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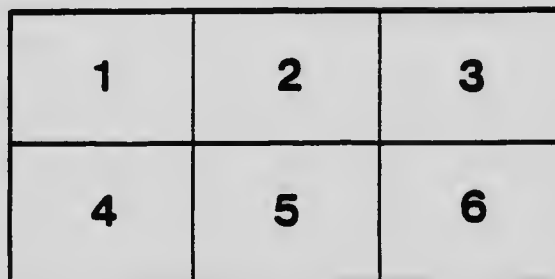
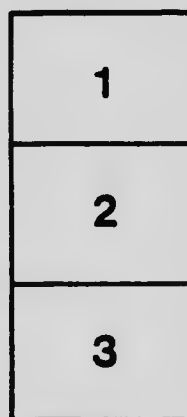
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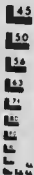
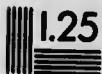
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PROVINCE OF BRITISH COLUMBIA.

DEPARTMENT OF AGRICULTURE (HORTICULTURAL BRANCH).

PROGRESS AND PROSPECTS IN FRUIT AND VEGETABLE GROWING.

By R. M. WINFLOW, B.S.A., PROVINCIAL HORTICULTURIST.

PROGRESS IN 1912.

THE season just closed has been marked by the movement of the largest crop of fruit and vegetables ever grown in this Province. On the other hand, the general range of values has been low, and market conditions have, in some respects, been unsatisfactory. The quality of vegetables and of some fruits in several districts was not as high as usual, owing to unusually damp weather conditions.

Owing to the high level reached in prices of both land and labour, there has been a slowing down in the amount of development-work and orchard-planting. Growers, however, feel satisfied that large profits are to be made in fruit and vegetable growing as a solution is found for difficulties such as those occurring in the marketing this year.

The main features of the situation this past season may be briefly outlined as follows:—

CLIMATIC CONDITIONS.

On Vancouver Island there has been the usual winter precipitation. The spring commenced early, and was favourable, marked by dry and sunny weather. The summer was marked by an ample supply of moisture.

In the Lower Mainland, general climatic conditions were favourable, save that the unusual precipitation during the summer and early fall was too great for satisfactory results.

In the Dry Belt, a mild winter was followed by an open and very favourable spring, which resulted in a generally heavy setting of fruit, though the summer was so moist that, as a rule, but one irrigation was necessary.

In the humid regions of the Interior, all conditions were eminently favourable up to the end of June, but after that time precipitation was heavier throughout the summer, which was, in consequence, rather cool.

FRUIT PESTS.

The small fruits of the Province, such as strawberries and raspberries, are but little injured in any year by pests of any description, and this was the case again this year. Cherries, plums, and prunes, throughout the Province, being softened by the damp weather, were more subject to rot than usual, and this was the cause of considerable loss in the more humid sections. On apples there was very little in the way of injurious pests. Fruit-pit or Baldwin spot, as was predicted in circular issued by this

Department last year, was hardly of consequence whatever, though there is considerable likelihood of some injury from this source next year. Fire-blight broke out in the Lower Okanagan this year, principally on Splitzenberg and other apples, but was brought under control after some loss had been occasioned, and prospects for its successful control next year are very good.

IRRIGATION CONDITIONS.

Owing to the dryness of the late winter and early spring months, irrigation was necessary in the spring, but the heavy precipitation which came on later rendered further irrigation practically unnecessary, as water-supplies were ample. A well-attended meeting of the Western Canada Irrigation Association was held at Kelowna, and some minor points in water administration seem in a fair way to be adjusted.

LABOUR.

In response to an inquiry made by the British Columbia Fruit-growers' Association early in the year, it was generally stated that labour would be in reasonably good supply, though the price was greater than 1911 by about 10 per cent. A cheap rate for fruit-harvesters into the Okanagan was granted by the C.P.R. from Vancouver to Calgary, and was taken advantage of to a certain extent. In each fruit district labour is being trained for harvest-lug-work, but much needs to be done to make it highly efficient.

CANNING AND JAM FACTORIES.

Overripe, soft, and low-grade fruit is slowly becoming a large enough factor to make factories for working it up into by-products successful. There has been an increase in the number of canning and jam factories, which find an ample market for all their product, and in consequence growers received reasonably remunerative prices throughout the Province from them.

CO-OPERATION.

There was no increase in the number of co-operative associations doing business in the Province, but practically all of those in operation handled an increased amount of business, and handled it more efficiently than in previous years. In other words, there has been a gain in unity and efficiency in co-operation. One very important feature of the work of these associations is in general educational work among their patrons in the matters of proper handling of fruit, in better methods of packing, and in a higher grade all round. The methods of the current year have received much favourable comment from buyers and retailers. There has been a substantial advance in methods of grading and packing.

TRANSPORTATION FACILITIES.

