

## Soils and Crops

Address communications to Agronomist, 75 Adelaide St. West, Toronto.

### Why Lights Make Your Hens Lay More Eggs

Nothing seems so strange and mysterious in poultry-keeping as the fact that artificial light used at night in the henhouse will increase egg production. Yet it is a fact that they will do that—sometimes as much as 100 per cent. And if you are not using lights on your flock, no matter how small the flock, you are losing money.

Using lights costs nothing extra, either in time, money, or equipment. Almost every commercial poultryman has adopted the practice in the last few years, and not a few farmers have been practicing it successfully for the last year or two, even on small farm flocks.

The thing is very simple. Use any kind of a light. An ordinary farm-barn kerosene lantern works fine. Hang the lantern in the henhouse while milking and doing the chores after dark at night and before sunrise in the morning. See that the hens have plenty to eat and drink. That's all you need to do. And your egg production should at once double itself.

Since it is so simple, how do we explain it? Well, first of all, remember that the lights have no direct bearing on the matter. They are only a means to an end. It is a feeding problem, pure and simple.

A hen is an egg-manufacturing machine. The feed she eats is the raw material for the eggs her system manufactures. The more feed she eats, the more eggs she makes. She cannot, however, see to eat in the dark. So, as the days shorten in the fall and winter, she eats less, and consequently produces fewer eggs. The night lights simply give her a chance to eat more feed, and she at once begins to lay more eggs. Eating and laying is her business in life; and as it is no fun to eat in the dark (if you don't believe it, try it yourself some time), hiddy goes to bed with the sun, and your egg factory, just like any other factory under the same circumstances, is not running at full capacity because the management has failed to supply a lighting system for the laborers to work by.

The farther north you are, the shorter are the days in fall and winter, and the more night light your hens need. The hens have eyes that are absolutely blind in the dark. She is helpless, and has only one thing to do, which is to sleep, and that is exactly what she does.

Without lights the hen's last feed at night has to last a very long time until morning, so that when she comes off the roost she is literally starved.

You may say some hens lay under these conditions. True enough, but that hen is not the average hen, but a very efficient manufacturer of eggs. And even that hen will either increase her production under lights, or produce the same number of eggs a whole lot easier. So far as "going against Nature" is concerned, she never meant that a hen should lay at any time but in spring, the natural breeding season. We have to work out our own systems for getting out-of-season eggs, especially winter eggs.

If the hen's ration is short, or feeding practice faulty, the first thing the hen does is quit laying. Self-preser-

vation demands this, so that the first part of the limited ration goes toward the maintenance of her body, and what is left, if any (and there seldom is any without lights), is used to make egg material.

Some pullets start the fall with a fair lay, and, when the ration begins to run short, draw material for making eggs from the reserve in their bodies. When this supply becomes exhausted, they have to quit.

Now let us see just how a lantern can best be used. Take an actual example: Suppose that it normally gets dark at five o'clock, and on dark days half an hour earlier. It doesn't get light again until about 7 or 7:30 in the morning. There are fourteen hours in which the hen goes without food. If we use the lantern an hour and a half at night, and the same in the morning, we have a feeding period of thirteen hours instead of ten, and the fasting period is reduced from fourteen hours to eleven, a period in which the hens have become good and hungry, but not starved and empty for three or four hours, which would have been the case had the lights not been used.

Another practice fast becoming popular among poultrymen is what is known as the "night lunch." The birds are allowed to go to roost at sunset. About three hours later the light is hung up, and the hens feed for an hour. It is then off about ten hours before sunrise, and that night lunch easily lasts until the early feed in the morning.

Electric lights, of course, are handiest; an ordinary kerosene lantern does well. One lantern, if the globe is clean, will light a floor space of 100 square feet. In a 20x20-foot house, two lanterns, one at each end of the house, are enough. They should be hung about three feet above the floor.

One 40-watt electric light in a pen 20x20-feet will do, although two may be better. These also should be hung about three feet from the floor.

It is very important that the hens have feed and water while the lights are on. The feed can be a mash in self-feeders or boxes, or some scratch feed, such as corn, wheat and oats, at the rate of about five pounds per 100 birds, or preferably both mash and scratch feed.

