

# 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.

## Growing Beans and Parsnips.

Nothing is to be gained by planting the bush beans outdoors too early, as they are very tender and one light frost may either kill or retard them more than a week or more's later planting. Of course, if you are equipped to cover or otherwise protect them and are sure to attend to it, you can get an earlier crop by taking some risk. But, in any case, it will not be wise to plant until the ground is warm and the weather somewhat settled, as beans planted in cold or soggy soil are likely to rot in the ground.

## The Various Varieties

Beans naturally divide themselves in the following classes: The dwarf green and yellow-podded, the dwarf shell beans, which are matured, and beans shelled out for winter use; the tall, or pole, green and yellow podded, and the tall shell beans for winter. Few persons grow any of the shell beans in small home gardens, and we will not further consider them here.

For beans the soil should be rich and mellow. To get them tender at picking time they should have quick and continuous growth, and this is best assured when they are planted in a warm, rich, porous soil, well-drained and given plenty of water. Well-rotted manure, dug into the trench, is best; and the soil should be made fine with the shovel when digging and finished with the rake.

Beans are planted in two general ways: In hills and in furrows or drills. Cleaner cultivation can be given by the hill system, but more can be grown in the same space of garden by the drill plan.

By the hill system you can hoe all around them, but when planted in drills, if you have many weeds, it will require hand-weeding along the rows where the hoe cannot reach.

As some beans, for different reasons, do not germinate, it will pay to plant them rather thickly, and thin out in the drills to four inches apart. Make the drills as far apart as may be convenient. If to be worked entirely with the hoe, eighteen inches apart will do; if to be worked with the wheel cultivator, make them two feet apart between the drills.

When using the hill system of planting, drop four to six beans to a hill, making the hills a foot apart. When fully up, thin out to three or four to a hill.

Beans require frequent cultivation, always drawing the soil up around the plants. If the wheel cultivator is used it will be well to go over them with the hoe to get the soil well up

to the plants. Work them when the crust forms after rains, and at all times when necessary to keep down the weeds.

## Parsnip a Valuable Food

As a solid dinner vegetable the parsnip is welcomed on the tables of the rich and poor alike. Boiled with meat it makes a whole meal, and it is just as much relished when cooked in any of the many ways in which it can be served.

It is the sugar content which makes the parsnip so valuable as a food. It is heavy with sugar, and it is to get into it so much of this valuable quality that we give it the very best soil and cultivation.

A great deal of the value of the parsnip also lies in its good keeping qualities. It may be taken up in the fall and stored in pits, or cool cellars in sand, or it can be allowed to remain in the open ground over winter, which will improve its flavor and make a good vegetable for use in the early spring when such are scarce.

As they are an all-season vegetable, they can be planted eighteen inches apart, and the space between inter-planted with radishes, lettuce and other smaller vegetables.

Best results will be obtained by digging into the soil as much well-rotted manure as it will take, using it in the trench in preference to spreading it on top. As is the case with all large-growing root crops, the soil should be made porous and mellow, so that the roots can grow and expand easily.

Parsnip seed is of rather easy germination, on which account it should not be covered more than a half inch with fine soil. A gentle wetting down of the drills will pack the soil and the seeds together sufficiently that compacting with the foot will not be necessary.

## Requires Much Water

When the young plants are two inches high they should be thinned out to three inches apart.

Early small-growing parsnips which are pulled out for bunching can be left stand at three inches apart, but if you plant the long winter varieties, they should be thinned out to six inches apart, as their foliage is very heavy and will crowd even at that distance. The largest varieties had better be thinned out to eight inches.

Parsnips, like all root crops containing large quantities of sugar, require a great amount of water, and it should be given them regularly; but be sure that the ground they are growing in is well drained so that it does not get boggy.

hand to be inserted inside the collar.

The style of horse collars are created mostly by the use of different kinds of materials in their construction. Such materials as heavy duck, ticking, and leather are used either alone or in various combinations. All-metal collars may also be bought, but are not so much used.

The stuffing used in horse collars is coarse material, such as rye straw, curled hair, and cotton fibre.

