

Soils and Crops

This Department is for the use of our farm readers who want the advice of an expert on any question regarding soil, seed, crops, etc. If your question is of sufficient general interest, it will be answered through this column. If stamped and addressed envelope is enclosed with your letter, a complete answer will be mailed to you. Address: Agronomist, care of Wilson Publishing Co., Ltd., 73 Adelaide St. W., Toronto.

Mistakes in Buying Land.
One of the first things to consider when planning to go to a new place, is to find out whether that particular section of the country is suited to the kind of farming you propose to do. Next, find out whether there is a good market for the things you will grow. Then there is the all-important question, the health of the community; next, the moral and social conditions of the people.

Many people who change locations are induced to do so by some real estate agent. The individual decides that he wants to go to some other place to live, and writes to maybe a dozen real estate agents in as many different places; and the agent that claims the most impossible things for his special section of country is the one that gets the most consideration in far too many instances. As I have had some experience with this, I want to give some advice to people who contemplate moving to a new location.

Never buy until you are sure that you have the kind of land you need for your particular kind of farming; don't buy land with the idea of growing crops that you know nothing about. When you go to a new location to look at a piece of land with the idea of buying it, never be in too big a hurry; better pay a few days' hotel bill than to lose a few thousand dollars in the deal.

Now let me say that it is an easy matter to get fooled in regard to values in farming land. You may see a farm that looks as good as farms selling for \$200 per acre near your old home, and in fact it may be just as

fertile; but that is no proof that it is worth as much locally or anything near it. While it may produce as much per acre, you may not have a market for your crops. There are too many things that influence the values of land for me to try to call attention to them all. The best way to find out the value of the land is to go and talk privately to the people who own land around the piece you are thinking of buying. Ask them all about it, what it ought to sell for, etc. Next, go to the local banker and ask him what the land you want to buy is worth, and find out how much money he would loan you on it. Then go to the tax books and find out what the taxes are on the property, and what per cent. of value property in that county is taxed. Better take this trouble than to pay two or three times the value of the property.

Another big mistake many people make in buying farms, is to buy a too expensive farm for the amount of capital they have. You can take a very little money and buy a large or high-priced farm. You pay down all the money you have as first payment, then you find that you have to go in debt for your supplies. When your first note comes due you can not meet it; hence you lose what you paid down on the place. If you had bought a smaller and cheaper farm you would have had no trouble in meeting the payments. Better buy a small place at first. And never pay out all your money—keep enough to run your farm until you make a crop. You can make more money if you have a little money to use as you go. Go slow at first; it is the safest way.

Poultry

As the poultryman starts the new year, it is advisable that he start operations on a well-planned system. System saves both time and money, and makes the work more pleasant and much easier. At this time of the year it is not always the most pleasant task to go out to do the chores among the poultry, but the man who takes a deep interest in the work goes about it cheerfully, just the same.

On days that are intensely cold, or when there are high winds or cold rains, or if there is snow on the ground, it is best to keep the fowls indoors. If they have plenty of house room, and a good supply of litter to encourage scratching, the hens will not only busy themselves, but will warm up their bodies and feel a great

deal more comfortable than if allowed to be outdoors. It is the comfortable, contented hen that does good winter laying.

Keep up the good work of culling. Get rid of every undesirable fowl, so as to cut down the expense and encourage the workers. Follow good business principles.

Gather the eggs several times each day, and especially when the days are very cold. Eggs that are intended for incubation should be held in a temperature of 50 degrees.

There is something wrong with pullets that do not start laying this month. Either they have been hatched very late, or they have not been properly fed and cared for.

Do not ship dressed poultry to market before the middle of this month, unless by special order. Many people have not yet fully recovered from the holiday feasts, and chickens do not

Hogs

Buttermilk is equal to skim-milk for feeding hogs, while whey is half as valuable. Whey, being low in protein, is not well suited for young pigs and should be fed to older animals.

To keep the hens out of the hog house, hinge the doors at the top, so they will swing both ways. The hogs can push them open and the doors will swing shut after the animals have passed through.

There isn't much curl in the tail of a hungry pig.

Corn, when fed alone to young pigs, produces relatively slow gains at a

The Dairy

When the roughage for dairy cows is clover or alfalfa hay, the grain rations may be 200 pounds corn and cob meal, 100 pounds ground oats and 100 pounds gluten feed; or 250 pounds corn and cob meal, 100 pounds wheat bran and 100 pounds gluten feed.

