re and

Farm Crop Luncheon for School Children Your PRO

arm readers the advice of an acknowledge on all subjects pertaining to soils and crops Address all questions to Professor Henry Q. Bell. le Wilson Publishing Company, Limited, Toronwill appear in this column in the order are received. When writing kindly men-As space is limited it is advisable where reply is necessary that a stamped and addressed envelope be enclosed with the question, when she answer will be mailed direct



has been cropped until it is difficult when good hay was worth \$10 a ton, and compared prices, and finally se- ment of the noon play hour, which to seed to sweet clover this spring. now worth approximately \$20 a ton, \$6.40. To this she added about thirty I thought some of sowing a nurse crop hence the silage should be worth from large-sized aluminum cups, a threeof cals, perhaps four or five pecks per \$5.50 to \$6 a ton.

the description you give, the sandy acid, and 2 to 4 per cent. phosphoric dishes and food supplies were stored.

Then there is the Cracker Relay what they were eating, from which imprompting the menu included a wide variety of they easily drifted into imprompting the control of the food values of what they were eating, from which they were eating the following rate: For a control of th The menu included a wide variety of dishes, a different one being served they easily drifted into impromptu talks on health which correlated with a cracker. This can be applied at any time. The menu included a wide variety of dishes, a different one being served they easily drifted into impromptu talks on health which correlated with the physiology lesson. How a table applied at any time. They stand in rows, each one supplied they easily drifted into impromptu talks on health which correlated with the physiology lesson. How a table the probably pay to use a fertilizer as should be set, how a meal should be set as the should not give they can be should not give they can be should not give they stand in rows, each one supplied at mean of the time. We sleep the should not give they can be should not give ply 200 to 300 lbs. per acre of a fertil- able food for the growing crop. her analyzing 2 per cent. ammonia, A. S.:-Kindly give me information Practically-all the supplies were don- but for their health. cent, potash. The best method to ap- it may be controlled. ply this would be with a grain drill Answer: The potato wart disease is though many preferred to contribute the health of the youngsters—nothing if you do not remember each other at and back. with fertilizer dropping compartment. supposed to have come from Ireland money. At the same time you can sow the oats and England, being brought into the

quickly but I doubt if it will be tall by the Pennsylvania Department of to spare the things needed now and girl who was a chronic victim of aftercouch to cut for hay at the time the Agriculture and the U. S. Department. then. Meat appeared in the bill of noon headaches got rid of them almost quickly and would make good pasture not fit for food. later in the summer and possibly be There is not very much known about donations, so that they would be pro- closed." ready for cutting before Fall.

condition. Please advise me regard- report it to the Plant Pathology Dept. serve throughout the following week- times a week or two ahead, and kept ing its value per ton and the number of the Ontario Agricultural College two as cooks and the other two as a keen eye on everything the cooks

Answer: I figure your silo will hold tawa. about 85 tons, which will mean apof the silo, also upon the quality of active measures taken if it is discoverthe material. Director Jackson, of ed in Canada.

are poor producers.

are too small and too short, we have

an aggravating fault. Then, again,

and whose tissues we of superior

hay when the oats were just ma- nitrogen, medium in phosphoric acid back of the schoolroom, used chiefly while the other girls, anticipating Yours sincerely, etc." and a medium supply of potash, some- in domestic science work, proved just their turn as cooks, made note of the Answer: One of the first things you thing carrying from 3 to 4 per cent. the place in which to keep the stove recipe. Frequently the teacher startshould do is to lime your soil. From ammonia, 6 to 8 per cent. phosphoric and the cupboard, and here the few ed a discussion of the food values of If the ground is not plowed I would high as 4 to 5 per cent. ammonia, 8 bean, cream of tomato, rice, potato, served, and how the vegetables in the plowed as early as possible per cent, phosphoric acid and 4 to 5 milk and cabbarre source. have it plowed as early as possible per cent. phosphoric acid, and 4 to 5 milk and cabbage soups were served. soup were grown, were also luncheon in the spring, scattering the lime on per cent. potash, at the rate of about Creamed carrots, stewed tomatoes and topics which even interested the boys. the ground after the plowing. About 1,000 lbs. to the acre. This fertilizer cocoa were also popular. Occasionally, With all this pleasant talk going the two weeks later, when you are seed- should be worked well into the soil so just for a change, tapioca pudding, rounds, the pupils ate much more ing your oats and clover mixture, ap- that it will dissolve and supply avail- Irish stew, or Hamburger steak with

