FRUIT AND FARM

MAGAZINE

Vol. VIII., No. 7

JULY, 1916





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The above statements were taken from the daily papers recently.

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BRITISH COLUMBIA

Fruit and Farm Magazine

A Monthly Journal Devoted to the Interests of the Man on the Land.

Vol. VIII.—No. 7

Vancouver, British Columbia

[\$1.00 per year in Advance

How the Government will Make Loans to Farmers.

"An indication of a new interest in farming in the province is the number of application which the Agricultural Credit Commission has received for loans for development purposes. Every riding is represented in the applications and many come from districts which a few years ago were in timber," said Hon. William Manson, the new minister of agriculture on his first visit to Vancouver following his appointment to the cabinet.

'We have sent out about 100 information booklets and application forms and upon receipt of replies we will send out appraisers," he continued.

We will have to take each step carefully. It is public money that is involved and before making any loans we shall have to be sure of the security as well as that the loan will be put to good use by the applicant.

"The loans have been divided into three parts. An applicant may ask for a 'single season loan,' to be repaid when the harvest is complete and he gets his money for his output. This loan would have to be repaid Within 12 months, and it must not exceed \$2,000. He may ask for a short dated loan, not exceeding \$2,000 for from three to ten years. A long dated loan is for 20 years, 30 years or 36 1/2 years. Although the loans Which the commission may of itself make are limited to \$2,000, they may with the consent of an Order-in-ouncil, make larger loans. Of course, it is more desirable to assist in the development of several small holdings in various parts of the country than it is to make large individual loans, the scope of which would perhaps be limited to one or two large areas.

"The applications and requests received so far are not limited to private owners of farms or pre-emptors. Some dairy com-Panies are also applying, while loans may also be made to agricultural societies. The general purpose of the establishment of the commission is to increase agricultural production and improve conditions for the

^agriculturists in the province.

"We are keeping the cost of the loans down to a minimum. The act provides that the money shall be loaned at a rate of interest not to exceed one per cent over the cost to the province. The commission has now at its disposal \$1,000,000 which was secured at a rate of 5.63 per cent. It is proposed to lend it at 6½ per cent, which is .87 per cent. over the cost of the present

"The appraisal fees have been fixed as follows: For loans of \$500 or under, \$2.50; over \$500 and up to \$1,250, \$5; over \$1,250 and up to \$2,500, \$7.50; over \$2,500 and up to \$10,000, \$10. The cost of appraising a property must, of course, be paid by the applicant, whether he secures his loan or not. It would not be good business to send

men all around the country on a wild goose chase, and the responsibility of having to pay this small fee for appraising will ensure that an applicant is sincere in his proposals. He must also be responsible for the cost of examining titles, etc., but this cost will not be charged to him unless he secures his loan. Our negotiations in this connection are not yet completed so that I cannot at present give a schedule of our charges.

"Before making a loan we must demand for our own protection as well as that of the public the fullest possible knowledge of the financial condition of the applicant. It is our endeavor to make the whole transaction a purely business one. Perhaps the chief difference between ourselves and the private lender is that we are not attempting to make any profit for ourselves.

"The application forms we are sending out are very searching. Some of the things which the farmer or the agriculturist must give are the following: His name, occupation, address, age and place of birth, married or single, number of children, number of dependents, length of residence in British Columbia, length of experience as farmer, description of property offered as security, name of holder of title papers, acreage of farm, acreage under fence, nature and value of fence, acreage cleared, acreage under cultivation, under hay, in pasturage, value of improvements made by applicant, assessment of property, taxes, rental of farm if rented, status of title as to whether farm is mortgaged and condition of mortgage, gross returns from farm per annum, net returns, distance of farm from trunk road, probable cost of making land ready for plough if loan is for land-clearing purposes, size and purpose of building if loan is for building purposes, distance from nearest shipping point, description of present buildings, insurance on them, description of stock kept.

"From this you can see that we will not attempt to make any loans blindly. It must be shown that the applicant will be in a position after securing the loan to repay

Turning to the agricultural conditions generally in the province, Mr. Manson reported having received the most optimistic reports of crop conditions through the department of agriculture. Indications were that the apple crop would be a record one this year. Something like a million and a quarter boxes had been predicted as the probable output, as compared with last year's record of 800,000 boxes. In the Okanagan and some districts of the Kootenays trees were coming into bearing and increased facilities were being installed for packing and shipping.

The minister spoke enthusiastically of the agricultural prospects on lower Van-

couver Island, not only in the Saanich and other districts adjacent to Victoria itself but to the wealthy Cowichan Valley, Comox and Alberni sections.

The Premier and members of the cabinet had spent a few days visiting the principal centres between Victoria, Port Alberni and Courtenay and found farming going on in fine shape. The rural districts had suffered, however, as a result of a great many of the farmers having gone to the front. In some places it was proving difficult to obtain hands for the farms.

CODLING MOTH IN THE OKANAGAN.

There has been a small outbreak of codling moth in certain sections of the Okanagan Valley, and growers there are determined to prevent it spreading to this district if at all possible. So far the only places that have been under quarantine are a small area at Kelowna and certain sections at Westbank and Okanagan Landing. The matter was very fully discussed at a meeting of the Penticton Board of Trade recently and Inspectors Hoy and Castner gave it as their opinion that one of the greatest sources of infection lay in the interchange of orchard boxes between various points in the valley. This applies particularly where the fruit is packed at a point other than where the shipment originates. A number of firms in Kelowna buy fruit at other points in the valley, but bring it to Kelowna in orchard boxes where it is then packed for shipment. In this way orchard boxes sometimes get scattered over a fairly wide area.

In order to reduce the possibility of infection to the lowest possible minimum Penticton growers who sell to outside firms were requested to stand together and demand that a clause be placed in their contracts provided that the fruit shall be properly packed for final shipment before leaving the district where it is grown.

The matter is a serious one, as if codling moth should get anything like a strong foothold it would mean that the production costs would be materially increased.

The Canadian Horticulturist, a leading paper of its kind in Canada, says: "The announcement by the British Columbia Department of Horticulture that the duties of Mr. R. M. Winslow, Provincial Horticulturist, have been extended to include the inspection of fruit pests, is an indication that the department recognizes the very capable work that has been accomplished for the fruit growers of British Columbia by Mr. Winslow. His thorough knowledge of the fruit industry, combined with his energy, ambition and tact, mark him as one of the most efficient provincial officers connected with the horticultural departments of any of the provinces."

Electricity on the Fraser Valley Farms.

The many uses of electricity on the modern farm, including instances of applications among farms of the Fraser Valley, were described by Mr. Geoffrey Porter, chief electrical engineer of the B. C. Electric Railway Company, in Chilliwack during an exhibition of slides and moving pictures concerning electric farm installations.

Many of the pictures could be recognized by those present as being taken on the farms around Chilliwack and Cloverdale. The milking machines on the Shannon farm were shown in working order, and various motors and power lines at Sardis and Chilliwack were thrown on the screen. The latter half of the programme at the Edison Theatre was taken up with two reels of films prepared by the General Electric Company, the scenario being wound around the drudgery of the farm and the enlightening influence of electricity.

Mr. Porter, in going over the possible uses of electricity on the farm, alluded to electric lighting, which was the safest, cleanest and most effective form of lighting. Not only was it being used in the farm houses, but threshing was being done by means of the arc lamp as one of the slides shown proved.

Besides lightning, electric power, said Mr. Porter, would perform many functions in the farm house. It took the drudgery out of the work. There were washing machines, sewing machines, electric fans, bread mixers and many other things that could be operated by an electric motor. Besides the actual household appliances there were small motors for pumping water and such tasks. These, said Mr. Porter, could be installed on floor, wall or ceiling, or in order to reduce the first cost, they could be made portable, so as to be made use of in different buildings or different part of the same building.

In the dairy, motor applications were numerous, as Mr. Porter showed. First was shown an electric milking machine, operated through a vacuum pump, which in turn obtained its power from an electric motor. As each machine was capable of milking two cows at once, with one man to tend to it. one man could milk 22 cows in an hour, as compared with six cows in the same time by hand.

Indicating the use of motors for separating tream, a picture on Mr. F. D. Stephens' farm near Huntington was shown. Other slides showing the use of motors for pumping water, churning, grinding feed and cutting ensilage followed.

There were then shown a series of slides from pictures taken throughout the Fraser Valley. The first was of a small one-horsepower pump on the farm of Mr. Charles Evans, at Sardis. It was used for cooling milk in the dairy. Mr. Robert Armstrong's five-horsepower motor on skids was then shown. It was being used for cutting ensilage, but there was provision for it being moved round to the silo for filling purposes as well as for cutting wood and so forth.

Motor installations at the Borden Milk Condensing factory at Sardis were next shown. Electric motors in these cases drive box nailing and labelling machines as well as for general power purposes.

Mr. F. D. Stephens' farm was again referred to in showing his 15-horsepower motor for driving his ensilage cutter and blower for filling the 220-ton silo. The mode of keeping the wires out of the way of the machinery was clearly indicated. In the milk house, Mr. Stephens operates the cream separator by a motor directly connected to the small motor. A three-horsepower pump also lifts water 80 feet to a tank shown in a picture of the farm.

Coming closer to Westminster, a view of Shannon Bros.' farm at Cloverdale was shown. Mr. Porter said that Mr. Shannon had had the electric drive for three years, and was well satisfied with it. The cattle barn, showing the electric milking machines and the vacuum pump for operating them were described.

Another important installation had been made recently, said Mr. Porter. It was on the farm of Mr. Robert Kelly, a few miles south of the B. C. Electric line at Kensington Prairie. There were three motors in the installation, the pictures showed, one for the hay cutter, root cutter and crusher, another for the water pump, and a third for the vacuum milking machine. The parn is lighted by electricity and the picture snowed it to have plenty of illumination.

In the East Delta district, near Mud Bay, the majority of farm buildings and houses were lighted by electricity, said Mr. Porter. One picture showed the root house of Mr. Chris Brown with a two-horsepower motor run from the lighting circuit. The farm of Charlton Bros. is the location of another installation of five-horsepower for operating the grain crusher, hay cutter and root cutter.

Mr. R. W. Doherty's electrically lighted farm near Woodward's Landing was next shown. He uses a five-horsepower motor for various purposes. One of the old time farmers, Mr. D. M. Webster had recently installed electric light and power, according to Mr. Porter, and a picture showed his hay cutter. The last slide of the series indicated the plant of Councillor William Oldfield on No. 3 road, Lulu Island. There was there a 7½ horsepower motor driving a grain crusher and a hay cutter on the upper floor and a root cutter on the lower floor, showing the ease with which power can be transmitted through belting.

showing the ease with which power can be transmitted through belting.

Among the series were pictures of the B. C. Electric Lake Buntzen power plants, the transmission wires and the Cloverdale sub-station.

The reels of moving pictures told a story of the son of a farmer becoming tired of the drudgery of farm life and setting out for the city. In a quandary as to what to do for labor, the farmer answers an advertisement from the "Back to the Farm". Power Bureau, and as a result, the advantages of power were shown to him by the representative of the power company. He was taken over the plans and shown the making of electricity from water power and steam, the transmission system and the use of power on the farm for threshing, pumping water and a dozen smaller jobs around the farm house.

The climax comes when the son, tired of the city job, walks for home and is overtaken by his father taking home a load of electric motors and household appliances on an electric truck.



Synopsis of Coal Mining Regulations

COAL mining rights of the Dominion, in Manitoba, Saskatchewan and Alberta, the Yukon Territory, the North-West Territories and in a portion of the Province of British Columbia, may be leased for a term of 21 years at an annual rental of \$1 an acre. Not more than 2,560 acres will be leased to one applicant.

Application for a lease may be made by the applicant in person to the Agent or Sub-Agent of the district in which the rights applied for are situated.

In surveyed territory the land must be described by sections, or legal subdivisions of sections, and in unsurveyed territory the tract applied for shall be staked out by the applicant himself.

Each application must be accompanied by a fee of \$5 which will be refunded if the rights applied for are not available, but not otherwise. A royalty shall be paid on the merchantable output of the mine at the rate of five cents per ton.

The person operating the mine shall furnish the Agent with sworn returns accounting for the full quantity of merchantable coal mined and pay the royalty thereon. If the coal mining rights are not being operated, such returns shall be furnished at least once a year.

The lease shall include the coal mining rights only, rescinded by Chap. 27 of 4-5 George V. assented to 12th June, 1914.

For full information application should be made to the Secretary of the Department of the Interior, Ottawa, or to any Agent or Sub-Agent of Dominion Lands.

W. W. CORY,

Deputy Minister of the Interior.

N.B.—Unauthorized publication of this advertisement will not be paid for.—83575.

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WASHINGTON VIEW ON BERRY SITUATION.

British Columbia berry growers will have little competition from Washington berries this year, declared a former British Columbian in New Westminster recently, who had returned from the berry districts of Washington to look over crop and market conditions here.

The Washington berry crop is short, in all not more than a third of a crop will be produced in strawberries, raspberries, loganberries and currants, while cherries will not make even a fair crop.

It will be a very poor strawberry that the grower will not receive \$1.50 per crate for, while fancy and extra berries are now bringing the grower \$1.75 and \$2.00 in the Sound cities. The Jap growers of Vashon broke the market recently by dumping several thousand crates on the public markets at \$1.50 retail, in the face of a strong demand. These berries passing through the regular channels would have paid the growers \$2.00 per crate. Of course the Japs made the market, and several carloads were rushed east to protect prices. Only an occasional car will be shipped here for similar reasons.

Canned fruit is advancing in price rapidly, 25 to 35 per cent. advance being marked in the last few months. Canners are now paying as much for berries as good stock could have been sold for a year or two ago. It will be impossible for good berries to reach British Columbia retailers for less than \$2.50 per crate this year. That will make very costly eating for the consumers, and give the growers of Burnaby, South Hill, Mission and Hatzic good prices for their product.

