

REMOVING TEMPORARY TREES

BY F. C. SEARS.

Most of us who grow orchards come sooner or later to the time when we have the job on our hands of taking out some of our trees. And when this job comes it is often a very serious problem.

All sorts of factors influence one's decision in the matter; the kind of trees, peach, pear, apple or cherry; the variety; the type of soil on which the trees are growing; the age and size of the trees.

In a general way one's decision falls into one of two categories, either to salvage the trees and move them on to new land to start a new orchard, or merely to get them out of the orchard in the best and cheapest way, in order to make room for the permanent trees which remain.

Moving the trees onto new land to start a new orchard is much more interesting, more expensive, and very much less frequently used; in fact, it is comparatively rarely attempted. Yet when conditions are right it is perfectly feasible, as the writer knows from experience, and is the quickest and cheapest way to get a bearing orchard.

In the light of our six years' experience the following would seem to be the important points in determining whether it will be profitable to move trees to this type.

First. One should have reasonably good digging conditions in the orchard from which the trees are to be taken and in the field in which they are to be set. Rocky or gravelly soil makes the digging slower and more costly and makes it much less certain that the trees can be transferred from one position to the other in good condition. The soil of the field on which they are to be set ought also to be reasonably moist.

I doubt very much the possibility of starting an orchard in this way on soil which is dry and gravelly, for even on the best soils trees have a fight to get enough moisture during the first season.

Second. The variety of tree is apparently very important. In our experience McIntosh is particularly good, with Baldwin, Williams and Wealthy following in the order named, and the last one not very satisfactory.

Third. The age of the trees should be considered. Every year added to ten years reduces the feasibility of the plan. The trees are larger, more costly to handle and recover less quickly and surely.

Fourth. The distance that the trees have to be moved is of importance, since every rod one has to go adds to the expense.

Fifth and last, the condition of the tree as to thrift and vigor and general health is important. One would scarcely be justified in attempting to move trees which are not in prime condition.

With these points in mind we may next outline briefly the method we have found most satisfactory in moving such trees, which is by the use of a ball of frozen soil about the roots.

We dig around the trees in November, making a trench about two feet from the trunk of the tree, and perhaps two and a half feet deep. We go down until we are below the main roots and then dig under the tree until it can be rocked quite easily by pulling on a branch. Then the trees are allowed to stand until this ball of earth freezes fairly solid.

In the meantime we stake off the block of land where the new orchard is to be set and put a little manure from the horse barn about each stake, to keep the ground from freezing deep before the time comes to dig the new holes for the trees.

When the ball of earth has frozen solid enough so that it will stand moving we dig our new hole, making it about a foot wider than the block of soil; tip the tree to one side so that we can ram a heavy stone or drag under it; chain the tree to the front end of the drag, using plenty of padding about the tree so that the bark will not be injured; hitch on a team of horses and snake the tree out and haul it alongside of the new hole; tip it into this hole, straighten it up and tamp in the soil about it.

This last should be done very carefully, and in the spring should be looked to again, as any holes about the block of earth tend to dry it out, and moisture is one of the big items in making the tree recover well.

It has cost us an average of three dollars and eighty cents to move trees from eight to ten years old a quarter of a mile and reset them.

The top of the tree should be pruned severely, and a good share of this may well be done at the time the tree is dug.

Keep up very thorough cultivation in the new location; spread some manure about the tree if possible—the more the better up to four or five bushels. Give it an application of nitrate of soda, a couple of pounds at a time, three or four times during the season. And, as a last resort, in case of dire need, haul some ater and apply.

Turning now to the removal of trees which are not to be salvaged but merely disposed of in the quickest way possible, the choice of a method depends on whether the orchard is under cultivation or in sod.

If the latter, then the root of the tree need not be disturbed, and the best method of removal is to saw the tree off just at the surface of the

ground, using a heavy, one-man cross-cut saw.

If the orchard is under cultivation, then it is necessary, eventually, to remove the tree, root and branch, and from the standpoint of cultivation the sooner this can be done the better.

But we have found that pulling out half the trees in the orchard, which is what the first thing usually consists of, is almost certain to disturb the remaining trees that they do not do well for a year or two. In yanking out a tree from between two others you will injure the roots of those adjoining trees.

