

tual plant food for the growing crops.

If clover and other legume crops

the

stock raising have discovered too late

deficiency

Address communications to Agronomist, 73 Adelaide St. West, Toronto. Inventory Your Resources.

With the Ewes and Lambs.

The thought of the prudent shepherd is always toward his eyes; if pregnant, he plans to bring them to a safe and heany lembing. Due to the fact of operations the plans to bring the the the the the the the start of operations the plans to bring the the the the the start of operations the plans to bring the the the the the start of operations the plans to bring the the the the start of operations the plans to bring the the the the start of operations the plans to bring the the the start of operations the plans to bring the the the start of operations the plans to bring the the the start of operations the plans to bring the the the start of operations the start of operations the plans to bring the the the start of operations the start of operations the plans to bring the start of operations happy lambing. Day by day he caucline in crop yields or a succession of tiously conditions them for the coming crop failures to force the use of pur-of the lambs. For him that period chased plant foods. When one has of the lambs. For him that period practiced a rational system of crop romeans a supreme success or a misertation and live stock feeding with a able failure. The responsibilities rest upon his shoulders; and if he loses a soil fertility, and finds the land be large percentage of the lambs at lambcoming less and less productive, it is ing time it is some fault of his manevident that something is needed to agement. correct soil conditions or furnish ac-

A wise shepherd can feed his ewes liberally without overloading them with too much fat. He can plan to give them opportunity to walk about fail to make a satisfactory stand the use of lime may prove more profitable and exercise every day when the than the purchase of commercial fer-weather is pleasant. He can feed once tilizers. On most stock farms, howa day in some distant part of the pasture, or adopt some scheme to overcome the tendency to sluggishness on the part of the ewes.

Feed liberally, but do not overload farm crops. Reports of field tests in them with too much fat, means that different parts of the country indicate the young lamb, developing in the body that phosphorus is the one elemental of its mother, should have an abunneeded to increase crop yields on the dance of protein, the ingredient of lean majority of stock and dairy farms, as flesh, blood, nerve and brain. It should well as on farms where no system of also have lime and phosphorus to make animal husbandry has been practiced bones. If the ewes have alfalfa or for years. Results from the use of clover hay and roots or ensilago it acid phosphate have been more satisbalances things up nicely. These feeds are rich, both in flesh and bone-making factory than raw rock phosphate, due undoubtedly to materials. If the alfalfa and clover organic matter in the soil. are cut and put up at the right time The advisability of using fertilizers and the roots and silage are properly carrying nitrogen and potassium de-pends largely upon the fertility of the stored and preserved they may adequate. Even then it is usually wise land and the kind of crops one is to feed a little grain feed. A little growing. If the soil is deficient in oats, corn and bran make a safe and nitrogen and no manure or cover economical grain ration. It makes crops are plowed under the yield of more vigorous lambs and fills the ewes' crops is sure to be limited to the amudder with milk. The ewe that brings ount of that element that becomes forth her lamb without having enough available during the growing season of the crops. This holds true with reforce stored up in her body to fill her udder with milk is not likely to own gard to the supply of potassium, alher offspring. There is something about an udder full of milk that is although most of our soils contain sufficient quantities of this element to most akin to mother love. Animal mother love lies more in the udder maintain the yield of general farm crops for many years, provided, of than in the heart. course, that the other conditions of

Success lies in never withholding protein and bone-making feeds nor feeding them too much. Feed to have growing season. the ewes in good condition at lambing time, but avoid getting them sluggish over from crop growing to dairying or from over-feeding. To feed them along on the middle-ground requires skill that such a system will not restore and experience, but it is a proposition that must be mastered before one can succeed in bringing a flock of ewes commercial plant foods. As a result through a safe and happy lambing they have been forced to sacrifice good period. animals that could easily have

As lambing time draws near it is carried some years ago, before the soil wise to separate from the flock the had been robbed of its fertility. The ewes that are near their time. If a use of commercial fertilizers in such number of small pens are available it will be well to give each ewe a separ-ate pen so that she will have a quiet yet in a fair state of productivity, will place to lamb. An early lambing, provided one has good conveniences brings to grass a strong crop of lambs and to market a bunch of heavyweights. Early lambing is safe and sure if one has proper shelter and ers were able to maintain and, even, gives the ewes and lambs painstaking increase the yield of certain crops durattention. With a comfortable shed, a strawy bed and a little extra care, few lambs will be lost.