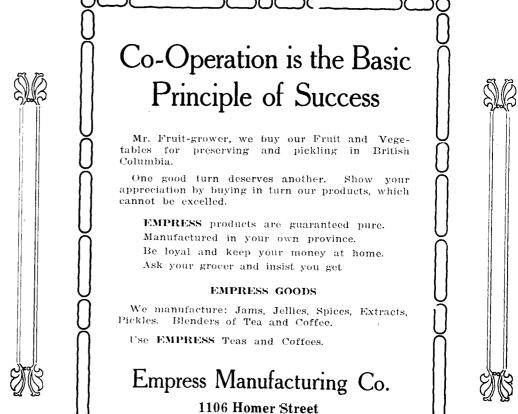
Sugar is very high and there is no prospect of its falling in price. Increased sugar cost will increase the cost of home canning only about one and a half cents per quart Jar, so that it will be still the best kind of economy for the housekeeper to put up her truit. Canned fruit and dried fruit are both going very high.

With the prospect of this province going dry and the prairie provinces already dry, British Columbia fruit growers should get into position as quickly as possible to take advantage of this fact. Consumption of ciders and fruit juices in the dry districts have increased many hundred per cent. Since prohibition went into effect, and if this province goes dry there will be a market for all the berries and apples that are not up to marketable grade.

The big brewing plants at Salem, Oregon, Olympia and Bellingham, Washington, are being turned into cider and fruit juice factories.

They are in the market for all the fruit they can get at fair prices, and thousands of car loads of cull apples from Eastern Washington are being contracted for and will be shipped to these three plants. The clder and juices are pressed out, filtered and kept in the big brewery tanks in refrigeration until the market demands them when they are finished off and bottled and shipped. An average price of three and a half cents per pound is paid for small fruits, and cherries, while cull apples from east of the mountains, and the inferior apples of the coast districts bring about \$15 per ton in the orchards.

With the coming wide extension of their market, berry growing here and apple production in the interior offers prospects of most satisfactory profits. Production costs must, however, be kept down, and every modern method put into use in growing, picking and packing and manufacturing.



VANCOUVER, B. C.

FIGHTING THE PESTS.

The investigations which have been carried on since last year by Dominion and provincial experts in the study of the California pear terps, a pest which appeared in the Saanich Peninsula, in the vicinity of Keatings, Gordon Head and Royal Oak, the first time it has made its appearance in the Dominion, has been completed. The work was carried on by Professor R. C. Treherne, field officer of the Dominion Entomological service; Dr. Cameron, assistant, and Mr. E. W. White, of the provincial department, the latter having the spraying work under his direction. The works of these officials demonstrated that the pest, one of the most serious enemies of the fruit grower, can be successfully controlled. result of the work will be later made the subject of an exhaustive report.

When one problem is completed there are others to be met by the horticultural department. After having but finished the investigations at Keatings, Gordon Head and Royal Oak, the department is now tackling another problem which, in Oregon and Washington, has proved a most serious one with the strawberry growers. For some years past the strawberry weevil and Crown borer have worked great damage on the lower mainland and in the States across the line the industry has suffered heavy loss by reason of the pests. It is the intention of the provincial department to have a complete investigation and study made of the pests in this section, where their presence has been felt.

GOOD PRICES FOR BERRIES.

The strawberry season is terminating early this season in the Gordon Head district on account of the absence of rain at a

time when it was most needed. So seriously has the weather interfered with the growers that it is estimated the crops will be little more than one-half of last year's crop.

Following the most extraordinary winter that has ever been experienced in this region since accurate records have been kept spring was a laggard. Cool temperatures by night and cool winds by day have been an unsurmountable discouragement in the appearance of the berries on the market a full three weeks later than was the case last year. At the critical period the necessary warm days' came for the ripening season, only to be followed by a disastrous drought which spoiled much of the crop. To make matters worse the shippers were delayed at a critical time by the slides in the mountains interfering with train schedules.

The crop in Washington state was also materially reduced by the weatherman.

Indications at the time of writing were that the season would be what is known as a good "growers' year" seems certain insofar as strawberries are concerned. The market indications are for a demand far in excess of supply and this condition implies higher prices.

The outlook is less strained in the other berry departments but these will probably benefit by the shortage in strawberries and receive greater attention. Jam makers are having difficulty in securing sufficient supplies in some instances and the unusual demand from this quarter, the result largely of the lessening of the imports from England, will probably more than offset whatever other drawbacks there may happen to be as regards marketing conditions.

Chief among the troubles of the berry or fruit grower this season is the higher price of sugar.

War Against Insect Pests

By C. GORDON HEWITT, Dominion Entomologist.

The Swiss motto, "To cultivate the soil is to serve one's country," is today, when the Empire is at war, more applicable than ever to the farmers of Canada. To meet the necessities of Canada and the Empire, it is necessary not only to maintain production at its usual rate, but to make every effort to increase it to a still higher point.

Destruction by insect pests is one of the chief factors in reducing the output of the farm. All crops are affected—field, orchard and forest. When a serious outbreak of an insect pest occurs on a farm, the farmer realizes the extent of his individual loss, but the aggregate loss caused by the continued destruction effected by insects working insidiously in the fields and diminishing crop production as a whole, is comprehended by few. Careful investigation indicates that the loss averages anywhere from ten to twenty-five per cent. of the crop. On the lower estimate the annual loss to Canada from the depredations of insects is reckoned at over one hundred and twenty-five million dollars.

Canada suffers proportionately greater losses from insect pests than older countries owing to a number of reasons. The chief reason is that a new and fertile country is being opened up and developed; large tracts of land are being put under cultivation, providing an abundance of food for insects which previously lived in small numbers in restricted cultivated patches or on wild plants. For three thousand miles our territory adjoins that of a country whose development preceded ours, and in the process of this development foreign pests were accidentally introduced with the result that more than half of the worst insect pests are introduced species. Development requires imports of natural products such as trees, plants, seeds, fruit, etc.; such natural products carry pests from their native countries; on establishment in the new country these pests increase more abundantly owing to the absence of their natural enemies, which, unfortunately, are not imported at the same time. All these conditions are mainly peculiar to a new country. A large proportion of the losses could be prevented, even with our present limited knowledge of control measures.

We cannot, particularly at the present time, afford to allow preventable losses to occur. Therefore, it behooves every farmer to take steps, or to redouble his efforts, to curtail losses from this cause, and to increase production by eliminating loss. Insect pests are insidious foes, and the fight against them is an incessant war demanding constant watchfulness. In many cases their presence is unknown until their increase has become so great as to cause serious losses. The destruction and loss goes on year in and year out until finally it reaches a climax in a general outbreak.

Recent outbreaks of such insects as the army worm, tent caterpillar, pea aphis, locust, cutworn, illustrate this. These outbreaks might in most cases have been prevented.

In this connection it is desirable briefly to indicate some of the more general measures that may be adopted with a view of decreasing the annual loss due to insect pests and to prevent widespread outbreaks.

The first essential is clean farming. This involves the destruction of weeds; not only because these enemies of the farm take the food and the place of the crop, but because they also afford permanent breeding places for many insect pests. Fences and hedgerows should be cleaned up. Rubbish and litter, under which numerous noxious insects hibernate, should be collected and burnt. Where grain is grown, the volunteer crop, which nourished certain cereal pests such as the Wheat Midge and Wheat Stem Maggot, should be destroyed. After a crop such as cabbages or roots has been harvested, clean up the field and burn the rubbish which would otherwise serve as food and shelter for insects. A clean field and a clean orchard will mean larger crops.

Special attention should be paid to cultivation. If the ground is properly prepared in the spring with a view to the production of a strong growth, the plants will be in the best state to resist insect attacks. A poor growth cannot withstand insect injury. If the crop has been attacked during the year by insect pests such as certain insects affecting the steams of cereals or root-destroying grubs such as white grubs and wire-worms, deep ploughing in the fall should be adopted. In the case of grain the stubble is buried deep enough to prevent the emergence of insects which attack the plants and are passing the winter in the soil. In the case of white grubs and wireworms, which pass the winter at some distance below the surface of the soil, their shelters are broken up and the unprotected tender grubs are in a large measure exposed to adverse climatic conditions. Summer fallowing aids insect control.

The rotation of crops is an excellent means of preventing or controlling certain insect pests. The repeated sowing of the same crop provides a rapid means of increase for insects affecting that crop. In certain cases the best method of controlling an insect is to change the crop. There are certain facts which should always be remembered; if land is infested with white grubs or wireworms. do not plant corn or potatoes in the following year, but sow an immune crop, such as buckwheat or clover. Also, grass land when put into cultivation is apt to be infested with root-eating insects such as wireworms and steps should be taken accordingly.

Too much stress cannot be laid upon the urgent necessity of protecting our native birds, the majority of which constitute our most valuable allies in our war against insect pests. Very few of our birds are really harmful; most of them destroy enormous quantities of insects annually. The policy

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of the agriculturist in regard to the birds should not be only non-destructive but also one of active encouragement. The encouragement of birds about the farm involves little expense of labor. Nesting boxes can be made out of rough slabs of lumber or old shingles; these should be distributed about the farm or in the woodlot. Here and there on the farm a few bushes and thickets should be permitted to grow to serve as shelter and nesting sites. The shooting of wild birds should not be pernitted on the farm.

In conclusion, constant watchfulness should be practiced. The first signs of anything suspicious should be immediately in-Vestigated, and if there is any doubt as to the cause of the trouble or its cure the Dominion or provincial department of agriculture should be consulted without delay. Neglect to take action or delay may mean the loss of a whole crop.

MAKES SUGGESTION TO B. C. FRUIT DEPARTMENT.

A reader of "Fruit and Farm" sends us the item printed below regarding spraying in Maine, suggesting that our British Columbia fruit department at Victoria could Well try the experiment and see if it would not simplify the present methods now in use. The item reads:

"An important move in the line of simplified spraying is being made by the Maine Station, at the Highmoor Farm orchard. Arsenate of lead will be used alone in the later sprayings instead of the usual combination with Bordeaux or with lime-sulphur. The station people are still a little cautious, and are 'not yet ready to advocate the use of arsenate by itself as a fungicide.' But they are planning themselves to use lime-sulphur only in the first spray applied, while the buds are in the pink, and will use strong arsenate, four pounds dry or eight pounds dry to 100 gallons water for the two later sprays. A small section of the orchard will be sprayed the old way, for comparison. The departure is the result of several years' experience. It was found that trees sprayed with arsenate alone were free from scab on the fruit and the result of three successive years have led to considerable confidence in the idea that arsenate of lead is a good fungicide as well as the most popular bug killer.

"Last season a number of New England orchardists who had heard of these experiments, sprayed all or part of their trees with strong arsenate alone when applying the usual Codling moth spray after the petals fall, and reports have been coming in that these single spray material orchards have been as free from disease as the others.

"If this experience is repeated a year or two farther, the practice will become more general. The arsenate alone is much more easily and safely applied and avoids the trouble that often occurs when mixing arsenate with certain of the commercial lime Sulphurs. It is also cheaper to leave out the lime-sulphur or Bordeaux and add an extra pound of the lead paste. Moreover, the stronger solution of arsenate does Quicker and better work with resistant insects like Brown-tail, Gypsy moth and tent caterpillars."

MAKING OUR OWN CONTAINERS. New Westminster Firm Manufacturing Fruit Baskets that Formerly Had to Be Imported into Province.

With the British Columbia berry season in full swing the B. C. Manufacturing Company's box factory at New Westminster is

humming with industry these days. The company specializes in the containers required by the fruit men, and by attention to their needs and by enterprise in undertaking new lines of production not hitherto attempted in British Columbia, this company has created a business which this year assumes considerable proportions. What such enterprise means to Westminster is obvious when it is stated that the number of employees in the height of the season as now totals some 250, of whom 25 are girls. The plant runs twenty-four hours a day. The policy of the company is to use white labor wherever possible.

Carloads of berry boxes are bookedthree or four are being shipped out every day to various parts of the province-to Gordon Head, the famous Island strawberry district; to Mission and Hatzic, to Chilliwack and Huntingdon, while orders are being filled for interior demands, and overseas shipments are going out. The latter open markets, the demands of which are only limited by the available tonnage, the managing director, Mr. J. H. McDonald, assures "Fruit and Farm."

Just what enterprise will do in creating new business and developing industrial lines, is to be seen in what has been accomplished by this company in supplying the British Columbia growers with fruit baskets, tinned rimmed, which some two years ago were not made in the province, but which had to be imported from across the line. Now the company could turn out thousands a day if demand were forthcoming, and this line of work is one that calls for the services of girls and boys, giving opportunities for employment, which means additional incomes for many homes in the

Another new industry is the making of California vegetable drums, and banana crates, while the making of egg cases using the despised cottonwood has in it possibilities not yet fully developed, since the cheaper case is what the poultry men are seeking.

The B. C. Manufacturing Company's business has been developed by enterprise, the ground being broken in several instances for meeting B. C. needs, when foreign manufacturing plants were supplying the pro-vincial market. The success in face of the unfavorable conditions caused by the war reflects credit on the management.

B. C. Fruit and Farm Notes

Mr. G. Seavers, of Garden City, on Lulu Island, is a strong believer in the fertility of the peat lands of Lulu Island. He says he was first impressed with the value of peat lands while gardening in California. He has also seen wonderful gardens flourishing in Florida and Mexico. On his own land on Lulu Island last year he produced celery which attained a height of three and one-half feet. He has grown wonderful strawberries on his place this year. He has no idea of the depth of the peat, but has failed to arrive at the bottom of the strata at a depth of eight feet.

The Penticton cannery proposes to put up cherries, apricots and peaches this year, and already is offering as high as three cents a pound for the highest class of peaches. The canning of Royal Ann cherries will commence early in July, and by the time they are out of the way apricots will follow. The cannery intends to pay good prices for all fruits accepted and will doubtless receive the heavy support of the local fruit growers.

Continued on page 975

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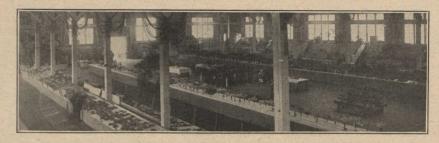
B. C. FRUIT AND FARM

Keeping the Home Fires Burning

Vancouver Exhibition Will Hold Usual Show This Year—Many Improvements Effected by Management.

