

Soils and Crops

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

Get Out the Fanning-Mill.

Winter days, when farm work is slack, can be profitably employed in cleaning and grading the small grains which are to be used for spring seeding. If this is put off until spring the rush of preparing the land and seeding is likely to side-track the work.

Oats, buckwheat and barley can all be greatly improved by running them through the fanning-mill at least once to remove all weed-seeds chaff, broken and light shrunken grains. It is not uncommon by the use of clean, well-graded seed to increase the yield two or three bushels or more an acre, but a gain of even one bushel to the acre will mean high wages for the time spent in getting the seed ready for spring sowing.

Clean grain will run through the mill more evenly, thereby insuring a more uniform stand. It also eliminates shrunken and diseased kernels which seldom grow, or which if they do grow, produce plants too weak and small to mature, and these have the effect of weeds instead of increasing the yield. Uniformly plump, sound kernels will germinate better, produce stronger and higher-yielding plants than the ungraded grain containing small, weak kernels.

Several farmers can afford to own and use a fanning-mill co-operatively, or each farmer can own a small one individually.

To Cut High Cost of Living.

The high cost of living has hit a great many people right in their pocketbooks. The man who grows a vegetable garden, a small fruit garden and an orchard feels the pinch of high prices less of all, for he has a large share of his living.

One of the secrets of a good garden or orchard is to order seeds, plants and trees early. Send the orders in to the seed houses and nurseries before their busy rush comes in February and March. Early orders are filled sooner than late orders because there is more time. Seed houses are likely to be short of help this year, so buyers should be particular to order early. Trees, shrubs and small fruit plants will not be shipped right away, but at any date specified in the order. Ordering early insures a better choice of varieties.

Late in the season, varieties are often sold out and it is too late to order another variety. If this happens early, there is time to order again.

Go through the old seeds now, test them to see if they will grow; send for a catalogue and order what you need. Old seeds often will not grow. They can be tested by putting them between two pieces of blotting paper, kept moist in a warm room; or by planting in a cigar box full of soil. Ninety out of 100 seeds should sprout vigorously.

Remove Stumps by Blasting.

Many farmers leave stumps in their fields because they think it costs too much to have them taken out. As I have had a good deal of experience in blasting stumps, I know that it really isn't so very expensive. By using the stumps for firewood, considerable of the cost of digging them out can be gotten back. The rest of the cost is saved many times over by the lessened time required for plowing and cultivating, and from the proceeds of the sale of the crops raised on the ground the stumps occupied.

To give an idea of the dynamite needed for clearing land of stumps, I will submit the following figures: Recently, in six days' time, I blasted 356 stumps ranging from six inches up to four feet in diameter. Altogether I used 182.5 pounds of dynamite and 856 caps.

Poultry

Winter eggs are the result of good housing, variety in feeding, proper care, and selected females.

A good poultry house is one that affords plenty of ventilation without drafts. The fowls must be protected, especially at night, while on the roost. Fresh air never killed poultry, but cracks in walls and leaky roofs have often done so. There must be ample room in the house so that the hens have opportunity to scratch and exercise. Comfortable, busy hens never worry to get outside during cold, blustery weather. They are contented indoors—and contented, happy hens are the ones that lay during cold weather.

Eggs are the product of feed. We must supply the proper feed or there will be no eggs. Those who keep 200 fowls, or even a smaller number, will find the commercial scratch foods and mashers very acceptable. They are well balanced and composed of a variety of grains and seeds that are greedily eaten. Where a larger number of fowls is kept, poultrymen generally do their own mixing. They make corn, wheat and oats the basis, and add to these the by-products—bran, cornmeal, middlings and oatmeal.

If mashers are moistened with skim-

Many inexperienced blasters make the mistake of placing charges too close up under stumps. The result is that the stumps split instead of coming out of the ground. I believe in placing charges deep in the ground under the stumps. In that way, the stumps are gotten out, large roots and all.