8 per cent. phosphoric acid, and 2 per on the potato wart disease, and how ated by the children, even to-salt, pep-

onts would be ready to cut for the Wart disease is a parasitic fungus fare about once in two weeks, and completely. This, I assume, is your idea which develops large corky masses on was often furnished by some pupil "I found that the boys and girls since there would be no advantage in the surface of the potato, looking at whose father was slaughtering. The were brighter and studied better in cutting green clover and ripe oats. first a little like a scab. Of course the pupils brought fesh milk in great the afternoon after a hot luncheon," However, after the cats are cut, the warty substances render the potato quantities, so at was used lavishly in explained the teacher. "They ate more sweet clover will come along very absolutely unsaleable and frequently most of the soup and vegetable dish- lunch, too, which kept them from get-

M. H.:—I have sold my farm and affected sections in Pennsylvania were more than his share. wish to sell my silage. Silo is 12x23 immediately quarantined and studies Practically all the work of cooking both health and school work benefit The silage was made from are being carried on as to the effect- and serving was done by the girls, who by the innovation. As for the teacher home-grown seed corn that yielded at iveness of steam sterilizing the soil. received due credit for it as part of -well, it did make a little extra work the rate of about 100 baskets of ears If you should discover anything that their domestic science work. Every for her. Although she did none of the brings me home from a party? to the acre and was put up in good looks like wart disease, immediately week four girls were appointed to cooking, she planned the meals, someof tons to the foot the silo would hold. and to the Dominion Pathologist, Ot- "housekeepers"; that is, to act as wait- did. But the returns were worth the

Keeping Down Coal Bills.

erage householder in heating his

a very delicate house, say experts who have recently

had a cow that the horses chased for farmhouse efficiently. That too much

flopping from one side to the other be- ies show, to lack of knowledge of how

for might be wrong without directly in the particular heater.

selecting a milch cow. If her teats much more healthful.

thick, fleshy nature. Such teats are filled with earth and closed

hard to grasp, and the cow is very An old well should never

thresome to milk. Large udders are used as a cesspool, nor

whose texture is not nearly so heavy all surrounding water supplies.

Too much coal is burned by the av-

and good management.

catch of clover. I would like silage was worth \$3 a ton. Hay is cured a two-burner kerosene stove for was usually spent out-of-doors.

spaghetti and tomatoes was served. per, sugar, soda, flour and cocoa,

Each Pupil Contributed.

It is not likely that this disease will The usual routine of preparing lun- the long run she would profit, because proximately 23-7 tons to the foot. gain any considerable headway in Am- cheon began when the two cooks slip- poorly selected food, "maketh a dull The value of the silage will depend erica, but in view of the tremendous ped from the schoolroom along about pupil"; whereas a properly nourished entirely on the stage at which it was damage it has done in Europe, very 11 or 11.30 a.m. to put the soup or child is more easily taught and conput in and the care given to the filling careful watch will have to be kept and vegetables on the stove to cook. Often trolled.

The teacher who introduced hot they took their books with them, luncheons into her two-room country studying while the kettle simmered. school last year has proved to her own At twelve o'clock school was dismisssatisfaction and that of her patrons ed, and the pupils were sent downthat it is possible to serve one hot dish stairs to wash their faces and hands daily in the schoolroom without over- at the basement sink. During their burdening the teacher with responsi- absence, the "housekeepers" spread bility or unduly piling up the expense. each desk-top with a clean paper This young woman claims that the towel and distributed spoons, while secret of success lies in co-operation the cooks filled the alumnium cups with soup or stew; so that when the In this case, the good management pupils returned with the cold lunches began with the purchase of the equip! they had brought from home, they ment which an acquiescent school found a steaming hot dish awaiting board left entirely in the teacher's them. Thus thirty-two children (the hands. Having a genius for economi- average atendance) were fed without I. T .: I have some sandy soil that Geneva, N.Y., said some time ago that cal buying, she examined catalogues any loss of time involving a curtail-

Improvement in Health.

