Soils and Crops

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

Mrs. A. M. S., Woodville, Ont.:—Should sour milk or buttermilk be used in fattening cockerels, and what advantage is there in it?

Answer:—With a view to testing the relative values of sour milk and water as the liquid portion of the ration for crate feeding cockerels, a test was carried on at the Lennoxville, Que., Experimental Station. The experiment involved three weeks' feeding, when the birds were ready for market. The birds were fed a mash consisting of equal parts of barley meal and white middlings mixed to a sloppy state with sour milk for one of the lots and with water for each of two others. Where milk was used the birds made an average gain of 1½ lbs. each, at a cost per pound of 10¼ cents. When water was used as the liquid portion of the ration, the birds made greater gain but at a considerably higher cost per pound, the figures being 1¾ lbs. of gain per bird at a cost of 17½ cents per pound.

Packages for Apples.

J. G., Durham County:—What are the legal packages in which apples may be packed for market and what are their respective dimensions?

Answer:—The Inspection and Sale Act, which is administered by the Fruit Branch of the Department of Agriculture, Ottawa, provides for the marketing of apples in barrels, boxes, and crates. Barrels have been longest in use and most of the crop is marketed in this form of package. Practically all of the Eastern Canada apple crop exported to England is shipped in barrels. The law provides that barrels, which should be made of strong seasoned wood, should be made of staves of a length of 28½ inches, the head should have a diameter of 17½ inches, the distance between heads 26 inches, and the circumference of the barrel at the bulge 64 inches outside measurement. This size of barrel has a capacity of 7,056 cubic inches. If soft wood heads of thicker dimensions than the staves are used, it is necessary to increase the lengths of the staves correspondingly so as to ensure the proper distance of 26 inches between the ends.

The apple box, which is becoming more and more used for the finest grades of apples, more particularly of dessert varieties, must have a length of 18 inches, a width of 11½ inches, and a depth of 10½ inches, representing as nearly as possible 2,174 cubic inches. These are inside measurements.

The apple crate corresponds in dimensions with the box. The walls of the crate should consist of strong slats placed three-quarters of an inch apart. These descriptions are published in Acts, Orders and Regulations No. 4 of the Dominion Department of Agriculture.

Apples may also be sold in open packages such as the bushel basket or hamper, but where these are used it is required that packages shall be marked, before being taken from the grower's premises, with the name and address of the grower or vendor as the case may be.

Identification Marks for Hogs.

J. M. N., Victoria Co.:—What system, if any, has been adopted for identifying hogs marketed according to grade?

Answer:—An improved ear-tag for marking commercial hogs has received the approval of the Dominion Live Stock Commissioner, who announces that the tags will be distributed to farmers wishing to ship co-operatively or to sell according to grade at local shipping points. Points of distribution are being arranged in the different provinces, but in the meantime the tags can be obtained of A. B. McDonald, Toronto, for Ontario; of P. Rodrigue, Montreal, for Quebec; and of J. K. King, Moncton, for the Maritime Provinces. They are available in lots of 100 and cost $2.60 per lot. Punchers for insertion of the tags cost three dollars, nickle-plated, and two dollars Japanned. Directions for tagging accompany each purchase.

Parents as Educators

Pictures For Children—By Edith Riland Cross

Let us give our children special training in the early years of their lives, in the knowledge of beautiful pictures. Help them to enjoy the pictures in the home.

When our children were babies, we often talked to them about our pictures. As a result, they could point out such pictures as Raeburn's "Boy and the Rabbit," Sargent's "Frieze of the Prophets," pictures of the Boy John, the Aurora, Hofmann's "Head of Christ," several of the Madonnas and Sir Galahad.

It always gave them great pleasure when they would find these pictures in other homes. It also gave them an appreciation of art, and stimulated their interest and observation.

One day, my oldest boy, age five, pointed to the picture of Burne-Jones' "Golden Stairway" and said, "Mother, did they take that picture with a kodak, or did someone paint it?" Then and there we talked together of how prints were made from great pictures, and of the galleries where the originals are kept.

While teaching kindergarten, I had bought a large plain oak picture-frame with a hinged back so that pictures could easily be changed during the year. As I recalled this, I decided that it would be a good thing to have one in the home. So I had two such frames made. The boys are so proud to have their own framed pictures hanging by their little white beds.

And it has been interesting to see the enjoyment they take in changing the pictures, and in making their own selections.

It has resulted in a good collection of pictures which the children add to as they find those that interest them. To this I have added many of the Perry and Brown prints which I had used in my kindergarten work, and we save the covers of magazines that depict child life and activities.