It is also important to get the charge properly centred under the stump. Many make the mistake of boring the hole down to the centre. They fail to take into consideration that the dynamite cartridges are eight inches long, and if three or four cartridges are loaded into one of these holes, it really brings the charge away over to one side of the stump. The effect of this method of loading is likely to be the splitting of the stump in two. The side under which the charge is placed comes out, while the other side under which no charge was loaded remains in the ground.

Spraying is Important.

"Spraying is the most important single operation in orchard management," says a successful orchardist. "Because it is so important, some orchardists have thought it the only thing essential to produce good fruit and they have sprayed their trees well, but neglected pruning, cultivating and fertilizing. This practise has generally resulted in failure or in only partial success."

"Spraying is the most expensive orchard operation. The materials for spray mixtures are expensive, and the cost of equipment and labor is great. The cost of materials can be lessened somewhat by spraying each variety according to its individual need. For instance, Yellow Transparent trees need much less spraying than Duchess trees. Grimes Golden and Jonathan need fewer sprays and cheaper mixtures than Ben Davis."

"The expense for labor can be cut just about in half by the use of proper equipment and management. For example, two spray rigs and the right kind of a supply-tank wagon will spray just about twice as much orchard as two rigs alone. Or, to put it another way, two spray rigs with a good supply-tank rig will spray about or quite as much as four rigs without the supply tank."

"Proper equipment enables the grower to get his spraying done on time, or more nearly so. It is necessary to have the spray on the trees when the eggs of insects hatch and the small insects begin to eat, and also when the fungus spores are being produced. A common mistake is to spray too late instead of too early."

"Spraying should be done thoroughly. However, the trees do not need to be drenched. Summer applications should cease just before the drenching point. Expert sprayers using angle nozzles, small-hole caps and high pressure can do a thorough job and stop spraying long before the drenching point is reached. This is the ideal which the average grower has not been able to attain, because he has not the expert help."

"For several years we have been doing as much of our scale-spraying as we are able to do in the fall. What remains can easily be done in the spring. Then after the growth starts, but not so late as to cause injury to the foliage, we spray again some of the varieties and sections of the orchard that are most susceptible to scab and blotch."

"If our fruit is more or less infected with scab or blotch one season we are not discouraged, but simply go after the spraying stronger the next season, with a determination to get the sprays on earlier and more up to four feet in diameter. Altogether I used 182.5 pounds of dynamite and 856 caps."

milk or buttermilk they will be all the better. The fowls will not only eat them more greedily, but a valuable egg-producing ingredient is added.

Green food or a substitute must be supplied during winter. Some poultrymen feed dried lawn clippings, some use sprouted oats (and this was the greatest innovation in the poultry diet), some feed cabbage, but the majority feed mangels, beets and other roots as a substitute. The fowls must have bulky food. Steamed cut clover hay or alfalfa are also excellent.

The stock must be regularly attended to, fed at regular hours and kept busy scratching. Houses and premises must be kept clean and the air of the house must be pure.

Last, but by no means least, the stock must be carefully selected—each year breeding from the cream of the flock.

All these things are necessary for winter eggs.

High Cost of Living.

"We throw away ashes and buy soap. We raise dogs and buy hogs. We catch ten-cent fish with a \$4 rod. We build schoolhouses and send our children away to be educated. And all of us try to live according to the standard set by those who make just a little more than we do."

Is there any one of us who doesn't do at least one of these things?

THE CHEERFUL CHERUB

What happens doesn't matter much—
Mishaps of many kinds
Are only inspiration
for
Philosophizing
minds.
RT(100)



The Best Crop of the Farm.

One of the greatest needs of the farmer just now, even surpassing the need of better stock, better crops and better help, is the need for a better home life. Not all farmers know their want in this respect. They realize that something is wrong, but they do not know how to deal with the problem. They are too busy to stand still and think it out.

"What are we going to do about this problem? No use to say, 'Go back to the quiet old times!' We can't go back! The time we live in will not let us. We must go ahead, and go ahead fast. Every other way is hedged up. How, then, can we re-adjust ourselves to the new conditions, so that the home life of the farm shall be better and sweeter and purer?"

