EFFICIENT FARMING

SALTING PAYS WITH EWES.

Our experience affirms that it pays to provide an abundance of salt to the ewe flock. Those ewes that are to bless us with a fine bunch of lambs in the springtime are quite seriously handicapped in fulfilling their normal reproductive functions when salt is absent from their ration. Ewes, like cows, need salt badly, and if it is not forthcoming from the livestock man's hands they have no choice but to make a poor showing. The privation from salt is most noticeable during the suckling period, the ewes failing to milk properly, and as a consequence the lambs following are deprived of the requisite milk necessary for their greatest development.

It is so easy to provide salt for the breeding flock that one often wonders why the salting is neglected at times. If this neglect is prolonged the consequences are sure to be cumulative. In other words, the greater the period of no salting, the greater are the adverse nutritional effects.

Not long since we ran an experiment on four groups of breeding ewes in order to determine the effects of super-abundant salting as contrasted with average and no salting. Our experience showed clearly that if salt is kept from the ewes during the winter period they manifest a pronounced craving for the staple mineral article after a few months. During the suckling period those ewes that did not receive salt showed a very marked inclination to do many unexpected things which might lead them to get some of this precious article. These ewes would actually chase the feeder around the feedlots, licking his shoes, pulling at his coat tails, biting his hands and doing other unbecoming and unexpected stunts. I well remember one ewe in particular that was so crazy for salt that she attempted to eat the salty leather of the camera case that I was carrying.

The groups receiving respectively one-quarter, one-half and one ounce a head daily of common salt did not show any of these cravings and peculiar manifestations such as were exhibited by the unsalted ewes. The best showing was made by the ewes receiving a quarter to a half ounce daily, one ounce seeming to be too much. The ewes receiving salt gained more rapidly and showed a little better nutritional tone than did those ewes not receiving salt. The birth weight of the lambs from the salted groups was somewhat higher on the average than where no salt was given. Water drinking was found to be stimulated by salt feeding.

After the ewes had suckled their lambs for approximately sixty days, salt was allowed to the ones not previously receiving any, and they surely appreciated the opportunity to fill up. The previous cravings and unusual antics now quickly vanished, the ewes becoming satisfied and contented. They quit following one like dogs and behaved once more as normal ewes should.

We believe that one of the best ways to allow salt to breeding flocks as well as to feeding lambs and other sheep is to self-feed it free-choice style, keeping it before the sheep at all times. Under such conditions of salt feeding the sheep will take about what they need, and one can be fairly certain that all the individuals will cease to suffer from salt starvation because they can follow their natural inclination to take salt from the box.

To salt the flock liberally is to promote health and well-being, to increase profits and to make for a more productive and satisfactory all-around sheep husbandry.

Sawing Wood.

The buck-saw, like the grain cradle, is practically an institution of the past. A necessary evil once, it should now be regarded as an antiquated invention for driving boys off the farm, and relegated to the museum for curiosities.

The one-man cross-cut is a little better, while the two-man cross-cut is a distinct step in the evolution of sociability. It has its place in the bush, of course, and even the other instruments of torture aforementioned find occasional employment, just as the old grain cradle is resurrected now and then for some special purpose.

As a regular means of working up the winter wood-pile, however, these are only to be advocated for one who absolutely has not and cannot get the cash to hire a buzz saw outfit. Modern life is too busy and full of interest to spend unnecessarily in back-testing mechanical routine which machinery enables us to dispense with. Most of us can find enough manual-labor jobs after we have substituted as much gasoline for muscle as we have wit to use.

We have heard arguments that buzz-sawing wood is more expensive than buck-sawing. But these calculations are generally based on old-time conditions. As it works out in these times, most of us find that gasoline beats elbow grease by a substantial margin. There is this, too, that buzz-sawing is a more or less sociable job which goes with a vim and men quite properly prefer it to the tedium of hand-sawing.

Again, it will be noticed that the farmer who buzzes his supply gets the job over with and goes on to something else, while the buck-saw adherent is hardly ever out of a job. The wood pile stares him in the face until he hates to go past it.