Bulls, like bad eggs, are best left strictly alone except when it is necessary to handle them. Give them plenty of exercise and keep them where they can see the other cattle

Sheep Notes

Sheep can be wintered with a smaller use of grain than is needed for other live stock. All depends upon the kind of hay or other roughage used. Coarse-stemmed hays like timothy, red top and blue-grass have very few leaves and therefore are poor sheep feeds. Timothy is unpalatable, causes constipation, and the dry timothy heads work into the wool, causing irritation to the skin, lessening the value of the clip and making

shearing difficult. When timothy or other coarse-stemmed hay is fed to sheep in winter quarters, supplementary protein feed is needed. From one-quarter to one-half pound of linseed meal per ewe daily should be used, depending upon the size and condition of the animal and the other feed used.

A shed opening to the south, built in the coral, protects sheep from cold rains. This equipment, including fence and shed for 100 mature sheep, costs about \$125. It affords good protection, simplifies the breeding of ewes, the feeding of grain, the weaning of lambs, and safeguards against exposure to severe weather and, if well drained, provides dry quarters.

Instead of keeping the pancake griddle smoking on the stove while waiting for a late comer, just slip it into your oven and shut the door until you are ready to use it again.

Family Portraits

"Really, you needn't laugh. It's the thing! Everyone says so. Uncle Jim, what are you doing?"

Young Uncle Jim's keen, spectacled eyes revealed sudden alarm.

"Hold on, Eveline!" he implored. "Don't move! There, that's better. Just keep still a minute more and I'll be done."

"But what are you doing?"

"Making your portrait, of course. I—"

Eveline made a dash at the paper.

"Why, Uncle Jim, I didn't know you drew! Let me see it!"

Uncle Jim's long arm kept the paper tantalizingly out of reach.

"Curb your impatience, infant. Artists can't be browbeaten. When the masterpiece is finished, it will be put upon exhibition—not before."

"It had better be finished pretty soon!" Eveline threatened ominously.

"It will be. There will be an exhibition of family portraits in the library after dinner. Seven sharp."

And Uncle Jim fled to his den, sacred from feminine intrusion except by special invitation.

Uncle Jim was esteemed in the family as a rising young biologist, to say nothing of being a very lovable young fellow to boot. His invitations were never slighted. Even Mr. Everts joined the procession to the library at seven o'clock.

"He probably has pictures of our skulls or something equally artistic!" Eveline grumbled.

But there were no pictures whatever; indeed, at first sight there was nothing unusual; then Jack gave a shout. He had discovered a sheet of paper covered with Uncle Jim's scrawling writing, under a big interrogation point.

"Adore," he read. "Darling—Crazy over—Crush—The thing—Elegant. Garnish plentifully with italics." The boy's voice, full of perplexity, cleared to a whoop of joy. "I know—it's Eve!"

"Never mind," Eveline retorted, coloring a little over the applause that greeted the recognition of the salient characteristics of her vocabulary.

"Here's another, 'Us fellers—Play ball—Punk—Bonehead—Sport—Airships—You bet!'"

Jack grinned; then he hunted up the next.

"Rational—Graft—Statesmanship vs. Politics—Yellow Journalism—Sound—Sane—True Democracy—Rant

Common sense, the rarest virtue under heaven."

This time Mr. Everts joined in the laughter; but Eveline's applause was distinctly absent-minded. Only as she left the room did she give a clue to her thoughts.

"We've enjoyed the exhibition so much, Mr. Kline," she said. "I am expecting to give a little one myself, very soon. I do hope you will be able to come."

"Nothing shall keep me away," Uncle Jim responded, with twinkling eyes.

As he took down the "portraits" a few minutes later his eyes were still smiling. Unless he were greatly mistaken, Eveline's would need a rather complete revision before very long.

The Lead Line.

"How about a walk till dinner time, Jess?"

Jessica pushed back the pile of papers on her desk and turned a tired face to her uncle.

"I've no right to," she said doubtfully. "Look at all the work waiting! But my head does ache, and you will be here only a few days. I'm afraid I can't resist the temptation."

"That's right," her uncle agreed heartily. "I'll give you five minutes to get ready. There's going to be a great sunset, and it will be wonderful down by the water."

Besides, I have an errand that way."

Jessica was prompt; it was not quite five minutes later that the two were on their way to the wharves. Even before they caught the breath from the bay a bit of color crept into the girl's face, and a little of her weariness fled away from her. But the trouble in her eyes was still there.

Her uncle, talking lightly of one thing and another, was in reality waiting; and presently the outburst came.

"Uncle Andrew," Jessica cried passionately, "how do you stand it?"

"Stand what, little girl?" her uncle replied.

"All the sin and suffering and pain in the world. If I find it so hard here where I see so little, if I feel the burden of it all the time, how do you stand it over there in China?"

They were down by the wharves then. Before them were a dozen vessels rocking slowly in the tide; some, already loaded, lay close to the water, but many of them sat high, and all those showed marks upon their hulls.

Her uncle pointed to one of them.

"Do you see those marks?" he asked. "Do you know what they are for?"

The girl shook her head.

SELLING STUMPS

Turning a Waste Product Into Dollars and Cents.