Rarely is it necessary to assist the continue indefinitely. ewe at lambing time, yet it is well to be on hand as there will be times when a little help will mean the sav-ing of a valuable ewe or lamb. If If twins come no time should be lost in farms in such condition that profitable getting them nursing, for the ewe frequently forgets to find her second the proper use of fertilizers. lamb, and it becomes hungry and chill-

To Reduce Your Fencing Bill.

The increased valuation of land, unusual prices of all brisket, or in other ther with the building material, have created a tough problem for the farmer. Recently a certain farmer decided to build a new fence around his entire It should be the aim to cut them all farm. kinds and types of fence posts he will make an even layer in the barrel made a startling discovery.

"I found," he says, "that fence posts corner had increased over 300 per cent. in mals. price since the last time I fenced the farm

"I knew that even under the conditions a wooden post will last only corning process. Under no citcum-so long, and I saw the prospect of stances should the meat be brined having to re-fence every few years while it is frozen. with an increased cost. One thing is view of maintaining and increasing sure, and that is that fence posts will never get much cheaper. "I had no desire to be continually

doing over the work at such a cost as it materially cuts down the profits the cuts of meat, making a layer five to have to figure in a new fence every or six inches in thickness; then put so often. So I cast about for some on a layer of salt, following that with so often. So I cast about for som kind of a permanent post.

"Concrete appealed to me be than the purchase of commercial ferthere was plenty of material available. I found that the cost of concrete posts ever. the judicious use of certain would not exceed 50 per cent, more than oak posts, and their life is prac chemical plant foods along with the supply of farm manure will increase tically unlimited. That is, you might the yield and improve the quality of say that a concrete post is as perman-ent as the farm itself."

It is possible for every farmer to make the concrete posts right on his farm, if he so desires, or he may buy the posts outright from almost any cement factory. The cheapest plan however, is to make them right on the farm. Molds can be made according to directions and specification which any cement dealer will furnish you or they may be procured from manuof

facturers of concrete materials The farmer mentioned made his posts 4x4 inches in size, while the corner posts were made 8x8 inches in order to give them the proper strength to withstand the excessive strain to which they are subjected. Reinforcing, such as heavy wire or corrugated bars, must be used to make a strong post.

For the corners two of the 8x8-inch posts are used, being braced by a section of iron pipe three inches in diameter. The pipe is placed parallel with the ground, and not only will stand a tremendous strain, but will also present a neat appearance. Such a fence is not only lasting and the soil are favorable for its becoming permanent, but it also adds materially

to the appearance and value of a farm. Many farmers who have changed

The Fanning Mill and Control of Plant Diseases.

Without the use of a fanning mill fertility and at the same time give a the production of clean first-class seed satisfactory profit without the use of is most difficult. Its general use is they have been forced to sacrifice good to separate the chaff and other inert matter from grain, which essential feature requires no further discussion. Yet the fanning mill has served incidentally as a useful implement by which means farmers have been saved quantities as are required to assure immense sums of money, owing to its aid in reducing plant disease. This feature is not so well known to the result in greater benefit to the farmer farmer as it should be, and is apparand those dependent on him for food ently not recognized in text-books on than if the practice is postponed until the land fails to produce profitable plant diseases and their control; but crops of any kind. The fact that farmonce fully realized the fanning mill will advance in esteem, for its essential purpose-the removal of chaff and -stands in no comparison to its dirting the period of the war created an value as a means toward disease conimpression in the minds of many conomists that such a process could trol. Naturally-when judiciously just at the correctly adjusted used. well speed and proper amount of "wind." posted in the problems of the soil, however, know that the cashing in of soil fertility to meet the demands of

there will be removed a large number of light and broken seeds, besides chaff els instead of resting against the and dirt. In this feature lies the significance of this implement as a means of disease control. What are the light seeds due to? Invariably they are im- few minutes. properly filled grains due to imma-

Corned Beef.

