beam or slight projection that it will sometimes remain in good condition for years.

If they nest in objectionable places, rather than drive them away, it would amply repay the farmer to leave some projections somewhere convenient where they can build without causing annoyance, for they are of great advantage both to the farmer in riding him of the obnoxious insects, and his stock in lessening the number which torture them.

All their food consists of insects, and as they have no really bad habits, these friendly little birds should be encouraged in every way possible. Their great advantage over the sparrow is that the sparrow nests close to domestic buildings to feed upon the insects for food, whereas the swallow eats practically no insects, whereas the swallow is definitely useful, eating no insects. Unfortunately the sparrows, like most lazy folks, despise the industrious ones, and torment and try to destroy the nests to drive off the swallows.

These facts have been proven beyond doubt, and it is up to the boys and girls, and the owners as well in each district to protect the swallow family, and to learn those of our birds which are really useful.

THE BIRTHDAY PRESENT.

BY EVA M. CARROLL.

Mary Ann was a little girl who lived in the shabby little cottage on Maple Street, but it was a very neat cottage, and Mary Ann was a neat little girl. For her playthings she had a few toys and books, of which she took excellent care, but most of the time she had to work hard. Her mother was not strong, and Mary Ann often got up before daylight to help her with breakfast.

This morning was Mary Ann's birthday. While she was busy helping her mother cook the breakfast she paused for a moment before the kitchen window to look out at the morning sky. "How lovely!" she cried, and then she thought: "To-day is my birthday, and I wish that some one would give me a present as beautiful as the sky before sunrise."

She turned away from the window and began to get ready for breakfast. "Aunt Hattie," she was thinking, "always gives me a birthday present, but it is nearly always something useful—a gingham dress or a cook apron, or something like that." And then she began to think about what she would like to have: "A piece of pink hair ribbon, a beautiful story-

book with ever so many colored pictures—and, oh, a great number of lovely things." But she was a little ashamed of herself for feeling dissatisfied with what Aunt Hattie would probably give her. Of course she did appreciate useful gifts; but just this once she wanted something beautiful. About noon Aunt Hattie came, and in her hand was a package. She opened it presently. It was not a present at all, but only some embroidery that she had brought along to work on during the afternoon.

After a short time she said, "Mary Ann, I bought a little present for you this morning and asked them to send it out from the store. It should be here soon." "How sweet of you, Aunt Hattie," said Mary Ann.

In the afternoon while the little girl was playing in the small yard in front of the house a boy rode up on a bicycle and handed her a package with her name written on it.

"Oh, this is my present!" she cried in delight and began to open it at once. When she saw what it contained, she cried, "Oh!" again, but this time not from happiness, but from disappointment. And such disappointment!

Then she carefully tied the package again and went to her own little room, where she sat down and cried. "How could Aunt Hattie have bought me such a present!" she sobbed. "How could she have thought of such horrible things!"

Presently she sat up and dried her eyes. "I must not act this way," she said to herself. "If anyone is kind enough to give me a present, I must thank her for it, no matter what it is." As soon as the tears were all gone from her eyes she went into her mother's room. Aunt Hattie was still embroidering the table cover.

"Aunt Hattie," the little girl began, trying bravely not to cry, "thank you for the ones. Mother or I will make a cream dressing for them, and we shall all enjoy them for supper."

"You thank me for what, child?" exclaimed Aunt Hattie in amazement. And then she laughed heartily. "Not onions, Mary Ann," she said, "hymn-books."

"Hymn-books!" cried Mary Ann. "Is that what they are? Oh, how wonderful! And I have a beautiful volume of hymns!"

And when the spring came the lovely blossoms of the hyacinths were enough to delight any little girl. People passing in the street often stopped to look at the beautiful flowers. "See that delicate pink one," said a lady who passed one day; "it is as beautiful as the sky before sunrise."

Youth's Companion.

Combined Silo and Storage Bin.