As spring comes on and the days get longer, the length of time the lights should be used gets shorter, at the rate of five or ten minutes a day, until the natural night period is ten or eleven hours. In the event that the "night lunch" system is used, turn the lights on five or ten minutes earlier every night, until there is only a short time between sunset or dark and the time of the night lunch.

Any event, stop the lights gradually. This is all the instruction necessary for this practice, and, no matter what practice you follow otherwise, the addition of night lights will be found extremely beneficial.

A scrub bull on a good farm is like an ink-spot on an otherwise cleanly written page. Fresh air and sunshine are so plentiful that we should arrange to take every possible advantage of the disease insurance and vitalizing influence that they afford in the dairy barn, the chicken coop, the hog house and the home itself.

### Skin Your Furs Right if You Want Full Value for Your Efforts

The duty of the trapper is only begun when he has taken his catch from the traps. An important task remains before shipping the pelts to market, and that is to skin the animals properly.

All the animals trapped in North America are treated in one of two ways—their skins are either "eased" or "taken off open." If taken off open, some are preferable fur side out and some pelt side out.

Casing a pelt means that you peel it from the body of the animal intact. Here is the way most experienced trappers say to do it: With a sharp knife cut from the base of the tail down each hind leg to the foot. Also cut the skin loose about the eyes and nose. Then suspend the carcass by the hind legs and with a gentle, slow movement, so that you will not tear the pelt, begin pulling downward until you have peeled the whole pelt from the animal's body. If the tail is valuable it should be skinned also, and the bone removed.

If you have never had experience in casing your catches it would be wise to have some seasoned trapper show you how it is done before you attempt it yourself. It is a task that requires care and skill, but you are repaid by the better prices that well-skinned pelts will bring.

The "open" method is used generally on coon, beaver, badger, mountain lion, and bear. With a sharp knife slit the pelt down the middle of the jaw to the base of the tail. Also make incisions down the back of the hind and the inside of the fore legs.

Then peel the skin off gently, taking special care when you come to the head not to rip or tear. Never cut the head off. After you have done this remove every ounce of surplus flesh on the pelt.

Next comes the stretching of the skins. Steel stretchers may be procured for this purpose. Do not attempt this alone and unaided or without instruction at first. A wise move is to write one of the big reputable fur houses, asking for explicit and detailed directions for stretching skins and any other information about preparing them for market that you may need. You will find that the fur house is willing to help you at every turn of the trapping game. Also observe and adopt the methods of trappers of experience.

The importance of this task cannot be overemphasized, because unless skins are stretched properly they will not bring full market value.

The drying process is not so difficult. Always remember that the skins must be dried in a cool, shady place, and keep flies away from them. Never dry skins in the sun or by artificial heat. They must not be allowed to get bristly or get brittle, and if for any reason they start to get too dry, moisten them from time to time with a wet cloth, taking care, however, that this moisture doesn't remain when the furs are shipped.—F. S. L.

Says Sam: Stick a "p" in front of the word "luck" and say it in English. Fixing up one side of our economic house does not necessarily mean that any injustice is being done the side that is already in first-class order.

This is a good time to cultivate the mental garden, for there are weeds among thoughts as well as among crops.

Nobody cries when a scrub bull dies.

Checking Over the Year's Business

How We Do the Job and What We Found—By P. P. Pope.

On every farm there is, or should be, a set time for beginning or ending the farm year. This time is set apart for making the annual farm inventory, and for holding a sort of "post mortem" of the season's receipts and expenditures.

Some people start the farm year the first of April, or the first of May. We choose the first of January. There is more about the farm to be placed in the inventory at that time than at the later date, but we also find more time to devote to the job, and more time for a thorough examination of the records, and for a careful study of the results.

So interspersed with the big holiday dinners, the gorging of sweets and nuts, the games of "p" or "put and take," the reading of the new Xmas books, and playing the children's games—interspersed with all these are many hours devoted to close inspection of the year's business. Here are some of the discoveries:

The inventory which usually comes first and which tells the rounded out story of profit, or loss, on the year's work remains about the same. The resources showing lower on horses, higher on cattle and hogs, lower on farming tools, higher on farm produce, and lower on miscellaneous items, stocks, bonds and notes, bills receivable and cash on hand, the total of all resources foot within \$100 of last year.