What a comfort there is in looking at a big heap of sawed firewood in the yard when a cold snap comes on and the snow piles deep around the buildings.

Farm Equipment Needs.

While proper housing of farm tools and machinery is the greatest farm equipment need at this season of the year, the provident farmer will find it to his advantage to go over all of his farm equipment during the winter season and place it in the best possible repair for next season's use.

We are prone to postpone this always needed work until the equipment is actually needed, but this is a most uneconomic method. If an inventory of needed repair parts is made and these are ordered at once, costly delays may be avoided next summer.

The work of repairing or replacing worn or broken parts always takes more time than we anticipate, and this time can be taken far more economically during the winter season than when the active farm campaign is on. And we can and will do more of this work ourselves if it is done at this season of the year.

A well equipped shop which can be made comfortable during severe weather is a great convenience and a good investment on any farm. But lacking this a work bench equipped with a good vise located in any outbuilding, and a simple equipment of tools will answer a very good purpose, and will provide the means for profitable employment on many a mild winter day.

At present costs of mechanical labor repair bills run into money rapidly, and any portion of this which can be saved by the productive use of the available farm labor is a most profitable line of employment during the winter season.

Time was when every farmer was something of a mechanic. The pioneer farmer had to be. And the present-day farmer will find it profitable to develop his skill and initiative along this line to a point which will minimize hs bills for maintenance of farm equpment and at the same time avoid costly delays when the equipment is needed for immediate use.

Are the Hens Laying?

Can you tell which hens are laying without the use of trap nests? This is easy to determine if one will go to the trouble of handling each bird suspected of being a loafer. When a hen commences to lay conditions in the organs concerned in reproduction are quite different from conditions observed during the period of idleness. When the ovary is dormant and no eggs are being produced the distance between the pelvic bones is small. The vent is dry, small, puckered and, in yellow fleshed chickens, has a band of yellow pigment around the inside. When laying commences the pelvic bones become pliable and spread apart to permit the passage of the egg. The vent becomes large and moist and the ring of yellow pigment disappears. A visit to the poultry house on an early winter evening and a half hour spent in going over the hens will be profitable.

SHEEP

Some farmers produce wool at a cost as low as ten cents a pound, while their neighbors are spending as much as eighty cents to produce the same quantity. According to specialists, this wide variation is not due to luck.

A survey of many farms show that a large flock of sheep can be cared for with practically the same labor expense required to look after a small flock.

Another consideration is the feeding of legume hay. The farmers showing lowest cost included in the sheep ration twenty-one per cent. of alfalfa and seventy-nine per cent. of clover and mixed hay. Growers showing high cost fed only five per cent of alfalfa, fifty-five per cent. of clover and mixed hay, and forty per cent. of timothy. Also, the men producing wool cheapest raised twice as many lambs to increase receipts from the flocks as did the group producing the wool at high cost.

Championship Grains.

The following gives the counties and the varieties of grain crops receiving championship prizes at the Provincial Winter Fair this year: Winter wheat, O.A.C. No. 104 (Peel County); spring wheat, Marquis (Wellington County); oats, O.A.C. No. 72 (Bruce County); barley, O.A.C. No. 21 (Bruce County); peas, Canadian Beauty (Wellington County; beans, Pea Bean (Kent County); Dent corn, Wisconsin No. 7 (Kent County); Flint corn, Longfellow (Kent County).

Ontario Variegated and Grimm Alfalfas.

Only recently Dr. Zavitz, of the Ontario Agricultural College, received a letter from a leading American seed house from which the following is quoted: "We are in controversy concerning the comparative hardiness and productivity of Grimm and Ontario Variegated alfalfa. May I ask you whether or not the Ontario Variegated is a Grimm alfalfa?"

The following were the answers given to these questions: The Ontario Variegated is not a Grimm alfalfa. The seed of the former was obtained from Lorraine in 1871 and has been grown in Welland County for the last half century. The Grimm variety was brought from Baden, Germany, by Kulsheim Grimm and was sown in Carver County, Minnesota, in 1858, where this type of alfalfa has been grown since that time. Both varieties have variegated flowers and are similar in some characteristics.