slowly than they ordinarily ate-which was good, not only for their manners,

Of course, the most significant result was the general improvement in spectacular, yet steadily visible to the Christmas, for if she is worth while, watchful eye of the teacher. There more than 5 pecks to the acre, United States in importation in 1911. The plan of donating vegetables and was a gradual decline in sickness in The disease was discovered near High- soup ingredients worked no hardship, the school, and some of the pupils The sweet clover will come along land, Pa., and was given careful study for every farm household found it easy found themselves gaining weight. One

es. The teacher kept account of all ting hungry and restless before school

effective means of control as yet. The perly rotated and no pupil would bring No wonder the parents and board members were satisfied when they saw resses, wash the dishes and clean up. added responsibility. She knew that in



organ, and very sensitive to abuse. I completed a study of how to heat the THE SUNDAY SCHOOL LESSON JANUARY 2ND.

a short distance, and her udder in coal is burned is due primarily, studcame bruised, and it was ten days be- to regulate the heater. It is not enough The Child and the Kingdom, St. Matt. than eternal loss. The udder is composed of four sep- coal, and then expect it to heat the

arate parts. The milk does not filter house properly. The first season after 9: 33-50 and Luke 9: 46-50. through or in any way go from one installing a heater should be devoted 1-4. Who Is the Greatest? quarter to the other. Hence, one quar- to a study of fuels and their burning Jewish scholars were greatly interested in such questions and, no doubt Some of the things in general which the disciples had heard them debated. I am inclined to place more value the engineers who have been in charge Their own ambitions were stirred, too, the length and width of an udder of this work advise the furnace opthan I am on the depth. To get lengther erator to look after if he wishes to their Master would come to His own, an udder must commence high behind, heat his home comfortably with a and in which they would be His min-

as a tilted udder—too much extending is found. Do not use the poker too The Revised Version renders correct-perish. beyond the thighs behind. This is often unless the coal is of the kind ly, "Except ye turn, and become as litvery objectionable, as it comes in con- that fuses, forms a crust, and inter- the children." John, who was one of tact with the excretions of the cow. feres with the draft. Do not leave the questioners, remembered this The same is true when the udder ashes in the ash pit; clean them out the members of his church in Enhanced hangs too low, for it must necessarily each time after shaking. Insulate the members of his church in Ephesus as "little children." See I John 2: 1, times out of ten cows with such udders

times out of ten cows with such udders heat. Maintain, if possible, a humi- 5-6. Whose Shall Receive, dity between forty and fifty per cent.; Shall Offend. Jesus is their King not There are many faults to look for in moist air heats more quickly and is only of the children, young in years, Him, and every offence against them often misleading. A large, fleshy ud- filled with sewage, manure or garwas against Him. They were pecu- might be given as follows: der, firm in texture, many times will bage. When so used these substances liarly His own. There was no greater one that is half its size get into the ground water and pollute crime than such offence, and none deserving greater punishment.

Steep slopes, poor soil, rocky land, has "occasions of stumbling," and that A producing udder, large or small, unusual corners, gullied and wooded gives the true meaning. Our life is should be light and spongy, the skin tract—all these afford opportunity for so constituted and so circumstanced soft and phable. After milking, the growing timber profitably. Certain that difficulties, obstacvles, stumblingwalls of the udder should hang in kinds of trees, like the locust, build up blocks, are encountered. But the law

doubt that Jesus never intedned these Breeding geese must not become too words to be taken literally. He was fat, or the fertility of the eggs will be expressive way, that the things which last spring that their eggs did not may be. The habit, the indulgence, the corn crop was unusually good, and business, the pleasure, the association possibly many of the breeding geese of pursuit which puts temptation to were fed too much corn and became

to install a heater, fill the bins with 18: 1-14. Golden Text, Matt. 18: 4. | 10-14. Their Angels. The belief was already present in many minds found their way into the very presence ten so easily that it is not difficult to of God. It might be supposed that a keep them at a good weight without But still the weary sweep slept on, man's sin would cause the withdrawal much corn. the angel guardians of the pure-mind- through the slush and snow on days

the heavenly Father. To save that which was lost. The thighs curving out to form a spacious it straight up and down with a lined quite unsuspected. It was hard to bearch, the widest part at the top, within round flue. Study the dampers and burnility, as they saw in a which hangs the udder, free and easy.
To be well proportioned, each quarter should be uniformly developed, the fire. Experiment with different those who entered into the kingdom, the should be uniformly developed, the fire intelligently in regulating the fire. Experiment with different those who entered into the kingdom, and that the one who should humble the safety. It is not this tip best to leave the mating for otherwise we may have what is known best mixture for your special heater himself would be counted greatest. Will that one of these little ones should up it is best to leave the mating for