In avoiding this difficulty we either chop off all the tree which we wish to remove but allow the stumps to stand for a year or two and thus delay somewhat or chop all the trees which should be removed but pull only every alternate row.

The latter is probably the better solution of the problem, for it gets all the tops of the trees out of the way so that they are not interfering with the adjoining trees; and it allows for thorough cultivation of every alternate space in the orchard, and very decidedly improves conditions in the other intervening spaces.

We have found that the best way to get the stumps out when the time arrives is to use a block and tackle.

Our equipment consists of seventy-five feet of one-inch water-proofed rope, two blocks, a team of good horses and four men. We begin at one end of the row of trees which are to be pulled and go right down the row, using the next tree ahead as the stake to which to attach our tackle. One man drives the team and the other three manage the tackle.

As soon as one tree is pulled these three men unhook the tackle from the last "stake tree" whose turn has now come to be pulled—rush the front end of the tackle forward and fasten it with a short chain to the next tree as a stake, hitch the rear end of the tackle to the tree to be pulled, and by the time the teamster has brought his team around everything is in shape for him and out comes the next tree.

By this method we have been able to pull from seventy-five to two hundred and fifty stumps in a ten-hour day—pretty good progress.

Quilting Idle Hours Away We Cleared \$200.

It was in the autumn of 1922 when my mother and sisters and myself decided to try and make some extra money. We were not particularly busy on the farm that fall and every day brought several leisure hours.

We tried to think of something to do that was useful and pleasant and at the same time profitable, but not one of us could suggest anything of which the others approved. Our farm paper solved our problem. In one issue we found designs for six lovely old quilts. That put the quilting bee at the old scraps and remnants of cotton cloth that had accumulated for the past ten years and make them into old-fashioned quilts.

Mother is an expert at quilting. She cut our patterns. The rest was easy. Here is our record so far:

25 quilts completed	\$125.00
30 quilts not completed	75.00
4 quilts made for a neighbor	12.00
Total value	\$212.00

Expenses.	
Thread	\$2.25
Cloth	9.75
Total cost	12.00
Profit	\$200.00

I Won't Buy "Sight Unseen."

I find it pays to shop around when buying farm machinery. Some of the things I have learned to look into are: The ease of adjustment by levers and other devices; the ease of oiling and the capacity of the oil reservoirs; devices to protect oilers and bearings from grit; and safety.

I find, also, that it pays to consider in advance whether the seat on the implement is comfortable and whether it is so placed as to allow clear vision to the front and working parts.

And I think of the team's comfort as well as my own. There is considerable difference, for example, in the lightness of draft of various implements that do the same work.

F. W. I.

I Sold the Apples.

Last summer I had some very fine yellow transparent apples I wished to sell. Another farmer had flooded the market with common, unsorted apples, so it was up to me to work up a plan to sell mine. I sorted the apples and placed all of the same size in a five-pound basket. These I sold at twenty-five cents a basket, while the other farmer sold his fruit for three cents a pound. From this I found that quality and appearance sell fruit the best. After that I always graded and sold apples in an attractive container.—T.

Don't Bother Us Much.

Parisian scientists say that germs live and thrive in gold coins to a greater extent than they do in paper money; but at the present rate of gold circulation, nobody need be alarmed.



Hon. Lincoln Goldie, provincial secretary, who has announced a new and varied meal system for use in Ontario penal institutions. He says the old idea that diet was part of the punishment has become obsolete.

Cultivation of Drug Plants.

Formerly, as Mr. John Adams, Assistant Dominion Botanist, says in his bulletin on "Medicinal Plants and Their Cultivation in Canada," certain drug plants growing wild in this country were to be had for the mere trouble of gathering. Excess of use of this privilege has led to their scarcity and in their wild state to such practical disappearance as now to require their cultivation. Particularly is this true of Seneca snake root and golden seal.