A Kansas farmer, desiring to make his silo space available for the storage of wheat, corn and other grains when it was not full of silage, built an elevator shaft and installed an elevator between his two silos. Either one or both of the silos may be used for grain. The elevator will take a load of livestock, found that on occasions he was short of grain-storage room and at other times short of silage room. In years of large grain production he seldom made much silage. He could hardly afford the building of both silos and granaries for the maximum profit, the common classes of cattle sold at heavier discounts in April than during the previous month. Expert stock of both finished and feeder type and quality were the backbone of the market.

Evidence of a continued strong demand for store cattle is revealed in the fact that the average prices paid for good feeders and stockers in April 1922.

Despite the heavy increase in volume over the previous offerings, the average price during April, and the bulk of sales, checked at higher levels than during March. While quality gained recognition in higher prices, the common classes of cattle sold at heavier discounts in April than during the previous month. Expert stock of both finished and feeder type and quality were the backbone of the market.

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Home Education

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

Burbanking Your Child—By Zahrah E. Preble.

Luther Burbank says "Whoever believes there is a great gulf between plant life and human life is wrong. Racial improvement, like plant improvement, is all a matter of heredity, environment, selection and crossing of types. The strongest conviction I have, after breeding plants sixty years, is that what can be done with plants can be done with human beings—and must be done if our civilization is not to be overwhelmed by the unfit. Plant life, I am convinced, is no more plastic than human life."

What can you do with your child to improve him for his own sake and for the sake of the future race? You have already furnished him with heredity: those strong and weak tendencies which are born with the child. These tendencies are not yet characteristics. They are merely sign posts which indicate the way that young nature may be turned by careful culture or careless neglect. You know what happens to a garden which is left to its own devices, and that even in the most carefully tended garden weeds will spring up. But the good gardener does not deny the flowers their proper amount of water and care in order to starve out the weeds.

In the matter of cultivation of your child to bring out the best potential qualities, the environment has a lasting and formative effect. Much can be done to overcome even unfavorable physical surroundings, if the mental atmosphere is made harmonious and the child taught to look for and see the advantages and beauty everywhere. True environment is more a matter of mental attitude than most people realize. If the parents are constantly

criticizing their surroundings, what can they expect the child to develop except an undesirable critical attitude toward all phases of life?

It is in selection of the strongest physical and mental tendencies and the training of these toward the best expression that the parent acts as a Burbank with the child. Is the child showing a strange stubborn quality which seems to be the predominant tendency? Do not consider this a flagrant weed, but look upon it as a desirable trait of determination, and by judicious selection of interests train it toward that end, thus "burbanking" what otherwise might remain a weed forever. Opposition or forcing will not do the work, only careful, patient understanding and directing will accomplish the best result. Consider what Burbank did with a wild Mexican grass. In eighteen years its meager seed had become full ears of corn under his skillful handling. You have more than eighteen years in which to "burbank" the promising traits of your child. But remember, patient training and interference are two very different things, and produce widely opposite results.

Look to yourself first to see if you are a good gardener before you attempt to experiment with nature. You cannot live your child's life, any more than the gardener can live the life of the rose or cactus. But as the gardener can make the rose more desirable by training it to shed its thorns, and the cactus a friendly, instead of an unfriendly plant to mankind by depriving it of its spines, so you can train your child's tendencies and mind to make of him a better citizen.

leaves ample room for the operation of an elevator that will handle several hundred bushels of grain in an hour. The power for the elevator is furnished by a tractor that is owned by the farmer.

When the silos are filled with grain a special silo door with a spout for letting grain into a wagon is placed in one of the lower door holes of each silo. On one side of the elevator shaft and under a dumping platform is a pit into which the grain from wagons is dumped. The pit has a capacity of 200 bushels. A spout is arranged from each of the silos to the pit so that grain that is likely to heat in the bins may be run through the elevator occasionally to be aired and cooled. In this way kafir may be stored in the bins if it is run through the elevator occasionally. The elevator will also handle ear corn so that it may be stored in the bins.

