

# Soils and Crops

By Agronomist.

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 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.

### After-Value of Fertilizer.

No matter whether a farmer buys ready-mixed fertilizer or one that is made up of the separate parts and mixed at home, there is the "after-value" to take into consideration when figuring the benefits derived from the fertilizer.

So many times we seem to think that whatever we are ahead for the one season is what our fertilizer is worth to us. That is a safe place to stop figuring all right, but it is not a fair one. I can safely figure that every dollar I have spent for fertilizer has made me from \$2.00 to \$4.00 in increased production. This is on the average, of course, and I know of some acres that have made much more than this.

Three years ago I had a field of acres in onions from seed. Presently this field was in potatoes and about four hundred pounds of complete fertilizer. The onion field had one thousand pounds to the acre of a high-grade fertilizer. The year the onions were planted it was rather dry and a good deal of fertility was not available that year. The year following the potatoes and corn the field was planted to corn along with a few acres adjoining it, which had been in potatoes two years instead of onions as the other two acres were. The yield of corn was nearly a ton better on the old onion bed than on the other part. Besides that it was of better quality and matured early enough to be solid and marketable at once. That, of course, was one reason why there was so much difference in the yield—it was so well matured that it was solid and marketable. The other part of the field was rather soft.

And while I am mentioning it I want to add that here is one point about fertilizer that we do not consider enough—early maturity. With me this is worth fully as much as the large yields. In fact, in many cases that is just what it means—larger yields because of early maturity. In the short corn seasons that we have, it is a quicker way of getting an early corn than breeding corn up, though both methods of course, will help just that much more.

I have another instance of the after-value of fertilizer in my own experience. A field of a little over two acres was planted to onions from the seed and twelve hundred pounds of complete fertilizer was used to the acre. The onions were fair. The next year this field and another part next to it was in sugar beets. The total average came to about four, I think. In the following season there was a heavy frost to be seen, but when you got under the leaves there was a lot of difference. When the yield was measured the two acres that had fertilizer went almost twenty tons to the acre. To anyone who is not used to the beet crop let me say that twenty tons is a mighty satisfactory yield. I have raised slightly less than ten tons to the acre and thought it was a fairly good crop. I am sorry that I can't give the exact yield of

the rest of the field but I am not sure enough to say except that I figured at the time that it was mighty good pay for the fertility used even if the onions hadn't been taken off the year before, and I might add, too, that the next year after beets this field was in corn and the difference could be seen even then. Just what it was I could not tell, but it was to be seen easily during the growing season.

### Your Iron Chere Boy.

The modern gas engine is a highly efficient and never-tiring helper, capable of adapting itself to almost every known need for power on the farm. As the first and foremost consideration of gas engines is the means of employing their power, the first thing a farmer or other user needs to know is not only how to make them run, but also to understand the various ways—the best ways—to put them to work. We have seen some gasoline engines standing out in the open, where the owner leaves them through summer and winter, covering them up with some frail covering like a blanket or an old box that leaks. An engine in such a situation is certainly subject to all the direct influences of the weather, and should not be expected to do good work. It should be housed at all times.

A special engine house, with the various adaptations of shafts, pulleys, belts, etc., where the engine can rest bolted down to a solid bed, is the best arrangement of all. Such a house can be built at a place convenient to all power work it is needed for. It is no trouble at all to have the cream separator in a house adjoining the engine-room and then provide a shafting to run this separator. An engine of sufficient power to do several things at once is the most profitable plan, and then so arrange the work that it can operate more than one thing at a time.

There is even a way of having several beds made for one particular type of engine. In this case the engine is wheeled about on its truck to the required place, where a firm bed is ready, bolted down, and then put to work. In putting up shafting and pulleys, you should know about what speed the pulley is required to run to perform the chosen work satisfactorily. The wood saw will necessarily have to run very swiftly. The fanning mill takes a certain speed, the cream separator another, and the pump still another. It would never do to have them all the same. You can get the required information on all these things from the maker of your engine. They know best what their engines can do. They will be able to suggest valuable economies in other ways of operation, as well as various uses, which you never dreamed of.

Flour should be sifted just before used, in making measurements. The slogan of the Canadian Trade Commission, "CANADA-PRODUCT," is to be a guarantee of good quality, fair price, and all around high level.

## THE CHEERFUL CHERUB

I started life a friendly soul With Frank and smiling face, But office boys and traffic cops Soon put me in my place.



## The Sunday School

INTERNATIONAL LESSON JUNE 15.

Prayer—Matt. 6: 5-15; Luke 18: 1-14. Golden Text, Phil. 4: 6.

Matt. 6: 5-15. The Lord's Prayer. Do not pray, Jesus said, "as the hypocrites." They pray "that they may be seen of men." They desire a reputation for sanctity which may heighten their influence among the people. Better the secret prayer which God hears, the prayer in which the heart speaks and the soul goes out to Him in desire and faith. Nor is there need of "vain repetitions" or of "much speaking," for God knows the need of those who call upon Him. The model prayer which Jesus gave His disciples is remarkable for its simplicity, its brevity, and its comprehensiveness. Calling upon the heavenly Father, it pleads for the reverence due to His name, for the coming of His kingdom, for daily food, for forgiveness of sins, and for deliverance from evil. This is "the prayer that teaches to pray."