This part of the inventory is not so bad. We like to see the resources stack up well, but we also like to see the liabilities lowered. In spite of the fact that we have economized as never before, and practiced the last word in efficiency, and by so doing have succeeded in paying over \$1,000 on old obligations, nevertheless, the "accruals of interest," taxes, bills payable, etc., have been sufficient to bring the final summary of the liabilities very close to last year's high mark.

Perhaps we should gather some satisfaction from the fact that we do not have to register another heavy loss as

# SMOKE OGDEN'S CUT PLUG



15¢ per packet      1/2 lb tin 80¢

*"A Real Old Country Treat"*

For those who roll their own.  
ASK FOR  
**OGDEN'S FINE CUT**  
(In the green packet)  
**IT IS THE BEST**

### Water the Horses Inside.

We used to water the horses outside the barn. A great deal of time was required in leading a single horse out and waiting for it to drink the water needed. We now have a tank inside the stable. With this change we unite one of the horses and permit him to drink while we clean out the stall before he returns. This little change enables us to save a great deal of time both morning and evening in caring for the horses.—Edward Elson.

Harmony in the home, too, means a happy ideal that will be cherished through many trials, struggles and hardships, an ideal that is an anchor as sustaining as religion.

In many homes, unfortunately, the one trial of family life, especially for the mother constantly in contact with it, is voiced in the wall. "If the children only wouldn't quarrel so!" Then sometimes it is added, "But I suppose it is natural, and they'll get over it some day."

Whether it is natural for children to quarrel daily, really depends on the home training. If it is discontinued at the very start a good beginning is made. Two little toddlers will often have their first quarrel over some plaything that one of them does not want to give up to the other. One will hold on tightly, while the other pleads, scolds or even uses little fists! Whoever loses then shrieks and yells. But even such tussles can be taught fair play. "You have had it for awhile, now let brother, or sister, have a turn!" said firmly whenever there is such a dispute, will soon be respected as a rule, if constantly adhered to.

Sharing is another appeal that cannot be underestimated for unselfish happiness all through life. Children, once they see the advantages of it, will make many amiable little arrangements themselves over personal belongings that avoid nerve-frazzling arguments and domestic storms. Sharing indeed, is the most constructive remedy for children's quarrels.

"If you let Johnny have half your candy he will let you take turns riding his 'coaster,'" can be a very peaceable settlement to a situation that

we have been accustomed to doing the two years past, but it sort of takes the joy out of life to work a forty thousand investment for all there is in it, and come out just where we started from.

We told last year how we kept account of our receipts by depositing all funds received in the bank, taking a duplicate deposit slip and writing thereon the source of the funds deposited. Going over these slips and putting down the amounts under sub-headings, we glean the following: The largest single item of receipts comes from the sale of farm produce. This is made up almost entirely of sales of wheat, beans and sugar beets. The yield of wheat was low, and the price very low, but by selling the bulk of the crop for seed, it came very close to paying out. Had we guessed a little better on the trend of bean prices, and held until now, instead of hurrying them to market before the price dropped, we would have realized a real profit on the crop. There is a prospect yet of a bonus on the beets that will leave a little profit.

A close second is the item that represents the sales of hogs. Here is the one place on the farm that we can see a real, sure enough, worth while profit. It has been one of the best years for the hog feeder that we have experienced in some time. Following this item comes receipts from sources other than from sales which we term independent receipts, there comes in order receipts for sales of cattle, horses and miscellaneous goods.

The expenditures which are taken from the record on the cheque stub, and also listed under sub-headings, show that the expenditures are for the following items: Interest and taxes, old accounts, labor, feeds and fertilizers, live stock, seeds and miscellaneous items.

Such is the 1922 record of achievement, and shows a net profit consisting wholly of experience. It indicates clearly that agricultural conditions must improve, which I am inclined to believe is already on the road.

