when the Young Turks bom-
the palace.
s a most exciting city to be
Capt. Duff, in speaking of the
the Turkish capital. "The city
a state of siege and we could
ing done. We were compelled
in there, though most of us
ave preferred a less strenuous
Revolutionists were firing
the streets and the barracks
rning. Row after row of plate
indows on the Rue Pera, the
street, were shattered by the
ment."
Nicolaieff the Chatham carried
o to Rotterdam, after which
eeded to England, and steamed
continent May 29 for Egypt.
Soudan ports with cargo. She
ed cargo at Singaporo, Ban-
n, and then again back to Sin-
Next she loaded gunnies and
cargo at Calcutta for Samar-
saoeroean anhd Pekakongan,
rts of Java. She then pro-
o Australia through Torres
o load bunker coal and horses
een ports of the West Coast,
ere she came north.

nxtion Seems Reasonable.

aufield was unable to attend
rt on Wednesday night, hav-
ned with an accident to her
atching it on the stove door
ng her to go to the hospital
t attended to.—Fernie Ledg-

ose Lawn Dogs Again.

dog license tag was recently
a can of beef from Chicago—
d Ledger.

grossive Sportsmanship.

g lady living near Keremeos
hot a lynx. She already has
nd wildcat to her credit, and
to get a man before very
enwood Ledger.

ecount of Plebiscite.

h the ballot box and plebis
ts for the Skeena electora
ere received almost a week
s not yet been possible to
y-Provincial Secretary to get
interested together in order
recount may be completed
official statement as to the
the plebiscite issued to the
lthough the result is known,
d that the count may be
and the matter disposed of,
he Department is concerned,
he new week.

rg Laugher left last night
o.

RURAL AND SUBURBAN

ORCHARD PLANTING, PRUNING AND SPRAYING

By George Heatherbell, Glen Lea Farm, Colwood, B. C.

Have the land in as good heart as possible. That is, have it under-drained to carry off the surface water, and to conserve the moisture, let in the air and warmth of the sun. Or, at least, head the water off by open ditches until such time as you can properly under-drain the land.

A good clover sod makes a fine bed for planting on. Dig large holes, throwing out the subsoil, then fill with sods and surface soil to the level the tree is to stand, which would be about two inches deeper than it would stand in the nursery. After carefully trimming the roots, that is, making a clean-cut of all the bruised roots that were injured by the spade when removed from the nursery, cut back all extra long ones to balance them, so they won't be sending the sap all on one side of the tree.

It needs two to plant a tree properly, one to hold it in place and to fix and to fill in the earth around the roots, while the other fills in the soil. Be careful to keep the roots near the top separate from the ones lower down, so that each part of the root will have its own portion of soil to feed from—this is very important—and work it in with your fingers well up under the crown, so that there will be no air spaces, shaking the tree a little to help settle the soil well down. If the soil was very dry, put a pail of water in the hole when about half full, then fill up with all surface soil, and tramp in solid, but do not tramp the top layer of two inches or so. You only expect to plant the tree once, and it pays the biggest kind of interest to do it well then. It is extremely interesting and indeed very satisfactory to see a fruit tree respond to your efforts and encouragement in the way of making it grow, and to see it doing its very best for the treatment it is getting at your hands.

After comes the point of heading your tree. There are two ways of doing this. One is the "pyramid" and the other is the "vase" or "goblet" shape. I prefer the vase shape, only you must avoid having any bad crotches, they are likely to split down when heavily laden with fruit or soft snow. The vase shape is better for letting in the sun and air, and when the fruit bends down the limbs, they bend outwards, and, consequently allow the sun in still more, which insures a higi color. Then, again, it is easier to keep the tree within bounds and make it much better for spraying and picking and working among your trees generally.

One objection to the pyramid kind is that if a strong grower, in a few years it runs so high that you have to cut off the top any way, and then the trouble commences; also when the fruit brings down the limbs, they droop down on each other and form a close mass. It is necessary at the time of planting to know which of these methods is to be followed.

