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

ESSENTIALS FOR WINTER Eggs | ed in the winter. Galvanized pails The problem of obtaining winter placed on wooden stands make a clean eggs centres in the making of condi- source of supply as they are not tions as near like spring as possible scratched full of litter. Empty them in the winter laying-house. The floor every night so they will not freeze of the poultry house is the winter over and spring a leak. Change the range of the hen and there she must water frequently enough to keep the find conditions conducive to health, pails free from ice. Some poultryand food for egg production, or she men give warm water to the birds in cannot lay. the winter while others use water as

First, early-hatched pullets are it comes from the well. Both seem necessary for the best results. They to have success if the water is clean are the best machine for turning out and changed often enough so that winter eggs. Then the ration must the birds always have a fresh supply contain animal food. This can be sup- before them. plied by using beef scrap in the dry The best grain ration we have used mash or by feeding plenty of sour in the winter consists of equal parts milk. Green food is a tonic for the of corn and wheat. When this is fed birds and needed to keep them in the in a deep litter the birds will swarm right condition for laying. It can be after it and it is good for egg prosupplied in the form of mangels, cut duction to keep them scratching for clover, cabbages or sprouted oats, a couple of hours every morning and At the present price of oats, the to send them to bed each night with mangels are the most economical as full crops. Oats are a good egg feed, a source of green feed. If cabbages but the birds do not like oats as well and mangels are used the cabbages as wheat. They will eat more oats

Charcoal, oyster shells and grit galvanized pails. must be supplied in hoppers to help The amount of feed to give poultry tions which are needed. The char- amount they will eat. There is noth- ning their confidence. coal is good for the digestive system ing gained by half-feeding the flock, One of the peculiarities of this age their only object is to win. when the birds are eating heavily to as that places them in a condition of activity and mischief is that the obtain the ingredients necessary to where they are unable to pay for children cannot think of enough things make eggs. The oyster shells fur- what they do eat. If they can not to do. We constantly hear them saynish lime to make strong egg shells. be made profitable on full rations ing, as they stand kicking stones, The grit is needed by the hen to grind they cannot be made to pay at all. pinching one companion while they her food. There are many farm flocks The dry mash in a hopper insures a make faces at another: "Aw, what'll

the best.

The scratching for grain helps to Then the birds are sure of enough to dren will be disposed to listen next terest they will keep bird lists and keep them warm on cold winter days eat of a balanced ration and this time something is proposed. and tones up their physical being in means that they will not overeat of The most noticeable thing about the the same manner that they are stimu- any one food and they will keep in child of this age is his growing body, lated when scratching on the grassy healthful condition. range during the spring and sum- If possible, separate the pullets not wish his child to develop a strong mer. Straw makes a good litter and from the hens in the laying-house, and well-proportioned form and if it should be dry and deep. A sunny It is essential for the best results as left entirely to himself, he undoubtpoultry house gives the litter a chance the ration for pullets that are forced edly would, as the savages do. But or dog becomes a playmate. They to keep dry. A dark and damp poul- for eggs is too fattening for old hens modern life interferes with his altry house means that the litter will that are to take a rest so they will ways following his chosen pursuits. grow, and they probably get more inbe damp and the birds will not en- be in the right condition to lay hatch- He spends several hours a day bend-

the winter and must be controlled if lets from the hens. Vigorous pullets a child with a shambling, listless winter eggs are expected. Colds can stand heavy feeding and pay for walk and with stooping shoulders and must be prevented by keeping the it and they should be given every hollow chest. Such children should birds vigorous and isolating any in- chance to turn out winter eggs so be given plays that tend to correct to the community by so doing, as lieve in letting her children run about our disease. They let their children run about our disease. dividuals that show signs of cold by that their winter feed bill will not these faults. the eyes becoming swollen. be a loss to be charged against the The water supply should be watch- spring and summer profits.

cation through it.

20

Bushels.