In an experiment at the O.A.C. which extended for a period of nine years, previous to 1916, the Ontario Variegated still had 68 and the Grimm 57 per cent. of living plants. Three years later, however, after coming through one of the most severe winters for the last thirty years, the per cent. of living plants of the Ontario Variegated was reduced to 16 and of the Grimm to 25. Under similar conditions, the common plants were practically all dead four years previous. The Variegated alfalfas, including both the Grimm and the Ontario Variegated, have proven much hardier than the common alfalfa in the various experiments conducted at the College within the last fifteen years.

In an experiment which was conducted in 1923 for the eleventh year, the average yield of hay per acre per annum was 4.1 tons from the Grimm and 3.5 tons from the Ontario Variegated. In a ten-year experiment with numerous lots of alfalfa, there was an average annual yield of hay per acre of 3.1 tons from the Variegated and of 1.1 tons from the common or violet-flowered alfalfa.

Eternal vigilance is the most effective safeguard against the re-introduction of tuberculosis into the clean herd.

Bedtime Stories

A Daylight-Saving Game.

BY MILDRED WASSON.

At night, when I am safe in bed
And after all my prayers are said
And mother props the window wide
And puts the light out by my side
And kisses me good night again
And I am all alone, why then
I always shut my eyes and play
At bringing back my happy day.
I start again long hours ago;
Way back to breakfast I can go.
I never tire of being glad
For all the marmalade I had
Or for my hominy and toast.
I don't know which I like the most.
And then I follow me to school,
Like Mary's lamb that broke the rule,
And think of all the things I learned
And sometimes of a star I earned.
Then dinner time I think about
Because I'm anxious to get out,
And coming home is such a lark!
I listen first for Buster's bark,
Then watch for mother at the door.
I make that picture come once more,
For standing there she looks so sweet.
And then I let us go and eat.
Then comes the time I love the best:
I have to take a little rest
While mother reads aloud to me;
And, oh, how sweet her voice can be!
Then out of doors I romp and play
Until the shadows come to stay.
And I begin to feel—as—though—
I'd like some bread and milk—and—so
I have my sup-per—and—and—then—
Why, here's the morning come again!

—Youth's Companion.

Annual Pasture Crops.

Of fourteen varieties of crops which were tested in the Experimental Department of the College at Guelph, it was found that for pasturing with cattle those which were the most palatable were oats, corn, pasture rape, barley and sorghum and in the order here mentioned. Owing to the peculiar flavor of sweet clover, it is not eaten readily by cattle at first, but after they become familiar with the crop it is relished.

For Home and Country

How the Institutes Assist the Work of Immigration.

BY MISS E. J. GUEST, Convenor of Provincial Committee.

The most valuable immigrants to Canada are its native-born children, and the proper feeding, health, education, and general welfare of these in their own homes and communities have been the foremost concern of the Branches, judging from Branch, District, and Convention reports.

Next in interest has come the needs of the orphan and dependent children, almost every District reporting assistance from the Branches in money, food, or clothing for the nearest Children's Shelter or Sick Children's Hospitals. Western Ontario Institutes are endowing a ward in the London Hospital in memory of the unforgettable work for the children of rural Ontario of Mrs. Mina Hutton Wilson and Miss Maud Hotson of Middlesex.

In many cases members have adopted children themselves, and seen that adopted children from the various institutions were getting a square deal as regards health and schooling.

Something is being achieved, though much more could be done, in welcoming new Canadians, especially those of other nationalities, into the Institutes, where they may both contribute to and receive from the fund of home-making information in these centres. The school and the Institute are the two most important community forces for the raising of the standards of citizenship in Ontario homes.

In one case a Branch invited the mother in a French family who had recently purchased a farm in the locality to the meetings. There were five children and it was a busy time, but the man said, "It is the first thing you've been invited to. You had better drop the work and go. Take the baby and I will work near the house and look after the others." The members felt that something worth while had been achieved with that one home.