Pollination

When planting an orchard, plant in alternate rows, or just plant two rows of each kind alternately, for the benefit of cross pollination as they have proved beyond question at the Experiment Stations that it is beneficial to fruit as to size and quality.

There are two points particularly to be impressed upon you, and they may as well be put in here, one, that it is quite possible, and not a hard job either, to have apples free from scab and clean; and the other, that it is possible to make old trees profitable, if not too far gone and they bear the right kind of fruit. So you need not be discouraged when the inspector comes along. But although that is true, you must not suppose it can be done without an effort on your part.

First, get the soil in good condition and see that it is fairly drained, so that the water does not lie on the land for any length of time. Enrich the soil by putting on the best manure you can obtain, or failing that, plow in clover, as a fertilizer.

Any old trees that do not bear the right kind of apples should be cut off as low as the head will allow, and top-worked to a better kind of apple. Scrape the rough bark off the trunk and large limbs, so that the No. 1 spray can get the best chance to get at the bark louse; the old bark makes a fine hiding place for them; and dig out the borers, which you can easily find in early spring and summer. Then, with good spraying and good cultivation thoroughly done, you will be able to watch the trees grow and in three years become profitable.

Plant trees by the triangle, or what is called the equilateral triangle method; that is, every tree stands in the centre and equally distant from six others, which gives a greater space for air and light, and trees so planted may be at a less distance than in the square and still have more room, and it gives you three ways of cultivation. The trees will be some two or three feet closer between the rows than they are apart in the row.

Pruning

As stated before, the vase shape is the one I prefer, and have the trees headed from one and a half to two feet high, where the limbs start out from, and have from three to five branches to start the head.

Pruning—why do we prune?

One reason why we prune young trees is to make the tree grow in the form we wish to to have it, and to keep the top within bounds, as, if a very strong grower, the top would be too heavy for the stem, and blow over or break down. And we prune bearing trees with a view to more profitable bearing. A tree will bear well if not pruned at all, and as nature intended it to do. In fact, nature aims to produce seed; and this is its chief aim. But the fruit-grower is not directly concerned about seed production. What he wants is a large apple; that is, more pericarp formed around the carpel, or, in other words, more flesh around the core; and this is secured at the expense of seed production and fertility. The question then is, how can you prune a bearing tree to make the fruit larger, better color, and better quality? You must let in the sunlight, and train the tree so as to have an open top when loaded with fruit. So that you must cut away the excess of limbs, so that the sunlight can get all through the top of the tree. There must not be too many leaves, either, to act as a blanket, keeping out the sun, yet still enough to transform the sap into the necessary ingredients to make good fruit.

Summer Pruning

You must, of course, study the habits of your trees in regard to their growth. Those that are inclined to grow down, like the "Bell-flower," you must prune up, and those that are inclined to grow up, like the "Spy," prune down. But always remember that when the tree starts to bear, the limbs will naturally come down, more or less. Always make the cut clean and not too close to destroy the bud, and leave an ugly spur or elbow.

Keep the tree from getting bushy as far as possible, and in taking off large limbs, always cut close in, to avoid new shoots starting around the wound; and if they do start through the summer, take them off.

When looking at a tree to see how to commence, first start on those limbs you know have to come out, that is, those that are cross from one side to the other, and those that are too close to others and interfere with the light and air getting in. Then look to the balancing of your tree. I think it a bad practice to cut off the tips of all the branches, whether they need it or not, especially if the tree is bearing well.

If you should have a tree with a crotch that is likely to split, a good way to avoid that is to get two or three screw eye-bolts from any hardware store. Screw them into the tree above the crotch, and put galvanized wire through the eyes and twist it up. You will find it neat and effective, especially after the tree grows around the bolt.