### Home Education

Teaching Children to Agree—By Marion Brownfield

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

Teaching children to agree means might not only annoy a mother, but so much to them all through life that it should really be one of the first principles in home-making. If children are taught to be fair and courteous with one another, they have a valuable equipment for popularity and success in the world at large.

Harmony in the home, too, means a happy ideal that will be cherished through many trials, struggles and hardships, an ideal that is an anchor as sustaining as religion.

In many homes, unfortunately, the one trial of family life, especially for the mother constantly in contact with it, is voiced in the wall. "If the children only wouldn't quarrel so!" Then sometimes it is added, "But I suppose it is natural, and they'll get over it some day."

Whether it is natural for children to quarrel daily, really depends on the home training. If it is discontinued at the very start a good beginning is made. Two little toddlers will often have their first quarrel over some plaything that one of them does not want to give up to the other. One will hold on tightly, while the other pleads, scolds or even uses little fists! Whoever loses then shrieks and yells. But even such tussles can be taught fair play. "You have had it for awhile, now let brother, or sister, have a turn!" said firmly whenever there is such a dispute, will soon be respected as a rule, if constantly adhered to.

Sharing is another appeal that cannot be underestimated for unselfish happiness all through life. Children, once they see the advantages of it, will make many amiable little arrangements themselves over personal belongings that avoid nerve-frazzling arguments and domestic storms. Sharing indeed, is the most constructive remedy for children's quarrels.

"If you let Johnny have half your candy he will let you take turns riding his 'coaster,'" can be a very peaceable settlement to a situation that

we have been accustomed to doing the two years past, but it sort of takes the joy out of life to work a forty thousand investment for all there is in it, and come out just where we started from.

We told last year how we kept account of our receipts by depositing all funds received in the bank, taking a duplicate deposit slip and writing thereon the source of the funds deposited. Going over these slips and putting down the amounts under sub-headings, we glean the following: The largest single item of receipts comes from the sale of farm produce. This is made up almost entirely of sales of wheat, beans and sugar beets. The yield of wheat was low, and the price very low, but by selling the bulk of the crop for seed, it came very close to paying out. Had we guessed a little better on the trend of bean prices, and held until now, instead of hurrying them to market before the price dropped, we would have realized a real profit on the crop. There is a prospect yet of a bonus on the beets that will leave a little profit.

A close second is the item that represents the sales of hogs. Here is the one place on the farm that we can see a real, sure enough, worth while profit. It has been one of the best years for the hog feeder that we have experienced in some time. Following this item comes receipts from sources other than from sales which we term independent receipts, there comes in order receipts for sales of cattle, horses and miscellaneous goods.

The expenditures which are taken from the record on the cheque stub, and also listed under sub-headings, show that the expenditures are for the following items: Interest and taxes, old accounts, labor, feeds and fertilizers, live stock, seeds and miscellaneous items.

Such is the 1922 record of achievement, and shows a net profit consisting wholly of experience. It indicates clearly that agricultural conditions must improve, which I am inclined to believe is already on the road.

Confront a difficulty with confidence and it will soon cease to be a difficulty. The use of system enables one to do things with the least wear and tear. Be a "system" man even to the extent of water and light systems.

Stored spuds, too, must breathe or they'll rot. Provide for ventilation in the potato bin.

Says Sam: The fellow who can do the most for you is the fellow you see when you shave.

DISEASE, WAR AND FAMINE IN RUSSIA

A German view of conditions in Russia—From the Wahre Jacob, Stuttgart.

### THE CHILDREN'S HOUR

The Magic Whistle.

Robert Scofield had always longed for a dog, but in the apartment house where he lived dogs were not allowed. When the family moved out to the country his first question was, "Now may I have a dog?"

"I'll try to get one in time for your birthday," was his father's reply.

"Don't forget that to-morrow's my birthday," Robert said as his father started to town one morning.

"That means the dog, doesn't it?" said his father. "Well, I'll do my best."

When the automobile came in sight that afternoon Robert went running to the gate. There was no dog to be seen. "Perhaps he's asleep in the foot of the car," he thought.