4-8-4

potatoce and I'll try them out.

All rows were 440 ft. long-notice the results-

UNFERTILIZED "

When Our "Big Injun" Plays.

Player Glad.

BY ORA A. CLEMENT.

Professor Joseph Lee, discussing Let no one imagine that super-

the stages of childhood, characterizes vised play means calling a group of

dominant traits resembles an Indian and it will be good exercise for our

and energy-if they are not it should on the playground have made the

be regarded as a danger signal. If mistake of trying to inaugurate too

their play at this age is supervised great a change or of suggesting plays and directed, they receive a great which did not appeal to the children.

It is possible to teach children she has proven her good fellowship

many of the fundamental facts of by playing their games with them

life and to train them in many cul- under their own leadership? Chil-

Bushels

6-13

Potato Profits

Last Spring a farmer came to us telling us he was wondering whether

fortilizer would help his potatoes. We said it would. He thought

it over and finally said: "You tell me what fertilizers are good for

He bought Gunns Shur-Gain 4-8-4 and 6-13 Fertilizers-used them

side by side but planted a few rows without fertilizer for a check.

Two rows fertilized with 4-8-4 yielded 20 bushels marketable potatoes

In other words the judicious use of fertilizer doubled the yield.

It will pay YOU to use

Write for information and prices.

Agents wanted in unallotted territory

GUNNS LIMITED, West Toront

Fertilizers

Fertilizer

tural habits through the medium of dren have to be won tactfully. If

leadership of a new teacher before

10

Bushels

CANADA'S CHAMPION EGG-PRODUCER

"Scotia's Red Rose," the single comb Rhode Island Red owned by C. B. can be fed first as the mangels keep if they are boiled or soaked over night McMullen, Truro, N.S., which won the championship of the Dominion at and placed in the poultry house in the Annual Exhibition of the Colches ter Pet Stock Association. This hen

laid 227 eggs in twelve months. out in producing these spring conditions which are recorded. The special of the winter is only limited by the dren in their play without first wintheir age. They do not yet see the is unnecessary. Succulent feed as and lambs individual attention. When

that suffer during the winter for a plentiful supply of feed containing we do now?" It is in response to the elements of egg production. This this query that the looking-on grown A clean dry litter is important, is supplemented each day with the up may very tactfully and with proper and classifications of stones, kinds of There the farmer throws the scratch grain ration fed in the litter and any humility, make suggestions. If the grain to make the birds exercise, table scraps which may be available, suggestions are well taken, the chil-

and the parent does not live who does joy working for grain in such a mix- ing eggs in the spring. In some large ing over his desk at school, he does laying-houses a partition of poultry chores at home and perhaps lifts too Lice and mites can thrive even in wire might be used to divide the pul- heavy loads-it is not unusual to see

Games That Develop the Muscle.

ber of plays which meet the needs of Boys will amuse themselves almost robust. They sleep in unheated rooms the time these children are spreading Ethel. the growing body. Running games, endlessly with a hammer, saw, nails with windows open wide, winter and cold germs, giving their cold to whosuch as races, dare-base, prisoner's and plenty of old boxes. In rural summer. They eat only plain, nourbase, pull-away and last-couple-out schools where both boys and equip- ishing foods—good bread and butter Mrs. Brown does not believe that vase with the rose; and her note says Supervised Play Must Still Be Genuine Play and Make the have been played for ages and con- ment are scarce, the three or four and milk, fruits and vegetables, well- is right. She talks against the run- that the gift is to be one rosebud a tinue popular. They all develop limbs large boys may be encouraged to cooked meat of the non-greasy varand chest and also tend to straighten make shelves, book cases, sand tables iety—and thus never have indigestion. till there are many who, as I said —a lovely thing to look forward to