The pieces commonly used for corning are the plate, rump, cross-ribs and er words the cheaper cuts of meat. The pieces for corning should be cut into convenient-size joints, say five or six inches square apathy with which many parents re-gard school work. Many of the strong, When he considered the usual about the same thickness, so that they enthusiastic young teachers strive term after term to overcome this iner-Meat from fat animals makes choicer corned beef than that from poor anitia by regularly holding parents' meet When the meat is thoroughly ings, and this method is sometimes cooled it should be corned as soon a very successful. But have you ever possible, as any decay in the meat is attended these meetings? If so, you

likely to spoil the brine-during the will have noticed that usually only a few parents attend at all regularly; many do not come at all. Under these circumstances, are you still one of those who complain about what is done Weigh out the meat and allow eight pounds of salt to each 100 pounds; and not done in your school? sprinkle a layer of salt one-fourth of

an inch in depth over the bottom of the you are really interested in your school. Visit the teacher in her classbarrel; pack in as closely as possible room at intervals. Find out what her difficulties are and then see if you cannot help her. In most instances you another layer of meat. Repeat until will be agreeably surprised to find the meat and salt have all been packthat the teacher is far better posted on matters of health and sanitation ed in the barrel, care being used to reserve salt enough for a good layer relating to school children than you over the top. After the pack has stood over night, add, for every 100 supposed. But she needs help and community support in order to put pounds of meat, four pounds of sugar these modern ideas into practice. two ounces of baking soda and four Have you ever heard of the tooth-orush drill? In many of the schools unces of saltpeter dissolved in a galkm of tepid water. Three gallons more throughout the country teachers now of water should be sufficient to cover instruct their classes just how the teeth should be brushed. But how much this quantity. In case more or less than 100 pounds of meat is to be cornthe brine in the proportion good is such instruction if parents do ed, make not make sure that it is not regularly

given. A loose board cover, weighted down with a heavy stone, should be put on the meat to keep all of it under the brine. It is not necessary to boil the brind

you make sure that he cleans his teeth thoroughly before going to bed and except in warm weather. If the meat starting for school? has been corned during the winter and And what has your youngster learn-ed about dirty hands? Does he try to must be kept into the summer season watch the brine closely during the spring, as it is more likely to spoil at sneak to the dinner table without that time than at any other season. If the brine appears to be ropy, or does washing his hands and face spick and span? Does he understand how readily not drip freely from the finger dirty hands carry disease germs into when the mouth? immersed and lifted, it should be You can tell that the health teachturned off and new brine added after ing is effective by observing to what extent it changed the boy's habits for carefully washing the meat. The sugar or molasses in the brine has a tenthe better. However, the health-teaching in school may be really very dency to ferment and, unless the brine is kept in a cool place, there is some

good, but, like many other careless youngsters, your child may promptly times trouble from this course. The meat should be kept in the brine twenty-eight to forty days to secure thorough corning.

A Water Gate That Stays.

One of the difficulties met on most every farm is in building a fence across small running streams that can be put up at small expense, and that will stand through the winter freshets The usual fence is the board, rail, or wire structure which is hung on perpendicular posts. There is always trouble in holding these posts in the bed of the stream, and if the board on wire covering is set too close it will

I can recommend a fence built with cross timbers which has given us good results for several years, and with practically no upkeep cost. It will easily fence anything on the farm, and it should be built in the same manner for all kinds of stock. The size of the cross timbers will depend on the size of the stream and the drift that is carried by high water.