Spraying

I will come now to spraying. If possible, prune first, to economize in saving spray. Why do we spray, or what is the object? Of course, we all know it is to kill the pests that infest fruit trees, apple and pear and plum in particular. But we want to learn just what kind of pest we have to fight, and the very best kind of spray to use to be the most effective, and the best time to apply it. It appears now that in using the formula sent out by the government long ago, of the "Lime-Sulphur" solution, that they were somewhat in error, in so far that they gave imperial measure instead of American, which has made the spray weaker than intended. I believe in the American formula for sprays, for the reason that they have much worse pests to contend with than we have at the present time; for instance, the San Jose scale and the codling moth. Therefore, it is my opinion that now they have proved their formula of the lime-sulphur solution is death to the San Jose scale, there is no doubt in my mind that it will kill anything we have in that line if properly applied. They have proved in Washington that arsenate of lead is much better than Paris green as an insecticide, one pound to 50 gallons of water for codling moth. It keeps in suspension much better, and will not wash off.

No doubt some have noticed the russety, cracked and shrunken-on-one-side appearance of some applies after the Bordeaux spraying. The New York Experiment Station at Geneva has taken that up, and the tests have proved clearly that it is the Bordeaux mixtures which causes the injury, and not the arsenate used with it; that weather conditions have much to do with the russeting of the fruit and spotting of the leaves which characterize the trouble, and that an excess of lime is not a preventative of the injury, and that strong Bordeaux causes greater injury than a weaker solution.

I am a firm believer in the No. 1 spray—lime and sulphur solution. It is a great fungicide, as well as a killer of the eggs of the tent caterpillar, aphis, etc., and death to the oyster-shell bark louse or scale. I also strongly believe that it is a great check, if not a preventative, of the black spot on the bark, which is a very serious trouble indeed in some orchards, so much so that I have seen men quite discouraged by it in some orchards. If you prune first, be sure you burn the prunings.

Start on top of the tree and spray downwards. Be sure and cover every limb and branch, especially the tips, and remember after you get the right material, that it is on the man behind the gun that the thoroughness of the job depends. If there is any wind, spray on the weather side only, and when the wind goes down or changes, spray the other side. Be sure and have the trees dry, and, if possible, spray in weather when it will quickly dry. It can rain all it wants to after the No. 1 is dried on, it will not harm it. Use gloves soaked in oil or pine tar and rub vaseline on the hands to save them from burning.

I believe in leaving the No. 1 spray as late as I dare do, before applying it, as I think the eggs of the tent caterpillar and aphis easier to destroy the nearer they are to hatching out, which is the case as the sun gets warmer. And I beiieve the No. 1 will largely take the place of the first Bordeaux spray as a fungicide, when applied late or just before the buds burst. Let me say again to aways remember it is poor economy to save spray, as everything depends on the thoroughness of the job.

Professor Britton, of the Connecticut Experimental Station, has shown conclusively that after it is paced on the trees its efficiency remains for months. He found more dead scales at the end of two weeks than at the end of one, and more dead at the end of four months than at the end of three.

Professor Piper, of Washington State College, at Pullman, has demonstrated beyond a doubt that the salt is not necessary, and it is doubtful if it makes it stick any better, as some claim, as the saltless spray can be seen on the trees months after spraying.

How to Make It

One-one-three is the formula for making No. 1, or 1-1-4 for a weaker solution; that is, one pound of clod lime, one pound of sulphur, and three gallons of water. Put the lime and sulphur together, add enough boiling water to well cover the lime and let it cook the solution. Then add the rest of the water to make three gallons to each pound of lime and sulphur. That is one way.

Another is to boil your ingredients as above for about one hour, or until the mixture becomes amber color. This is the nice part of the job, as if you boil it too long, it will change the chemical formation, and it will not be good, and if you do not boil it enough, the sulphur will not stay in solution. It is better to have the spray warm, as it works through the pump better.