prominent features are all the ball be taught fascinating hand work. house in winter, they are in rooms that your children stay in their own "I guess-it is," Ethel answered games, pitching quoits or horseshoes, Basket weaving, stenciling, rug which are aired frequently and which yard when they have a cold; see if slowly. the age between six and thirteen as youngsters from their mud pies by feathers (a nail driven into the quill things a girl can do without taxing "hug the stove" when they come to tinuous colds by living the way the how Hail Insurance Works. parachutes made by tying the four hook. Such work should be super- ily doesn't "catch its death of cold": do not be offended if someone who is Hail insurance is practically only corners of a piece of muslin to a vised to some extent so that measure- they shiver in a temperature which trying to keep the cold habit at arm's a term in Eastern Canada, but in the brave to whom all the world is a bodies." The reply the little bakers would make to such an appeal is eas. weight, and many variations of these. ments and work shall be accurate and in summer they would have called length from her family sends home weight, and many variations of these. ments and work shall be accurate and in summer they would have called length from her family sends home weight, and many variations of vivid bunting ground and who recognizes would make to such an appeal is easThrowing games need supervision in careful. Otherwise the attempt ends "very warm"—and go home and bake one of your children who is suffering importance. Measures known as group-playing on account of the dan- in failure and the child is discour- in rooms heated to eighty degrees or from a cold. You wouldn't speak ill Municipal Hail Insurance Acts are in ger from missiles. There are many aged.

Jacob, are especially good for group about that form of make-believe. playing if the children will play them. Folk dancing and even wrestling There comes a time during the Big- may be introduced if it can be regu-Injun age when they are taboo as larly supervised. "baby games," and when that time their play. The overworked teacher they want to do nothing but stand on comes they may as well not be menor mother need not feel that this the shady side of the school house and tioned again. One might as well ask begin to show a disposition to form

No one need think of leading chiland there are many games for both Girls' Clubs or some similar organivaluable training to the faculties. Variations of I-spy cultivate alertness of the eye. Loto, games in which letters are dealt out and each player watches for a group which spell a word, blackboard games like tit-tat-toe, train both the eve and the mind and furnish endless amusement. he will learn as he will nowhere else, Brown for not letting their children a player must think of an answer tion which prepare for good citizenwhile a finger is pointing in his face, ship in his mature years. develop concentration of mind. There are many more games of this character which children like and which are ones whose hands, tongues and eyes are not yet trained to respond quickly to their will.

Another outstanding characteristic of the Big Injun is his desire-shall I say his determination?-to excel. "My dog can lick yours," "My dress is prettier than yours." "I can run whatever sort. Very simple contests such as an egg hunt or a strife to see who can get the most "hundreds" an ugly figure. and still more enthusiasm is shown over more organized contests. Every competition carried on under established rules must be supervised if it method book, \$25, including express dren have. this age will not observe rules. This prepaid.

importance of rules and fair play-Mania for Collecting.

WHIS PURISH REVENUE OF

account is the child's mania for collecting. If a parent or teacher shows interest and gives a few suggestions, weather charts.

Children love growing things and animals, especially if they feel a sense of possession in them. A jar of minnows caught in the stream will interest them, and of course a cat love to watch seeds germinate and struction and pleasure from a dozen beans planted by their own hands than from a potted plant which they

for the little ones, and even teeters They play out of doors in all sorts before, call her a cold-crank. But do all the year? It isn't money value-Games in which throwing is the and swings outside. Girls also may of weather, and when they are in the you not agree with her? If so, see it's love value in her gifts."

are largely variations of tug-of-war. dren like dramatization, but the child the season. These neighbors and their then, be angry at her if she turns of mutual insurance under which Circle games, as drop-the-handker- of ten or more who has never played deal of invaluable training and edu- And why should children accept the chief, blind-man's-buff, Ruth-and- that way is often diffident and shy