For a small stream the cross timber should be about six or eight inches, they may gain only one or two pounds, or even none at all; from twelve to and the panels should always be about two inches. A wider space will siteen years, when healthy children allow drift to lodge between the panshould gain from six to fourteen pounds fence, as it should. Setting them close two or three pounds. has saved us from broken panels, and the debris can be cleared away in a

The Growing Child-Article II.

Helping the School Teacher

Nothing is so discouraging to a lowed, the most important thing chool teacher as the indifference and pathy with which many parents re-of older children this can best be don in school and in child health centre where monthly weights of all childre should be taken and recorded and special attention should be given to the who do not make a normal gain by the parents, teacher, or school nurse doctor if there is one. It is essential that every child of the school age should receive a full medical

tion once a year. A child who is suffering from ma nutrition-that is, one who is muc below normal weight or one who

steadily losing weight or one not making a normal gain-should at once be taken to a physician and ex-amined to see if any disease is developing. In the case of children residing in areas in which malaria or hook worm prevail the physician should search for the presence of the para-sites of these and similar diseases. The child's whole daily life should be carefully gone into to see which of the rules of health he is violating and whether this pertains to his food, his abits of eating, his nours of sleep. habits of eating, his hours of play, of Malnutrition is cured by corre injurious habits or removing the causes already mentioned upon which it depends. Often it is a matter of enforcing discipline in the home.

Some Hints on Feeding Children. In dealing with malnutrition the following suggestions regarding chil-dren's diet may be helpful: During infancy the diet should con-

sist wholly of milk, and since no per-fect substitute for mother's milk is known, mothers should always nurse their babies at the breast, unle other wise advised by a competent physician

At six months the baby begins to be able to digest starch; therefore, at this time small amounts of barley or oat-meal water may be given with the milk. It is also well to give a tea spoonful of orange juice twice a day. When the teeth begin to appear, a cracker or a piece of sweiback may be allowed. In addition to this a little cereal jelly without sugar may be given once a day, preferably in the morning.

At about the fifteenth or sixteenth month small amounts of baked pota to, apple sauce, and the pulp of thor-oughly cooked prunes may be added to baby's diet.

When the child is two and one-half or three years of age the mother may begin to give one or two teaspoonfu of scraped meat, or an egg. In general, meat should be given very spar-ingly to small children during the hot weather, and an egg should not be given oftener than once or twice reek to a child three to six years of Sugar, other than that obtained naturally in foods, is not necessary for a young child's diet. Simple der such as custards, apple sauce an prune pulp may be given as early a the twentieth month and in amount suited to the age. As the child grows older it may

gradually partake of the same meal as the parents, care being taken to es that the diet is mixed and varied, an that it supplies all the elements nee essary to ensure growth. Milk should e given at each meal.

Infants should be given cool (not cold) boiled water several times during the day and older children should be encouraged to drink a glass of water on rising and an abundance of water throughout the day. Scho children should not be allowed to

hildhood. not allow the water to escape easily.

tion are not only much below normal weight for height, but they gain much more slowly than they should. At the ages of six to ten years, when a healthy child gains two to five pounds a year,

Children get into a condition of malnutrition because their growth is not The cross beams can be made of any watched. To grow in height and gain small scrub timber that is handy, and regularly in weight is just as much a the panels from limbs or small sap- sign of health in a boy or girl of eight of disease or other adverse features lings. With an ax you can make a or ten as in a baby. Mothers have smooth surface on each end of the learned to weigh their babies; they panel so it will lay flat against the must also learn that it is just as im cross timbers, where it can be secureportant to weigh their older boys and girls. When children do not grow or ly spiked. Anyone can build this water gate gain regularly in weight something is with the use of a few spikes, an ax, and some scrub poles. It can be done wrong. If these boys and girls weighed regularly every month this cheaper than with any other material; condition of malnutrition would be it will last as long, and will give less trouble and better results. Squared discovered early and not allowed to go on to serious consequences. Unless the condition is recognize material was used in our fence because it was on hand at the time and lumber early and measures taken to correct it was not selling as high as it is to-day. the effects of malnutrition in childhood Round wood in the bark is not only may last to adult life. It may show cheaper, but it will also probably give itself as prolonged 111 health and a trifle longer service, and makes a feeble resistance to disease; the india trine longer service, and indice to vidual may grow up undersized and look at.