By arranging silos in this manner, storage space for several thousand bushels of grain is provided with only the additional expense of an elevator shaft and an elevator between the silos.—R. E. Deering.

This Year's Live Stock Market.

There is an optimistic tone to the summary of market conditions for the first four months of the year issued by the Dominion Live Stock Branch, as the following quotations will indicate. Sales of cattle at the public stock yards this year were 204,960 compared with 160,960 in the same period last year. Cattle on slaughter during this year were 11,786 compared with 6,097 last year. This year a steady increase month-by-month is recorded.

A general improvement was apparent in quality and weight, giving proof that stall-feeding was more general during the winter of 1922 than during 1922.

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YOU CAN'T TIE TO 'EM

BY A. E. STEWART.

I was on a tour of the stables of my farmer friend, and had stopped to admire a fine, big bay horse.

"Yes, he's a fine-looking horse," said the farmer. "If he was as good as he looks, he would bring a pretty sum, but he is not dependable; you can't tie to him; you can't rely upon him in a case of emergency. He's too temperamental, for one thing, and too easily discouraged for another. He's a big and strong and sometimes when things don't come as fast as he thinks they ought, he becomes angry and simply tears them to pieces. On the other hand, he wants to be the judge as to when he has done enough. If it comes to hauling a heavy load up a steep grade, he gets tired easily and wants to stop and rest, and if I don't let him, he simply 'throws up' and won't pull a pound."

"But look over here, I have something worth while to show you."

"Here's a horse that is a horse; I could hardly run the farm without him. No, he is not so nice looking as the other, but what he lacks in looks he makes up in worth."

"I have seen this fellow pretty tired, but I never knew him too tired to start the first time I told him to go, and when it comes to a 'pinch pull,' this fellow would pull the world off its balance if the harness didn't break."

My friend stopped and lovingly put his arm about the neck of his favorite horse, and the horse returned the caress by gently rubbing his nose against the farmer's cheek.

Yes, some horses are very like some people. Some people won't do what they could so easily do, and others will give their money, time and talent freely and wish they could do more.

There are many people who remind me of that first horse. They are big and strong, neatly dressed, carefully manicured and sweetly perfumed, but they simply won't do the work that needs to be done. They make a nice appearance, but their usefulness ends. "You can't tie to 'em."

Poultry Marketing Co-operation.

While the title of a bulletin just issued by the Dominion Live Stock Branch, "Co-operation in Marketing Poultry Products," would indicate that its contents were of interest to those engaged with poultry business, nevertheless, the majority of the principles laid down are applicable to any form of agricultural co-operation. The writer, Mr. A. Benson, District Poultry Promoter for Ontario, hits a vital point when he says that while there is evidently an earnest desire on the part of producers to improve existing marketing conditions, there appears to be a lack of uniformity of thought and ideas as to methods of procedure, and the limits of the field in which co-operating producers can hope to achieve the greatest and most permanent success. It is evidently with a view to help in remedying this condition of affairs that the bulletin has been written and published. Not alone are the fundamental necessities of success and the principle of co-operation laid down, but details are given relative to organization, to the loyalty, and confidence that must prevail, to the methods of management that must be adopted and maintained if success is to be achieved, to warehouse methods, to marketing, to grading and standardizing of eggs, to pooling of financing, to the survey that should be taken of conditions and territory to be controlled prior to organization, to the cast-iron contract that should be made between members, and to the attitude of producers; the whole concluding with the rules of a suggested market agreement for local units.

A Chemical Fire Protector.

After a couple of accidents with oil stoves in his home which resulted in small fires a Western farmer has installed a unique and inexpensive device for protecting his home from fire with chemical fire extinguisher. In the basement was placed a thirty-gallon hot-water-heater tank. Near the top was mounted a small air-pressure gauge. Below this, near the centre of the tank, a stem from an old automobile inner tube was mounted in the tank for pumping air into the tank. From near the bottom of the tank a half-inch pipe was passed up through the floor into the kitchen of the house. To the end of this was fastened a stopcock and twenty feet of half-inch rubber hose. A quarter-inch hose nozzle was fastened to the end of the hose. The tank was filled about two-thirds full of a chemical fire extinguisher already prepared and air pumped into the tank until the pressure reached forty pounds on the gauge. The tank is kept pumped up to this point all the time.