Produce more cattle, horses, sheep, swine, poultry, and every other line of agricultural products is the constant theme of all the governments, imperial, federal and provincial; also of the war office and political economists, in fact of every one who gives the present status of our condition any serious consideration. At the

cannot blame those who do not care to take the risk, at the same time the association that proceeds with full courage, and requirements and make preparations accordingly, with the result of a handsome profit and today, with a clear financial



A Corner of the Horticultural Exhibit, Vancouver Fair, 1915.

a determination to succeed is entitled to every assistance and unlimited approval. The Vancouver Exhibition had a deficit sheet, its programme is prepared along the lines of bettered conditions and provides for the best exhibition in its history.



Fountain and Promenade, Vancouver Exhibition.

same time there are a number of sentimentalists who say you should not hold a fair, "I do not approve of it," etc. of \$18,000 in 1914. It knew there was no other result possible when war was declared a few weeks before, but it set its



Holsteins Coming Out of Subway, Vancouver Exhibition, 1915.

Almost any association hesitates before proceeding with an undertaking which is at the best a very precarious one, and one

teeth and went through with its obligations. In 1915 the conditions had settled down and the association was able to gauge the Judging from the number of enquiries for prize lists the stock show will be much better than previously. Some of these coming as far east as Ontario. The eastern Canadian and American stock breeders fully realize the advantages of the B. C. market stimulated this year with the assistance of the agricultural loan in operation by the provincial department of agriculture.

All the stables have been overhauled, the big cattle barn, the largest in Canada, is now in excellent condition, new water pipes nave been laid, the broken planks replaced and generally fixed up. The same good work has been done in the horse stables, the sheep and swine sheds. A new bridge has been built across the ravine near the stables, and the walks and grounds fixed up. New outside judging rings are erected with plenty of seating accommodation.

B.C. Fruit and Farm Notes

Provincial Horticulturist R. M. Winslow estimates that the final shipments of apples from the Okanagan for 1916 will show an increase of 10 per cent. over 1915. There is a 25 per cent. increase on the trees, but the sizes were better last season, hence the increase in shipments this year will not be as great as the increase in production. It is generally expected that the 1916 apple prices will be slightly under those of 1915. With a slightly lower price and somewhat heavier shipments apple returns for 1916 will therefore be about the same as last year.

No fair will be held at Penticton this year.

Says the Chilliwack Progress: For the third year in succession, Mr. T. H. Holck, of Fairfield Island, has grown and brought to town the first new potatoes. Last year Mr. Holck had new spuds on May 18, but was twenty-four days later this season, indicating the differences between the two years. The potatoes were planted on March 23, and were the Early St. George variety.

Dominion government officials estimate that in the Okanagan Valley some of the early varieties of plums show slight inclination of frost injury, and the crop will probably not be above medium. Kootenay Valley reports a full crop except where trees bore heavy last year. The pear crop will again be light especially of Bartletts. Peach trees have not suffered so severely from frost as was at first expected. Sweet cherries have suffered from Winter injury in the Okanagan Valley and are reduced at least 25 per cent.

The Penticton Fruit Growers' union, a local branch of the Okanagan United Growers, is launching out to a considerable extent in order to be in a position to handle this season's crop. It will build a new modern packing house at Penticton, a smaller branch packing house in the northern part of the municipality at Poplar Grove and also operate a branch packing house at Kaleden.

F. T. Jackson, manager of the Okanagan United Growers, with John F. Park, manager of the Penticton union, and the six managers of the other unions in the valley, have made an extensive trip through Washington, having traveled by auto more than 1300 miles. They went as far south as Walla Walla and Colfax. It was found that in the districts visited a considerable amount of damage had been done to stone fruits by frost, although the most of the growers agreed that there was little frost damage among apples.

Western Canners, Limited, a new company, has concluded a deal for the purchase of the canneries at Penticton and Kelowna and will operate them both this season. The Occidental Fruit Company will also put up a small pack of tomatoes, havlng leased the Ideal Cannery at Okanagan Centre. At this point there will be not less than four companies actively engaged In packing and shipping fruit. The British Columbia growers have purchased the King warehouse and will operate in this field exclusively. The Cooperative Fruit Growers who sell a great deal through the grain companies on the prairies state that already they are receiving a great many orders by mail, which is far in advance of last season.

A Penticton despatch says: "Much interest is evidenced in the announcement

that the Canadian Northern is to begin immediate construction on the Kamloops-Kelowna branch. No doubt this rival road is anxious to get in on the big tonnage which moves from the valley each fall and which amounted last year to more than 3200 carloads of fruit and vegetables. It is considered probable that a barge service will be placed on Okanagan lake to gather traffic from the points that the branch line of railway would not touch. In this way straight cars could be routed to Canadian Northern prairie points over a direct line.

Meadow Brook Creamery at Clayburn has been surpassing its previous records lately. For the week ending June 10 the total cream receipts were 20,100 lbs., a gain of 1500 lbs. on the previous week.

Mr. A. H. Playle, a progressive farmer in Cranbrook district, recently imported a carload of milch cows from Alberta. They were pure-bred and grade cows all tested for sale at the Claresholm Experimental Farm.

The strawberry crop, always a good yield in the Chilliwack valley, was exceptionally heavy this season.

The grain fields of Matsqui Prairie have a splendid appearance, giving indication that last year's big crop will be exceeded. At the time of writing, rain was badly needed in other parts of the Fraser Valley.

A motion made at a recent meeting of the Matsqui council to raise the scale of municipal workmen's wages was lost. The wages for an eight-hour day stand as follows: Teams, 50c per hour; ordinary labor, 25c per hour; foremen, 33 1-4c per hour. The motion, if passed, would have made it 60c per hour for teams, 28c for ordinary labor and 31 1-4c for foremen.

SAVINGS - PLUS PROTECTION

Suppose you transfer \$50 a year from your savings bank and open an account with The Mutual Life of Canada. You'll get a better rate of interest, besides the protection of \$2000 to your family in the event of your death at any time. get the same Dominion Government guarantee of safety as you do from a Chartered Bank.

It's a conundrum to me how some men will allow their wives and kiddies to carry the risk, when a paltry saving of 15c a day will create an estate of \$2000, and even at that the Annual Cash Dividends reduce the small annual payments still lower.

Is it a square deal to the wife to allow her to carry this burden when you yourself know the uncertainty of life?

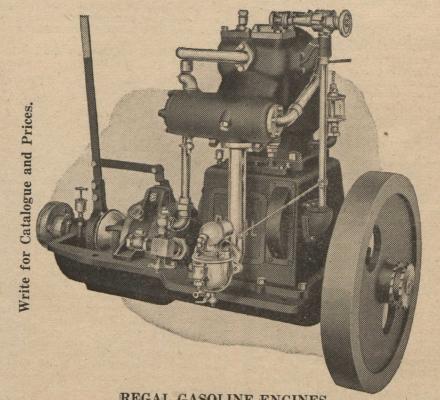
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Westminster Iron Works, Agents,

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Distillate Burning Engines, reduce your fuel

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FRUIT and FARM

MAGAZINE

A Monthly Journal Devoted to the Interests of the Man on the Land

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Vol. VIII.

JULY

No. 7

EDITORIAL

DR. JAMES PASSES AWAY.

In the death of C. C. James, Dominion Agricultural Commissioner, Canada loses, a great citizen and the agricultural interests of the Dominion one of its best friends. His passing is a distinct loss to science, to a great industry and to the country at large.

Commissioner James was an enthusiast, a business man, a scientist, a great administrator, an educationalist and a man with a comprehensive grasp of literature. His influence on the life of Canada will be lasting. Through his efforts the Ontario Veterinary College was taken over and it was due to him that country representatives, chosen from the Ontario Agricultural Col-1912 Hon. Martin Burrell, Minister of Agpartment in all parts of the province. In 1912 Hon. Martin Burrell, Minister of Ogriculture, did one of the best services of his career as minister when he appointed Dr. James to investigate conditions and recommended a plan for co-operation between the Dominion and the provinces in agricultural matters. The result of his efforts was the Agricultural Instruction Act, providing \$10,000,000 for ten years to assist the province in education and instruction in agriculture. Since 1912 Dr. James has been engaged as commissioner to supervise the administration of this act. The Dominion government appointed him in 1914 a member of the Board of Inquiry into the high cost of living.

Dr. James has contributed largely to the agricultural literature of the Dominion.

VALUE OF MILK AS A FOOD.

At a recent convention held in Vancouver the dairymen discussed ways of popularizing milk and creating a bigger sale for it. Why not follow the idea taken by the Dairy bureau of Massachusetts in its clear, plain, forcible little illustrated pamphlets for consumers, in pictorial form. Mr. Harwood shows the cheapness of milk food even at city retail prices. Thus a quart of milk costing ten cents is equivalent in food contents to three-quarters of a pound of beefsteak costing 18 cents, or to three-fifths of a pound of ham costing 21 cents, or a pint of oysters costing 20 cents, or eight eggs costing 32 cents, or two pounds of chicken costing 50 cents. "Use milk," advises Mr. Harwood, "because it is cheap, nutritious, easily digestible. The average school child should consume at least two glasses a day. Older people should use more milk and less meat, and more milk should be used for cooking. Buy clean milk and keep it clean and cold. When in doubt, pasteurize for safety. Buy bottled fresh milk for babies'

food and for drinking purposes. Remember that the kind and quanty of milk best suited to a child varies with the individual. Milk-bone diseases are far less common than the ill effects which result from too little milk."

Such advice, with the attractive pictures, ought to be posted in the street cars and published in the city papers. The value of milk is not half appreciated by the general public.

This month we publish a number of letproblems ters dealing with farmers' throughout British Columbia. We hope they are only the forerunner of many such letters pointing out the needs of farmers in the province and suggesting a solution for some of the many problems met with in the pursuit of agriculture. We are not asking for communications from those who have any political axe to grind, or who wish to give vent to a grouen at things in general without desiring to add something of real value to a great and worthy question. "Fruit and Farm" wants to be a real organ for the British Columbia farmer. Let us hear your views on this or any other topic that affects your agricultural interests.

Rapid progress is being made throughout Canada in the matter of agricultural education. Now that the value of special agricultural education has been recognized 'equal rights" are also to be extended in Alberta to the women of that province who wish to take up courses in their schools or agriculture there. The girls have previously been taking up the domestic science courses, but at a recent meeting of the members of the provincial council of agriculture it was decided that the courses would be open to women who wanted to enrol. Short courses for farmers and their wives and daughters will be held during the summer. Household science and dairving will be some of the points on which the women will be specially interested.

THE EMPIRE'S SHARE IN THE MEAT TRADE.

In Australia there are about forty freezing works to deal with the exportable surplus from 11,000,090 head of cattle and 80,500,000 sheep and lambs. There are in New Zealand no fewer than forty freezing works, in operation or in course of construction, to deal with the exportable surplus from 25,000,000 sheep and lambs and about 2,000,000 head of cattle. Australia and New Zealand are practically the only regular and reliable sources of supply within the Empire, and they together furnished only 284,056 tons of meat in 1915, out of 664,508 tons imported into the United Kingdom. In addition, there was a small import from Canada, and a still smaller import from South Africa.

It is in the interests of the Empire that everything possible should be done to foster the Canadian Live Stock industry. In Canada, the number of cattle is about 6,000,000, besides 2,000,000 sheep—a total which, having regard to the population of the Dominion, does not at present have a very large margin for export. With the probability of preferential trade in food within the Empire there are great possibilities in the expansion of Canadian live stock production.

DAYLIGHT SAVING PLAN.

The daylight saving question is a live topic in British Columbia just now and by the time this issue of "Fruit and Farm" is in your hands it is not impossible but that at least one of the big centres of the province will fall in line with many other cities of the west and put the scheme in vogue for the summer months.

There can be hardly any question but that daylight saving will be a good thing for the towns and cities of the Dominion, but some question has been raised as to the facilities of adopting the plan in the rural Daylight saving simply communities. means all starting work an hour earlier in the morning and quitting an hour earlier which would give one hour more leisure for help and employer during daylight hours. Dominion-wide action on the matter has been asked by many. It is pointed out, however, that if farmers are to regulate their work by the daylight saving scheme, it may work a hardship on the man who employs help on his place for the reason that during certain summer months heavy dews prevent work as early in the morning as would be liked. The farmer is the best judge of what is best under the circumstances, but if he had these hours regulated by legislature he would in many instances be called to make sacrifices that would not be asked of those living in city and town. Under the circumstances it is questionable whether any Dominion-wide daylight saving place is desirable or even work-

ANOTHER WAR REFORM.

One result of the war may be the breaking up of great landed estates in Europe into small homes and farms for soldiers. Germany long ago began to buy the great landed estates of the empire and thousands of settlers will be given an opportunity to pay for them with their labor. In England the same thing is taking place where heavy taxation is proving too severe a burden for big owners. The great holdings of unproductive acres of royalty throughout Europe are likely to follow, for in the great stress of the nations there is no place for idle land. It has been maintained that the accumulative of vast estates by a privileged few has been responsible for much of the social unrest of Europe in years past. The war bids fair to remove much of this particular evil.

TALK OF CONSCRIPTION

Conscription is finding its advocates these days and there can be no question but what the idea has many things to recommend it just now. Unfortunately, however, under the talk of conscription is hidden the desire to defeat the movement to obtain farm labor in different parts of Canada from the United States and that is the reason why it is being reiterated in the States that conscription is to be adopted in Canada.

There is little fear that conscription will be adopted. Canada is the only country in the war that has not adopted some phase of conscription and if we continue to hold up our part without it, it is all the more to our credit. We need men at home to maintain our industries and to help our armies in the field. There can be no question but that there are a great many men who should go to the front just as there are some men who would be doing better service if they had stayed at home to look after their responsibilities here.

Unless there is a decided change in recruiting we believe Canada is rendering a greater service to the Empire under the present voluntary system of enlistment than she would be by adopting conscription. Canadians are not shirkers but they will not adopt conscription under conditions existing as at present.

ECONOMY IS THE WATCHWORD.

One of the great lessons of the war is economy. Industrially and nationally we will not be doing our duty unless we recognize the necessity for economy. "Extravagance always a folly, in these days becomes a crime; thrift, always a virtue, in these days becomes a national duty."