Mr. Adams, in dealing with this subject, gives the common-sense advice that unless a farmer can convince himself that he can realize larger profits per acre from the growth of drug plants than from the usual farm products he would be unwise to attempt it unless as a sort of subsidiary means of supplementing his income. However, he can run no risk by devoting a small plot of about an acre to drug-plant culture as an experiment for a few years. He might grow at least ten different sorts of those best suited to his locality. The plants for which there is demand are: Golden seal, which is collected in autumn after the seeds have ripened; white mustard, the seeds of which and black mustard when ground and mixed constitute the mustard of commerce; Seneca snake root, or mountain flax, which is collected in autumn and can be grown on any soil suitable for field crops; marshmallow, sacred bark or bearberry, anise, caraway, coriander, fennel, wintergreen or checkerberry, horehound, peppermint and others, descriptions of all of which are given in the bulletin, which can be had by addressing the Publications Branch, Ottawa. Above everything farmers are warned against paying heed to flamboyant advertisements purporting to tell of big profits that can be made by growing medicinal plants.

Exports of Dairy Products.

Canada's export business in dairy products for the twelve months ending with June of the present year showed very considerable improvement over that of the preceding year. As reported in the last news letter of the Dominion Dairy and Cold Storage Branch, the exports of butter in 1924-25 were 25,096,120 pounds, valued at \$8,934,794, and of cheese 134,418,700 pounds, valued at \$25,733,222, compared with in 1923-24, 13,668,379 pounds of butter, valued at \$5,031,634, and 12,603,100 pounds of cheese worth \$22,624,880. The exports were, of course, mostly to the United Kingdom, but it is noticeable that in June alone China took 57,232 pounds of butter and Belgium 171,100 pounds and Germany 168,500 pounds of cheese. The Netherlands took 75,000 pounds of cheese. Altogether some thirty different countries or colonies shared in our exports of dairy products.

Sweet Clover Improves the Soil.

Nitrogen is one of the most essential plant foods as well as the most expensive. Sweet clover, being a legume, has the ability to extract free nitrogen from the air and incorporate it into its tissues. It thus becomes, as Mr. Derick points out in his pamphlet on "Sweet Clover" (Pamphlet No. 56 of the Dominion Department of Agriculture), probably one of the most valuable improvers of soils. This legume thrives on poor soils, producing an abundance of large, fleshy roots that decay readily and supply organic matter to the soil, thus improving the texture and providing better drainage and aeration. A bulletin published by the University of Illinois states that in the spring the roots weigh as much or more than the tops, and that the nitrogen content is not much lower.

The Breeding of Turkeys.

Turkeys intended for breeders should be selected early in the autumn before fattening for market takes place, says Mr. A. G. Taylor, of the Poultry Division of the Dominion Experimental Farms. Well-matured birds and only those possessing good constitutions and vigor should be selected. Quality of bone should not be overlooked. The largest birds need not necessarily be chosen, but the small ones are not desirable as breeders. Take care to choose birds that are free from disease and males unrelated to the females. A good start, adds Mr. Taylor, can be made in turkey raising with one male and four females. If the male is a good, vigorous bird the number of females can be increased.

Don't confine them to the house during the winter, but allow them to roam at will during the day. The only shelter required in the night is a straw barn or closed-in shed. Never house turkeys with hens or in heated houses.

Story of the Colorado Potato Beetle.

Four members of the staff of the Entomological Branch of the Dominion Department of Agriculture have united in writing a monograph of the Colorado potato beetle in Canada. These members are Arthur Gibson, Dominion entomologist; R. P. Gorham, assistant entomologist at Fredericton, N.B.; H. F. Hudson, assistant entomologist at Strathroy, Ont., and J. A. Flock. This monograph, which is styled Bulletin No. 52, new series, and can be had free on addressing the Publications Branch, Ottawa, shows that the beetle was first noticed at Windsor, Ont., in 1870, and since then has spread pretty well all over the country. It swarmed across the Detroit River in the first instance and soon was found in many parts of Western Ontario. In 1873 all but the northern part of the province had experienced a visitation. In 1874 the beetle was observed in Quebec; in 1878 it had made its appearance in New Brunswick, in 1879 in Manitoba, in 1881 in Northern Ontario, in 1899 in Alberta, and in 1901 in Saskatchewan. In the West its spread was very gradual, its presence in any numbers not being reported until recent years. It was first found in British Columbia in 1919, having been introduced, it is supposed, from the State of Montana.

The bulletin, which is a publication of thirty pages, with illustrations, describes the nature and habits of the insect, its method of life and breeding, natural control factors, and artificial control, the last of which is possible by spraying or dusting with insecticides, which are prescribed.