Luke 18: 1-14. Parables of Prayer. "The unjust judge." The parable presents an argument from the less to the greater witness. If the less proves the case, how much more convincing will the greater be! If the unjust and selfish judge can be moved by continual pleading that will not be denied, how much more will the good and just God be moved to act on behalf of His own! Men ought, therefore, "always to pray, and not to faint." Faith in God means such trust and confidence in Him as will not despair of His goodness, but will keep watch, wait patiently, and keep on praying. "Pray without ceasing." "The Pharisee" belonged to a select society of men who were zealous to maintain the ancient laws and customs of Israel's religion. In their origin, one hundred to one hundred and fifty years before the birth of Christ, they were sincere and honest, even if narrow, champions of the ancient faith against Greek and other innovations. They became, for a time, an active political party, but now, under Roman rule, they were chiefly interested in preserving, through a display of religious formality, their hold upon the minds of the common people, and their influence in the great Jewish council which controlled purely Jewish affairs of religion and morals. While there were still good men among them, many were merely wearing a mask of piety and well deserving the name of hypocrite which Jesus more than once applied to them. They "devoured widows' houses and for a pretence made long prayers."

"The publican" was a tax collector, in the employ of the Roman Government, and so was looked upon as a traitor to, or as an outcast from, his own people, who hated their subjection to a foreign power. The Pharisee exalted himself in his prayer, the publican humbled himself. The parable illustrates well the saying of Psalm 51: "The sacrifices of God are a broken spirit; a broken and a contrite heart, O God, thou wilt not despise." Compare also Isa. 57: 15. The old English poet, Richard Crashaw, writes: "Two went to pray? Or rather say One went to brag, the other to pray. One stands up close, and treads on high Where the other dares not send his eye; One nearer to God's altar trod, The other to the altar's God."

Perhaps no prayer of penitence has been more often repeated than that of the publican, and it has often been the last uttered prayer of the soul about to meet its God. And it has many times been the wisest and best to whose lips it has come. They have put to the test and have proved the Saviour's words that "he that humbly exalts himself shall be exalted."

The Camera on the Farm. The camera is a valuable asset to the farmer for advertising his farm and its products. If he has a brood mare or a valuable bull for sale the camera will truthfully portray its image on paper and carry a forceful message to the prospective purchaser. A good photograph with age, pedigree and other details written on the back tells instantly just what the critical buyer wants to know. A dated negative is indisputable evidence. Damage accidents are fre-

# Health Talks

By John B. Huber, AMMD

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, M.D., care of Wilson Publishing Co., 73 Adelaide St. West, Toronto.

### The Cigarette Smoker.

Asthma is not rare among smokers; the breathing of such sufferers is deepened and quickened, and short-windedness results. The weed produces by irritation reddened, even "pink eyes," which is a contagious affection; or the nicotine, when slowly and continuously absorbed from the digestive tract may induce—how often has it not induced—blindness, acute or permanent and hopeless. Indeed, such blindness—amblyopia—has come even from tobacco being applied to a hollow tooth; in a patient who took snuff for ten days to cure a cold.

The sexual function is impaired in the tobacco-poisoned; and the victims are notably weak-blooded (anemic). And tobacco predisposes the boy to tuberculosis. The most injurious way of using tobacco is the cigarette, largely because the fumes are inhaled and also because of the temptation to smoke many cigarettes; next comes the pipe; especially if it be seldom cleaned, and the nicotine allowed to gather; the least injurious is the cigar. Other things being equal, the more excessive the indulgence, the more the smoke is inhaled, and the younger the "sport," the worse are the ill-effects.

Tobacco has its analogue among perhaps every people or tribe that our explorers and discoverers have ever visited. For adults this plant is one of the "paratriptics," the savings banks of the tissues. Such also are

the Calabar bean, cocoa, arsenic, gentian, strychnine, cinchona, Indian hemp, alcohol, coffee, tea. The best reason for saying that these things are beneficent when judiciously used is that the demand for them is imperative, worldwide, and not to be denied; and that they certainly do tide an exhausted or a misused organism over physical and mental crises. To the beginner in their use the most of them are unpalatable; and it is not likely they would be taken in any degree at all were it not that the moderate and occasional use of them has been found salutary, even necessary. But the bodies of the child, the growing boy, the youth, are fresh and rich in reserve forces, in factors of safety, needing neither tobacco nor any other stimulant. Surely a substance which can so profoundly affect the immature organism, is like to work—has with deplorable frequency worked—destructive and permanent changes in the tender organs and tissues.

### Questions and Answers.

Question—My niece was bitten by a large yellow dog last winter and had her wound treated locally. The dog was not killed. Please state whether or not she can get hydrophobia during the hot weather of this coming summer. Please also give the symptoms and if there is a cure.

Answer—Your niece is safe. If symptoms do not arise within a month after the bite hydrophobia need not be feared.

quently proved by photographs taken of the scene. Write on the back of the film or glass negative with a steel pen and ordinary black or red ink and the lettering will come out gray on the print. If figures or letters are desired directly on the pictures, bicarbonate of soda, mixed with enough water to make it flow from the pen, makes a cheap and permanent white ink.

When you have acquired skill in making pictures the farm papers will pay you from \$1 to \$2 each for any prints they can use. When you get this far remember to send only clear, snappy prints printed on glossy paper, and make each one tell a story. A special implement, new ways of doing things, threshing day, the tractor in action, a day's outing in the country and filling the silo suggest the kind of pictures wanted by the farm papers.

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After one of our hired men had been with us a few weeks, I noticed that the horses began to look a great deal better than they had before. They not only looked sleeker, but they took on flesh and did their work more easily; that, too, without using any more hay or grain. It was simply the care the new man took of them. He was always quiet when around the horses, he kept the pores of their skin open by the use of a good comb and brush, and he was regular in doing his work. Seeing these things, I thought: it was no more than fair that I should say so. And you should have seen how much higher the hired man stepped after that. It was very plain that my good words had warmed his heart. He not only took better care of the horses after that than he had done; all the work he did on the farm was better.

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