One of the reasons for Germany's successes in being able to keep such a formidable and well equipped army in the field till now has been the part that the whole population has cut down its living expenses, and stopped all unnecessary work so as to devote the greater part of its labor to supplying the fighting men in the field. It is only a few months since the people of Great Britain have started to restrict expenditure to what was necessary. Despite apparent prosperity, war wages and employment for everyone it was realized that no nation can conduct a war costing half its national income and go on living as before.

The moral for Canada is to learn economy—public and private economy. Already there is a scarcity of labor and still we need more men for overseas service. We cannot afford the luxuries we indulged in before the war. We must not keep men engaged in producing things that are not now necessities. There is more important work for them. The farmer needs men, the army needs men, the munition factories need men.

FIGHTING THE FLY.

Such interest has been aroused in recent years in the danger lurking in the housefly that no farmer needs to be told that the fly is a menace. The question is how to guard against this dirtiest of all vermin that visits the filthiest places imaginable and then distributes filth over our food, carrying germs of typhoid, infantile diarrhoea and other intestinal diseases and probably assisting in the spread of tuber-culosis.

The manure heaps are a menace to the farm house where the fly is concerned.

Experiments conducted by the U.S. De-Partment of Agriculture have shown that the fly may be killed by treatment with horax, one pound of borax being sufficient to treat 16 cu. ft. or very nearly 13 bushels of manure. If used in larger quantities, the borax may prove injurious to plants. The borax should be sifted over the manure, Particularly near the edges of the pile, Which should then be sprinkled with four Fallons of water. This treatment will kill 98 to 99 per cent. of all the larvae in the manure. At 11 cents per pound borax, it is estimated that the cost would be two cents per horse per day. This cost would be very greatly reduced by employing calcined colemanite instead of borax, if the former were imported in large quantities. One pound of colemanite will treat 11 bushels of manure and its larvicidal action is as effective as that of borax. .

A PRAYER.

The philosophy of the late Elbert Hubbard was not always orthodox or acceptable to many people yet the following prayer from his pen will find few critics:

"The supreme prayer of my heart is, not to be learned, rich, famous, powerful, or 'good,' but to be Radiant. I desire to radiate health, calm courage, cheerfulness and good-will. I wish to live without hate whim, jealousy, envy or fear. I wish to be simple, honest, frank, natural, clean in mind and clean in body, unaffected—ready to say 'I do not know' if so it be, to meet

oll men on an absolute equality—to face an obstacle and meet every difficulty unabashed and unafraid. I wish others to live their lives, too,—up to their highest, fullest and best. To that end I pray that I may never meddle, dictate, interfere, give advice that is not wanted, or assist when my services are not needed. If I can help people I'll do it by giving them a chance to help themselves; and if I can uplift or inspire, let it be by example, inference and suggestion rather than by injunction and dictation: That is to say, I desire to be radiant—to radiate life!"

AIDING THE FARMER. By THOMAS WIEDEMANN.

The other day at one of the general stores in the Fraser Valley, after many phases of the big world war had been thoroughly discussed to the satisfaction of all, the general topic reverted to the "Back to the Land Momevent," and various suggestions were made as to the best method of developing the Fraser Valley.

Farmers' loans by the government were

Farmers' loans by the government were discussed but met with only half-hearted endorsation. Land clearing by the government was favored by a large number, while bonusing the settler for all lands that he cleared appeared to appeal to the greater majority.

- A travelling salesman from the east, ofter listening attentively to the discussion suggested a plan which he stated was inaugurated in Michigan and has proved successful so far Many of the larger land owners, stated the traveler, are giving this scheme a trial, and briefly it is as follows:
- 1. The purchaser must pay ten per cent of the price agreed upon at the time the contract is made.
- 2. He pays six per cent interest for six years, provided of course, that he makes improvements on the land.
- 3. During each of the first five years the owner (or in British Columbia, the government) lends the settler \$15 per acre on all land brought under cultivation that year.
- 4. During each of the first five years the owner loans the settler one-half the value of all the new permanent improvements in the shape of buildings.
- 5. The money loaned must be used by the settler in making further improvements on the property.
- 6. The settler must work to improve the land and not exhaust it.
- 7. After five years, the settler must pay at least ten per cent of the amount due and all above six per cent is to go on the principal.

By this scheme, at the end of the twenty-one years the settler will own the land if he pays only that demanded by the contract and will have had a living during that time; also the property will then be worth from two to three times what it cost him. On the other hand, should the settler, after a number of years, from some cause or other, decide to give up the proposition, the original owner will have the benefit of the improvements and in a general way the entire district will have been benefited.

Stockraising in the Bulkley Valley is on a larger scale this year than ever before.

Kaslo districts reports the local fruit crop outlook as being the best for several years, with probabilities favoring a big crop if weather conditions are decent.

REAL PANAMA HATS FOR MEN AND WOMEN

you will make no mistake in buying your Panama here as we carry nothing but the genuine native made South American hat.

The market is well supplied with Panamas from various sources but there is no satisfactory substitute for these hand woven hats. We import them direct in the raw and block and trim them in Vancouver

We are showing some of the most fashionable shapes in Ladies' from \$8.50 to \$20.00. In Men's shapes the prices run from \$5.00 to \$100.00 each.

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Dr. Gilbert Continues His Remarkable June Prices.

Owing to the phenomenal demand for the Gilbert standard of Dentistry at the reduced June fees we will continue these extraordinary prices during July.

GOLD CROWNS \$4.00

These crowns are all hand made to perfectly fit your teeth, each one absolutely guaranteed to be perfect for 10 years. Three years ago you would have paid \$10 for these crowns.

A FULL SET OF DR. GILBERT'S NATURAL TEETH



\$8.

Our "Natural" Teeth are made so accurately and perfectly that they will give absolute comfort and long, satisfactory service. We guarantee them for 10 years

Consultations and Estimates Free DR. GILBERT'S Painless Dental Parlors

2nd Floor Dominion Bidg, Hastings and Cambie Streets Vancouver, B. C. 1304 Govt., St., Victoria, B. C.

Beekeeping in British Columbia

By WILLIAMS HUGH

The Beepeekers' Association of B. C.

NOTICES.

A meeting of the directors will be held on Tuesday, August 1, at 7:30 p.m., in the office of the Vancouver Exhibition Association, Loo Building, Hastings Street, Vancouver, to receive reports of committees and make final arrangements for the beekeepers' exhibit.

The prize list of the Vancouver Exhibition will be sent to all members of the Beekeepers' Association. Remember entries close August 2. Members are urged to send their honey, wax or bee appliance if not for competition, then for exhibition. The exhibit is to be representative of the beekeeping industry of British Columbia.

A conference of beekeepers will be held in the Exhibition Building, Thursday afternoon, August 17. Well-known beenen will address the members. Mr. Sladen, the Dominion apiarist from Ottawa, will make an effort to attend the meeting. Members will be admitted free.

Beekeepers willing to help the exhibit, by sending samples of honey for show purposes, write the honorary secretary-treasurer, Williams Hugh, care of Fruit and Farm, 615 Yorkshire Building, Vancouver.

The Provincial Government has made a grant of \$50 to the Beekeepers' Association.

The following have joined the association since June 9: Messrs. O. G. Naud, Jubilee; J. E. Guinet, Chilliwack; Wm. Johnson, jr., Sullivan; Sidney S. Girling, Maywood P. O., and Mrs. S. Fowlie, Chilliwack.

DIVIDING FOR INCREASE.

(Alexander's Method.)

How am I to increase the number of my colonies and at the same time work for honey production? Here is a recommended and well tried plan by Alexander, published by A. J. Root.

"When your colonies are nearly full enough to swarm naturally, and you wish to divide them so as to make two from one, go to the colony you wish to divide: lift it from its stand and put in its place a hive containing frames of comb or foundation, the same as you would put the swarm in providing it had just swarmed, now remove the centre comb from your empty hive, and put in its place a frame of brood, either from the hive you wish to divide or some other colony that can spare one, and be sure you find the queen and put her on this frame of brood in the new hive; also look it over very carefully to see that it contains no eggs or larvae in any queen cells. If it does, destroy them. Now put a queen-excluding honey-board on top of this new hive that contains the queen and frame of brood with their empty comb, then set your full queenless colony on top of the excluder, put in the empty comb or frame of foundation wherever you got your frame of brood and close the upper hive except the entrance they have through the excluder into the hive below. Now leave them in this way about five days, then look over the combs carefully, and destroy any larvae you may find in queen cells unless they are of a good strain of bees that you care to breed from, for they frequently start the rearing of queens above the excluder very soon after their queen has been kept below by the excluder. If so, you had better separate them at once: but if they have not started any queen cells above, then leave them together ten

or eleven days, during which time the queen will get a fine lot of brood started in the lower hive and every egg and particle of larvae that was in the old hive on top will have matured, so it will be capped over, and saved; then separate them, putting the old hive on a new stand. It will then be full of young bees mostly, and capped brood, and in about 24 hours they will accept a riper cell, a virgin, or laying queen, as they will realize that they are hopelessly queenless. I would advise you to give them a laying queen, as I never like to keep my full colonies a day longer without a laying queen than I can help. In this way you have two strong colonies from one, as you have not lost a particle of brood nor checked the laying of your queen; and with me it almost wholly prevents swarming. This is the way we have made our increase for several years, and we like it much better than any other way we have ever tried. In doing so you keep your colonies strong during the whole summer, and it is the strong colonies that count in giving us our surplus."

Re-Queening.

The season is now approaching when beekeepers will be seriously thinking of requeening, here are two opinions of leading authorities on the subject.

E. W. Alexander—"The most common and the worst mistake that can be made in rearing queens is saving the natural cells and virgin queens from colonies that have cast natural swarms."

Dr. E. F. Phillips—"It is believed that the best queens are those reared under the swarming impulse and under supersedure."

Will some of our old beekeepers tell me which opinion is correct and why?

BEE NOTES FROM THE KOOTENAYS. By W. J. Sheppard, Nelson, B. C.

It is now possible to form some idea of the condition of the bees in this section of

the province. After a more than usually severe winter, with longer spells of zero weather than generally occur, I find the losses have not been so great as I expected. The bees that have come through are mostly in good shape, especially where proper attention has been given to spring feeding. The latter has been an important factor as there has been a good deal of rain and consequent lack of sunshine, also cold nights have been the rule. The bees have therefore not been able to gather enough nectar from outside sources to keep up the necessary food supply. The fruit blossom is now practically over. The bees were able to work on the cherries for a comparatively long period but the apple bloom did not come in for the usual share of at. tention owing to the showery weather. Dandelions, always favorites with the bees. have had quite a long flowering period and are still being visited by them whenever the weather is favorable. White clover is just commencing to flower and I have had reports from some localities that the bees have been seen working on it. It is very strong and vigorous this year and gives great promise of yielding much nectar later on. All we require to get this desired result is strong colonies and fine weather during the latter part of June and all

Several experiments are being tried here this season. Golden Italians are being given a trial, two special strains having been secured for this purpose. These bees are at present doing well and appear to be excellent workers. They are beautiful bees and very gentle, it being a pleasure to handle them. It will be of value to find out later on if they winter as well here as the ordinary three banded Italians as they are not credited with being as hardy. We are also experimenting with the dry sugar feeders and intend keeping these feeders in the hives until the commencement of the honey flow. The bees seem to appreciate this attention as the feeders are always crowded and the colonies are certainly building up fast. We are also trying out a double-wall brood chamber, just a permanent packed outer case of five-

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eighth inch lumber built round the usual single wall ten-frame hive body. This sits on the ordinary bottom board and is so fitranged that none of the other hive fittings are altered in any way. We think this will afford enough protection in winter here except in some few locations where colder weather would make it imperative to resort to the collapsible packing case as well. Yet another experiment receiving a share of attention is to try and get more and better sections by using a hanging section frame interchangeable with shallow extracting frames. The hanging frames containing the sections are placed in the centre of the super with the extracting frames of built out combs at the sides. They are thus in the warmest part of the super which will doubtless enable the bees to take to them sooner and fill and seal them over more rapidly. Many beekeepers have also expressed their intention of trying the suggested alteration of the "Demaree" swarm control plan.

BEE HUNTING. CHAPTER I.

The cares of this world had long prevented any indulgence in a pastime, much desired, innocent of harm to any of God's creatures and exceedingly conducive to health, but when at last, a clear September morn' dawned and I awakened, I realized that the time was the present and the order of the day was bee-hunting. Quickly arrangements were made. A little box With a glass lid and a loose bottom was ready to hand, a pint of honey and water, two or three pieces of old comb in which to pour the syrup, a tiny bottle of white paint and some lunch completed the preparations, and 9 a. m. found me nearing the scene of operation and watching for the first bee. A little later I found it on a bunch of wild everlasting flower, though What in the way of pollen or honey can be secured from such a dry source is more than I can tell.

Quickly the little box came into play and the bee buzzed up against the glass, en-deavoring to escape. Now a piece of the old honey comb was filled with syrup and placed on the loose bottom board and the glass covered box, containing the bee, was Put over it. My hat completed the arrangement being used to darken the box. Almost immediately the bee commenced feeding on the syrup and so the box was removed Very gently, leaving the bee undisturbed on the comb. One or two more bees were treated the same way and soon the place began to take a busy appearance with the accompanying music of the flying bees, for each one, on returning, was sure to bring others along.

Putting a little dab of white paint on the "latter end" of one of the bees, I timed it and found it back again in about eight minutes and so knew that the hive was not far away, as, flying home, crawling over the combs, depositing the nectar and coming back, must, necessarily, occupy some minutes, however near the hive may be.

I soon had the main direction though the bulk of the flying bees were circling. Their general behavior is—first to fill up with syrup and then locate the source for future reference—this they do while flying in ever increasing circles, each of which leans in the direction of their hive, until satisfied that they will know where to find it again.

Now you can follow these circles for a time but they have a knack of reversing suddenly and this with the play of light and shade makes it hard to follow them until they are ready to go directly to their



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hive and so it is better to watch your bait until you see some bees leaving it in a straight line, which they will do after the first few trips.

I soon had my line established—it led to some bush land bordering a river and so I took my bait and some of the bees, a few hundred yards in that direction. This I repeated until I was in bush so dense that I could not see which way the bees were going, so I plunged through the bush, over rocks, logs and small creeks until the river bank was reached, here I started another line and found that I had overshot the mark, as the flight was in the opposite direction. This was the time for a line from an angle and so I went a hundred feet to the right and the first few bees gave me the true location-alas in a dense mass of large and small cedars and firsquite close to the bank of the river, and, unless I felled some half dozen big treesquite out of sight and reach.