One member of the committee has recently purchased a Ford car which she makes socially useful in calling on the many new families in the district, a considerable number Belgians, getting them connected up with the nearest Institute and giving the children some instruction in art and domestic science.

The Soldier Settlers continue to be remembered, the Girls' Institutes keeping up the making of layettes for needy cases. This form of immigration work, however, grows yearly less in its demands as the soldiers get established successfully on their farms and their wives become active members themselves.

The needs of the fire sufferers in the North aroused the abundant sympathies of Old Ontario members who, with great promptness and efficiency, contributed thousands of dollars' worth of food, clothing and household furnishings to their sisters in the stricken areas.

Some Branches are making a study of the Immigration Laws and express their approval of keeping the physical and moral standards of admission high, rather than the monetary.

Your Convener is also a member of the Ontario Hostel Committee and can testify to the fine type of young woman coming in through the Government chanpels to assist in housework. Not many of these, however, get further than the cities. The attention of your Executive was drawn to this, and the President and Secretary asked and were accorded an interview with the Minister of Agriculture in which they urged the better advertising of the attractions of the country homes of this province in Great Britain and the planning for direct passage to the rural districts. This, he said, should receive attention in a practical way.

The member of the committee for Eastern Ontario, Mrs. Jean Muldrew, is at present in Great Britain lecturing for the Department of Immigration and Colonization with what we hope will be satisfactory results.

The committee recommended the same program as last year in immigration activities as the field had been merely touched as yet. They urged, moreover, that the District President or Vice-President be appointed Chairman of a District Committee on this work so that reports might be secured and given at the various annual meetings and conventions, of the valuable and interesting phases of Branch and District action.

RECOMMENDED PROGRAM FOR 1924.

1. To secure as full information as possible of immigrant families settling in Ontario, or girls and women employed as domestics in homes throughout the province from: a. The Colonization Department of the Ontario Government. b. The Employment Labor Bureau. c. The Soldier Settlement Board.

2. To secure as full information as possible re children being placed in Ontario homes from: a. The Children's Aid Society. b. The Barnado Homes. c. The Salvation Army.

3. To see that the children of immigrant families or those placed in homes by the Children's Aid Society or the Barnado Homes attend school regularly.

To report all cases of cruelty, neglect, or overwork on the part of those employing help to the proper authorities.

To report all cases of children or parents suffering from contagious or infectious diseases or who are mentally deficient, to the proper authorities, and when necessary, to take any other action advisable.

To take an active interest in supporting local Children's Shelters and to co-operate with the Children's Aid Society in securing good homes for the children for adoption.

To familiarize Institute members with the Immigration Laws.

To emphasize, through articles written, through lectures and discussion, the importance of getting in touch with the new-comers and leading them to realize that they have a part to play in advancing community interests.

To visit and welcome new-comers, whether native or foreign-born, to the community and into the Institute, where they may imbibe and contribute to the highest ideals in homemaking and Canadian citizenship.

The Sunday School Lesson

JANUARY 6

A Chosen Leader and a Chosen Land. Gen. 12: 1-7; 18: 17-19. Golden Text—In thee shall all families of the earth be blessed.—Gen. 12: 3.

LESSON FOREWORD—It is the purpose of the lesson series upon which we are now entering to give "a connected view of the Bible story from beginning to end." A rapid review of the Old Testament history, covering the next six months, will be followed by a more detailed story of the life of our Lord and the beginnings of the Christian Church. In the Old Testament studies, therefore, our method will be, first, to present the historical connection in a brief and easily remembered form, and, second, to study the lesson of the day as illustrating the period of history to which it belongs, and the great movements affecting Israel and the world. We shall also inquire how the way was prepared, in the long course of history, for the coming of the Lord Jesus and for his teaching.