forget to apply the teachings outside of school. If that is the case, it probably indicates that you have failed to familiarize yourself with the work of the school. By all means do so at and make your child observe health requirements at home also. Malnutrition Should Be Treated.

Malnutrition is a condition of under nourishment commonly measured by underweight. It is seen in boys and girls at any period after infancy or in It is an important condition very

Get out of the rut and show that

carried out in the home? Has your

youngster a tooth brush and a supply

Do

of tooth powder or tooth paste?

often neglected, and when neglected may lead to serious consequences. It may lay in the foundation for poor physical development or ill health in adult life or may lead to some serious disease like tuberculosis How to Recognize Malnutrition.

Children suffering from malnutri-

a year, they may gain only

Why Malnutrition Develops.

aps too late to be revived. Ewes to use are problems that must be filling out properly through presence for the the individual accord. that refuse to own their lambs may worked out by the individual accordoften be conquered by tying them in ing to his farm and conditions under their pens and compelling them to let which he is farming. As a general the lambs nurse. She may vigorously proposition it will pay to use a rather resist at first, but restrained from inheavy application of manure and ferjuring the lamb, she will in time actilizer on a smaller acreage and grow cept it as her own.

After the lambing period is safely the tillable land and not attempt to over, feed the ewes a good milk-progrow large crops on more acres than ducing ration. Make creeps so that one can handle to advantage. All kinds the lambs can go to troughs in the of commercial plant foods are expenalleyways and eat wheat bran, cracked sive, and unless one is ready to meet corn and a little oilmeal. A few oats the other esentials of crop production will help out and be especially valuable he is sure to find them unprofitable. if the lambs are to be developed for both from the standpoint of the year's breeding purposes. Feed both ewes production of crops and the permanand lambs liberally and judiciously. ent fertility of the soil.

coun's farm, the soil to meet the conditions.

Comparative Cost of Stump Blasting in Sandy and Clay Soils.

To those unfamiliar with blasting, a stump is a stump. The ordinary feet of fuse and twenty-eight caps to dispose of them. It cost him \$38.77. farmer will point to a stump in a field I used as high as eighteen pounds of and ask how much it ought to cost dynamite under one stump, twelve to get that stump out. If you ask him, "Is it standing in a dense clay soil or a loose sandy soil?" he will reply in Just compare the above with under another and from one and a Just compare the above with the surprise, "What difference does that cost of some stump blasting I did for make?

It is because of the general ignorance of the beginner as to this feature of blasting that most of those trying stump blasting for the first time fail to obtain satisfactory results. However, the kind of soil in which

a stump is standing makes all the difevence in the world. A stump in sandy must be loaded differently and loaded much more heavily than a stump in clay soil. I know for I have eighty-one of them for a little more than a third what it cost to blast bosting stumps for nearly forty twenty-eight out of sandy soil. onry and have used tons of dynamite It is a great mistake to put the large en such work.

To sive your readers a wittle inforbreeds of cattle upon poor, scant pasthis subject. I will cite two ture as it is to put the small, diminusing jobs that I did in tive breeds upon a rich, luxuriant pas-

(frost, drought, etc.). Quite a number of diseases, as wheat scab, glume spot, certain bacterial troubles, as well as flax wilt and many diseases affecting vegetables, produce light seed Gensoil-improving crops on the balance of erally it is the imperfectly developed seed that bears the germ of disease, and it is these which the use of the

Those

stimulated production has left many

agriculture is possible only through

is a light sandy type. He had twenty-

fanning mill will remove, and incidentally increasing the bushel weight and making way for a first prize at the seed fair.