## Poultry

Keep the birds with rather large, plump combs and wattles. Hens with pale vents, pale beaks and pale legs have been good layers. Keep the late molters.

Keep the pullets that mature quickly and start laying first. Those that start when less than 200 days old, or nearest that age, are the best layers if they have had the right care.

Market those that have been slow to feather or seem to lack vitality. The skin of the best layers should be rather loose and flabby on the abdomen between the vent and the breastbone.

The pelvic bones must be thin, straight, flexible and wide apart.

Market the hens that are lagging behind and that have a heavy, fat and thick abdomen that hangs below the point of the breastbone.

Keep the hustlers and heavy eaters that go to bed late and with full crops.

Birds that have long toe-nails, and show no signs of being workers, are usually unprofitable.

## A Road in Flanders.

There is a road in Flanders That runs a quiet way, And few there were that found it; And yet, at dusk of day, There were some feet that sought it, And loved its dust and loam, The feel of it beneath them: Men glad of going home.

A little road and quiet, Not built for great affairs— The sort of road for children, All sweet with evening airs.

That knew so few before, But never the feet of home glad men Or children any more. —David Morton.

# The Dairy

There can be no successful dairying which does not rest upon an appreciation of the fact that a cow is first of all a mother. A cow's ability to bring forth strong and vigorous offspring and to provide abundantly for the nourishment of such is the corner stone of the dairy business.

There are those who call the cow a machine, who figure painstakingly the amount of foodstuffs she should have to produce her utmost, and who go about their business upon the basis that, as in the case of other machines, production is simply a matter of how much raw material can be turned in a given time into finished product.

It is, of course, unjust to the cow to call her a machine. Machines do not possess nerves, whereas a cow has an intricate system of them. And the relation between this system and the milk pail is so intimate that any condition which affects the cow's nervous system reacts at once upon the milk-producing system. An undue disturbance of normal, tranquil conditions diverts the blood supply from the milk glands and the cow either "holds up her milk" or gives a lessened quantity. It is not without reason that Swiss peasants sing or yodel

softly to their cows at milking time. If calves are weaned they should be fed whole milk until they are one month old, when they should be changed to skim milk. They should be fed skim milk until they are six months old. While they are on milk they should be given some grain and alfalfa hay.

A good mixture for grain feed is four parts of corn chop, one part of oil meal, and two parts of wheat bran. After taking the calf off the milk, increase the grain gradually to two pounds a day in addition to silage and alfalfa hay.

The heifers should be bred so as to calve when from twenty-four to thirty months of age, depending upon the breed and growth of the animal. If bred so as to calve earlier than this, their growth is apt to be injured.

It is estimated by The Bulletin that 500 tractors will be at work in the Edmonton district next spring.

Donald Smith of Red Deer received for some fine beef cows what is reported to be the highest price ever paid for this class of beef in Western Canada \$9.45 per hundred.

Bacon contains about 7 per cent. bone, dressed beef 20, mutton 20 and veal 25. That is one reason why bacon is so much desired for shipment to Europe under present conditions of shipping.

## GOOD HEALTH QUESTION BOX

By Andrew F. Currier, M. D.

Dr. Currier will answer all signed letters pertaining to Health. If your question is of general interest it will be answered through these columns; if stamped, addressed envelope is enclosed, Dr. Currier will not prescribe for individual cases or make diagnoses. Address Dr. Andrew F. Currier, care of Wilson Publishing Co., 73 Adelaide St. West, Toronto.

## Blood Pressure.

Blood pressure is an important subject, insurance companies lay stress upon it and doctors who keep abreast of the progress of the times find it necessary to be skillful in determining it.

It means the degree of force which the blood current in the arteries exerts against their wall under the influence of the contractile force of the heart muscle.

It is measured by the height of a column of mercury in a capillary tube. It should be remembered that the heart is a pump and the arteries a series of elastic tubes proceeding from a great trunk vessel attached to the heart, and dividing and sub-dividing until every portion of the body has been traversed by them.