BEGINNING OF THE STORY—The first eleven chapters of Genesis tell of the beginnings of the world, of men, and of nations. It will be noticed that the "sons of Japheth," and the "sons of Ham," and the "sons of Shem," in ch. 10, are nations. For example, Madai stands for the Medes, Javan for the Greeks, Kittim the people of Cyprus, Mizraim Egypt, and Asshur the Assyrians. The names in ch. 11 appear to be rather names of individuals, but Haran (v. 26) is the name of a place in vs. 31 and 32 and in ch. 12. It has been supposed by some modern writers that Abram is the name of an ancient immigrating tribe, and that the story of Abram is in reality the story of the movements and adventures of such a tribe. The personal element in the story is, however, so strong that we are compelled to believe that he was a real person. At the same time the story makes it clear that both he and his nephew, Lot, were leaders of tribes which at some early time moved westward and southward from the comparatively barren plains of Mesopotamia, into the sparsely settled and more fertile land of Canaan. They were "rich in cattle, in silver, and in gold." They had "flocks, and herds, and tents." Abram led out to battle, for the rescue of Lot from invading enemies, "his trained servants, born in his own house, three hundred and eighteen" (see ch. 12: 2, 5; 14: 14).

Ch. 12: 1. *The Lord said unto Abram.* The writer is a man of prophetic gifts who has seen profoundly into the ways of God in the history of his people. It was not merely restlessness, or material necessity or ambition, that drove Abram from the land of his fathers. It was the voice of God. It was a beginning of the working out of God's great plan of blessing for the whole world. In Abram and in the nation of which he was to be the founder, should "all families of the earth be blessed," v. 3. (Compare 18: 18; 22: 18; 26: 4.)

V. 4. *So Abram departed.* The fulfilment of God's plan through Abram was dependent upon Abram's obedience (22: 18), and his obedience was the expression of his faith in God. He believed this call, however it came to him, to be God's call. He trusted God and went. And so, in the good providence of God, the foundations of Israel's life were laid in faith. "By faith Abraham, when he was called to go out into a place which he should after receive for an inheritance, obeyed and went out, not knowing whither he went." That would not, perhaps, have been accounted worldly wisdom, but was it not a higher and finer sort of wisdom, for the apostle who wrote of him centuries afterward said of him, "He looked for the city which hath foundations, whose builder and maker is God." Heb. 11: 8-10. *Out of Haran.* The movement of which Abram was the leader is traced from "Ur of the Chaldees," a city on the Euphrates river some distance south of ancient Babylon, northward to Haran, a city and district in northern Mesopotamia between the Tigris and Euphrates rivers (ch. 11: 31), and thence westward and southward into Canaan. He and his peopde appear to have been of Aramaean stock, akin to the people of ancient Syria. See ch. 25: 19, 20; 28: 5; Deut. 26: 5.

Going on still toward the south (v. 9), passing by Shechem, which was near the middle of the Palestine country, and Bethel, Abram settled ultimately at Hebron. It is interesting to note that wherever he made an encampment of his people, there he built an altar and recognized the presence and power of his God.

Ch. 18: 17-19. The name "Abram," which means "high father," is here "Abraham," "father of a multitude." See the story of the covenant in ch. 17: 1-8. High tribute is paid here to the character of Abraham, and to his influence upon his children and his household, an influence continued through the ages. Abraham is known to Jew, Christian, and Mohammedan, as the "father of the faithful," and the "friend of God."

APPLICATION.

1. *Called of God.* When God needs an agent he is always able to find one. And he is always able to let his will be known. Only the man must learn to listen to the voice that always speaks. Stephen says (Acts 7: 2) that the God of glory appeared to Abraham. He does not tell us how. It may have been in visible manifestation. It may have been a spiritual revelation to his mind. It may have been through his deepening distate for vice and idolatry. Facts are fingers of God. Sometimes a trivial daily circumstance may crystallize momentous decisions. But God's spirit is the guiding providence. This makes the common bush flame with God. The still small voice whispers through inner experience. It becomes "one clear call for me." The capacity of the man kindles to become "friend of God." So Abram conceived the idea to which his age was stranger. To work it out demanded change of place. Hindering influences must be sacrificed.

