Soils and Crops

Address communications to Agronomist, 73 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), biddy 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 hen has 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-preservation 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 only 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 only 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. In 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.

Confront a difficulty with confdence and it will soon cease to be a difficulty.

A scrub bull on a good farm is like an ink-spot on an otherwise cleanly written page.

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.

RSC INVESTMENT-SERVICE

To people who live in the country

MANY of you have money and wish to invest it as promptly, as profitably, as privately and as conveniently as city people.

FOR these reasons we have extended our facilities for the sale of safe, reliable Bonds by mail.

UNDER our plan, we send you a list of high-grade Bonds to select from and make you definite recommendations. Then, when you have made your choice, you order the Bonds from us just the same as you would order goods by mail from a big department store. We deliver them to your bank with draft attached, so that you may inspect them before purchase. You take no risk.

BY investing in this way, you get prompt service. You have the same choice of investments as city clients and you can buy by mail on exactly the same terms as big institutions and large private investors.

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 638 | 58 King Street West TORONTO | W. P. NELLIS Branch Manager

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

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 gather a great deal of their feed at certain seasons.

SMOKE

OGDEN'S

CUT PLUG

15¢ per packet

½ lb. tin 80¢

"A Real Old Country Treat"

"OGDEN'S LIVERPOOL"

For those who roll their own, ASK FOR OGDEN'S FINE CUT (In the green packet)

IT IS THE BEST

THE SUNDAY SCHOOL LESSON

FEBRUARY 4

The Grace of Gratitude, Luke 17: 11-19. Golden Text—Enter into his gates with thanksgiving, and into his courts with praise: be thankful unto him, and bless his name.—Ps. 100: 4.

Lesson Setting—Those who think that a ministry of healing would make the preaching of the gospel a triumphal march, have something to learn from the incident of our lesson. Here we have Christ healing men afflicted with a dread disease. Yet ninety per cent. of the men thus healed went back to their life of health and wholeness untouched by a sense of love or gratitude. They received the gift and straightway forgot the giver. Only one man returned to give thanks to the one who had wrought the cure for the blessing received, and he was an outsider.

I. Ten Lepers Asking for Mercy, 11-13

Vs. 11, 12. **As he went to Jerusalem.** Jesus has been repulsed by the Samaritans of the village that commands the entrance into Samaria from the north. Then he travels eastward towards Perea, along the borderland between Samaria and Galilee. **There met him ten men that were lepers;** the most terrible disease among the Jews. It was called the Finger of God, being thought of as a sign of God's anger. "Leprosy was nothing short of a living death, a corruption of all the humors, a poisoning of the very springs of life, a dissolution, little by little, of the whole body." It was deemed an incurable disease and was caused by unsanitary conditions of living and poor food. **Which stood afar off.** They dared not enter the village, nor could they draw near Jesus, for the leper, when he saw any one approach him, must give warning by crying out, "Unclean! Unclean!" Not even his nearest and dearest may come near him. He is an outcast from God and man.

V. 13. **They lifted up their voices . . have mercy on us.** If they cannot come to Jesus, they can cry aloud to him, and thus arrest the attention of the Master. Their cry expresses not only the greatness of their needs, but is an indication of faith in Christ, as a leader. In the New Testament we find the Roman centurion setting forth his faith in simple and clear words, but true faith may express itself in a look, a sigh, a cry. **When he saw them;** looked on them with a glance that took in the whole story of their life—its misery, its loneliness, its hopelessness. His heart of divine pity goes out to them.

II. One Leper Gives Thanks, 14-19.

V. 14. **Go shew yourselves unto the priests.** The thought of pity was followed immediately by the word of power. The leper who was healed of his leprosy, must show himself to the priest who alone could permit him to become a restored member of society. Lev., ch. 14 describes all the regulations involved in this restoration to society. Jesus' command that they should present themselves to the priests carried with it the implication that their cry for mercy was to be answered. At the same time he tests their faith in him for they were not to be healed and then go to the priests, but to be healed as they went to the priests. Their very starting for the priest shows a measure of faith. Jesus says "priests" because one of them was a Samaritan. He was to go to his own Samaritan priest. The Jews had no dealings with the Samaritans, but in this case misery had drawn them into a common companionship, just as in a calamity of nature, such as a fire or flood, animals that are natural enemies will be found together.