With this pressure and this length of hose it is possible for the farmer to reach any part of his house and put out any fire that may start. The equipment makes available a quick method of stopping fires.

In the midst of all her political, financial, and industrial problems and readjustments, England has enacted a law which regulates the Exhibition and Training of Performing Animals.

Canada's New Wheat Champion

For ten years Canada carried off the world's wheat championship as symbolized in the highest award of the Chicago "International," and the remarkable feature in a survey of this decade's achievements was the number of occasions on which the Canadian farmer securing the coveted prize was an immigrant from the British Isles who, previous to his filling on a Western homestead, had scarcely the most elementary knowledge of agriculture.

In 1922 the championship was wrested away from Canada by a Montana farmer and the Dominion left with the consolation that that state had found it necessary to import Canadian seed, produced by the Wheat Wizard of Saskatchewan, Seager Wheeler, to accomplish its end. In 1922 Canada won back her old place of honor, making her eleventh championship in twelve years, and this time the farmer to bring her such signal renown was an American farmer who had come up across the border to grow superior wheat.

R. O. Wyler of Luseland, Saskatchewan, his worldly possessions consisting of the sum of \$400, his other asset a determination that this sum, in combination with Canadian soil and climate, would make him a prosperous and outstanding farmer. During a temporary land boom he bought a half-section of land on half-crop payment for \$10,000, and though during the next few years he saw the value of his farm practically cut in two, he did not grow discouraged and never thought of quitting. To use his own words, he "dug right in and worked like a beaver." In 1912 he married a girl from his home state who has since shared his labors and now shares his prosperity and triumphs.

PERSEVERANCE, KNOWLEDGE AND ENERGY.

Mr. Wyler has been a farmer from his earliest years, and came to Canada with a valuable store of agricultural knowledge and a readiness to adapt it to new conditions and to keep pace with new developments. He has always been keenly interested in the production of superior grain and is, more or less, a seed specialist. It was this he came to buy his first sample of registered Marquis wheat from Seager Wheeler, carrying it away in a twenty-pound sack. He planted this in a small plot, and throughout the growing season culled out the plants and

heads that were not true to type. Then when the grain ripened he carefully selected enough perfect heads to sow the plot next year. And so on, year after year, he assisted nature in producing her best until there was no superior grain in the world and his half bushel of wheat at Chicago carried off the sweepstakes and the silver cup of the Government of Saskatchewan.

Plant breeding and selection are, however, only Mr. Wyler's hobbies. He is a commercial farmer in the widest sense of the word and has developed his holdings along prosperous lines. He now has a thriving farm of 320 acres, which he operates with but little outside help. His farm is divided into three fields, one-third being summer fallowed each year. This year he raised over three hundred bushels of wheat in the face of adverse weather conditions. He does not stake his all on grain growing, but is a firm believer in mixed farming, hog and cattle raising being followed at the same time. He and his little family have, in the brief ten years' period, attained the inevitable prosperity that rewards sincere and earnest efforts in Western Canada, and the man who left Ohio with but \$400 has now a comfortable home on one of the best half-sections in the Saskatchewan district, which is increasing in value every year.

CANADA HAS THE SOIL AND CLIMATE.

A survey of the world wheat championships over the past twelve years makes most interesting, most valuable, and most encouraging reading. The signal achievements of British immigrants who arrived in the Dominion ignorant of Western conditions and farming methods of any sort, pointed the way to fellow-countrymen to emulate them and should have been the greatest stimulus to further emigration from the British Isles. For while it almost seemed as though previous grants who arrived in the Dominion ignorant of Western conditions and farming methods of any sort, pointed the way to fellow-countrymen to emulate them and should have been the greatest stimulus to further emigration from the British Isles. For while it almost seemed as though previous grants who arrived in the Dominion ignorant of Western conditions and farming methods of any sort, pointed the way to fellow-countrymen to emulate them and should have been the greatest stimulus to further emigration from the British Isles.