Secure seed from fields that produced an absolutely clean crop and then take such measures as to prevent its contamination until sown. Formalin and bluestone seed treatments will not destroy the spores of loose smut of wheat.

Use the hot water method. The clean seed should be soaked for five hours in water at 63 to 72 degrees F. It should then be placed in small burlap sacks (four quart size) and allowed to drain for a short time. It is of greatest importance that seed be treated in small lots in order that all of the grain may be quickly and uniformly brought to the desired temperature. Two tubs of water should be provided. In one tub (No. 2) the exact temperature required should be maintained. The other tub (No. 1) is used for bringing the grain to the temperature of the treatment, so as not to lower the temperature in tub No. 2. (Galvanized iron tubs of 20-40 gallons capacity and kerosene double burner stoves are ample equipment.) The drained sacks of seed should be plunged in tub No. 1 for a minute, then transferred to tub No. 2 and kept agitated while immersed at temperature of 129 degrees F. for ten minutes. Sow as soon as sufficiently dry to run through the drill. Higher temperatures will destroy germination; lower temperatures not effective.

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The designs illustrated in our new Fashion Book are advance styles for the home dressmaker, and the woman or girl who desires to wear garments dependable for taste, simplicity and economy will find her desires fulfilled in our patterns. Price of the book 10 cents the copy. Each copy includes one coupon good for five cents in the purchase of any pattern.

No. 1190—Ladies' Dress, having surplus front closing at the left side, with or without jabot and side drapery, and long sleeves. Sizes 36, 38, 40, 42 and 44 inches bust. Size 38 bust requires 4 1/2 yards of 36-inch, or 3 yards of 54-inch material, without figure or nap. Price 20 cents.

No. 1176—Ladies' Dress, with side-front closing which may be turned back to form a revers, shaped collar, and long or short sleeves. Sizes 34, 36, 38, 40, 42 and 44 inches bust. Size 36 bust requires 3 1/2 yards of 36-inch, or 3 1/2 yards of 40-inch, or 3 yards of 54-inch material. Price 20 cents.

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Treating Seed Wheat for Smut.

Mix one pint of formalin with forty gallons of water. Place the grain to be treated on a clean floor, sprinkle the formalin and water solution over the grain, then shovel the grain into another pile and so mix thoroughly. Then sprinkle and shovel again. Repeat this operation until every grain is moistened by the solution. Just enough of the solution should be applied to thoroughly wet every grain, but not enough to make it wet and sloppy. Forty gallons of the formalin and water solution is sufficient to sprinkle between fifty and sixty bushels of seed wheat.

The Word.

First Bright Lad—"Is there a word in the English language that contains all the vowels?"

Second ditto—"Unquestionably."

"What is it?"

"I've just told you."

We Have Them Now.

Signposts which can be illuminated after dark are being experimented with in London by the ministry of transport.

HOW I BUDGET MY WINTER

SUPPLY OF VEGETABLES

By NELL B. NICHOLS.

It is the time of frost in the air that makes us glance ahead to the days when orchards and gardens will be no more. At this season I always check over the canned goods, fruits and vegetables to be kept in cold storage to find out what additions are needed to make my supply adequate.

I find that the storage of these food products is one way to lower grocery bills as well as making easier the preparation of winter meals. They are helpful, too, in producing wholesome repasts because these foods are essential to a properly balanced diet for the family.

While the amount of foodstuffs stored in the home for consumption in the cold weather will vary with the individual tastes of different families and the products grown on the farm, I consider my budget a typical one. It has been made by several years of experience, and the fruits and vegetables put away are what I consider the minimum amount for a family of five. Allowance is made for the use of at least one vegetable, and usually of two or three, other than potatoes, for every day in the wintry months.

Here is the list of vegetables which we have stored every fall for the last few years: Potatoes, 15 bushels; onions, 45 pounds; cabbage, 75 pounds; squash, 35 pounds; beets, 25 pounds; carrots, 40 pounds; parsnips, 20 pounds; celery plants, 40 pounds. The ideal way to store vegetables is to have special storage cellars or caves, though food may be kept quite satisfactorily without these.

REQUIRE MOIST CELLAR.