2. *Perils of the City.* Material self-interest would have kept Abram where he was. Ur of the Chaldees was "a land little larger than Scotland, but the richest of Asia." It was a glorious land, probably the cradle of mankind. No man would leave it for lack of business opportunity. It had tropical fruits and dense harvests, throbbing commerce and all the varied traffic of the great river. Their art, music, building, science and luxury is still the wonder of our world. The city was a great walled town. Its high civilization had literature, schools, teachers, libraries and advanced materialistic culture. But it was no place to bring up a family. The land was wholly given over to polytheism. To the revels of the idolaters there was no restraint. Bunyan's pilgrim was bidden flee from the wickedness he could not overcome. Abram, in like case, sacrificed his worldly prospects to save his soul alive.

3. *Fathers and Sons.* "He will command his children." Failing in this, Abraham had failed in all. His greatest contribution to the race was the becoming the father of a good boy. Obedience, reverence, industry, happiness, faith, those things not seen which are eternal, became the kindled torch handed on through Isaac for the world's darkness. The pioneer Abram "builded there an altar," endured as seeing the invisible, valued material things only in so far as they might be ministering agencies in the supreme purpose, willingly left the fertile plain toward Sodom to the worldly-wise and prosperous Lot, content in the sure truth that the only wealth is life. Sons may not choose their fathers, but fathers do choose their sons. Abraham chose the path of the pioneer, and became an immortal individual through the medium of a happy family circle.

Result of Cow-Testing.

A member of a cow-testing association in Quebec reports to the Dominion Dairy Commissioner that in the three years he has been testing, production in his herd of six cows has been increased from an average of 7,142 pounds of milk and 272.8 pounds of fat to 10,563 pounds of milk and 396.6 pounds of fat. In 1920 his best cow produced 9,181 pounds of milk and 359.3 pounds of fat. In 1922 the best cow produced 13,471 pounds of milk and 528.2 pounds of fat. Compare this with the average of all the cows in Quebec milking eight months or longer in 1922, namely 5,010 pounds of milk and 195.5 pounds of fat. The improvement in the herd referred to was brought about by discarding improfitable cows, as indicated by the test, and replacing them by better ones. As the Dairy Commissioner says, such results are possible to all dairymen who will use sow-testing as a means of accurate information and weed, feed and breed accordingly.

Winter Rules.

Protect your animals from the cold. This will make them more comfortable and will save you feed.

Stop the holes in your barn.

Board in your tie-up.

An old horse, especially, like an old man, feels the cold.

Blanket your horses on frosty nights in the fall, when their coats are short.

Give your horses and cattle a good bed. Bedding is cheap.

Water your horses at least three times a day. The stomach of the horse is very small.

Punctuality in feeding and watering the stock is very important. They will worry and lose flesh if kept waiting beyond the regular time.

A good grooming costs no money, and is equal to two quarts of oats.

A horse cannot thrive on hay alone. He needs oats or corn for strength; and grass, bran or potatoes to keep his bowels right.

Keep your horse's feet soft and have him shod often. More feet are ruined in the stable than on the road.

Do not degrade your family by using a lame horse.

Kill the worn-out or incurably lame horse. If you sell him, the money that you receive is blood money.

Millets Sown at Different Dates.

The question is frequently asked regarding the best dates for sowing millet for hay production. For several years in succession an experiment has been conducted at the Ontario Agricultural College by sowing millets on each of six different dates, starting on May 15th and finishing on August 1st, allowing about two weeks between each two dates of seeding. The average results have shown the highest returns from sowing on June 1st. Naturally, varieties like the Japanese Barnyard and the Japanese Panicle require to be sown earlier than the Hungarian Grass which requires a shorter season for development.

Do we seek to satisfy the hungering minds of the children with the same degree of care that we use in looking after their stomachs?

The unlimited possibilities of helpful service suggest that fairs and expositions have but begun their work of education through demonstration.

Canada sent ten million dollars worth of furs to the United States last year.