I have noticed that the children prefer colors to the black and white studies. They care for pictures of people or animals rather than for those of inanimate objects. Boys like pictures showing strength, as knights and soldiers; while girls like those portraying daintiness, beautiful children, and ideal surroundings. Both boys and girls like pictures of activities and sports and once in a while they fancy a beautiful landscape.

Of course, to be honest, a mother must add that the pictures sometimes found in their frames are not always the most esthetic. For I have often noticed prints of the football heroes, in their season, the attractive advertisements for Campbell's soups, and posters for a coming circus. Yet it is best to let it be the children's choice.

I was happy to note that when I returned from the hospital with a new baby boy, the pictures in their frames were "Jesus Blessing Little Children" and Jessie Wilcox Smith's Mother and Baby picture.

Another suggestion which I have found helpful in the home is to have the pictures in the children's bedrooms or play room hung on a level with their eyes. It is surprising to see how much keener is their observation when this is done. Let the children climb up or be lifted up to see those pictures which are hung higher so that they can really study them. Always take time to help them understand pictures, for you thus begin their appreciation of art.

These suggestions could be carried out in any home, for, with the present wealth of good magazines, such a collection could be easily made, and at little cost, while a very inexpensive frame would suffice.

SMOKE

in ½lb. tins

and 15¢ pkts.

OLD CHUM

The Tobacco of Quality

Poultry

It is a fact that dusting is the natural method for a hen to clean up and rid her body of lice. But when dusting boxes are used in the winter laying quarters the air of the house is cloudy with dust most of the day. This dust makes the house unpleasant and unhealthful for both the hens and their caretaker. Dusty air seems to be one of the causes of colds in some flocks.

Some poultrymen have successfully used an outside dusting box. Just outside one of the trap doors of the house a small waterproof shed is constructed. The front of the small low shed is all open so the dust is blown outside. The dusting box is far enough back from the front to keep the earth dry.

If such an arrangement is not used, I think it best to leave out the dust box in the laying quarters. All of the birds can be treated with blue ointment to prevent lice. Then they can dust around in the loose straw litter if they wish but there will be no thick dust constantly kicked into the air and fanned all over the nests and walls. Many poultrymen have found it satisfactory to have the hens do all their dusting outside in the fresh air and give them no chance to contaminate the poultry house air by inside dusting.

Rendering Beeswax.

With beeswax worth more than twice as much per pound as honey every particle of this product in the apiary should be saved. In an apiary run for extracted honey, most of the wax will come from cappings, but a considerable amount can be saved from broken and discarded combs and small pieces of burr comb scraped from the frames during the season.

To render small amounts of cappings and small pieces of new comb, the solar wax extractor is the cheapest and simplest, for the melting is all done by the heat of the sun and the wax is separated from the refuse at the same time. This extractor, however, is not suitable for old combs or a large amount of cappings, as too much wax is left in the refuse, which must be further treated by pressing.

The most satisfactory method of rendering wax in large quantities is by means of a wax press, such as are advertised in the supply catalogues. A small press costing about $18.50 will soon pay for itself in an apiary of twenty or more colonies. This press is easily worked and extracts practically all the wax from the refuse.

If the wax is to be extracted outside, the work should be done during a honey flow to avoid robbing. The best time, however, is during the winter after the bees are put away and require no further attention, when the work can be done under more satisfactory conditions.

The equipment necessary for melting the wax need not be very expensive—a stove large enough to hold two tanks or fair sized wash boilers is ideal. If a stove is not available two small gas or gasoline burners will do very well. The press should stand firmly on a box or raised platform but need not be fastened down. Three pieces of good strong burlap about forty inches square to hold the melted wax will be required; there will last for several pressings.

When ready to begin work place one of the tanks or boilers containing about three gallons of water over the fire, at the same time put on the other boiler about half full of water. Into this put the racks or followers of the press to heat. The combs or cappings are then gradually poured into the first tank and stirred occasionally. As soon as the wax is reduced to a steaming mass, free from lumps, it is ready for pressing. Now, remove the first rack from the hot water and place it in the bottom of the press, spread one of the pieces of burlap over this rack, using a temporary form to keep it in place, and into it pour about two gallons of the melted wax; fold the edges of the burlap over the wax carefully so that there are no lumps or the pressure will not be even over the whole mass. Over this place the second rack, another piece of burlap and more wax, repeating the process with the third, provided the press is adapted for this amount. Now, turn down the screw until it engages the top follower, and fill up the press with hot water in which the racks were heated until it reaches the lower edge of the upper spout in the press. The screw should be turned down slowly so that the wax and water has a chance to squeeze out from between the racks. As soon as the screw is down as tight as it will go release it until the top rack is out of the water; this allows the refuse in the burlap to become saturated again with hot water; again tighten the screw, repeating the process two or three times. The wax being lighter than the water will float to the top and after the screw is tightened for the last time hot water is added to float this wax off into containers where it is allowed to harden. Old honey or water pails will do for this purpose. When the wax is all floated off, the water in the press can be drawn off through the faucet below, the screw released and the racks removed and returned to the tank of hot water. The burlap is unfolded and the residue cleaned from it, as this is extremely hot, gloves should be worn. If the residue does not leave the burlap readily, rubbing it between the hands will loosen it. If the work has been done properly no wax will show between the fingers when a small amount of the refuse is squeezed in the hand. While the first lot of wax is being pressed a second lot can be melting; care should be taken, however, not to let the wax boil over, as wax is highly inflammable.