Good Green Manures.

the "Market Growers' Journal," sums prove good layers and breeders until up the fertility problem of the market they are ten years old, and sometimes grower in the following: "While we have pinned our faith to goese, but if new ganders are obtained

the use of stable manure in producing it is wise to buy them from the same believe in and seek to follow Him. He good crops, green manurial crops are flock, so they will be acquainted and was always supremely interested in gradually taking the place of stable not quarrelsome. They should be Abandoned or old wells should be the people, in all sorts of people, but manures. It is fortunate that we are mated in the late fall and early winup. especially in the ignorant, the lowly, able to maintain in this manner the ter, so as to become accustomed to be and the suffering. Every kindness supply of soil organic matter. Let us their mates several months before the be done to them was, as it were, done to remember some essentials in the suc- breeding season. cessful use of green manures. They Geese need plenty of water, and it

> careful to select the night crop for the When watered in large shallow pans 7-9. It Must Needs Be That Of- soil under cultivation, which also fits the geese will soon splash the water the manure to the fields. fences Come. The Revised Version properly into the system of cropping, around and make it unhealthful for "2. Use a bountiful supply of seed. drinking. "3. Use sufficient commercial fer-

tilizer to insure a heavy growth.



Mrs. Helen Law, 53 Lyall Ave., Toronto.

all means, for his Christmas gift. You You can say, "Thank you for coming the Roman games of running and can write him a nice little note then this way with me," or, "Good-night, wrestling. He also makes frequent when you see him, tell him again how and thank you so much." much you appreciate it. One mark of a true lady is the promptness with Daisy Bell: Good for you! We might able malady. But at heart he loved which she acknowledges gifts and start a society for the abolishing of the strenuous life. And in that we are favors. There is no justification in kissing games. You and your little like him. The strong man draws out delay, not even illness, if you can get group of friends can be the charter our admiration every time. someone to do it for you. Simply say members. I wonder who else wants And as Paul loved the athletes This arrangement worked a real in your note, "I wish to thank you so to come in? Just to prove to you that whose sinewy bodies he had seen so gallon aluminum kettle, an asbestos improvement in the children's man- much for your Christmas gift. It was I am heart and soul in this movement, frequently at the Greek and Roman acre and seding with sweet clover. B. C.:—What sort of fertilizer is lid, a dishpan, a strainer, half a dozen ners. They were required to keep their just what I had been wishing for and I am going to tell you about some games, he often compared the Christian of the compared that all And, as I have not the barnyard marequired for a gravelly soil to prepare laws a seats while they ate, so fewer crumbs it is very charming. I hope I see you games and contests that can take their tian athlete to that. He said that all nure to spare, how much fertilizer it for flower and vegetable gardens? large spoon. The total expense for were dropped; mereover, during the soon to tell you in person just how place for the winter parties to which men who are followers of Christ, the what analysis should I use to Answer? For flowers beds on a stove and kitchenware was a little less meal, the girls who had cooked it much I do appreciate it. Thanking we are all looking forward. get a seeding? Could the clover be gravelly soil I would advise the use than \$15. Each pupil was asked to were asked if it was a new dish to tell you again for your kindness in remade to grow tall enough to cut for of fertilizer running fairly high in furnish a spoon. A small storeroom the others how they had prepared it, membering me so delightfully, I am, boys. The contestants stand on all in the faith, play the man, be strong."