"Where's my dog?" he cried as he swung the gate open.

His father smiled. "I couldn't manage to get him to-day," he answered. Then, as Robert's face fell, he added, "But don't give up hope."

He felt in his pockets. "Here's something your Uncle Dick sent you," he remarked.

Robert took the package and unwrapped it slowly. "Why, it's a whistle," he said.

"A special kind of whistle," was the reply. "Your Uncle Dick said, 'Tell Robert that the way to make it do the best work is to blow it with three short notes and a long one.'"

"Best work? What does he mean?" asked Robert doubtfully.

"Well, he's coming to see us to-morrow," father answered. "Then you'll find out."

"I'm much obliged to him for the whistle," said Robert. "Father do you think I'll have that dog before long?"

"I think you will," his father replied.

When Uncle Dick came the next day, he left his car down at the village garage and walked up to the house.

Robert was practicing on his whistle. "Hello, Uncle Dick," he cried. "This is a dandy whistle; thank you."

"You're welcome," said Uncle Dick. "Do you blow it the way I told you to?"

For answer Robert put the whistle to his lips and blew three short notes and one long.

"Right-o," said Uncle Dick. "I think that whistle will serve you a good turn sooner or later, Bob."

Robert looked puzzled. "What do you mean?" he said. Then he added, "I thought I was going to have a dog to show you when you came, but I haven't."

Uncle Dick loved dogs as well as Robert did, but he only nodded. "Let's take a walk down to the village," he suggested.

When they had gone some distance Uncle Dick said, "How loud can you blow that whistle, anyway, Bob?"

"I'll show you," said Robert. He put the whistle to his mouth and blew and blew as loud as he could.

Uncle Dick laughed. "Just suppose that was a magic whistle," he said, "and you could summon with it anything you wanted!"

"I'd blow for a dog," answered Robert.

"Go ahead and blow," said Uncle Dick.

Robert chuckled. "If I thought I could blow a dog to me," he said, "I'd blow till your ears couldn't hear."

With that he blew such a blast that the hills rang—three short notes and a long one.

Suddenly he saw a dark object dashing up the road in a cloud of dust; it dashed straight toward Uncle Dick and him.

To Robert's astonishment the object turned out to be a small black spaniel. The little dog was almost wagging himself in two.

Robert's eyes shone. "Here, pup, here!" he cried.

Then, as the dog leapt on him, the boy asked, "Where did he come from and whose is he?"

"He came from the garage where he's been taking a nap in my car," said Uncle Dick, "and he's yours if you want him."

"Well, I surely do want him!" Robert cried.

Then Uncle Dick explained that when Robert's father failed to find a dog he himself had offered to see what could be done.

"The man who sold me that little fellow," he added, "told me that he was used to coming to a certain call. That's why I sent you the whistle and the message."

Robert, who was having a grand tussle with the dog, looked up and laughed. "It's a magic whistle all right," he said. "Three cheers for it—three shorts and a long!"—Youth's Companion.

Rations for Ducks.

A good ration for laying ducks consists of equal parts bran and corn meal to which is added twenty per cent. low grade flour. Then add about one-quarter green food and ten per cent. beef scrap with a sprinkling of oyster shells and grit. During the laying season the ducks might be given three feeds a day, while at other seasons two feeds would be sufficient. The manner of feeding will depend somewhat on the size of the range and its condition. If ducks have water and marsh land on which to graze they will rather a great deal of their feed at certain seasons.

To people who live in the country

FILL out this coupon now. Let us send you Investment Items each month and advise you from time to time what it would be safe and profitable to buy.

**Royal Securities Corporation, Limited**  
58 King Street West, Toronto

Please send me "Investment Items" and other literature.

Name \_\_\_\_\_

Address \_\_\_\_\_

This is the coupon that you should send to us first.

If you don't wish to cut this paper, send us your name and address on a postcard or letter.

**Royal Securities Corporation, Limited**

Telephone Adelaide 838

58 King Street West

TORONTO

W. F. NELLES Branch Manager

Montreal • Halifax • St. John • Winnipeg • Vancouver • New York • London