A few days later I decided to try again. I picked up the line in the open, as before and was impressed by the fact that the bees seemed to fly in line with a certain big cedar tree which stood on the near side of the strip of bush—closer examination revealed the entrance of the hive, some fifty feet up, and the bees playing merely around it: thus I had, on the previous occasion, overshot one line and happened on another.

(To be continued.)
N. V. GARDEN APIARY.

NOTES FOR BEGINNERS.

If you do not wish to increase the number of your colonies and you have a swarm

issue from a hive you desire to keep in the old one, and at the same time have a young queen, cut out all queen cells, except the best one, then return the swarm to the parent colony, and as the queen returns on the board, take her away and kill her, then, at once give extra super room. The advantage in this, for the small beekeeper, is, he has a queen cell from the stock he desires, and knows its capabilities, the colony will not require feeding in the fall, but will continue bringing in nectar.

It is not an uncommon thing to see one beekeeper taking a heavy super from his hive, while a neighbor complains of his luck, or want of it. Do not put a super on for sections too soon, wait until the bees are well crowded in the brood chamber, and you see the bees drawing out the cells at the top of the frame with new wax, then only put on one super at a time, when this is nearly filled and you are ready to put on another, remove the partly filled super and in its place put the new super of sections, then place the partly filled super on top, the bees will go to work and cap the sections in the top super, and commence filling the one below.

"We had a nice swarm last Saturday and a beekeeper put it in a hive, there were starters in the frames, but on Monday the swarm flew away."

To induce a swarm to remain always place a frame of brood in the new hive, when you put the swarm in, the bees will never have the brood and will commence work at once. If you have no brood or

Continued on page 989

Planning a Dairy Barn

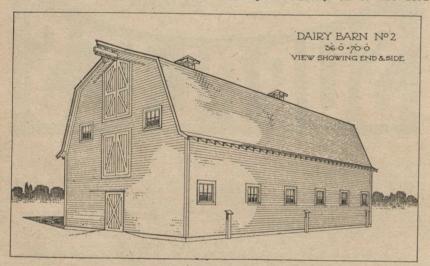
By A. R. GREIG, Professor of Agricultural Engineering and A. M. SHAW, Professor of Animal Husbandry.

Last month "Fruit and Farm" published an illustrated article giving some hints on building a dairy barn. This month appears another type of barn.

In this barn (No. 2) all the barn lofts have two doors at each end, the upper one being intended for use with a horse-fork. The feed-alley and the trap-doors for hay are arranged so that feeding can be done with a minimum of labor. There is room for over thirty head (including calves). The extract ventilating shafts are placed so

the wall, as in Dairy Barn No. 1, illustrated in last month's "Fruit and Farm." This arrangement is rather handier for feeding. but requires slightly more labor in removing the manure. It is impossible, too, with this arrangement of stalls in a 36-foot parn to have manure-alleys wide enough to admit a wagon or manure-spreader. A stone-boat or a litter-carrier, however, can be used to advantage.

The feed-room is located in the corner and opens directly on to the feed-alley.



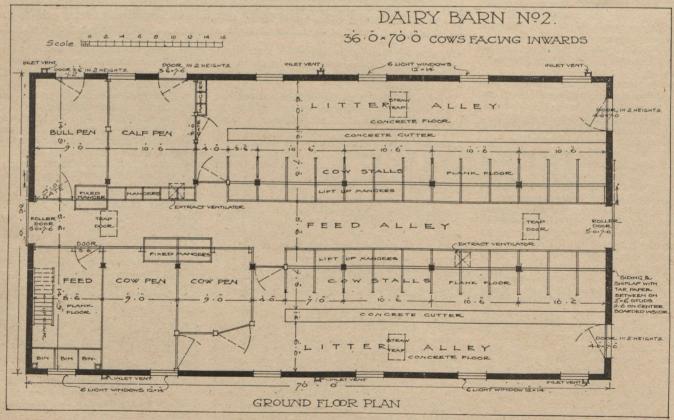
the calf-pen and the bull-pen are convenient for turning the animals out for exercise into adjoining paddocks.

Barn Ventilation.

Fresh air with sunlight is one of the prime necessities in any building used for the housing of live stock. Too much stress cannot be laid upon this point. Foul air is certain to cause disease. A stable lacking proper ventilation is neither sanitary nor comfortable. Low temperature does not mean pure air, and the purity of the air in a stable cannot be judged by its temperature.

The necessary conditions in a good ventilation system are: (1) No animal should be in a direct draught. (2) Each animal should get a sufficient amount of fresh air; no animal should be in a corner or a space where the fresh air does not circulate and from which the foul air is not carried off. (3) The currents of air should all be in the one direction—that is, away from the cold walls and towards the outlets. (4) The ventilators should, be easily controlled, so that in extremely cold weather the temperature need not be unduly lowered.

The Rutherford system of ventilation is used in all the barns shown in this magazine. It is one of the best in use and is recommended by most authorities in Canada. In this system the fresh air is brought in through a number of small openings or ducts at the bottom of the outside walls, so distributed that fresh air is diffused throughout all parts of the stable. These ducts are generally raised up inside to about eight inches above the floor, so that cold draughts will not run along the floor. As it is used and becomes warmed the



as to allow a clear passage right through the loft for the hay-fork.

This barn is 36x70 feet and will accommodate twenty-four cows in single stalls, has two box stalls for freshening cows, a bull-pen, and a calf-pen. The cows tace toward the centre alley instead of toward

The calf-pen is also handy, being located just across the alley from the feed-room and only a short distance from the milk-room. Earth floors are shown in the box stalls and planks in the single stalls and litter-alleys, the gutter being made of concrete. The doors opening outside in both

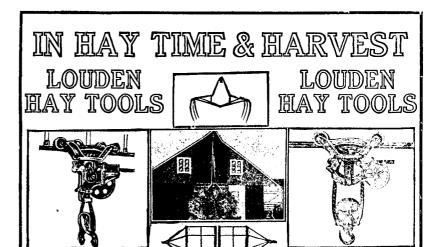
air moves gradually to the centre of the building and up to the ceiling and out through the outlets. There should be no cross-current nor any tendency to bring air once breathed and warmed in contact with the outside wall. Usually about one outlet is provided for every four inlets.

Where the mangers are against the wall it is difficult to introduce the air without causing a draught on the animals. In an experiment carried on at the Central Experimental Farm Ottawa, to avoid this difficulty the fresh air was carried underneath the floor to the back of the stall. Where this is done care must be taken to have the air-shaft absolutely water-tight. This can be ensured by using vitreous tile Pipe with cemented joints. If the air is brought in at the manger it should be broken up into very small openings (augerholes), so as not to create a draught. It there is a feed-passage along the wall it makes an excellent place for bringing in the fresh air.

The air should be brought in through small openings and at frequent intervals. An opening should not be larger than 6x8 inches. Six- or four-inch tile pipes make good ducts. Eight square inches of inlet should be allowed for each cow two years old and over, and 10 to 12 square inches for each horse. The inlets should be placed along the walls, so that they will distribute the fresh air as far as possible throughout the entire stable. The inlets on the outside of the walls should be carried up high enough to be above the snowline and also to prevent dust and rubbish from blowing into them. The openings should be on the side walls of the inlet and not the face, so that strong winds will not vlow directly into them and affect the ventilation within the barn. Fly-screens should be put over the openings.

The currents of air should be all in one direction—that is, towards the outlets. The air breathed out by animals is heavily laden with moisture. If this moistureladen air is kept too long in contact with a cold wall or ceiling surface the moisture will be deposited in the form of hoar-frost, and the next mild day the walls will begin to drip. There is nothing so uncomfortable as a wet barn. When an animal gets its coat wet it has to supply sufficient animal heat to evaporate the moisture. That this waste of heat-or, in other words, food is considerable is shown by the fact that it takes five and one-third times as much heat to evaporate water as it does to bring it from the freezing to the boiling point. In this connection the construction of the Walls is very important. Unless they have some form of insulation such as a deadair space, it is impossible to keep them dry, except by lowering the inside temperature to approximately the same as the outside. Double walls with a dead-air space between Will keep dry if there is a good circulation of air in the stable. No system of ventilation will keep solid stone or cement walls dry-especially in very cold weather-unless they are wood lined.

The outlets should not be less than 16 inches in diameter, and 24 inches is preferable. About 20 square inches of outlet space should be allowed for each animal. The outlets should be located as near the centre of the barn as possible. They should be built of two-ply lumber with tar-paper between, to make them as air-tight and as warm as possible. The air that is carried up the outlets is full of moisture, and if the outlet is cold it will soon collect a lot of hoar-frost. The outlet should be built With as few angles as possible and be carried above the ridge in the form of a cupola. In the cupola it is preferable to have the sides open rather than covered With slats. If the roof is carried well over the walls there is not much danger of the snow and rain beating in the open sides.



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The ventilation system should be easily controlled. The higher the ventilator is carried, the greater the amount of air will take out of the barn. Also the greater the difference in the temperature between the inside of the stable and the outside, the more air will be carried off. Consequently it is necessary to control the outlets with a damper, the controlling cords of which should be brought down into the stable for convenience. The exact amount of opening for different weather conditions is soon learned, and it is only a minute's job to adjust two or three ventilators before leaving for the night.

No ventilating system is automatic for all conditions of wind and temperature, but the Rutherford system can be operated with a minimum of attention and has proved to be most successful for conditions in the west.

Mr. T. E. F. Wiancko, of the dairy branch of the Department of Agriculture, says the dairying conditions in Comox district are rapidly improving. Five hundred cows are being tested each month under government regulations and the production of milk is increasing. It is further stated by Mr. Wiancko that there is hardly a cow on Vancouver Island that is paying for its cost

and the reason is that the cost of production and distribution of dairy produce is too great and that there is not enough attention paid to scientific feeding and allround economy by eliminating unnecessary Fruit Act. He was convicted of "facing" strawberries in the box and was fined \$10. expenses. In Vancouver, he says, it costs dairymen \$500,000 annually to distribute their milk and thinks that there are too many vendors. In Victoria there are 55 independent vendors "and that is far too large a number for a city of that size."

Mr. A. P. Fryatt, a Victora mail carrier, who is working a quarter acre of ground in connection with a course in agriculture he is taking from a correspondence school, is exhibiting fall rye 92 inches in height. He says his little crop of rye will easily average seven feet in height.

Manager Rolston of the Vancouver Exhibition, is looking for a remarkably good stock show this year. He states that although they are not offering any inducements to American and eastern stock raisers this year, indications point to these being well represented.

What Farming in B. C. Requires

Valuable Opinions Written for "Fruit and Farm" by Representative Farmers of the Province.

Your opinion is invited.

The amount of space being devoted in the newspapers of British Columbia during the past few months to the agficultural interests of the province is a very healthy sign. It denotes increased interest in the farmer and the countless problems that confront him in British Columbia, problems, many of which are either not met with in other provinces or to the same degree as is the case here.

This awakened interest in agriculture in British Columbia is partly the result of the increasing importance now attached to an industry that is rapidly assuming first place in the activities of the people, and is partly owing to the great war, which here, as in other parts of the world, is rapidly bringing all of us back to first principlesback to the fundamental things of lifethe things really worth while.

Now, above all other times, is the time for the farmers of British Columbia to take advantage of the opportunity presented to improve the conditions of their pursuit. Now is the time to built for future success, the time for reform, helpful legislation and the remedy of such things as require it.

Much has been written about what is most required to encourage development that will be profitable to both the British Columbia farmer and the province. The question has been tackled by many amateur farmers and theorists and newspaper editors, but too little has been heard from the farmer himself. In order to get right at the crux of the matter "Fruit and Farm" is asking its readers and all other farmers of British Columbia of what, in their opinion, the farming industry in British Columbia is most in need to promote profitable development. We know the question is a broad one and is likely to bring out a variety of answers, which is exactly what we want. Farming in British Columbia presents so many problems and there are so many angles to the pursuit that it is only by hearing a great many experiences that a general, intelligible idea of the subject can be obtained.

To some people the question will suggest "better marketing facilities"; to others "economical means of clearing land"; others "more capital"; to some, perhaps, some form of "government aid" not now in vogue, and so on.

We do not care how briefly or at what length you answer the question. We shall be glad to hear from you, and who knows but that some suggestion you may give

will have a far-reaching effect in helping in the solution of what is one of the most vital problems facing the province—the development of agriculture. We will not use your name in referring to the replies if you specifically request us not to.

Last month in order to get this campaign started a few letters were sent out to a number of farmers in different parts of the province. Some of the replies are published below and every reader of "Fruit and Farm" will agree that it has been worth while to get these valuable suggestions which will be forwarded to the places where they will be calculated to do the most good. Next month we hope to be able to publish more letters of a similar nature providing readers pursuing these remarks are interested enough to send us their particular views.

Cheap Land and Loans.

A farmer living near Nelson, who does not wish his name mentioned, has written us the following letter:

"In reply to your letter of the 13th inst., asking for answers to the question 'What is the B. C. farmer in need of most,' I beg leave to say that I quite agree with you that the question is a broad one and a number of answers can be given.

"The chief test of good government in this province is fastening the people to The government assures us the land. there is an abundance of good land open for pre-emption and close to transportation, this being the case we have plenty of cheap land for the farmer. Improved marketing facilities will be all right when we have something to market after the home market is supplied and we cannot hope to place a small quantity of produce on the outside market at a reasonable cost, consequently we must produce in large quantities if we hope to market economic-

"The cheap land must be cleared, this entails much labor and requires considerable capital. It is my belief that no person can clear land at a lower cost than the man who owns and is living on it. Then if the owner has not the necessary capital he must be able to borrow what he requires at a low rate and on long terms. We would then have the owner of the land established there on with sufficient capital to maintain himself and family and clear and cultivate his land and thus produce the necessary quantity to place on the market at a low cost and with little loss.

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all settlers, who are willing to receive it, with the best instructions available, then the settler on the land with the necessary capital and a sufficient knowledge of his business to clear and develop his land, if he be intelligent and willing must succeed or the fault will lie either in the climatic conditions of the district in which he is settled or the quality of the soil he is cultivating.