Beeswax is used in many trades but the bulk of it is used for the manufacture of comb foundation. Any manufacturer of bee supplies will make up the beekeepers' wax into foundation at a very low cost. More than enough wax can be obtained from an apiary in one season to provide all the foundation for the following year and often with a good surplus.—C. B. Gooderham, Dominion Apiarist.

Italy is a large producer of filberts.

Aim to Have the Child Choose Good Music of His Own Volition.

(By a High School Teacher.)

We find the music memory contest a most fascinating and most invaluable means of raising the standard of music appreciation.

It is not sufficient for a pupil to know good music, though of course knowledge is essential. It is not sufficient for a pupil to enjoy good music, for all the pleasure that that capability affords. It is not sufficient for a pupil to be able to say sincerely, "I love good music." He must use good music. That is the acid test of appreciation. Before the task of the school music supervisor reaches anywhere near the stage of completion the pupil must, of his own volition, use the best.

Any open war waged against ragtime and jazz, without a better music to supplant those forms, registers loss. The normal person must have music. Music furnishes one of the most natural means of self-expression. To follow the path of least resistance is an all too common human trait. In these facts lies the reason for the low development of our present-day popular music.

Ragtime and jazz are simple in melody and harmony. They make a quick appeal to the untrained mind. It requires no strain of the intellect to grasp such ordinary music. An intrument plays it here, a voice catches it there, money carries it everywhere. In an instant the nation knows a new song.

Those interested in the musical development of our country have powerful influences to combat. The success of their effort lies in their ability to permeate the soul of our country with the finest of melodies. There must be a concerted effort to carry the nation with selected compositions. And that means that not only the pupil must be reached, but also, through him, the home and the public.

I have mentioned the music mommory contest as a means of raising the standard of music appreciation. I regard it as an exceptional plan for exerting a maximum of influence with a minimum of effort.

Effects of Forcing Winter Egg Production.

From the standpoint of the hatchability in the eggs, there is evidently a limit to which one may go in forcing hens for winter egg production. In an experiment carried on at the Charlottetown Experimental Station, the hens were fed full rations with a view to securing a high rate of egg production. Electric lights were used in the pullet pens from the 1st of December to the 10th of February. The Superintendent of the Station, in his report, states that the hatching records that year showed that the use of lights and feeding to secure a high yield of winter eggs reduced the hatchability of the eggs and the vitality of the chicks.

Never keep a dog chained up day after day without giving him a run every morning and evening. Dogs enjoy fresh water the same as you or I. Too much food is as bad as not enough. Feed a good meal once a day.

THE DEPARTURE OF ERIN

John Bull (to Erin)—"Well, good-bye Erin; and I hope you'll be happy with him."—From London Opinion.

THE SUNDAY SCHOOL LESSON

JANUARY 14

Jesus Teaching Humanity, Luke 14: 7-14. Golden Text—God resisteth the proud, but giveth grace to the humble, 1 Peter 5: 5 (Rev. Ver.)

Lesson Setting—Our lesson to-day gives us yet another glimpse of Jesus as the great teacher. We see him changing a trap into a triumph, a subtle plot into a baffled silence. His enemies had invited him to break bread on the Sabbath day in the house of a Pharisee. They had also brought to the meal a man who had the dropsy, for the purpose of tempting Jesus to heal on the Sabbath day. With eager and malignant eyes, they watch what he would do. Jesus heals the man as they hoped he would, but silences the hypocritical protests that were ready to fall from the lips of his enemies by one single, simple question. Then, as he so often did, he fearlessly carries the war into the enemies' country and rebukes their pride and love of prominence and preeminence in a pointed parable.