In the first place, the fathers and the mothers on the farms must realize that they have no greater business than that of properly bringing up their boys and girls. What do all the fields of corn and wheat and rye and potatoes amount to by the side of the young folks? Small potatoes and few in a hill can be made up for in some other way, but good, honest, true men and women we must have, or go bankrupt as a nation.

With this fact in mind, we shall see that it is better to turn over a few less furrows in the field and to cultivate the hearts and minds of our young people more carefully. We shall never do so well as we should if we do not scatter good seed in the rich fields of the hearts of the boys and girls. This will mean that we will not want to sleep so much of an evening, but that we shall have a little more time to get close down to the hearts of the young folks. We will try harder to find out what they are thinking about and what they

dream about when they are about the farm.

Good Roads, Good Markets, Good Profits

Farming is essentially dependent on the condition of country roads; for whatever is not produced on the farm must be hauled to the farm, and many crops of the farm must be hauled away to the railroad stations and local markets.

Farmers sooner or later learn the desirability of diversified farming. In this description so much as bad roads, for the prime requisite for successful diversified farming is a good market. This market may be either a nearby town or a city, or a distant market which requires railroad transportation.

It is a well-established fact that market prices for every staple crop vary considerably throughout the year. Where bad roads prevail, farmers are frequently unable to avail themselves of favorable prices. It is common for farmers to find that they can not haul their produce to market when prices are highest, because the roads are impassable. When the roads are passable the time for market has already passed and the product is compelled to move in masses which frequently glut the market and break the prices.

Fluctuations in market prices may have several explanations. They frequently take place in regions where the local production does not equal the annual consumption. There are counties rich in agricultural possibilities, burdened with bad roads, where the annual incoming shipments of foodstuffs exceed the outgoing shipments in the ratio of four to one. Many such counties with improved roads could not only become self-supporting, but could ship products to other markets.

When the roads of the great producing zones of this country are improved, benefits will accrue not only to producers, but to consumers. When marketing is distributed throughout the year, storage charges must decline. This country is paying at present large storage prices on foodstuffs. The disadvantages of freight congestion in the fall can not be entirely eliminated in many places, but good roads will certainly have a marked tendency to distribute hauling over longer periods.

It is reasonable to say, therefore, that good roads mean that diversified farming will be encouraged, the area of profitable production increased, the opportunity for favorable marketing improved, and more uniform distribution of farm products secured.

Bad roads inflict two-fold hardships on the one-room district school. Where the school is on a poor road, a common practise in severe weather is to keep the children at home. The attendance is thus, at times, almost entirely depleted, and the continuity

The Welfare of the Home

BY IDA M. ALEXANDER, M.D.

Milk is the staff of life, not bread. The baby begins life on it and grows wonderfully that first year. Old Age should go back to milk and forget that it ever tasted meat. All of us would be healthier and more good-natured if we drank more milk and ate less meat.

I smile when I tell you this, for I well know how the average farm family shuns milk. I have tried to get them to drink it when they were sick—and failed.

The city dweller says, "I cannot afford to use much milk at fifteen cents a quart," and then pays fifty cents or even a dollar for enough meat for three people. But the baby, and especially the bottle-baby, is gorged with milk! Even in France I did not find a baby that was suffering for lack of milk but I did find those suffering from dirty milk, suffering because of too frequent feedings or bad combinations of food.

Do you realize that many people are starving because they eat too much? Many babies are starving because they are fed too often, so often that the food taken does not have time to digest.

Of course a baby is fed often during its first days of life for the weak stomach holds but two tablespoonfuls. In one month the stomach capacity is doubled and then in all kinds you should allow. Baby more than enough milk and three hours between meals. I think a mother should lie down to nurse her baby if she is working hard. It gives the baby more time and a mother should really take time to enjoy feeding her baby. Yes, and that baby grows faster and is happier for taking its meals slowly and less often.