By Lawrence C. Longstreet

One day about a year ago found me with a lone dollar in my pocket and no work in sight. After doing some hard thinking as to how I could add to my available funds, I thought of some pine stumps on land belonging to a milling concern. On inquiry I found that the owner would be very glad to get rid of those stumps.

Accordingly, I invested my dollar in as much dynamite, fuse and caps as it would buy. That wasn't very much, but it was sufficient to blow out and break up three full loads of the stumps, that I was able to sell at \$1.50 per load as fast as I delivered them.

In short, in less than a half day, I converted my original dollar into \$4.50. With that capital I purchased a larger supply of explosives, and repeated the operation on a larger scale. Before I finished I had a pocketful of money in the place where the lone dollar had formerly resided.

The average-sized stump in this part of the country will yield a good one-horse load of the finest kind of firewood. When the stumps are blasted out they are broken up into pieces about right for firewood. The

smaller pieces can be used in the kitchen stove, and the larger ones in the sheet-iron heaters commonly used in this locality. The wood readily sells for \$1.50 a load here, although I am told that in the large towns a two-horse load of the wood brings \$8.

It takes about six stumps to make a two-horse load. They can be blasted in from one to two hours' time, and at a cost that will enable the blaster to more than double his money by selling the wood.

It is easily possible to make money both ways in a business of this kind. Men that have stumps on their land are usually willing to pay a fair price to have them taken out. This will at least cover the cost of the work, and the amount realized from the sale of the wood should be clear profit.

It seems strange to me that so many farmers permit stumps to remain in their fields when the stumps can be taken out at no expense to the farm owner. By that I mean the stump wood can be sold for more than it costs to blast it out. I believe that if farmers owning stump land knew this, there would be more clearing done.

Our Will was fishing in the brook. When 'las-a-luck he snagged his hook. But did he hesitate? Not he; Just waded in and set it free.

GOOD HEALTH QUESTION BOX

By John B. Huber, M.A., M.D.

Dr. Huber will answer all signed letters pertaining to health. If your question is of general interest it will be answered through these columns; if not, it will be answered personally. If stamped, addressed envelope is enclosed, Dr. Huber will not prescribe for individual cases or make diagnosis. Address: Dr. John B. Huber, care of Wilson Publishing Co., 73 West Adelaide St., Toronto.

Every child has the right to be protected from disease.

Baby's Development II.

Second Month: Squint in occasional until the end of this month. Baby now recognizes human voices, turns its head toward sounds. Pleased with music and with human faces—not however with all it sees. Sleeps three, sometimes five or six hours. Tickle it about the eighth week and it will laugh. Claps with its forefinger at eighth week. First consonants from forty-third to fifty-first days as am-ma, ta-hu, goo, ara.

Third Month: Sixty-first day, cry of joy at sight of mother and father. Eyelids not completely filled when it looks up. Accommodates its eyesight to light and distance at ninth week. Notes the ticking of a watch at ninth week; listens with absorbed attention. Now some considerable baby!

Fourth Month: Eye-movements perfect. Objects seized are moved toward the eyes. Grasps at objects too distant. Enjoys seeing itself in mirror; girl babies exhibit this phenomenon earlier and more insistently than boy babies. Can grasp with thumb contraposed to hand at fourteenth week. Can hold up head without support. Sits with back supported at fourteenth week. Begins to imitate.

Fifth Month: Discriminates strangers. Looks inquiringly. Takes pleasure in crumpling and tearing newspapers, rings a bell with zest; likes to pull hair; has been known to pretty nearly if not altogether eviscerate an adult ear or uproot a mustache. Can sleep ten to eleven hours without food. Desire shown by stretching out.

"They are the marks that indicate the capacity of a vessel—the amount of burden that it may legally carry. You will see that they are not the same; the limit of safety differs in different vessels. But wherever the line is, its place has been carefully computed, and it is a crime to send that vessel to sea overloaded. However great the amount of cargo waiting to be transported, no vessel can carry more than its own appointed share; so matter what the urgency, to carry more is a crime."

"It is God's world, child, not ours. We have a certain amount to be responsible for, but not more. To try to take more than God gives us, to risk health and perhaps even life, and in consequence the defeat of God's plan for you or for me, that is to load our lives beyond the safety-line—to do in the moral world what is a crime in the physical world. Here's my man coming. Will you wait here for me? I'll be back in ten minutes."

Her uncle and the other man disappeared behind a pile of freight. Jessica waited, watching the vessels in the bay.

Fencing in the Garden.

Another year's use of our fenced-in garden has proved that the expenditure for fence wire, posts, and labor required to fence it was a good business move, says a successful farmer.

Our garden is twenty rods long and four rods wide, fenced with strong four-foot woven wire that will turn hogs, chickens, or any stock, with the strand of barbed wire six inches above the woven wire. The ends are enclosed with substantially made panels of the same fencing, which allows of their easy removal for plowing and cultivating.