Passing into the "Gang Age." means an added burden. A very giggle, the teacher can best gain their as to join in such games after he means an added burden. A very giggle, the teacher can best gain their as to join in such games after he cates the passage into another stage by no means her friends, in the neighof play. If possible, Boy Scout and borhood, all on account of the way she The senses develop with the muscles Girl Guide organizations, Boys' and zation should be formed to meet the new need. If the group is too small unmistakable evidences of bad, confor these, some other little club tagious colds. True, by so doing, she should be formed, even if it has only once side-stepped the whooping-cough, three members. It is highly im- and again kept her children from portant that at this age the child's having scarlet fever. The mothers of desire to belong to a society of his the children sent home knew that, the lessons of loyalty and self-abnega- remain to play.

for children and which will be found

family circle, where a "bunch" of and girls suffering from adenoids and brothers and sisters can enjoy home enlarged tonsils, which she feels sure play-times together, thus cultivating had their beginnings in constant colds

is not an indication of lax morals DOMINION TYPEWRITER CO. | worked out the problem of how to or of faulty training but only one of 68 Victoria St. . . Toronto keep her family free from colds.

The best winter quarters for sheep is a shed in a dry location partly open to the south, so that it affords ample air and the flock should have free range of the yard continually-an old motto is "Never close a door upon a sheep."

They should be fed winter rations after the ground freezes, as grass Home Outfits. then has but little nourishing power. Plenty of green feed either in the form of rape, clean turning tops or roots, is relished at this season and only such hay as will be eaten up clean should be given. The hay is best fed in racks. Some shepherds prefer a rack into which the sheep can get ats head, others, including the writer, prefer one with slats with full feeding of four pounds placed just far enough apart to enable turnips per head per day. the sheep to enter its nose and pull While sheep will not perhaps drink variably tear the wool along their it at all times. neck and spoil their appearance, as As the lambing season approaches, well as the neck wool.

should be fed daily at the rate of or yard with the flock. from 2 to 4 pounds per head per day. As the winter passes a grain mix-

ture of oats 8 parts, bran 2 parts and to keep your son on the farm. oil cake one part should be started, gradually increasing the daily allow- | Astronomical tests have demor wood, leaves, grains, seeds, seed pods, rather large and weak if the turnip high as 5,400 feet, or more than men seem to have the best of luck by aid of telescopes and the moon.

STRAIGHT HAIR MADE NATURAL WAVY.

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the hay out. A little hay is pulled a great deal of water before lambing out under foot in this way, but less if they are getting roots and there is is wasted than where the sheep get snow available, yet it is a better plan And I always give nice handkerchiefs a chance to get their heads in and to see that they have access to clean -you can't deny that." muss the whole lot. When sheep en- water every day. Salt should be ter their heads into a rack they in- placed where access may be had to

all long wool around the udders should Whether or not some grain should be clipped away and a number of in-

Your farm business is being enor

The Welfare of the Home

Prevention or Cure?-By Margaret A. Bartlett.

tively few women who takes a cold ers is in keeping children who have choose beautiful ones, child." seriously. She believes that one can colds away without incurring the "But do you always have so many?" never tell where a cold is going to wrath of their parents. Folks around Ethel cried must handle carefully if at all. Some end, nor into what it is going to turn. her believe colds to be a necessary Aunt Hester's keen old eyes showrural teachers have encouraged boys Even though the cold remain "just a evil, and of no great importance, un- ed her amusement. and have performed a real service one merely because everyone around monia, or measles, or diphtheria or wonder whether people think that well as furnishing the boys an ab- lieve in letting her children run about ous disease. They let their children noses. There, child, I'm ashamed, It sorbing pastime. Even young chil- among people who have bad colds, run at large, go to school, and church, is the thought that makes the gift, dren like tools. The child of ten to thus exposing them to the cold germs. even when they are sick enough with and I do appreciate them."