Next Spray

Next spray with Bordeaux or lime and bluestone, 4-4-40; 4 lbs. clod lime; 4 lbs. of bluestone, and 40 gallons water. I believe a stronger solution has a tendency to harm the fruit and foliage. Spray first just as the buds are opening, and again when the blossoms fall, and again when the apples are formed and before the calyx closes. The last is important.

The best way to mix the Bordeaux is to put the four pounds of lime in a barrel that will hold twenty gallons, and slack it with, say, four gallons of boiling water. Then put four pounds bluestone in a sack (a twenty-pound sugar sack is just the thing), and suspend the sack just above the bottom of the barrel; then pour boiling water, say, four gallons, and it will dissolve quickly. Now add water to each, to make twenty gallons in each barrel. Then it is better to have two men to dip out the lime and bluestone solution, pouring the same together in your forty-gallon barrel, so that the solution is mixed evenly as you go. This is important; the reason for this is that if you mix it wrongly it may form a solution that will curdle, as it were, and be quite different and not so good.

I may add, too, that the whole of this southern end of Vancouver Island has an exceedingly bright future in the way of fruit-growing; even where the soil appears too dry you can make up for that largely by cultivation if you will only follow it up and start in before the ground dries out. Stir the soil, and keep stirring it, and you will find what a difference it makes to crops of all kinds.

Let me say, too, do not waste time and money planting fruit trees if you cannot care for them properly. Do not stick them in and expect them to grow without good care, as evidently many do, leaving them in sod and without cultivation, and a prey to all pests and diseases that may come along.

TRAINING, PRUNING AND SPRAYING FRUIT TREES

By Joseph William Webb, Bromlea, Carey Road.

I have lately seen several articles in your paper on the above subject, and I cannot quite agree with the views expressed.

As to training trees in the vase-shape, as advised by Mr. Hamilton, it is rather misleading, for while practicable in some cases, it is not so in others.

Trees of an upright growth, or on dwarf stocks, are amenable to this training, but strong growers such as the Brambling, or trees of a drooping tendency such as the Belle Flower, are not suitable.

Screw-eyes and wire I strongly object to, and without very constant attention the system is bad; and I have seen very bad results—this manner of training had better be left to the gooseberry grower.

Bear in mind there is no orthodox rule for pruning to be followed, as a tree must be trained, and pruned, according to its age and variety, and to the locality and soil in which it grows; and before attempting to grow vase-shaped trees, cordon, espaliers, or any other fancy shapes, I strongly advise the fruit growers to stick to the good standard shape trees of good paying varieties, and keep them carefully cleaned, pruned and sprayed, and the ground most thoroughly worked, and he will find this the best commercial way of growing fruit. If a man does not do this, he is better out of the business, for he will never make any profit.

Mr. Simpson advises planting 12 feet apart; unless on a dwarf stock many varieties would entail an infinite amount of work and trouble—the hard cutting back (if on rich soil) would cause barrenness; still some varieties would prospect, but it would require very careful selection.

I most strongly advise summer pruning; it not only adds to the fruit bearing, forms the trees into good shape, but it concentrates the sap in the right direction, and there is less hard cutting and pruning required in the winter.

All young trees should have the fruit thinned twice in the season; it is apple flesh that is wanted, not pips-core and hard peel.

Apples should not be left on the underside of the branches, preference being given to fruit exposed to the sun.

As to spraying, in my opinion it is becoming more essential every year; as the fruit orchards get thicker together, the fruit pests and fungus growths increase, and must be fought. Therefore spraying is a necessity.

I have experimented with many sorts of sprays, insecticides and fungacides, and have seen thousands of trees sprayed many ways, some very badly done, with tops of trees altogether missed, others simply whitewashed, and very many with spray mixture badly mixed, or a worthless solution—but this does not condemn the system if properly carried out.

The government mixture—lime, salt and sulphur—if properly made, and applied as directed, will never hurt the bark or even the most tender young shoots, and to prove this, I shall be glad to show anybody my trees, some only whip grafted last spring and sprayed twice since with full strength.

I have the strongest proof that it will effectually kill oyster scale, which takes a good deal of killing.