R. O. Wyler has won the honors for the thousands of his fellow-countrymen farming on the Western plains of Canada. He has shown the road to others who may be farming in what they find discouraging conditions, proving that Canada has the soil and climate for success providing the farmer brings in the right personal qualities to complete the combination.

The Change.

"I left the old farm, confessed an Ordinary Man, 'to escape the endless work, the long hours, the savage bite of the winter mornings and all the rest of the dull monotony of the treadmill existence; in short, to be master of my own destiny.' Now, here in the city, I am not obliged to do anything. I do not wish to do, except grind day after day humped over my desk, ride back and forth in street cars with a well-nourished booby standing on my foot, or feet, as the case may be; melt or congeal, according to the season, in an apartment where I do not even know the names of most of my fellow dwellers, but am well acquainted with the subjects about which they upbraid each other, fiercely and frequently; get run over occasionally when I stroll out for an airing, or held up and otherwise made little of."

"In other respects I am as free from care as a bonny bird. And by saving

up my money carefully all the rest of the year I am able to go back to the old home neighborhood for two weeks every summer and struttingly run it all over the folks there, most of whom could buy me and never remember they had paid out the money."

Arrested.

Who was it off robbed Farmer Binks, Stole mower, plow and rake And many more farm implements Slyly as any snake?

Who took them off before his eyes? A rogue he'd not mistook Because they went just flake by flake— It was that robber Rust.

But now wise Binks has foiled the thief, And makes no more complaint— He's coated all his implements With rust-arresting paint.

—Oscar H. Roesser.

Don't Judge Your Tractor by Your Auto

While the automobile has had a lot to do with familiarizing farmers with the operation, maintenance and repair of the gas engine, it has been somewhat misleading to farmers when compared with the tractor. The two machines work very much alike, but their respective jobs are very much different.

The automobile coasts down the hill, it operates on smooth level road. In fact, it operates under full load only about 10 per cent. of its time, while the tractor is pulling its full load about 95 per cent. of the time. If the automobile was loaded to its full capacity and run in low gear every day that the tractor is plowing or doing other work, the comparison would be a different one at the end of the year.

KEEP THE IDEAL TRACTOR COVERED.

The tractor is allowed to stand in the field without cover too often. It has to burn the cheap fuel and too often uses the cheap grade of oil which is quite expensive in the end. Very often a farmer, after running his car 3,000 miles, finds that it develops a knock. It is immediately taken to the garage for repair. Too often the same farmer hears his tractor knocking a little and he looks out and sees about eight to ten acres of land yet to be plowed. He thinks: "Well, I'll finish the plowing before I get the tractor repaired." Before the eight or ten acres have been plowed his machine has turned over as much as the automobile engine runs in 3,000 miles.

Transmission and engine bearings are protected from shocks by pneumatic tires in the automobile. The tractor is often run in high gear over hard roads without these protections. Across the fields on the sod would be much better for it.

Before any one can realize the full profit from the farm tractor, he must first realize its job and give it proper care. The operator of the tractor should also appreciate the fact that the machine is driving should not be over-loaded.

If three plows on a steep grade are more than the tractor can pull with ease, the machine is being overloaded and one plow should be taken off. The amount of land plowed with the two plows will be about as much as with the three, owing to the fact that when over-loaded the tractor travels slowly and the drive wheels slip badly. The lighter load will not damage the machine like the heavy load will, and the profit from the tractor in the long run will be greater.

Poor oil, for instance, will cause enough repair bills when used in the automobile, but will be far more costly if used in the tractor engine. The tractor operates under full load all hours of the day and runs at the maximum temperature. It therefore needs an oil film between the piston and the cylinder which will stand such temperatures.

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