"If there is plenty of good land free to the willing settler and close to transportation as the government alleges, then furnish him with the necessary capital at a low rate, give him the instructions he may require he will attain a fair measure of success and will add much to the prosperity of the province and help to place it on a self sustaining basis.

"The marketing will require attention but that will develop as the produce to be marketed increases in volume and in value provided our products are such as consumers require and the cost of production is low enough to enable us to compete with other parts of the world producing similar

Markets and a "Live Wirt"

Kispiox Farmers' Institute, draws attention to a problem touching the farmer of the north, such a problem as we fancy many new sections have to meet. Not only does he point out the problem but makes a very Practical suggestion for its solution which no doubt the government will investigate Mr. Anderson's letter reads:

"In reply to your letter of the 10th inst. regarding of what the farming industry of B. C. is in most need, I might say that this is a very broad question and could not be answered in a short letter; but the chief drawback to this northern country is poor markets and market facilities. In this valley, Kispiox Valley, I know for a fact that quite a number of acres of farm produce, especially hay, go to waste every year, owing to the inability of the farmers to dispose of such products. Of course, the problem would be easily solved in regards to hay, namely, get more cattle to eat it, but again it takes money to buy cattle, and that is another agricultural problem, more and cheaper money.

"To solve the market problem I think the department of agriculture ought to Place a "live wire" at the disposal of the farmers, to operate along the farming country, adjacent to this G. T. P. line from Prince Rupert to Prince George (or further if necessary) in order to keep in touch with the market requirements and to secure the market for the products which we farmers have at our disposal and in a general way act as information bureau. This agent, similar to the "country agent," Which system has worked so well in Wisconsin, Minnesota, Iowa, etc., ought to be a man experienced in agricultural matters and not a "politician" and one who understands the requirements and knows the conditions which we farmers have to contend with, and I think, as a farmer and as a pre-emptor, that when better markets are secured the settlers in this northern B. C. Will farm with a contented will and with the satisfaction that what they grow they will be able to dispose of. "Yours truly,
"JAMES ANDERSON."

Government Aid For Stock.

From the north comes another letter, this time from Ira D. Vandewater, secretary of

Pouce Coupe Farmers' Institute. Mr. Vandewater read the letter from "Fruit and Farm." at his institute meeting, an excelient way in which to get valuable suggestions, and as a result sends the following letter dated from Rolla:

"Yours of May 12th to hand and contents noted. I read your communication at our meeting today and in reply am instructed to say that members of our institute believe that the greatest need today is government aid in the way of stock, say from three to five milch cows to settlers who are not well situated financially. This would encourage the settler and would lead to manufacture of cheese and butter. The government could make their own plans as to payment such as yearly payments on same at reasonable interest. If a settler can once get a start he is sure to make good and that is what is wanted, more especially at the present time as at the close of the present war, which I hope is near, the demands on the farmer will be great and if handled properly British Columbia can be in front to meet these demands.

"We solicit your co-operation in our behalf to secure a railroad through the Pine Pass and direct to Pouce Coupe Prairie as we wish to trade with Vancouver people. I am writing the Board of Trade at Vancouver to secure their assistance also.

"In my own estimation I believe that if the government could loan needy settlers a small sum of money, say from \$500 to \$1,000 for three years, it would enable them to get a start in the stock they desire, as some are desirous of dealing in hogs.

"Thanking you in advance for your cooperation in our behalf.

"I remain your truly,

"IRA D. VANDEWATER,

"Secretary of Pouce Coupe Farmers' Institute.

"Rolla, B. C."

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The business men of Victoria are to tour different parts of Vancouver Island to get into touch with the needs of the farmer.



Higher Taxes on Non-Producing Land.

The farmers of the north are progressive, as indicated in their desire to improve their condition, shown in the ready reply to the letters "Fruit and Farm" despatched them. There is still another letter from the north, this time from Mr. A. I. Priestley, secretary of the Naas Valley Farmers' Institute. Mr. Priestley writes:

"In reply to your letter I beg to submit the following answer. It is understood that this represents my personal opinion and is not necessarily the opinion of the members of the institute of which I have the honor to be secretary. The first requisite is land at the very lowest figure possible. This, of course, means the elimination of land being held for speculative purposes, and the only way to attain such an end seems to be by legislation including a far higher tax on non-producing land than there is at present.

"The second, need of transportation which would include good roads as feeders as well as water and rail transportation for the main arteries. Perhaps I lay too much stress on this item, but our conditions in Northern B. C. need this item badly.

"The third most important item seems to me to be more education and organization. This might include more demonstration farms, which brings us to the need of loans to farmers (by the government) upon the security of the farm and its improvements.

"Local needs differ so that it would be impossible to lay down the needs for all, but in the new districts I believe some system of land clearing by the government (expenses being of course ultimately paid by the men whose land is cleared) would help a great deal towards making the land productive.

"Yours truly,

"A. F. PRIESTLEY,
"Secretary,

"Naas Valley Farmers' Institute."

District Representatives.

Apropos to the subject in hand and also to a letter published in last month's 'Fruit and Farm" in regard to district representatives, it is interesting to note that speaking to the Rotary Club, in Victoria, recently, Dr. F. S. Tolmie referred to the Agricultural Credits Act as "admirable and bound to do some good to the farmer, but he believed that at the same time there should be adopted the system of district representatives, in which case experts would confer with the farmer to give advice as to how best to bring his investment to a profitable basis. This would obviate to a great extent the liability of dissipating the value of the loan through the employment of improper methods. Should the idea of establishing the returned soldiers on the land be adopted, such a system would be invaluable, since, no matter how desirous they might be of following such an occupation, they would for the most part be inexperienced and thus unable to carry it on successfully without guidance."

The Bella Coola Courier said recently: "What the farmers in our community need is leadership and the government through its staff should try to supply this need. The government of the United States has through a system of country agents successfully dealt with this problem, and what has been done in other places can surely be done here."

Mr. C. C. James, deputy minister of agriculture for Ontario, addressing the Commission of Conservation in Ottawa, January 17, 1911, said:

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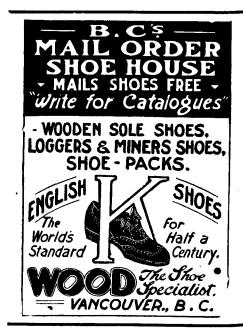
"The work of a provincial department of agriculture is educational.

"To get all or a majority of our farmers to drain their land, to sow the best seed, to care for their orchards, to test their cows, to raise only profitable stock, and, in brief, to get the best results for the expenditure of labor, we must get into close personal touch with them and give sympathetic direction to their work.

"The great hope of improvement in the average farmer lies, not through sending him a report or pamphlet, not through talking at him in an institute meeting, but through helping him to do some work on his own farm wherein he gets improved financial results through his own efforts. This is the secret of success in the (district representative's) work.

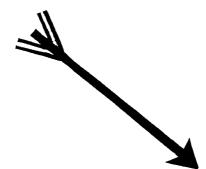
"We established branch offices of our department and moved the Agricultural College nearer to the farmer's home. We made it possible for our representative to go into the farmer's field, his orchard, his dairy, and, what gave him greatest confidence, right into his own home.

"I venture this prediction that when we have the province of Ontario manned in all counties and districts, and fifty representatives with their assistants have got down to work, we can double the output of the farms of Ontario in the next ten years. It is a work worth spending the money of the people-upon, for the whole people will receive the benefit."



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PLANTS FOR THE GARDEN.

The Point Grey Horticultural Society has inaugurated a valuable series of educational meetings which in the near future are bound to show results in the greater perfection and beauty of gardens and their contents, throughout the municipality.

The third of these meetings was held recently in the Municipal Hall, Kerrisdale When the president, Mr. J. Fyfe Smith, occupied the chair and presided over a good attendance of ladies and gentlemen.

The business of the evening was devoted to discussions on pansies, roses, and native flowers for the garden. The discussion on pansies was opened by Mr. J. Livingston who illustrated his remarks with a large collection of different types of fancy pansies, and pansy-violas. Mr. Livingston dealt with the essential differences between these two favorite garden plants, and gave many valuable hints on their culture and development to fit them for display on the exhibition table. He emphasized the readiness of these species to respond to feeding With liquid manure and chemical fertilizers, especially of the application of nitrate of soda or sulphate of iron in solution just before flowering. Specimens of pansies were supplied to the members present, and each had an opportunity of studying the various points which it is necessary a pansy should possess to be of value for show purposes.

The president then asked Mr. Chas. Bailey, F.R.H.S. to open the discussion on "Roses." In his paper Mr. Bailey dealt with the selection of suitable varieties, proper soil, planting, pruning, and their

preparation for the show. He drew attention to many common mistakes of amateurs and explained how to obtain best results by pruning at the correct season, and how to correctly stage exhibits.

Mr. J. Davidson, F.L.S., provincial botanist, was next asked to speak on "Native flowers for the garden." Mr. Davidson's remarks were illustrated by a collection of fresh flowers from the Botanical Garden at Essondale, and many of these drew forth the admiration of both amateur and professional gardeners of which the audience was composed.

Amongst the native plants which attracted most attention were the Yellow Lady's Slipper Orchid which can be grown in the open border and is equal in beauty to some of the better known greenhouse species. The native ever green Rhododendron was exhibited by a magnificent cluster of beautiful waxy carmine pink flowers and all were agreed that its beauty exceeded that of many garden varieties. The fact that it was found on our B. C. mountains ensures that it is perfectly hardy and requires no special care. In this connection Mr. Davidson mentioned his success in obtaining seed off this species, and had now several thousand seedlings which would in all probability be utilized in the beautification of the university site at Point Grey.

The native Iris from the northern regions of the province was also shown in flower. It resembles a Japanese Iris, of a lovely dark blue, beautifully pencilled with white. The size and abundance of the flowers makes this species a valuable addition to the herbaceous border. Amongst the other showy plants exhibited and described were four species of Pentstemon, Indian Camas,

Indian Paint-brush, Eriophyllum, Columbine, Larkspur, Rosy ever-lasting, three species of Erigeron, Red Bane-berry, etc., etc. A short discourse was also given by Mr. Davidson on the native orchids when it was pointed out that there were between 20 and 30 different kinds in B. C. Herbarium specimens were shown to illustrate the principal species.

Water Inspector McIntosh, of Nicola, acting on behalf of the provincial government, has been in Canford lately examining conditions and making investigations with a view to furnishing a report to the government on the scheme proposed for the Irrigation of extensive farming acreage in the Petit Creek district. The irrigation ditenes are proposed to be constructed by joint arrangement between the government and the several ranchers who will benefit by the scheme which, it is expected, will do considerable to stimulate development of farming in Canford.

Cut worms are very prevalent at Westbank, in the Okanagan, this spring and have already done a great deal of damage. At the ranch of Mr. D. Gellatly they have destroyed several hundred tomato plants and have eaten off large areas in the onion fields.

The first batches of butter put out by the farmers' co-operative creamery at Armstrong were put upon the market during June and being of excellent quality are said to have won a warm spot in the hearts of customers. Ex-Mayor Keary, of New Westminster, is president of the creamery and under his able executive ability the society should prosper. Roy. H. Gillman, a buttermaker of 20 years' experience, is the practical man in charge.

POULTRY SECTION

PUREBREDS FOR THE FARMER By Michael K. Boyer

There was a time when it was almost next to impossible to get the farmer to invest in purebred poultry. "Chickens are chickens" seemed to be the rule, and "chickens" it was. But conditions on the farm are changing, and in nothing has there been such an improvement as in the poultry line.

Instead of "chickens" being the playthings for women and children, or as a means of earning a little pin money, the poultry department is considered to be one of the most important adjuncts to farm operations.

The farmer has become wise to the fact that it is possible to have winter eggs, which no longer is an idle dream, as was the belief in the days of our forefathers. The farmer, too, has discovered that it is economical to have commodious, comfortable winter houses, and that for success there must not be a single mongrel permitted on the place. He has even gone a step further, and invested in incubators and brooders that he may devote a part of the winter months to profit instead of comparative idleness.

In short, he has in operation a complete poultry plant, and it has proved to be the best crop on the farm. That is the revelation of today, and the farmer makes the most out of it for the reason that he has the proper facilities.

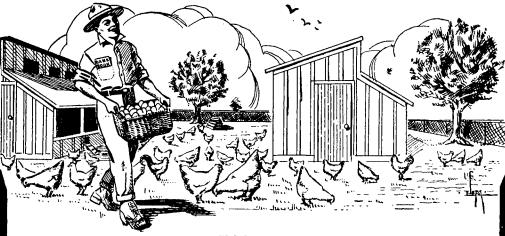
The pure breds of the present day are so superior in utility that one seldom comes across a flock of crossbreds, and the one that keeps mongrels is not of the class that is making a success.

The fanciers of today deserve the credit for this change. It was to their skill that health, ruggidness and practical qualifications became a part of the make-up of their breeds. So sharp has become competition in this line that the breeders of different varieties are working for egg records and meat supplies in preference to showroom requirements. Even the American Standard of Perfection has modified the laws of breeding so that utility will not be sacrificed. Truly we have entered an era when poultry becomes the food fowl intead of the show bird.

It has been proved that, properly bred, pure bloods are more prolific layers, giving a more uniform size and color to the eggs, and the young stock mature more uniformly and give better carcasses, and utilize the food consumed to better advantage, than is the case with either crossbreds or mongrels.

A mongrel is a conglomeration of different bloods, followed by continued hap-hazard mixture. It is possible to grade up step forward—in fact, it will be two steps bred males; but it is not possible to go a a flock of mongrel hens by using pure-backward—to use a dunghill male on even purebred hens. The influence of the sire is two-thirds that of the dam.

Some time ago I was called to inspect a poultry plant on what was otherwise one on the finest estates I ever saw. Everything—buildings, stock, utensils, etc., were up-to-date. But down in one corner of that farm there were finely constructed houses filled to overflowing with dunghill hens. Is it any wonder that they did not pay for



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their feed? A dunghill hen is as hearty an eater as a purebred, but she cannot properly utilize that food. Three hundred head of mongrels on that farm did not give more than two dozen eggs a day.