Bordeaux mixture, as a fungacide, if properly used, is harmless; and I strongly advise all fruit growers in districts that have had any flesh-borers of any kind to spray with arsenate of lead, as soon as the petals fall, and it will cause no injury to tree or fruit.

It is the man who will watch his trees, and see they are clean, pruned and cultivated that will succeed as a fruit grower.

Watch and (s)pray, is a fruit grower's motto.

LAND CLEARING

By V. Nightingale, Cobble Hill.

Agriculture in British Columbia is in an almost unique position, the demand for produce is growing by leaps and bounds, but the supply is very slowly increasing, for the simple reason that it has to depend for its growth on the unorganized efforts of the individual, whereas these unorganized efforts are not powerful enough to grapple with and overcome the difficult problems retarding its growth in the province.

This particular problem of land clearing is one of the most difficult and also one of the most important and, so far, the only apparent solution seems to be by an organized state system on the lines which have already been advocated.

The idea has been growing in popular favor for some years, but owing to the magnitude of the work, the expenditure involved and the elements of chance in the proposition, we cannot be surprised that the public have so far not demanded it strongly enough to induce the state to adopt it, though there are very strong signs that it will materialize in the near future.

If we could immediately produce a condition of affairs in this province where it would be palpable to everybody that there was a good home, a pair profit and as much inducement to go into agriculture as any other industry, this fact, coupled with the longing inherent in humanity to live in a home of their own, would immediately cause to spring into existence a demand for cultivable land, which would render it absolutely necessary we should go into land clearing by some such organized system as has been already suggested.

To produce some such state of affairs should, I think, be our first aim, and any proposal looking to an organized state development, if it wishes a speedy and full success, should fulfill three conditions, viz.:

1. It should be a profitable financial undertaking for the state.

2. The beneficial results accruing to the settler already here should be so obvious as to appeal to every thinking person.

3. The effect on the tide of immigration should be so great, that this effort alone would warrant the initial expenditure.

Any proposal that will fulfill these conditions is, I think, worthy of serious consideration, and I have spent all my spare time since writing on this same subject several months ago, in trying to formulate some system that would comply with all these conditions, and also by its reactive effect, induce us to go into land clearing on a more extensive scale than we have done yet.

The result is that, providing our published and authorized literature advertising British Columbia and its resources, is within reasonable distance of the truth, I will in a few weeks lay before the public for consideration a proposal that I will guarantee to fulfil these three conditions.

I will not presume to enter into it fully in this article, but I will briefly outline the kernel of the proposition.

This is, instead of relying altogether on the Dominion experimental farms for our agricultural education, the province install in every district a demonstrating farm, where the whole process of bringing our land from its virgin state and placing it on a profit producing basis can be seen and studied by everybody;

A place where the settler can be shown that his own kind of land under his own conditions can be made profitable, where he can see what to do and how to do it;

Where the industry will be brought to the highest possible point of profit under the conditions prevailing in that locality;

A place that will be headquarters for the industry, and where the settler can go at the cost of a few hours' time, and get advice in any problem he may be unable to solve himself.

We should be able to avoid the mistakes and the waste of time and money caused by an ignorance we cannot overcome by literature, and last, but not least, we should be able to tell the intending emigrant that British Columbia will eliminate all chances from agriculture except the very, very rare ones that spring from an abnormal season; that wherever he settles he will be within a few miles of a government demonstrating farm, where he will be shown exactly what to do and how to avoid paying the exacting price for experience which so many of our new settlers have had to pay heretofore.

The expenditure for this will not be heavy, the province will always have these farms as an asset, and surely after all our advertising we cannot call it a waste of money to spend it in this way, even if it did no other good.

That they should prove in a few years to be a source of profit even with the extra cost of employing more or less expert labor, I am taking from an estimate published under the authority of our legislature and applying generally to British Columbia. This esimate is for the prospective settler in the province, and tells him that if we wishes twenty acres of apple orchard, it will cost him $7,296.14 to buy it and maintain it for five years, but after the ninth year it will yield him $3,000 for working expenses and between 30 and 40 per cent on his original investment.