Any artery can be used to determine the blood pressure, if the system is in good working order, but one of moderate size is more convenient than one which is very large or very small. It is also desirable to choose an artery near the surface, which can easily be got at.

The arteries of the body are subject to disease like any other tissue or organ and such disease is often an important symptom of disease elsewhere.

Changes in the structure of the arteries may take place at any time, but there are certain changes which ordinarily occur in them after middle life and in old age which are characteristic, so that we are accustomed to say that a person is as old as his arteries.

Hardening or arterio-sclerosis is a change which occurs naturally in the arteries during old age.

This means that the connective tissue which holds together the cells composing the arterial wall, is increased, making them more or less rigid and inelastic instead of resilient as they are in early life.

Sometimes during old age the arteries absorb salts of lime from the blood, and may become brittle like pipe-stems, and they are apt to snap if subjected to unusual strain or pressure.

They may also be softened by a process which is known as atheroma and this also makes them very susceptible to rupture or breaking.

If rupture should occur in arteries

## MOTHER-WISDOM

### Some of the Reasons Why Our Children Ought to Play

By Helen Johnson Keyes

Have you ever noticed how hard at work children seem to be when they are playing? They do not act in the way men and women do who are being amused at a concert or a social.

The play of children and the recreation of grown-ups are absolutely different the one from the other. They are not entered into from the same motives or followed in the same spirit. A grown-up seeks a good time for the sake of recovering from the fatigue of work and of forgetting worries; a child is not conscious of any motives, for his play is instinctive but the purpose of nature in making him play is to educate him.

This difference is so important and fundamental that every mother ought to realize it and have it constantly in mind. A child educates himself through his play. A man named Groos, who has studied this matter very deeply, believes that one reason why the period of childhood is so much longer in human beings than in animals—who attain almost at once about as much intelligence as they ever have—is in order that they shall have a long educational course of play to prepare them for the very great difficulties of adult human life.

We parents must realize, then, that if we do not give our youngsters opportunities to play, we are making cripples of them, sending them out into manhood and womanhood lame, blind and deaf as it were, unable to march in the ranks of success, unable to see life and people as they truly are or to understand the demands which the world makes upon us.

What are some of the lessons, valuable in after life, which play teaches to children?

(1) Justice. When tots begin to play together each one seeks to grab for himself the most attractive toys. Gradually, however, the necessity of sharing is impressed upon the little brains. By and by the age of games comes and then this lesson is repeated. Finally, those great sports, baseball, football, basketball, are entered into which teach, with a power which no sermon can ever attain, the lesson of fair play and co-operative action. What an example there is in the incident of the tennis player who had an opportunity to fluke his opponent made but who, instead, intentionally made the same fluke himself on the next ball so as to win—if he could—by his own skill and not on his opponent's misfortune. Would you not trust that man's fair play in any business deal? No very young boy, I think, would be equal to such a sacrifice but through play—and only thus—he will acquire that desire to give every man his due and of winning fairly and squarely in all the relations of life or not at all.

(2) The Power to Decide Wisely and Making a Hard Job Easy.

There are many ways of using your tractor, but none which gives more pleasing results than hitching it to the manure-spreader. This is a hard job for the best of farm teams, for doing the work right means not only hauling the load but operating the mechanical part of the machine as well. The "spread" is much more even when a tractor is used, as there is then sufficient power to operate the machine at the proper speed to insure best results. An even coat of fine manure on the fields means a wonderful increased productive power per acre.

It is advisable to build a shed in which to store the manure until enough has been collected to pay for hitching up the tractor. This outfit can do more work in a day than three team take those other two days off and enjoy life by the fire reading some good books and papers. Thus the tractor makes farm life easier and more attractive, besides saving help at a time when helpers are scarce and getting scarcer. The farmer of today who has a tractor has taken the most important step toward solving the labor problem.—Earle W. Gage.

Making Maple Sugar.