I. The Principle of True Promotion, 7-11.

V. 7. **Those which were bidden.** The Sabbath day with the Jews was not a fasting day, but a feasting day and it was deemed a duty to have the poor share in their abundance. Nehemiah says, "Eat the fat, and drink the sweet, and send portions unto them for whom nothing is prepared." But in this case the Pharisee had invited, not the poor, but his own friends as fellow conspirators, against Jesus. **He marked.** Note how quick and observant Jesus is. **Chose out the chief rooms;** how they chose the chief places. The places of honor were next to the host and there had been a scramble for them. This love of conspicuousness was one of the outstanding characteristics of the Pharisee.

V. 8. **When thou are bidden.....to a wedding.** A marriage feast represents any social gathering into which the matter of precedence and places of honor may enter. The social scramble is still with us. **Sit not down in the highest room.** Jesus, in rather a playful way, proceeds to point out that even in the matter of earthly desire for promotion, the best policy is not that of aggressive self-assertion and self-seeking. Even where there is not the real spirit of humility, a policy of humility may be advisable. The places of honor should not be sought in the rush-seat scheme. **Lest a more honorable man than thou be bidden.** That is a man held in greater esteem and honor by him who is the host for the occasion, and who determines the place of each guest.

V. 9. The guests take their place before the entering of the host. When he comes he finds that his special friends have been crowded to the farther end by others. The person who has secured the chief place has the mortification of being asked to give place to some one sitting farther away from the host. He has overreached himself. All his energetic self-assertion has resulted in a social snub.

V. 10. **Sit down in the lowest room.** Even when he knows that the chief place is his, he should not take it. **Friend, go up higher.** If it is rightly his, he can wait till it is given to him. **Shalt thou have worship.** This way of reaching the chief place will be impressive. He will have honor from the guests as well as from the host. The promotion on which we thrust ourselves is less than the promotion which is thrust on us.

V. 11. **Whosoever exalteth himself shall be abased.** Jesus now proceeds from humility as a good policy for the ambitious, to humility as the real motive of religion and life. Self-exaltation here is the belittlement of the soul. Self cannot be an end in religion. True religion is the surrender of self for higher and greater ends. They who seek, lose, and they who lose, find.

II. The Principle of True Hospitality, 12-14.

V. 12. **Said . . to him that bade him.** Jesus now addresses himself to the host on this occasion. He had violated the spirit of true hospitality in two ways. First, his hospitality to Jesus had been only a mask for hostility. Jesus was silent about this fact. Second, when Jesus looked over the invited guests he saw that the true spirit of Nehemiah's injunction had been ignored. There was nothing of the beautiful spirit of the saying, "Let thy house be open towards the street and let the poor be the sons of thy house." **Call not thy friends . . . brethren . . . kinsman . . . rich neighbors.** The gates of religion must be wider than the gates of society. Service has regard for those who have need and lack. **Lest they . . bid thee again.** Society expects a return of all its favors. It does unto others what it expects other to do unto it. It gives hoping to receive again. It is a mutual benefit society.

V. 13. **Call the poor, the maimed, the lame, the blind;** a very different gathering from that which Jesus saw before him. It was true that the man with the dropsy was there but not because of his case and condition. To the persons mentioned by Jesus, the feast would have meant not only a satisfaction of actual physical needs, but a manifestation of brotherliness and sympathy that would have greatly cheered them.

V. 14. **Thou shalt be blessed; for they cannot recompense thee.** Not only would there be a blessing for the guests, but a great blessing for the host. When he entertained his friends, he secured reciprocity in kind, but when he entertained those who could make no return, he earned the future reward of God and the present reward that comes to true hospitality.

Application.

Jeremy Taylor, who lived three hundred years ago, in Milton's time, called attention to an important fact when he wrote, "Humility is the great ornament and jewel of Christian religion, that whereby it is distinguished from all the wisdom of the world; it not having been taught by the wise men of the Gentiles; but first put into a discipline and made part of a religion by our Lord Jesus Christ." Jesus sought to win a place for humility in men's thought and spirit—in this parable to his fellow-guests—whom he observed picking out the best places; in his rebuke to the disciples who were ambitious to be the greatest; again, he told people they would be unhappy if they were not humble: "Woe to you, Pharisees, you love the front bench in the synagogues, and salutations in the market places." And he declared there was happiness for the humble, the meek, the poor in spirit, Matt. 5: 3, 5. This lesson is best applied by each of us, teachers and taught, disciplining our own spirit by keeping in mind our Lord's oft repeated words to us, of this lowly modest grace.

Lord, grant us grace to love thee so,
That glad of heart and glad of face,
At last we may sit high or low,
Each in his place.

Saves Steps.

Here is a little suggestion which saves me many steps during the course of a year. I carry two pails of slop to the barns. I button the lantern to one suspender and an empty pail to another. By this means I can handle all four items at the one trip.—Ed. Elson.

Some people do not appear to know that buckwheat cakes are best when made partly of wheat flour—say one-third.