Some there are who call Mrs. Brown a cold-crank. Although she is a very sweet, gentle woman, one always feels about colds. On several occasions she has sent children who have come to play, home because they bore

It is hard to have these people antagonistic; it is decidedly unpleasant There are many books on the to know they are using uncomplimentmarket which give long lists of plays ary terms in discussing her with other acquaintances, Sometimes Mrs. Brown very interesting by parents or teach- feels almost ready to give up in her ers who wish to prepare themselves fight against the cold habit-almost, to give more careful attention to but never quite. She sees too many pale-faced, washed-out looking chil-In rural homes, blessed is the large dren about her, too many little boys faster than you," are commonplace fair play, unselfishnes, patience and throat and nose; she sees too many children with weak eyesight or impaired hearing as a result of some Without the rich heart, wealth is children's disease which had its beginning in "just a cold"; she sees too in spelling, are entered with spirit, \_\_\_\_\_ many running noses, and hears the outbursts from too many irritated for Xmas delivery, Standard key-children shall acquire the habit by

Mrs. Brown feels that she has

be fed during November, December dividual pens, 4 feet by 6 feet in size and January is a question that must provided, where each ewe may be be decided by the sheep owner him- placed before or immediately after self. If the hay is young-cut, well lambing. This plan prevents the discured and with plenty of clover and owning of lambs by the ewe and enthe sheep are in good condition, grain ables the attendant to give the ewe above mentioned should, however, be a ewe has twins she is very apt to provided. After tops are done turnips lose one of them if she is in the pen

ance up to from one to two pounds strated that migrating birds when children may supplement their nature per head, and the turnips may be traveling by night fly from 1,500 to gradually decreased as there is a 3,000 feet above the earth, while in tendency for the lambs to develop a few instances they have gone as run in to see Aunt Hester on Christ. ration is heavy. However, some sheep mile high. Observations were made

There is an almost unlimited num- thirteen should be taught to use them. Her children are strong, healthy, a cold to be in a warm bed. And all "What did Alicia give you?" asked

from rattlesnake bites!

Clean, Wholesome, and a book that will be read future generations, by the great est living master of English, Joseph Conrad The Book: "The Rescue," \$2.50 At All Booksellers or J. M. DENT & SONS, Ltd., Pubs London, Eng., and S6 Church St., Toronto.

HIGH YIELDS ARE ALWAYS PROFITABLE

。 不可以为此,我们就是这个人,但是是这个人的,但是是是这种人的。

Because items of outlay, such as land-rental, equipment, labor, land preparation, seed and harvesting charges, are about the same whether you get 20 bushels per acre of wheat or 40 bushels; 40 bushels per acre of oats or 85 bushels; 5 tons silage per acre or 12 tons; 80 bushels of potatoes or Ontarlo Agricultural College Bulletin No. 278 (Prof. A. Leitch)

CROP YIELDS AND FARM PROFITS

hose who harvested Push your crop yields above the average and get the big Labor Income. For increased yields in 1921, apply Fertilizers. Write THE SOIL AND CROP Improvement Bureau of the Canadian Fertilizer Association 1111 Temple Building - Toronto

And the later of the later

GIFTS AND—GIFTS

"What," asked Alicia, "are you g ing to give Aunt Hester?" "Oh, I never have to bother about her," Ethel answered. "I always give all my aunts handkerchiefs. I get two dozen and divide them up among the aunts. It's such a relief to have so much off my mind on Christmas." "It must be a great surprise," Alicia commented dryly. Ethel frowned; then her face

"Don't you think," she suggested, "that there's a great deal more Christmas spirit in a gift that you of don't worry over than in a gift that you trail round town to find, all the while hunting for something new and different? Sometimes you almost wish that there wasn't a Christmas.

"I can't see much Christmas Lirit in either," Alicia replied bluntly. "You work so hard to give something 'different' to Sybil Hunter, who doesn't need it, and then don't give half a thought to Aunt Hester, who is old and shut in and would so love

some little surprise." "But you can't find things for old people," Ethel protested impatiently.