The appeal of the Food Controller to produce large quantities of maple sugar and syrup this spring should receive a ready response from those who have groves of maple trees. While maple sugar can be made as it was in the early days of settlement, with very simple apparatus, the work is greatly reduced and better products made when a modern equipment is utilized. For the instruction of those not entirely familiar with advanced methods, the Publications Branch of the Department of Agriculture at Ottawa has issued Bulletin No. 2-B entitled "The Maple Sugar Industry in Canada." By text and illustration it makes very clear the operation of the utensils to use, the refining and handling of the product are all dealt with. This bulletin is available for distribution to those who apply for it.

Like produces like, and to get good crops without planting good seed is next to impossible.

In these days, when pure-bred males are plentiful and reasonable in price, there is practically no excuse for using anything but a pure-bred boar, even though the sows be merely grades.

Act Quickly. Did you ever see play that was slow, hesitating, undecided? Not often, I think, for play is born of thoughts that are winged and which transform themselves instantly into acts. From the infantile game of puss in the corner right through high-school sports a good judgment put into swift execution is what wins. Is it not so in life, also?

(3) The Power to Count Consequences. Probably too often for the moral growth of our children, do we mothers protect them from the results of their deeds. Often it is even necessary to their survival or health that we should. But in play they must meet squarely the consequences of what they do. The lesson is sometimes painful, sometimes joyful but it is always plain and undisputed: "You did that, therefore you get this." Must not the realization of this truth educate young people away from those happy-go-lucky, careless deeds, violations of natural and moral laws, which usually bring with them a trail of ill health, failure and misery?

(4) Courage. Very young children whimper over the bumps they get in play, quarrel over their bad luck in games and brag of their successes. By the time the fourth or fifth grade is reached, however, no more of that cowardly or boastful manner is tolerated. The youngsters have learned, through playing, to take the bumps and blows in silence and to abide by the laws of the game and the decisions of the umpire.

They began in the days of their little childhood as soreheads but play has made them honorable sportsmen. Did you ever see success come to a grown-up sorehead? I never have. The spirit which wins in life is the spirit of sportsmanship—courage to get hurt if necessary, for a good cause, to lose cheerfully and to win without bragging. The child who does not play may learn this lesson too late to take his place honorably when he plays in the great game of life.

The country offers every opportunity for play and sport but farming is a difficult and anxious business and too often those who are engaged in it, laboring ceaselessly for those immediate results on which their living depends, forget the educational value of free play and team sports to children, giving them longer and harder labor than their ages justify.

The result is that these Jacks and Jills, although they may be very capable machines, are a little slow to understand the larger and more complicated demands which life makes upon us all, those moral and social demands, I mean, which are becoming more and more exacting as community life advances to greater and greater perfection on our farms. Play will teach teamwork—the great principle of our new rural life.

## Hogs

More pigs are ruined at weaning time than at any other stage of their existence. They should be weaned to corn and other grain when they are with their mother, so that they will know how to eat and will not miss the milk.

Skim milk or buttermilk is desirable feed for pigs at weaning time. The milk should be fed in the same condition at all times—either sweet or sour—otherwise the digestive system will be impaired.

Usually the pigs are large and thrifty enough to wean at the age of six to eight weeks. They should have access to green forage, such as alfalfa, rape, clover, or sorghum, at all times. The feeding trough should always be kept clean.

Care should be taken that the pigs are not overfed. Overfeeding causes feverish conditions and will stunt the growth of the pigs.

## Machinery for Bean-Raising.

Beans may be expected to do well on any well-drained soil, but they seem to prefer a sandy or gravelly loam of fair fertility. Too rich a soil will favor the growth of too much vine and the beans will not ripen uniformly. The seed is usually planted with a grain drill, but when the crop is to be grown in hills it is best to use a corn planter equipped with a bean plate.

A shovel cultivator is needed for the three or four cultivations the crop requires. For harvesting there are several kinds of machinery, of which a special bean harvester is best, though a mower equipped with a bunching attachment may also be used. The only satisfactory method of threshing bean crops of considerable size is a bean thrasher, which may also be used for peas. They are made in various sizes some of which may be operated with two men and a small gas engine. Such a thrasher will thresh from about eight to twelve bushels of beans an hour, depending on the amount of vines.