> Rachel: You are puzzled to know signated line first wins. plies two things, first, that you did after eating his cracker, the next one round our children. We sleep not only not consider her one of the special begins. The row which finishes first in our pews in church, but we allow friends whom you wished to remember wins. at Christmas time, or second, that you were hoping by not sending her a gift, ant is given two newspapers, one for As for being strong, that is part of that this season both of you would each foot. He places one forward and our business. Wouldn't it be splendid drop the custom of exchanging pres- steps on it with his right foot. Then if the strong people, the virile and ents. Why not stick to your original he picks up the other for his left foot forward-looking people of the comidea? It may take a bit of courage and so on, being allowed to step only munity commonly gathered at the but you can be just as warm friends on newspaper, racing to a given mark church? If you came into a strange she will not let the fact that you did being given a feather which he blows folks are listed. Would it not be magnot give her a gift make any differ- at a signal. The game is to see who nificent if our children unconsciously ence in your friendship. Most sen- can keep his feather in the air the came to see that the fine people, the sible people are gradually cutting down the list of friends they remember and devoting their money and energies to worthy charitable Christmas enterprises, so why do you not join them? If, however, you want to let this friend know you appreciate gift next summer, long enough after peats aloud what was originally said less, the strong people ought to be her kindness, make her some simple Christmas so the gift will not look and embarrass you in presenting it but if you work fast the changes creep that the strongest people have been and her in receiving it.

Jane: Should I thank the boy who superfluous laughing and talking? by religious folk. There are the Cru-

Helena: Thank this boy friend, by | Thank your escort by all means.

In a Newspaper Race, each contest- clogged. "Keep awake!"

Gossip? The players form in a cir- hear a reader saying, "You make me cle. The first player whispers a sen- laugh. Our local church has never been tence or little story into the ear of burdened with strong people. Its and how it became changed in the tell- those in the church. And before we in-amazing ones.

Party" at which taxes were levied for tory. See if they were not prompted They are lots of fun.

flourish on rations suitable for the cow. Geese like clover chaff or hay. I find that they like to pick over corn fodder, and find much in it that they consider good. Silage has been tried with good results by some feeders. simply advising, in this figurative and injured. Some geese owners found Fell fast asleep, on Christmas Eve cause offence in our lives should be hatch as well as usual. Last year the And dreamed he was invited

of others, should be given up. It may I think oats is more satisfactory for The midnight stage went rattling by is, he had run the race, and won. hurt to part from it, but better that geese than corn. If they seem thin, corn can be added to the ration in The carol singers went their rounds moderate quantities. However, most See the parallel passages in Mark was already present in many minds geese will keep in good breeding con- Awoke the bells, and set the silver kept watch over the innocent. They dition on oats and fodder. They fat-

of his angel from God's presence, but My geese seem to enjoy ranging Winked out and morning poked her ed child do always behold the face of when the farm hens remain close to shelter. But at night the flock needs exquisite parable that follows is to il- a dry roosting place. A shed contain- That dear old saint, who loves extend well up on the belly. Width minium amount of coal are: Be sure isters. Which of them would be first lustrate this statement. God does not ing plenty of straw will give all the depends much upon the conformation the chimney is large enough for the or greatest? Compare Luke 22: 24-30. really care more for the lost one than protection needed, and will save the of the hind quarters—the inside of the size of the house and, if possible, have size of the house and size of t

> several years. These birds seem to develop much more affection for each He lifted him into his sleigh other than is the case with other fowls. Ganders are usually kept until three Professor R. L. Watts, writing in or four years old, but the geese will fonger. It does not pay to inbreed

is best to supply it in a fountain in "1. Soil adaptation. We should be which they can only reach their bills.



An Old, Old Story. Oh, once, this happened years ago In brave old London Town, A little worn-out lad, who swept The gentry's chimneys down,

Beside a chimney tall; To the children's Christmas Ball!

Poor little sweep-so sound asleep! The snow came drifting down, And through the silent town

And, hark! Their joyous singing Christmas chimes all ringing!

But, sh-h-, just as the stars

Through night's dark window bars, In his magic sleigh,

With the firest toys, And then, without a bit of fuss Or making any noise,

And whisked off toward the Pole, And from that day to this, sweethearts.

Though don't you tell a soul, He's been adopted by St. Nick, And goes with him each year, To help him fill the stockings and

To sweep the chimneys clear!

And, though that happened years ago, He never will grow old-No one does who believes in Kriss, Or so I have been told!

season, should not be allowed to in- old one will last a good deal longer. terfere with the regular hauling of That is the road to fortune.