Then there are smut diseases-either the smut balls proper or the smutted portions of ears so common in seed barley and oats. All of these may be removed by the fanning mill, and,

followed by seed treatment with foreight pine stumps in one of his fields, which he wanted to get rid of. It required 149 pounds of dynamite, 114 maldehyde, chances of success in controlling smut are increased, besides saving the trouble of "skimming off"

smut balls when treating. The use of heavy seeds is one of the principal factors in producing uniform stands of grain, owing to more always uniform germination and rapid get but. growth, and these are the factors of importance towards protecting crops from rust

Eugene Allen on whose farm a clay soil predominates. He had eighty-one No mention has yet been made of the removal of many seeds of noxious stumps to be taken out. I did it with weeds by this means, and in separatfifty-two pounds of dynamite, 150 feet ing the grains of ergot the fanning mill, with its rocking and manifold of fuse and eighty-one caps. The work cost him \$14.11. The stumps were sieves performs most valuable service. elm, oak, maple, ash and basswood. Farms are well advised to look These stumps were about the same their fanning mill as a most valuable average size as the stumps on the implement for these and many other Brown farm, yet I was able to get out reasons.

> Sprinkle a little salt into the frying splash all over the stove.

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ture. The breed should be sclectel

I know farmers who have bauled thy well-developed man or woman. high-priced wire and lumber for eight

What To Do.

In order to recognize malnutrition of it in just such places. After his before serious consequences have folfences were built the owner was always working around them, for this is



panels are of stronger material and Pure-bred poultry have a practical are set much wider apart, the intention value aside from their pleasing ap being to catch and hold any floating earance and the chances of selling hatching eggs and breeding stock. The broilers from such a flock are more uniform in weight and appearance than a mixed crate of birds of several types. The eggs will be more uniform It is in the home that the growing and bring a better price on the best city markets. It will be easier to im-

prove the egg production by the use of males from bred-to-lay hens.

Money can be saved in feeding poultry through the owning of the useful feed grinders which are now sold. This year the corn crop is generally good and corn meal for a mash can be pro-duced at home. A bone-grinder in the by feeding out one carload of beef the imagination but above all some-duced at home. A bone-grinder in the cattle make a failure when they thing to warm the heart and impress course of a year will turn out quite a few pounds of poultry feed from the

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A number of children, because of capricious appetite, refuse to partake of food best suited to their growth and development. This may be over come, not by insisting on the child partaking of a dish after he has once refused it, but by preparing it in a different way for another meal and placing it without remark on his plate It must be remembered that a growing child needs milk, plenty of water, bread and butter at every meal, other egetables besides potatoes, particu larly green vegetables and fruits, both cooked and fresh, in season.

Finally a child should be taught always to wash his hands before sitting at the table or touching food.

Children should not be allowed to drink tea or coffee.

It is most important to establish regular hours of feeding and not to ermit the children to spoil their appe tites by feeding on candy bet

bones that might be wasted, alaughtering time there is often large stock of bones which can be us to stimulate egg production.

The ram should not be confined with he pregnant ewes during the winter.

The most successful feeders of beet attle are the ones who have made he most correct interpretation of the laws of nature.



pan before using and the fat will not

Many men who would make a profit choice be not only what will stimulate

mind receives its most lasting impressions. Surround a child with good reading and you surround him with friends. An attractive title and good

roots and timber.

i ... be into the business too heavily. the great truths of life.

illustrations are no guaranty that the book contains good reading. If you have not time to read books yourself, consult your librarian and let your

or ten miles from town and used a

always where the stock is likely to

Similar fences make good guards for small culverts. In this case the

He who builds no castles in the air

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Builds no castles anywhere!