There is no longer worry and damage from our own poultry, stock, or dogs, or those of our neighbors, and the permanent support for vining plants furnished by the fence is worth the effort of fencing in itself. Furthermore, our chickens can now have free range for a much greater portion of the year than before the hen-proof garden fence was erected.

If a Horse Steps on a Nail.

If one of your horses steps on a nail, remove the nail as soon as possible and thoroughly cleanse the wound. If the horse limps, investigate the cause. The removal of the nail can easily be accomplished by the ordinary claw hammer, a small block of wood being used as a fulcrum over which to pry. If the nail is not too large a pair of pliers is suitable for this work.

If not cared for immediately the wound may cause lockjaw or permanent lameness. For cleansing the wound a syringe and warm water may be used if care is taken to cleanse thoroughly. The best method is to apply liberally and coal-tar product, as it is effective in breaking up the infection. If a nail wound is given immediate and careful attention the life of a horse is usually saved.

To heat dishes quickly put them into hot water. This is a safer and better plan than heating them in the oven.

It is not a bit too early to get in touch with dependable nursery concerns and seed houses to get prices and full information about the trees, shrubbery, flowering plants, and seeds that will be wanted early next spring. Do it now!

AERIAL TANKS FOR THE ALLIES

ARMORED AIRPLANES IS THE TECHNICAL NAME.

These Machines Are to do Work Like That of the Land Battle-ships.

The construction of aerial tanks, or, to use the technical term, armored airplanes, that will accompany the infantry in the air just as the tanks go forward on the ground, is being considered by the French aviation authorities. The Germans have been using airplanes of this type, recognizing the value of this aid to an attack by infantry.

These machines, being necessarily of considerable weight, cannot fly very fast and are useless for scouting or fighting in the air with enemy planes. But the effect on the morale of troops of airplanes flying over the heads of the foe, pouring into their ranks volleys from machine guns, was amply demonstrated in the battles in Flanders, when British and French observation and fighting planes abandoned their legitimate functions and took part in the infantry attacks. Being of the lightest construction and wholly unprotected, they were easy marks for rifle and machine gun fire.

Must Protect Airplanes.

To utilize to the utmost the airplane in connection with the infantry the protection of the craft by means of light armor is being considered. This principle may be also applied to other classes of planes. To-day French tactical aviation possesses the best multiple machine.

The Breguet, the Samson, the Caudron, R-H are of the greatest efficiency. But experience has demonstrated that artillery observation machines are never safe from attacks of the enemy fighting planes, no matter how vigilant are the escadrilles, whose duty it is to defend them. This fact has made it evident that it is necessary to build machines that are able to defend themselves.

The problem of construction is still far from being solved. It is necessary to have specialized planes for reconnaissance, photography and artillery regulation, and there must also be planes for infantry liaison and trench attacks.

Requirements of Service.

The first class must be able to fly high and fast; the second, that accompany the infantry, must crawl and go slowly. To crawl at a low altitude they must be armored, otherwise they are quickly doomed to destruction.

Armored planes existed in 1914, and even before the war, but little by little they have disappeared.

On days of attack the French pilots are forced to fly for hours at less than 300 feet from the enemy trenches, filled with machine guns. For several months the Germans have employed an airship of the Junker type, entirely made of metal, all of whose machinery, motor and guns are protected by a shell proof armored covering. They are thus able in the very face of enemy infantry to attack without much danger to themselves. It is to meet this emergency that the Allies are now considering the building of aerial tanks.

The Battle Front.

The true battle front of this war is in the soul of the nation—Lieut.-General Smuts.

England's great one time foe, now staunchest friend

And strong foe fighter (who recalls no more)

That Britain once was pitted against (Boer),

Has shown—where'er the battle lines extend,

Veering as each day's grim award may bend,

Not there alone is kept the turning score,

But in the hearts at home, that of their story

Their much, or little—stand to freely spend.

True battle front is in the nation's soul.

O Soul of England! Ev'n where flesh is weak,

A spirit sword, it wields—thine ancient word.

There is one other such civil roll: Far, far away, yet in vain to seek—

Across three thousand miles—a battle front!

—Edith M. Thomas.

Choosing Clothes.

Price cannot be taken as an indication of good clothes, although quality is often expensive. There are garments of certain cut that demand top-notch prices and yet that could not be taken as an indication of what is good in clothes. The newest invariably comes high, and yet upon examination we find we are paying not for material, not for durability, not always smartness, but rather for newness. To the woman of limited income it is infinitely better to sit back and analyze the make-up of the latest arrived style before she invests in it.

The far-seeing woman can visualize herself as looking outlandish next season in something that is quite in the order of things this season. It is a good plan, this, of painting a next year's portrait of yourself in this year's clothes before you put good money into them.

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