"The blue of Heaven is larger than the cloud."—Elizabeth Barrett Browning.

## FERTILIZER PAYS

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## MY MISTAKE

By Emma Garibaldi

When John and I were married we probably knew each other as well as the usual run of couples. It is said, however, that you never know a person until you have to live with him, which is certainly true. We owned a small but good stock and grain ranch, and while he attended to his part of the work, I looked after the poultry and a small dairy.

Aside from the ranch we had little to draw upon, excepting robust health, and I was not long in finding out that John was both extravagant and wasteful. Every new device or article of machinery that he heard of he wanted at once and, times without number, money that was sorely needed for other things went for tools that he did not need and could not use after they were purchased.

At the end of six years the tool-house was piled to the roof with a miscellaneous collection of implements that would have delighted the heart of a city junk dealer. Besides these, many perfectly good and useful tools were scattered everywhere about the ranch to be ruined by the sun and rain, and many articles that could have been repaired at a slight cost were cast aside as worthless.

Long ago the household expenses had been turned over to me and were always paid from the proceeds of my butter and eggs. At the beginning, whenever John indulged in some unusual extravagance I would cut down my personal or household expenses to help pay the bill, and that was a foolish move on my part, for the more I saved the more John spent.

I trimmed and retrimmed old hats, I turned and dyed and mended, I scrubbed bare floors because I thought I could not afford linoleum. I used the time when I should have been resting to make rag rugs, and even drew rags into my leaky kettles and saucepans. I daily practiced hundreds of little economies while John went heedlessly on his way spending all he could get for things he did not need.

He was a happy, easy-going fellow and did not mean to be selfish. I was easy-going, too, but there was a limit to my patience; and when, one morning, John announced his intention of purchasing a very expensive and utterly impractical machine, which I knew would mean months of most rigid economy for me, I balked.

I said: "John, Martin, I have lived here and worked like a horse for six years, I have scrimped and saved and patched, I have gone without hundreds of things that were actual necessities to other women just to help you buy tools you could not afford and never used, and now I am going to quit."

John was staring at me with open mouth while a slow-growing horror spread over his features. I went on: "I have turned my clothes upside down and inside out, I have dyed and darned and patched, I have worn one hat four years, I wring my clothes by hand, I work my butter with a paddle, I skim my milk as my grandmother used to, while the farm is covered with useless and expensive machinery."

"What in thunder do you do it for?" John burst forth; "I never asked you to; I thought you had sense enough to get things for yourself when you needed them."

To that I had no answer, for he certainly never had asked me to do such things, and I evidently had not possessed sense enough to look out for myself.

"All right," I said, grimly. "I will go to town to-day and get a load—understand?—a load, of things I have wanted for six years."

John was not without a sense of humor. "Go to it," he grinned, "I guess my credit is good."

And go I did. I bought a suit, shoes, hat and gloves, two pretty rugs, and heaps and heaps of lovely blue and white enameled ware, and topped it off with an aluminum percolator. I bought a wringer and selected linoleum to be purchased on my next trip.

There was a better understanding between John and me after that. When he wanted anything and could afford to pay for it without stinting me, he got it; but never again did I deny myself clothing or necessary articles. Together, we agreed that I worked as hard as he did and was therefore equally entitled to the good things of life, and that it was not fair for me to pay all the household expenses with the money I earned. Secretly, I think John was proud of me for the stand I took that he had ever been of all my scrimping.

## Campaign in Montreal.

A pledge card campaign is being vigorously prosecuted in Montreal just now. The Women's Food Economy Committee, the Imperial Daughters of the Empire, Housewives' League, Local Council of Women's Club of Montreal and the Canadian Women's Club united to form one organization under the direction of Mrs. Huntley Drummond and Mrs. V. V. Henderson. One thousand signed cards were returned the first day and over 15,000 before the end of the first fortnight. The pledge card campaign is being followed up by ward to ward demonstrations in cooking ward meals and substitute dishes.

Do not let the pigs lie on the cement floors. Paralysis, stiffening of the joints or crippling in some form may result.

Gunns Shur-Gain Fertilizer