All machinery shows and declared that he was losing morney the winter, and besides this there on them. He joined a testing associa-The Quebec government plans to should be a thorough inspection given tion, and in the first year found he had For your liver's sake drink plenty of water—six glasses a day are not yestables. Pills may have a quicker effect, but their effect is not so beneficial or incume.

Six hydroplanes patrolling forest and performed now, so that there are six has already appeared now, so that there are six hudroplanes patrolling forest will be no calcy when the machine is again needed. All bearing sand water the seme time it is encouraging private forest protection. There seems no the Mount (5: 27-30).

Winter.

Take advantage of every opportunity to grow a manurial erop."

The machine is portunity to grow a manurial erop."

The machine is again needed. All bearing sand water forest protection, again needed. All bearing sand water for timber development of the machine is portunity to grow a manurial erop."

The machine is protection, again needed. All bearing sand water forest protection. The most upprofitable cost, not most upprofitable cost, not most upprofitable ower his records he sold thirther most upprofitable ower, and at the earn of the next year he had made about the most of the next year he had made about the most of the will be recorded now, so that there are success, while at the earn time it is portunity to grow a manurial erop."

The advantage of every opportunity to grow a manurial erop."

The most upprofitable ower, and seven the most of the most upprofitable ower, and every members of one's own body the very members of one's own bo "4. Sow in ample time, especially plant two pine or spruce trees for each machine before it is put away. lost nearly \$70 over feed cost, not to

YOU

Watch, stand firm in the faith, play the man, be strong!" I think if St. Paul were alive to-day he would attend football and bascball games. He might not, but I am inclined to think he would, for he constantly refers to the great games of his day. These were reference to the military. Tradition says he was afflicted with some incur-

world's giant, ought to have some fours and move backward as quickly The word "watch" literally means, to as possible. The one reaching a de- keep awake. No athlete who is billious or stupid can hope to win. He the entire church machinery to become

town, you would ask for the church A Feather Blow is fun, each guest directory, as that is where the strong broad people, the big men of the com Of course you know the old game of munity were all church workers? the second, who repeats it and so on, mainstays are nice, gentle old folks until the story comes back to the who never do anything very bad, nor first who told it. This one then re- very good." Very likely. Nevertheing. No one changes it on purpose leave the subject, let us put it down church folk.

Have you ever had a "Silence Take the great movements of hissades. Thousands of the brave, the chivalrous of Europe, started for the Holy Sepulchre at Jerusalem, to rescue it out of the hands of the Moslems. They were the religious people of their day. Here is Christina Forsyth, called the "loneliest woman in the world." For thirty years she toiled among a wild, black tribe of eastern Africa, never seeing a white face, save when some missionary visited her. She remained at her post until seventy-two. Would you call her one of the strong? And here is Paul himself. He tells others to be strong, and he is the finest of examples of strength. For thirty years he has no roof he calls his own. He is ever on the wing, sometimes at great bodily danger. When it is all over he can say, "I have finished my course." That

But Paul is always particular to state that he does not do this in his own strength. No man does, and no man can. It has to be done on borrowed strength. Most great enterprises are carried forward on borrowed strength. The interurban car goes by, carrying a heavy human cargo. But the interurban borrows all its strength and speed from the electric wire overhead. A slender pole carries the current without which the car all would be dead. Once I stood beside vast engines that pumped the water for a great city. But without the have been but so much scrap fron. And He trimmed the broom of that poor so, our strength is borrowed. It comes of God. It comes through faith in a good and powerful God. "They that wait upon the Lord shall renew their strength."

> How do you mix concrete? The back-breaking way? A concrete mixer would soon pay on farms that use much concrete. Mixers can be bough in small and large sizes, to be run by a gas-engine or small motor hooked to your farm electric plant.

Sometimes curry-combs are condemned and thrown away, when all they need is a good cleaning. Take a big nail, or other pointed piece of from and dig the accumulated hair filth out of the teeth and the comb will Snowfalls, particularly early in the seem to you like a new one. Thus, the

a defryman was milking sixty cows

ONTARIO ARCHIVES TORONTO

requires. al instruwhich they terpivots. oints for the purstillized is electric a matter

quality

m Siam, est few how to and in int that ese arti-

amond. s. The om the e thesa r black rate of r, are gravels

cidentsy are liscrepraise ut we y say te and true. ble to they

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