It has been my experience that babies are overfed while mothers are underfed because they do not take time to eat. I would not for the world join the class of those who live to eat but I do realize that if this marvelous human machine of ours is going to do the best work of which it is capable, it must be fed. No engineer would cheat the engine of coal and then expect to make schedule time. He watches the gauge and when the pressure goes down, in goes more fuel. The engine gets "tired" after a while and must have a rest.

Let me ask you; if the engine must

have "food" and "rest," why not you, too, little mother? Do you know that the farm children do not well fed? The examination of rural school children shows that five to seven out of every ten are half starved or quarter starved. This means that there are mothers who are working so hard at other things that the mother's most important work—bringing up her children—is neglected. And many of them know it but if things are to be made different you mothers will all have to get together to make things different. You can have your children given a hot lunch at school at noon, if you all vote that way.

The mother who is a good cook rarely has large bills to pay. By being a good cook, I do not mean good bread, butter, well-cooked vegetables and lots of them; I mean good bread, rice, macaroni, spaghetti; I mean good soups. I mean the real food-things not the "twinnings."

If you would have the family well fed, you must think in terms of food values. If you would buy wisely for your household, you must buy in terms of food values. I saw one farmer's wife exchange one dozen eggs for two packages of ready prepared breakfast food. There was as much food in one egg as in one whole package of the breakfast food. How much money did she cheat herself out of by not knowing food values?

I know some who complain about the price of tea. Well, the food value of tea is zero, tea is expensive at ten cents a pound. I will not drink it. Why do you give it to your children? It actually does contain the harmful sugar, tannin, and a child's sensitive nervous system should not be drugged. Why not give the children hot milk or oatmeal porridge or some other food that is largely made of milk and served hot?

Will not my readers look their children over and see if they are plump cheeked and rosy, full of play, bright-eyed and full of laughter, noisy and rosy even, because they have so much "pep" in them, but, "perfect pictures of health."

If they are not that, will you not ask why?

Do they eat enough of the right kind of food?

Making Hams and Bacon at Home.

Anyone who is fortunate enough to have hogs to butcher can have meat at home that is superior to any packer's product, hams and bacon of fine flavor and color well marbled and juicy.

Meat can be cured more easily if the butchering is done at a time when the weather is not extremely cold, just barely freezing at night. When the carcass has cooled, trim the joints and sides and lay them on a table or salt down in a box. On the flesh side of each ham or strip of bacon sprinkle about a teaspoonful of saltpeper, or until the surface appears as if lightly frosted. Large hams will require more than a spoonful. Cover the surface well with salt and brown sugar, in the proportion of three pounds of salt, to one of sugar. This covering of salt and sugar should be about a quarter of an inch thick. Molasses may be used instead of sugar. The object is to improve the flavor and retain the natural juices. Pack the meat closely, and allow it to remain thus for a week, when it should be taken up and resalted with the sugar and salt.

The length of time meat should remain in salt will depend on the weather. If mild weather prevails so that the meat is not frozen nor the salt caked, it should take salt in about twenty days or less if the pieces are not exceptionally large. When it has lain in salt long enough, dip each piece in boiling water for thirty seconds in order quickly to dissolve the salt as well as to sear the surface slightly. Hang up, and begin to smoke with hardwood chips or corncobs. Paint the surface of each ham with molasses to which has been added finely ground black pepper.

The old-fashioned smokehouse was not always a success—it was too large. Much better is a large box or hoghead in which the meat can be hung closely. A stove should be placed at some distance, with the pipe running in at the bottom of the smokehouse. Thus you will get all the smoke without the heat from the stove. The smoke escapes slowly through holes in the top. Smoke for two hours every day for ten days or two weeks, when the meat may be packed away or left hanging. It is much safer to pack meat in some way so that insects cannot reach it. If the smoking has been done after insects have begun to fly in the spring, the meat should be dipped in boiling water to destroy eggs that may possibly have been deposited, then each piece

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wrapped in paper, and packed in a box with dry ashes, straw, or other absorbent material. It may also be put in sacks and hung where it is dry and cool. Never store meat in a damp cellar, and always, when packed, have some absorbent material about it.