"Well, perhaps," Ethel replied lightly. "You're so funny, Alicia!" To give Ethel credit, she did mean to try-but there were so many things to buy that she did not have the time! So she sent Aunt Hester handkerchiefs, as usual, trying to still a provoking memory by sending half a dozen-and half a dozen handkerchiefs of real linen were indeed gift this year, she said to herself. Perhaps it was that same provoking memory which made her find time to

Aunt Hester greeted her warmly Ethel realized with a stab of dismay that she looked startlingly frail; but her eyes were as keen as ever. The tables beside her was covered with gifts. Among them were at least two dozen handkerchiefs.

"Your handkerchiefs are lovely." Mrs. Brown is one of the compara- | The only difficulty she now encount- Aunt Hester said. "You always do

to do seed testing for the farmers cold," she doesn't believe in having less they "happen" to turn into pneu- "Just about," she replied. "I often

more, rooms which have not been thor- of a woman who drove a deadly rat- force in each of the Prairie Provgames based upon pulling and they If they are accustomed to it, chilchildren have colds from the begin- away a cold-carrier? There are rural municipalities can operate to ning of the "closed season" till its many hundred more deaths each year tax each other for the granting of end, and they marvel at the fortune which come as a result of a common compensation to individuals for losses which keeps the Brown family cold- cold than there are deaths resulting incurred by hail, which are often very serious. How the system works out and the extent to which it operates in Saskatchewan and Alberta are set forth in the November number of The Agricultural Gazette of Canada, Each claimant is entitled to receive not more than five cents per acre for every one per cent. of damage from hall he has sustained. To some this may not appear a very liberal provision. but when it is understood that the number of claims filed in 1919 in Saskatchewan were 7,838 and that the total indemnity paid amounted to \$1,911,776 a different view will obtain. For one storm alone that occured in July of the year referred to claims amounting to \$1,100,000 were satisfied. In Alberta the total losses for the same year were \$506,000 against a valuation of \$12,000,000 insured. Besides the system under Government supervision there are 36 companies in Saskatchewan that accept hail insurance and that paid out

> Silver fox skins were recently sold in London for \$1,250 a piece. Oats yield the largest crop among the field crops grown in Canada. Yield, 1919, 394,387,000 bushels;

> \$1,750,000 in 1919 for lesses caused

wheat yield, 193,260,400 bushels The first community effort of Nobraska farmers to make use of electricity on their farms has just begun in Howard County. Both the house wife and farmer will seek to electrical treatment to more and more of their drudgery problems. ing machines, windmills, and corr shellers are to be so operated, also washing machines and churns. The farmers built the transmission line themselves, at a cost of \$7,000, and will pay six cents per kilowatt for the power. They are chiefly Danes, heavy landowners and wealthy.

Like flames aga the goldenrod Across a stretch lazy cattle gr And all the litt on its way to We clanked across tired bay by t The house was ; from roof to White, starchy o fresh hung for And spicy oven out the kitche

Yes, youngsters.

mind the mai

Fresh garments ! our wee lefty We shared the with conscious To wield our new ! and feared a As, wavering on felt their keen

maple road at And other wheels a happy-hearter

Interesting

the Veterinary Direct

Electricity in the Ba Speaking of deaths in b which electrical appliances tached, the British Medica

No one with the most knowledge of the danger of current would immerse him ordinary household bath and ceed to administer treatment piece of apparatus connected ordinary lighting circuit; no would he allow anyone el minister such treatment. tically useless to attempt t an ordinary bath, fitted w water pipes and a waste pi an excellent conductor for e

In a properly fitted baths switches, lights and wires a care should be taken that n is possible, and that the insul perfect.

The foreman had rebuked the ladder every trip, and Case promised not to offend again morning the supply of bricks and Cassidy, after gathering the proper number. He calle workman on the fifth floor. "What do you want?" ask

"Throw me down one brick, ed Cassidy at the top of his vo make good me load!"