I have discovered that potatoes, beets, carrots, salsify, turnips and parsnips require a moist, cool cellar with little or no air, the temperature from 35 to 40 degrees Fahrenheit. Celery, cabbage and cauliflower have the same requirements, only they keep best when the circulation of air is good. On the other hand, onions, squash and pumpkin require a warmer place, one from 45 to 60 degrees Fahrenheit, which is dry and has a good circulation of air.

Here are some of the ways in which we have stored vegetables: After removing the outside leaves of cabbages we packed the heads in boxes in alternate layers of sand and earth and stored them in the coolest part of the cellar. We have dug celery plants

with the roots and planted them in the floor of the cellar. The roots are watered occasionally, but it is necessary to take care not to moisten the leaves.

Onions are dried before being stored. When they are thoroughly dry I have hung them in baskets in the cellar. A dark place of storage will check the growth of sprouts. I have kept pumpkins, squash and sweet potatoes near a chimney, from which they received warmth, in an upstairs room. After the busy fall season is past I examine these vegetables from week to week, and whenever they show signs of spoiling I can them.

OUTSIDE STORAGE.

Our experiments with outdoor storage in our section have been satisfactory, although it requires more time to put the foods away and to get them out again. The two essentials of this method of keeping vegetables are: First, to select a well-drained spot; and, second, to cover the vegetables so they will not freeze. Cabbage, parsnips and salsify are the easiest foods to store in this way. The cabbage is pulled and the roots are not detached; the heads are placed down on the ground. Then the plants are covered with earth and for good measure, we place a layer of straw over this. We use about eight inches of earth over the cabbage, salsify and parsnips.

In storing potatoes, turnips, rutabagas, carrots and beets outdoors we have found it essential to cover them carefully to avoid frost danger. First the vegetables are covered with ten inches of straw or hay and then the same amount of earth.

The canning budget which I followed last year and found quite satisfactory is as follows: Tomatoes, 36 quarts; spinach, 12 quarts; string beans, 20 pints; corn, 10 pints; asparagus, 8 quarts; lima beans, 6 pints; peas, 15 pints.

The amount of fruit I can vary from year to year with the crop and the price of sugar. I like to put up 75 quarts and to make 100 glasses of jelly, jam and butter. I always bottle at least 10 pints of juice for use in making fresh jelly during the winter. Of course we make the delectable dried winter fruits, such as dates, raisins, prunes, apricots and peaches, furnish the fruity taste to many repasts, and oranges and apples are not overlooked.

The Store Cattle Trade.

The British embargo against Canadian cattle was removed on April 1, 1923, and the question then arose as to how cattle should be shipped and what are the best types of cattle to send. In order to obtain authentic information from data, the result of experiment, sound in foundation, carefully conducted and recorded, the Dominion Department of Agriculture arranged early in 1923 for an experimental shipment of steers to England. This shipment went forward in May, 1923, and a second consignment was shipped in the fall of the same year. From these shipments much valuable information was received, published and distributed among the farmers of Canada. The consignments were made up from the experimental farms, and the cattle met with a very favorable reception from British feeders and proved to be profitable purchases. One steer obtained the championship at the Norwich fat stock show last year. A shipment of chilled meat was made, but the results were not encouraging, and everything points to the advisability of developing the stocker trade to the limit. In co-operation with the Department of the Interior grazing lease conditions have been greatly improved from the ranchers' standpoint.

In 1923 Canada sent across about 50,000 head of store cattle. This number was increased to 80,000 in 1924, and there is an increase of about 60 per cent. over the same period last year so far this season. The department takes every precaution to see that only absolutely healthy and vigorous animals are sent to the British market.

Salmon Had Long Trip.

A salmon recently killed in the Moisie river, Quebec, bore a fishery identification tag which showed that it had traveled between 800 and 1,200 miles from Nova Scotia.

Dead Sea Salt.

The waters of the Dead Sea are intensely salt, of great specific gravity, and have no perceptible outlet.

Smallest Church.

London's smallest church, St. Ethelburga within Bishopsgate, dates back to before the Fire of London, and so cannot be demolished.

Around the world from its market, New Zealand has doubled its production of dairy products during the past ten years and is rivaling Denmark for the London butter trade. The farm cost of production is said to be two-thirds that of Ontario. Superior climate is one big advantage, but another is the farm organization. Milking machines are generally used, and a man and a boy handle forty to fifty cows. The work is done in sheds, as barns are not necessary in that country.