Putting off the thing that needs doing right now means putting on a bigger load another day. Come on; let's go right down to the barn and clean up the big floor now! Better do the butchering after the children have gone to school. Bloodshed is heart-rending to a sensitive child.

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SELECTING SMALL FRUITS

In buying small fruit plants it pays to select hardy varieties which have proven successful in the community. By trading with reliable nurserymen, fruit will be obtained which is true to name and this saves much disappointment. Sometimes good plants can be obtained from neighbors or friends in other sections but the grower should not accept such plants even if they are free unless something is known of the varieties and health of the plants. If raspberries are obtained from a badly diseased patch there will be but little chance of growing them successfully.

Often a home fruit garden will become mixed when a large number of varieties are grown in a small area. Then if plants are taken from such a patch the new fruit garden may turn out to be full of mixed varieties and this is a great handicap at harvesting time. The different varieties ripen at different times and it costs money to pick berries. If a patch is mixed and the fruit does not ripen evenly, most of the profit will be used up by the cost of labor in hunting for berries. When the fruit is purchased from a reliable nurseryman who has had experience in growing plants and controlling insect and fungus pests, there will be the best chance of growing the fruit at a profit.

When the fruit is to be grown commercially it usually pays to select one or two varieties rather than a large number. Then there will be enough fruit ripen at one time to make the marketing profitable work and when it is finished the grower will not have to be bothered with small fruit again. If there are many varieties and a few plants of each kind, the grower will constantly have a few crates of this and that to take his attention from other work. If the small fruit garden is only for home use it sometimes pays to select several varieties so that the fruit will be available for use on the home table over a long period.

The acreage planted to small fruit can only be determined by a study of the labor supply and a comparison of the time taken in fruit growing with the time necessary for other work. Many farmers have had a city friend ask them why they didn't plant fifteen or twenty acres of strawberries, sort of as a side line. Only experience with strawberries can prove to a man the large amount of labor which can be expended on one acre of this very desirable fruit. The growing of brambles also takes considerable time. The care and pruning amount to the equivalent of considerable money and the crop must pay the bill plus the profit.

In selecting the small fruit plants it pays best to start on a small scale and then increase the plantings as the experience proves that it will be safe. Then the acreage can thrive on the home farm. Small fruit suffers on a great variety of soil and while some soils are better than others, every farm should have a small fruit garden at least for home use. There is practically always a good market for the surplus.

What Do People Think of Your Letters?

Leaders among farmers are becoming better business men. Many of them are specializing in some product which they sell to wholesale dealers personally or through correspondence. The scientific farmer who operates his farm as a business establishment does a manufacturing plant, finds his correspondence and business details increasing in volume. Some of these have seen the advantage of the typewriter in turning out more legible and more business-looking letters, as well as the value of keeping records of their transactions, more adequate presentation of the advantage of the typewriter to farmers would undoubtedly stimulate a larger market.

More farmers are daily adopting names for their farms, and are getting out good-looking printed letter-heads. More and more they are realizing—and especially if their attention is called to the fact—that an uncertain scribble, or even Spencerian penmanship, looks less businesslike beneath the heading "Maple Grove Farm," "The Willows," or "Brookmont Stock Farm," than would a neatly typed letter. They are learning that a typewriter business communication creates a better impression and carries added prestige. A wholesale and retail dealer says:

"I think it would be a fine thing for the farmers to use typewriters, because when we get a letter from one of them which is typewritten we notice it especially, and assume that he is a business man, and put more confidence in him. That is, we feel that if he offers to deliver a certain amount of grain, being a business man, he will take some sort of responsibility and will make good on his word. On the other hand, if we get a poorly written letter from a farmer we do not place much confidence in him. I think the farmers could get a little more from the various wholesale houses by corresponding on the typewriter and writing a good letter."

Ten minutes' delay at each meal means half an hour of mother's time lost each day—or more than eighteen ten-hour days in a year.