Vs. 15, 16. **One of them . . that he was healed.** As the lepers went, the healing came. They saw and felt the strange change. One of them was immediately filled with a great gratitude. He thinks immediately of him who was responsible for this blessing, and gives glory to God and thanks to Jesus. He was as eager as the others to be restored to home and friends, but gratitude is his first and strongest impulse. **He was a Samaritan.** The one from whom least might be expected, was the one who showed the deepest realization of the greatness of the blessing bestowed upon him. The nine Jewish lepers went to the priest with their flesh like the flesh of a little child, and were restored to society. The Samaritan went with cleansed body and a changed heart, and was restored, not only to human fellowship, but to grateful fellowship with God.

V. 17. **Were there not ten cleansed . . where are the nine?** The heart of Jesus was touched by the gratitude of the one, and pained by the ingratitude of the nine. This incident gathers up the whole experience of Jesus in his ministry on earth. How many were blessed. How many were ungrateful. But in the response of the Samaritan he saw the wider possibilities of his ministry. The measure of Jewish response was not to be the measure of his kingdom.

Vs. 18, 19. **Not found that returned to give glory to God.** Selfishness measures and appreciates the gift. Gratitude gives heed to the giver of the gift and the motive of the gift. Gratitude sees not only the worthiness of the gift, but the unworthiness of the receiver. Nine cleansed lepers find their way to the priest. One is driven first to the feet of God. **Arise, go thy way; thy faith hath made thee whole.** The joy of the nine lepers going home is not to be compared to the joy of the other going home. The change in the nine, is a change of flesh; in the other, change of heart.

Application.

To-day's lesson has a felicitous title, "The Grace of Gratitude." It is a grace, a fair, beautiful thing. Courtesy is a delightful element in human intercourse. The pleasant word expressing recognition and appreciation is like mercy. "It is twice blessed: It blesseth him that gives and him that takes," and one might go on with the comparison, "'tis mightiest in the mightiest; it becomes the throned monarch better than his crown." There are some who affect to despise gracious acknowledgements. Well, everybody despises obsequious sycophancy, but "I thank you" is often a true sacrament,—"an outward and visible sign of an inward and spiritual grace." We do well to remind ourselves as well as children to say "Thank you," remembering the great gratitude of the Samaritan, who "fell down on his face at his feet, giving him thanks."

"Praise God from whom all blessings flow." The Samaritan not only thanked Jesus, he went on to "give glory to God." Applying this lesson to the lives of folk to-day, the first and most obvious observation would be that we should glorify God for healing. "When he saw that he was healed" he "glorified God." Every one knows how natural it is to pray for healing when one is really ill,—should not the impulse that drives us to God in petition persist and consummate itself in giving God thanks?

We should learn St. Francis' Song of Praise for God's great gifts bestowed on all. "Praised be thou, my Lord, for Brother Sun . . so beautiful, so bright, . . for the Moon, whom as Sister we greet, . . for Brother Wind and for Air and Cloud, . . for Sister Water, humble, holy, rendering service, . . for Brother Fire, so cheerful and bright, so mighty, so strong, . . for our Sister dear Mother Earth, of all the protector, nourisher, and keeper from dearth." Many of us are Franciscans on Thanksgiving Day, and we may have other holy days of remembrance, but a constant joyous spirit of gratitude for life's common mercies comes either as a special gift of God, or is obtained with a great sum, the sustained habit of devout recollection, and this habit, like all others, is the result of practice.

A Prop for Doors.

We find the following described prop for outside doors a great saver of time, and it is always on the job: Place a small strap hinge on the lower cleat of the door six or eight inches from the end and nine inches from the ground. A strip of wood bluntly sharpened and about eighteen inches long is fastened to the other end of the hinge. When left to itself this strip will drop to the ground and form a brace.

To keep the brace off the ground when not in use, a strong cord is fastened to a screweye near the lower end of the brace, run through another screweye eighteen inches above the hinge and then to the second cleat of the door. The string should be long enough to permit the brace to drop to the ground. A nail is then driven in the door far enough from the top screw so the string when hooked onto the nail will hold the brace up against the door.—Charles B. Ward.

Nobody cries when a scrub bull dies.

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

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