I will leave my readers to judge for themselves whether, "after considering a statement like this," the venture ought not to be a financial success, especially coupled with poultry and the added inducement of competition between the operators of these farms, to show the best balance sheet and the reward to be a percentage of net profits and a cash prize to the top liner.

I hope to forward a pamphlet within a month dealing with the subject in a more comprehensive way.

DRESS AND IMPLEMENTS FOR WOMEN

Here is a practical working dress for the woman who personally delves in her garden. A loose shirt waist, with the addition in colder weather of a heavy sweater; a stout tweed skirt for the spring and fall, replaced in summer by one of linen or denim, cut a good three inches off the ground. Over that a seersucker apron, with two capacious pockets to hold the necessary labels, twine, pencil and shears. An improvement on the ordinary gardening gloves is, to take a pair of old loose dogskin gloves, sew pieces of seersucker on their tops, drawn up and gathered in with elastic bands above the elbows. These tops will prevent the sifting in of sand or gravel.

For a sensible head-covering, a sun-bonnet with "poke before and cape behind" is advocated. But an old-fashioned Leghorn hat, tied on with ribbon, will be preferred by some. My spring gardening in March is such windy work that if my hat were not well anchored, I feel I should accomplish but little.

As to tools: First buy a good pair of solid steel pruning shears (do not be beguiled into taking "ladies' light pruning shears"), a solid steel trowel, an angle-trowel, a round dibble for transplanting, an Excelsior hand weeder, a small hand fork, a rubber plant-sprinkler, a ball of stout twine, a bundle of raffia for tying up smaller flowers, and light, small-sized rush basket in which to carry these tools. Above all things, have your own small-sized, but strong, spade and rake; they are handier for a woman to use than the unwieldy man's size. Two joys of my life for use in the garden are wooden labels painted on one side, and countless wooden dowels. In my perennial beds I use quantities of ten-inch wooden labels, for I sometimes forget the spots of the perennial roots. I found that at any planing mill I could buy seven-eighths-inch dowels, twelve feet long. These are cut into four or six-foot lengths, as needed, and painted a dull green color. A wet day in spring is excellent for the task. When well sharpened at one end they make excellent substitutes for the more finished plant stakes of the seedsman.

For the smaller-sized plants, buy slim bamboo rods in bundles of 100 or 150, from any seedsman, and cut into the required lengths with the steel pruning shears.—Mary Leland Butler.

BIRDS THAT PAY

Some hens are not worth their keep; others produce enough to cover the cost of their handling. The hens that pay are those that more than meet the expense of money and time necessary to make them worth while. There are three classes of hens, and the last is the one that we all desire and the one that we can have if willing to pay the cost.

What is necessary to own birds that pay? It takes more than money to do this. You can buy birds that can pay, but it is another thing to have them pay you after you own them. Not only must you have the right kind of hen, but you must use time and thought in caring for her to make her of the "paying kind."

The paying hen is usually hatched from a paying strain. The paying hen that comes out of a flock of good-for-nothing birds is seldom met and is not worth hunting for. It takes time, it takes money, it takes born hen sense, to produce a flock of paying hens. It takes a very little neglect to send this flock back to the class of non-paying birds.

Paying birds are a delight to the eye. You like to show them to your friends, and linger in your description of what they are and what they have done for you. This class of birds—because they pay—received thought and attention from you. You gladly take good care of them you are willing to properly mate and feed them; you look for fresh blood to improve your flock.

Paying birds never make up a large part of your flock when you sell the cream of the chicks every year. Money making flocks are made up of the best you raise always letting the second quality go to market.

Hens that more than pay splendid profits are what the world is asking for, is looking for, is demanding. Are you going to be among the breeders who will fill the orders for this kind of bird?