Could I prescribe a remedy? I did. Butcher every hen on the place and invest the proceeds in as many purebreds as the money wil buy. Better have but 50 good fowls than 300 mongrels.

The farmer must book himself on the subject. There are scores of good works published, and a number of practical journals issued. Besides, the United States government, together with a number of State Experiment Stations, are continually issuing free bulletins on the subject. It is up to the farmer to grasp the opportunity, and it is gratifying to know that he is gradually getting on the right side.

Charcoal cleanses the system of impurities. When the blood is thick and clotty, a dull, sick chicken will soon follow. Thin blood means vigorous circulation, and on good circulation of the blood health largely depends. If the fowls lack activity charcoal will have the tendency to stir the blood of its sluggishness.

Sunflower seed, being very nitrogenous and rich in fats, not more than a quart should be fed to 30 fowls, twice a week. The seed acts both as a food and medicine. It produces a redness to the comb and a luster to the feathers,

Boiled white or Irish potatoes may be given sparingly, but never boiled sweets. I made an experiment with the latter some years ago and was surprised to see how quickly the fowls would overfatten. On the other hand, I found that raw potatoes of any kind, when cut in half and given the towls to pick to pieces, not only acted as an excellent substitute for green food, but gave a variety to the bill of fare that proved valuable.

It is claimed that in 100 pounds of oats there are 15 pounds of flesh-forming food, six of fat, 47 of starch, two of bone-forming feed, and 20 of husk or fibre. In oatmeal there are 18 of flesh formers, same of fat, 63 of starch, same of bone formers, and two of husk or fibre. For the purpose of comparison, wheat has 12 pounds of flesh formers, 3 of fat or oil, 70 of starch, same of bone makers, and one of fibre.

Referring to green bone for poultry feeding, it has been proved by analysis that it contains in abundance the ingredients which go to make up the growing chick,

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and in close proportion the different parts of the complete egg. The lean meat and gristle form the white of the egg and about 16 per cent, of the yolk. The marrow and other fat on the bones supply the remainder of the yolk. The lime phosphates in the bones yield all the necessary lime salts for the shell and the requisite phosphates for the interior of the egg.

The poulterer to be successful must have a knowledge of what to feed. For flesh, albumen, etc., we must give nitrogenous foods. Fat requires a carbonaceous diet. The carbonaceous foods are corn, fat meat, grease, rice, etc. This shows that finely the nitrogenous foods are meat, beans, clover, and, to a certain extent, the grains. Cut clover hay, scalded, given in the morning, with a tablespoonful of meat in winter, is better for egg production than grains. All foods, however, contain fat, and also the less corn or heating food is required.

In our forefathers' days, if the Christmas turkey weighed from 14 to 16 pounds, it was considered about right. Today we would credit such weights as good only for pullets.

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LOOK CAREFULLY TO THE MALE BIRD

The male that heads the flock is "half the pen" and we should be absolutely certain that he is abundantly equipped with a good constitution and great strength and activity. I would not think of using a cockerel that was not at least ten months old, and better if he is twelve or fourteen months of age, and his health up to the time of the breeding season should be carefully considered. If he has been sick to any extent discard him. Fowls above any other stock, if they have shown signs of weakness from any disease are unfit to breed from.

Late hatched cockerels "don't fill out;"

Late hatched cockerels "don't fill out;" they are apt to be soft, lack sand. I had a few this spring which were hatched last June and July. They were immature and would skulk and run the minute another bird looked at them. Such male birds are worthless for anything but the market. They might, however, fertilize a few eggs, and a few of the chickens may live to get out of the shells, but if they live any longer they will be a curse to the owner.

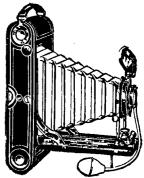
The main points for the practical poultryman to study are strength and vigor of his stock, and right with the chickens is where he should begin this improvement and building up.

In November, one of my hens came from a cold windy quarter under an old barn with eight Rhode Island Red chicks. Having recently moved onto this farm I had no facilities for wintering them, so I tried to sell them, failing to do this I tried to give them away, but in this I failed also. My boy said if he could have them he would care for and raise them. I told him to go ahead.

He patched up an old coop and placed it in an old henhouse with twenty-five head of Red hens. A cold, windy spot, where the drinking water froze quickly nearly every day; but they were hatched to live and grow and thew did. They just ate chick feed, frozen cabbage, drank ice water and "spread out." Today they are a large, husky little bunch. So much for breeding stock that has strength and vigor back of them.

A black Minorca hen in the flock of Brock Moran, at Creston, laid an egg last month weighing one quarter of a pound and measuring eight inches from end to end and six and three-quarters in circumference. The eggs of this hen for several days before and after this performance were fully up to average size.

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Plenty of individuals of our strain have records of 220 to 236 eggs in one year. No. 73 laid 103 eggs in 109 consecutive days. Her daughters laid 42 eggs in 43 days, 52 eggs in 54 days, 47 eggs in 50 days, and 47 eggs in 53 days.

Eggs for Hatching—\$1.50 per 15; \$2.75 per 30; \$4.00 per 50; \$7.00 per 100; \$60.00 per 1000. Baby Chicks a specialty.

Our new 1916 mating list, beautifully illustrated with photos from life, containing feed formulas, tonics, etc., is yours for the asking.

L. R. GUILD

Box 16,

ROCKWOOD, ONT., CANADA

Gardening for the Home

By H. M. EDDIE, F.R.H.S.

(Our readers are invited to submit any troubles or difficulties which they may encounter, to Mr. Eddie, who will be glad to give them his advise, the outcome of technical training and practical experience. Address letters to the Editor.—B.C. Fruit and Farm Magazine.)

July is usually the driest month of the twelve and, incidentally, in fact consequently, the month when the most serious outbreaks of mildew occur; with reference particularly to roses. The longer I live and the wider my observations become the riore convinced I am that the root of the evil is drought, particularly at the roots.

Gravelly or sandy soils overlying a substratum of coarser gravel are liable to dry right out in a very short time if rain keeps off, because their merchandise composition prevents the rise of water in the soil, and it necessarily follows that if water be withheld for even a short time plants begin to suffer, their vitality is reduced and they are rendered easy prey for all sorts of pests, particularly mildew on roses. The majority of the gardens in Vancouver and New Westminster are on very porous soils, and this, I think, is the reason why the rose mildew is such a torment in those two cities. The remedy therefore is copious watering during dry weather. I would put particularly emphasis on the word "copious"; an amateur will give the soil round a rosebush a perfunctory squirt with the hose and think he has watered it; it is a great surprise to many when they find out how much water it does take to saturate the soil to the depth of the roots.

Need Much Water.

Take the Crimson Rambler for example, that being the worst offender where mildew is concerned, suppose it covers a wall space of ten square yards, its roots will likely occupy a soil space of about three cubic yards, and will take 25 or 30 gallons of water poured into the soil before it is properly saturated; remember "into" the soil not merely onto it.

As a stimulant to help affected plants to throw off the disease and to keep healthy ones clean give a dressing of nitrate of soda at the rate of two ounces per square yard after watering, on no account before, as this substance is very soluble in water and may easily be washed beyond the reach of plants.

Give this watering once a week during the dry weather or until sufficient rain has fallen, and the nitrate once a month and 1 am pretty sure your roses whether in beds. borders or on walls, will keep healthy and green the whole season. To rid affected plants of the pest I would recommend in conjunction with the above treatment, a thorough spraying with potassium sul-phide (obtainable at a drug store) 1 oz. to 3 gallons of water, applied forcibly through a fine mist nozzle to every part of the plant.

In other parts of the garden much time will be taken up watering; here also the same rule hold good, it is much better to give a thorough soaking once a week or at longer intervals than a slight spray every evening.

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Conserving Water in the Soil.

After watering all bare surfaces ought to be stirred with the hoe to break the capillarity of the soil and prevent the evaporation of water from the surface. Another way of conserving the water in the soil is by applying a mulch of some kind. Some plants are also very grateful for the coolness such a covering provides, especially rhododendrons, sweet peas and dahlias. The mowings from the lawn make a very good mulch and should never be dumped over the fence as they have a certain manurial value as well.

Much water will also be required in the vegetable garden especially by pumpkins, squash, etc., and celery. To grow the largest fruits of pumpkin and squash their number must be limited accordingly even to the removal of all the plants from a hill but one, and the removal of all the fruits but one. In making the selection the strongest plant and the likeliest looking fruit ought to be saved. As these plants throw out roots at the nodes or joints on their stems it is a good practice to spread a three or four-inch layer of well decayed manure on the ground under the stems; keep this well watered and the roots will soon take possession of it; and if the hills were made up with good rich soil in the spring and they are well attended to with water and fertilizer in summer, record fruits may be expected. There is nothing in the tale of how enormous pumpkins are grown by feeding with milk directly into the stems; feeding can only be done through the roots.

Watching the Vegetables.

The earliest crop of celery will now be ready for earthing up. Before applying the soil go carefully over each plant and remove all the side growths and short leaves, and give the trench a thorough soaking of water if required. This is also a good time to suppliment the barnyard manure with a little chemical fertilizer. After watering give a dusting of super-

phosphate of lime or bone flour, and wood ashes saved from the kitchen range, the latter to supply potash as potash salts are unobtainable at present; no nitrates will be required if a good supply of manure was dug into the trench before planting, too much nitrogen causes frothy stems.

When the tops of the plants are perfectly dry again after watering, loosen up the soil along the ridges with the spade making it as fine and powdery as possible, then grasp the first plant firmly with the left hand and with the right draw the loose soil from the ridge and work it up to and round the plant, change hands and do the same from the other side and so on along the trench. Before applying the soil some growers first wrap the plants in paper, and where the plants are grown for exhibition I think it advisable to do so, otherwise it is unnecessary.

The paper is cit into stripe eight inches wide and 12-15 inches long, wrapped around the plants and held in position while the soil is being packed round them.

Clean Strawberry Beds,

The strawberry crop will now be practically over, and the beds ought to be cleared of all weeds, litter and runners, and the soil deeply stirred by hoe or cultivator; the tramping unavoidable when gathering the crop hardens the surface and the plants will be greatly benefitted by the cultivation. The raspberry crop will soon be over now and immediately after its conclusion the old fruiting canes ought to be removed; also the surplus young ones to admit light and air to ripen up those canes retained. In certain sections much damage was caused by the severe frost last winter, which would have been avoided had the canes been well ripened and hardened by full exposure to the sun during late summer and fall.

H. M. EDDIE, F.R.H.S.



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Beekeeping in B. C.

Continued from page 979

drawn out comb, full or half sheets of foundation should be placed in the frames, I smear the foundation with a little honey and feed for a few days, it gives the bees a good start.

A lot of attention is given the bees to keep them warm, we are now in the midst of the season when it is advisable to provide shading for the hives. Hives painted a light color is a means of protection against the heat of the sun, metal covers should have a protecting board underneath, as metal attracts that heat. Enlarge the entrance of hives during summer, fewer bees will be required to ventilate the hive.

Many beginners are under the impression that the first swarm being a new colony is lead off by a young queen, anxious to start housekeeping on her own, this is not so, the prime or first swarm is headed by the old queen about the time the queen cells are capped over, cold weather will sometimes delay swarming, and the bees Will destroy the queen cells, but as soon as the weather is again warm, more cells are constructed.

INTRODUCING QUEENS.

There is a time during the life of a colony of bees when for one reason or another the queen plays out or is killed accidentally by the beekeeper. Should this happen when there is brood in the hives the bees at once commence to rear a new queen, and all is Well providing there are drones to fertilize the new queen. But supposing the beekeeper wishes to introduce a queen which has been reared in some other colony, and has come through the mails, or which he has taken from another hive in his own apiary. Bees are queer creatures and can-not be depended upon to accept a new queen just by dropping her amongst them; so that various ways have to be adopted to introduce her to her new home. Should the queen be in a mailing cage full directions for introducing are usually sent along with it, but there are so many qualifying factors to be taken into account that failure is often the result even though instructions are carefully followed out.

The most important point in queen introduction and upon which all the experts are agreed is that the best time to requeen a colony is when there is honey coming in from the fields. Any and every method Will give good results during a honey flow.

A queen taken from a colony and at once placed into another colony which has been dequeened usually is accepted but once the queen loses that fresh hive odor the safest way is to cage her in a queen cage and let her hang in the new hive for two days before releasing her, which must be done quietly and with as little disturbance as Possible. Here is an absolutely sure way of introducing a queen although it requires niuch more labor than the other methods. Take two or three frames of brood ready to hatch, brush all bees from them and place in a new hive. Now put this hive without bottom board on the top of a

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strong colony, but be sure to separate the two by screen wire with the queen excluded under the wire screen so that no bees from the lower colony can get up above, because we do not want the bees from the lower hive; we only want the heat to rise so that the brood which is hatching shall not become chilled. When the young bees begin to hatch out, run in your queen along with her attendants or just take the plug from the cage and she will find her way out. In the course of a few days there will be quite a nice little bunch of bees and your queen will be laying. The hive can be taken away and put in its own bottom board when most of the brood in the three frames has hatched, and a new colony made. A frame of brood given when the bees can take care of it will assist in building it up to a nice JOHN BROOKS. colony.

A good thermometer has many uses on the farm. The temperature of the pantry should not be more than 50 degrees, and that of cellars should not be allowed to become less than 32 degrees; 35 degrees is a good temperature for cellars. When buying a thermometer, select one which bears the name of the maker, and which has a Fahrenheit scale etched on the glass stem.

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WOMEN'S SECTION

British Columbia Women's Institutes

Motto—"FOR HOME AND COUNTRY"

A Wild Flower Show.

The second annual Young People's Wild Flower Show in connection with the Shawinigan and Cobble Hill Women's Institute, was held in the S. L. A. A. Hall, Shawnigan Lake during June and was favored by a beautiful afternoon, which no doubt contributed to the very satisfactory attendance. Quite a large representation of members of the institute and their families came from Cobble Hill, as well as from round the lake.

The Rev. R. Connell and Miss Crease, of Victoria, once again came to act as judges, a kindness much appreciated by the directors of the Institute, for their extensive knowledge of the wild flora of this province gives them unusual qualifications. Unfortunately, the number of exhibits was much less than last year; the junior classes were well supported and the two competing schools won high praise for the excellence of their exhibits, but evidence of interest among the young people over thirteen was sadly lacking.

The prize for the best "Fifteen Specimens of Wild Flowers, named" collected by children under 13, was awarded to Douglas Roney, Olive Wilkinson gaining honorable mention. There was no entry in the corresponding class "Twenty Specimens of Wild Flowers, named" for young people over 13. Teddy Roney won the prize for the "Best Bouquet of Wild Flowers, tied"; Maysie Christison receiving honorable mention.

Miss Cicely Twist gained the prize for the best arrangement of wild flowers for table decoration; Hazel Lamont securing honorable mention while the Malahat school swept the board of prizes in the five classes open to school competition; fresh and dried wild flowers; native foliage and shrubs; ferns, mosses and lichens; and complete wild flower plants; though a special prize was awarded to the Cobble Hill exhibit of dried wild flowers, for its excellence; and the judges unhesitatingly accorded to the remainer of its exhibits the recognition of honorable mention.

The prizes, which were kindly distributed by Mrs. Blackwood-Wileman, president of the Cowichan Women's Institute, consisted of handsome and suitable books, presented by the department of agriculture, the president, vice-president and directors of the institute, Mrs. Blackwood-Wileman, Mrs. Clarke and others. Some vocal and instrumental music, kindly contributed by Miss Alexander and Miss Isabel Clarke, a pretty gavotte, danced by a quartette of girls from Cobble Hill, and the witches dance, repeated by request by the Shawnigan girls, added to the attractions of the afternoon.

All the children present, over fifty in number, were entertained to tea by the Women's Institute, thanks to the generous provision made by the members; for their seniors a first rate tea was served at 10 cents a head; but, perhaps a stronger attraction existed in the ice cream stall. of which the profits, amounting to nearly \$12, were devoted to the Red Cross fund.

Women's Legal Rights.

At the last meeting of the Salmon River Valley Women's Institute held at the home of Mrs. Brown, the subject chosen for discussion was "The Laws of B. C. in Relation to Women and Children." Mrs. Andrews read a very interesting paper that dealt very thoroughly with the matter. At the close of the debate it was moved by Mrs. Andrews, seconded by Mrs. Campbell, "That the Farmers' Institute in the valley be asked to co-operate with us in our efforts to have the laws of B. C. relating to women and children revised."—Carried. The president, Mrs. Tweedale, asked Mrs. Andrews to present her paper, or read it, at a meeting of each of the Farmers' Institutes in the valley.

Preparing for Flower Show.

The Hatzic rose and flower show, which will be held on June 23, promises to be a record one this year, the prize list being a very extensive one. In the roses class there will be eight sections. The peonies class and the many other classes which make up an excellent list. The flower show committee is: Mrs. T. Catherwood, Mrs. Richardson, Mrs. Dann, Mrs. Noble, Miss Hodgson, Mrs. McTaggart and Secretary Mrs. Fripp.

Kelowna Institute.

At a general meeting on May 31 twenty members were present and roll call was answered by apt quotations. from minutes-Supervision of arising school children in noon hour to be left until new schol is built. Suggested topics for conference—"That Rural Institutes should raise a scholarship fund to assist any deserving child through their High School course from their own respective districts. Mrs. Moberly read the programme for the Flower Show on the first Thursday in August. This was accepted and Miss M. Lloyd nominated assistant secretary for the flower show. The children's work has been made a specialty in the programme and money was collected amongst members for their prizes. The adult prizes will be diplomas of merit. It is the feeling that except for the children, no prize money can be spared in these strenuous times of warfare, all such monies being needed rather for the Red Cross purposes. The Red Cross report was read by Miss G. Heddle. Miss Frances read a request for help for the injured and disabled soldiers and sailers which will be considered with other matters later on. Mrs. C. Brown read a paper, or rather gave a delightful lecture on vegetarian diet and made a very interesting half hour, also giving a few simple recipes. A vote of thanks was then tendered Mrs. Brown for her lecture. Junior members acted as hostesses for the afternoon, and a more pleasant time and daintier repast could not have been wished for. The programme for the Flower Show will be printed immediately and distributed.

Discontinue for Summer.

At the Harrop Farmers' Institute Saturday evening they decided to discontinue their regular meetings for the summer. The secretary was instructed to get berry pickers for the season. The members recently formed "bee" on Friday, to make further improvements on the picnic grounds.

Cobble Hill Institute.

A very successful entertainment and dance was organized by the Shawnigan and

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Cobble Hill Women's Institute on Empire Day, of which the proceeds promise a substantial addition to the Red Cross Funds. The attendance was considerably larger than had been hoped for, and all went away well satisfied with the excellent programme provided. The first item was a reproduction of Bernard Partridge's famous cartoon in Punch, "Canada—Ypres, April 22nd to 24th, 1915." Douglas Elford posed admirably, and Mr. Cheeke recited with great effect the lines in memory of those who fell in the First Contingent, composed when the memorial to their memory was unveiled at Salisbury last winter.

Assistance for Flower Shows.

The minister of agriculture has sanctioned the following expenditures by his department in connection with assistance to flower shows given by women's institutes in the province this year:

(1). A per capita grant of 25 cents in addition to the grant made under the authority of the Agricultural Act, 1915, will be given to institutes holding flower shows or an exhibition of women's work, or a combined flower show and such exhibition, in your own district.

(2). Prizes will be offered for competition at such shows for collections of bulbs, sweet-peas, roses, dahlias, and perennals, or other varieties as may be decided by the institute, the prizes to consist of books awarded by the department as follows. Adults, first and second prizes; juveniles, three prizes.

Cownchan Women's Institute.

The members of Cowichan Women's Institute were treated to a practical demonstration of how to make a good layer cake at their June meeting. Mrs. C. H. Dickie went very thoroughly into the details of the delicacies for which she is justly famed.



Miss A. Hadwen spoke most interestingly on famous women, choosing for her theme the Bronte sisters, tracing their lives and literary achievements. Mrs. Whidden, secretary, stated that there were now 108 members. This is very nearly the number reached last year, as many ladies have left the district, this was held to be most gratifying. Mrs. Blackwood-Wileman, president, put before the meeting an urgent request that the needs of the Duncan Hospital be kept in mind. The institute plans to have a bed called by its name and to supply the necessities for its upkeep. Local industries were referred to by the president who read particulars relating to the use of willows for basket weaving and furniture and to herb growing for medicinal being inquired into by a general commit-The Red Cross committee reported that on that day there had been sent off to Vancouver two cases containing 150 handkerchiefs, 300 gauze sponges, 35 towels, 20 pairs socks, 50 eye bandages, 75 knee bandages, 20 property bags, 10 hot water bottle covers, 10 pillow covers, 1 bundle old linen, 7 feather pillows, 25 pairs slippers, 25 pairs laparotomy stockings, 15 table napkins, 15 suit pyjamas.

Hatzic Women's Institute.

The June monthly meeting of the Hatzic Women's Institute was held in Mrs. Henry's garden, where the institute had the pleasure of entertaining about 20 members of the Haney Women's Institute, who had motored up to spend the afternoon at Hatzic. After one or two short talks on current events, such as ,"Our Prisoners of war." Temperance, etc., in which our visitors joined. A very amusing competition was entered into by nearly everyone, and eventually the tiny award was carried home to Haney by Mrs. Charlton. Tea and cake were served by the hostesses of the day at little tables dotted about the garden under the shade trees, and thus ended a very pleasant and happy afternoon.

FEMININE DAIRY WISDOM.

As soon as the flies begin to put in an appearance be ready with your spray.

Spray the cows all over from head to heels before putting them in pasture in the morning, and do the same after milking in the evening.

The flies keep at their deadly work at nighttime as well as during the day, so spray at night also.

If cows are sprayed before milking be careful to omit the udder, as a disagreeable odor will get into the milk. There is no such effect if sprayed after milking. The result of the tormenting of flies is a very great lessening of the milk flow.

Do not put the calves in a pasture to be tormented with flies. The young calf's skin is thin and the attacks of flies will retard the growth.

Young calves should have clean, roomy box stalls. They should be fed regularly, and be kept comfortable and happy.

Calves can be very unhappy in a dingy, dirty, stinking pen, and they show their discomfort as plainly as words could tell. Such conditions mean loss to the careless owner.

If you must put them in the pasture don't put them in a pig pasture.

A pasture near the farm buildings, with a good shelter and little stanchions to confine the calves while they are eating and drinking their rations, can be used.

The calves should be sprayed with the fly repellant also.

If any cow is to drop a calf, be sure to keep her in a quiet box stall a week or ten days before she is due. Feed her carefully and watch her udder. Never allow a cow to calve in the open pasture.

HOW TO DO THINGS.

Shut out the bugs with screens.

Before filling jars with fruit wash them thoroughly and boil the lids.

Remember, when putting meat in the refrigerator, not to place it against the ice, as that will draw the flavor out of the meat.

Never put soda into the water in which you wash china which has gilding on it. Soda injures the gilding. Instead, use soap, which answers just as well and has no illeffects.

Girls, why is it that the minute you touch a hammer to drive a nail your brothers begin to laugh? If I were in your place I would practise driving nails until I could do it as well as any man that ever swung a hammer.

To can young beets, cut off the tops, leaving an inch of the stem; wash, do not bruise the skin. Cook until tender, peel, place in jars and fill to overflowing with boiling water. Put the lids on loosely, steam in a boiler for an hour, then tighten the lids.

If you have a small amount of thick sour cream it may be made into butter by shaking it in a large jar—a two-quart glass jar is best. Fill it half full of the cream, warm it to about 65 degrees, then shake it continuously, opening the top once or twice to let out the air.



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It is not generally known that splendid jelly may be made from dried apples. Put the apples on with more than enough water to cover, let them cook slowly until they are done; strain off the juice, and proceed as for jelly from fresh apples. You will find you have a splendid jelly, and the apples make a good sauce.

To can peas use young tender ones just gathered. Shell, steam, or put into boiling water for a few minutes, until the skins wrinkle slightly; pack into jars, fill to top with cold water; put on tops loosely, set the jars on a support in a boiler, pour around them a few inches of water, cover the boiler and steam for an hour; tighten the tops, and leave till the next day, then loosen the tops, steam for an hour more, and tighten the tops, etc. Repeat this on the third day, then tighten the tops while hot, and keep the jars in a cool place.

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Messrs. Berry and Coulter, the well-known Langley ranchers and merchants, have dissolved partnership after being associated in business and farming for over twenty years. Mr. Berry will continue to run the farm at Langley Prairie, specializing in the breeding of pure-bred Holsteins.

The following interesting despatch was received early in June from Penticton: "There is apparently a determination in local fruit growing circles not to permit any undue advantage to be taken of the added protection given to the apple industry by the Dominion government. Local growers state that they want last year's prices and no more. A well-known fruit grower who learned it had been rumored that the management of a fruit selling organization had decided to raise its apple prices 38 per cent., intimated that as soon as definite information was obtained he would demand a general meeting to voice a protest if the rumor was found to be

CORRESPONDENCE

Calgary, Alberta, June 22, 1916. Editor Fruit and Farm,

Vancouver, B. C.

Dear Sir-We would like to bring to some of your readers, particularly those with orchards just coming in, information re time when to pick their apples. We had some shipments of Yellow Transparent left so long on the trees that when we got them they were worthless, no profit to us and a loss to the grower, who could ill afford it. Then there is another matter they should seriously consider, that is their packing and forcing onto the market their later winter and spring apples in the early fall. They state, and so do big shippers, that the apple market was higher in October than in November or December, and so is advisable to sell all their apples early. The reason for that is that they glutted the market with everything they could, then forced on another bunch, and of course a lower price had to be made to move them, resulting in a lower price. My contention is that if we feed the market with our apples, keeping off the late winter and spring, they would not be glutting their own markets.

If these matters are of interest to you kindly let me know.

Yours truly, S. J. FEE, Mgr. Vernon Fruit Co. Ltd.

Bee Correspondence Dept.

Editor Fruit and Farm,

Dear Sir,—I would like to ask Mr. Brooks to enlarge a little on his article in the June Fruit and Farm, page 961, and tell us what he thinks is a fair value for a standard frame of good-worker comb. "A valuable asset" is so vague. I asked the editor of "Gleanings" the same question and his answer was "about 35c." It has a bearing on the old question of the value of a hive of bees in the spring, the complete threshing out of which subject at our last general meeting was prevented by time limit.

With regard to Mr. W. H. Lewis' article, page 952, the paragraph commencing "Now listen" made me take notice, as, no doubt, was intended—this, too, is vague. "Two weeks before the 21st" would mean the first week in May, or April—probably the former. If Mr. Lewis had hives full to the sides the first week in May, this year, he was doing exceptionally well, but he omitted to tell us how it was done, his remarks referring, mainly, to swarm control, and spring management in other years, for I feel sure that spreading brood could not have accomplished much good in April of this year.

I have heard other reports of a similar nature—one was given early in June—18 frames of brood in a hive, from which 8 or 9 had already been taken to strengthen other colonies. This report also omitted details of spring management. I would like to suggest, here, that the large number of combs in which eggs are laid does not point to the good queen, necessarily. In 1914 my best colony gave me 120 lbs. of honey and the queen of that hive refused to go into the super at all.

Does any beekeeper on the Lower Mainland hold the view that it is inadvisable to produce very strong colonies except at certain times—the times varying with the crop? If so, please tell us when and how to do it

Merely looking for information, Mr. Editor. No! Nothing cynical about the above, but I would certainly like to see some discussions on such subjects running through your columns.

GARDEN APIARY, St. Nicholas, B. C.

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CONOMY is the frugal and judicious use of money . . . that management which expends money to the best advantage and incurs no waste. . . There can be no argument as to the wisdom of securing the best, which is universally conceded to be the cheapest in the end. . . Therefore it is true economy to secure the very best at the lowest possible price.

T is economy to expend money in having your teeth made perfect . . . to prevent further decay and so prevent the waste of money as well as health. It is wise to secure the best dentistry, for, because it lasts longer and does the work for which it is intended better it is cheaper in the end. . . And it is true economy to secure my "Perfect Crowns and Bridges" which are the very best that money can buy, and at the lowest price at which it is possible to secure work of this superlative quality.

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backing by pure platinum pins.

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