Working through the British Columbia Fruit-growers' Association, the fruit and vegetable growers of the Province met the officials of the C.P.R. several times this year, and as a result were granted considerable reductions in tariffs, and a considerable extension of privileges in other respects, which helped greatly to move the crop economically. With regard to transportation service, there was some delay and an inevitable shortage of cars, especially after the wheat movement commenced in earnest. In all, there was, however, a great improvement in the freight service over previous years, and we have the assurance of the C.P.R. that their service will be continuously improved as the traffic increases. Express shipments were smaller than

usual this year, for various reasons, but the service was as good as usual. There is a feeling that express rates are high, and it seems likely that express business will not develop as rapidly in the future as in the past.

The British Columbia Fruit-growers' Association increased in individual membership and in the number of societies affiliated with it this year, and has reached a strength which marks the almost entirely unanimous support of the fruit-growers. The excellent results of the work of this Association fully warrant such support. The Department of Agriculture recommends the new settlers of the Province to get in touch with this organization.

DEPARTMENT OF AGRICULTURE.

The Department of Agriculture has continued its work of previous years. More packing schools were held than in any previous year, and a great many "short courses" on horticultural subjects were held throughout the Province. The demonstration orchards being operated furnish a great deal of information on methods of handling young orchards, and the members of the Horticultural Branch are being used more and more by the fruit-growers of their respective districts to provide information on orchard practice. The Department's exhibition-work has been greatly extended during the past year, and closer inspection has been given fruit and nursery stock, both imported and local-grown.

The nurseries of the Province are now producing a supply of fruit-trees entirely adequate for the needs of intending planters, and are growing a class of stock which, for vigorous health and freedom from pests, is not surpassed in any other district. Our local nurseries must shortly command the entire support of the Province.

FRUIT-CROPS.

Strawberry yields were large on Vancouver Island and the Lower Mainland, but the fruit was soft, owing to the rains, and so was not of good shipping quality. This enabled the canning and jam factories to secure a fair supply with which to fill their orders. The prices were high and most satisfactory to the growers. The strawberry-crop in the Dry Belt was light, and the demand took care of it all; while in the Kootenay the jam-factories consumed the entire supply, except a very small amount sent to Prairie markets. The demand for berries was very much greater than the total crop.

Raspberry-crops were good on Vancouver Island, but small on the Lower Mainland and in the Dry Belt, owing to a frost last November which injured the canes. In the Kootenay the raspberry-crops were extremely good. As a rule, prices throughout were entirely satisfactory, the local production not nearly equalling the demand.

Sweet cherries yielded well, but were inclined to be soft. Fruit properly handled shipped well, and arrived in satisfactory condition, but otherwise there was some loss.

Sour cherries were a large crop, and in some cases brought low prices, but the Vancouver Island Olive crop reached a high level, and was very satisfactory.

Both in sweet and sour cherries, large supplies from the American side, which also had a very large crop, at times depressed the market to a very low point. This fruit comes in against a duty of 2 cents a pound, and freight and express rates high enough to be almost prohibitive.

Early plums yielded well and brought high returns, but late plums and prunes, which yielded a large crop, brought unsatisfactory prices.

The Lower Okanagan had a large peach-crop, which met a very favourable market in the earlier part of the season, but a very unsatisfactory one for the most of the main crop. This was principally due to an excessive crop of peaches in American competitive districts, partly due to climatic conditions, which rendered our fruit soft and more or less unsatisfactory for shipping. The canneries took quite a large amount of the crop, at much more satisfactory prices.

Pears yielded a good crop throughout the Province, and prices were well maintained throughout, being higher than for several years.

Crab-apples yielded well, and during part of the season returned good prices, but low prices on other classes of fruit depressed the market, so that only moderate prices were received for many shipments.

The apple-crop, taken as a whole, was a large one. Early varieties were moved at reasonably satisfactory prices, and though the main crop has met a slow market, the whole of it has now been sold at an average f.o.b. price of about \$1 and \$1.10, which, with the crop yielded this year, represents a fairly satisfactory return to the grower.

VEGETABLE-CROPS.

There was an increase of over 50 per cent. in the total acreage planted to potatoes this year, and yields were large. A great increase is shown in the amount grown by Chinese in the Lower Mainland, on land rented at \$30 per acre. The whole of the crop in the Lower Mainland has suffered very heavily from blight, so the total yield of good stock is much smaller than expected. Potato prices have been the lowest in years, but are now improving, and it seems likely that the large supply being held over in pits will bring satisfactory prices later on.

There was a large crop of all other kinds of vegetables, which, as a rule, met a satisfactory market at moderate prices. One commodity grown—tomatoes—seems to have given generally high returns. The level of prices, as a rule, has been only moderate.

EXTENSIONS IN FRUIT-PLANTING.

Reports in the hands of the Department of Agriculture indicate that the amount of planting of orchards done last spring was the smallest in several years, the usual causes assigned being the continued rise in price of land and labour, and some uncertainty as to marketing. From all indications it seems likely, however, that there will be an increase in planting in some districts next spring. In others, such as Vancouver Island and the Lower Mainland, where the movement in land-values is still upward, it is not likely that much will be done.

PROSPECTS FOR THE FUTURE.

Under the circumstances which existed this year, many intending fruit-growers will doubtless ask what is to be the outcome. To reply to this question in a word is impossible. Actual experience and trial have amply proven that the natural conditions in many parts of the Province lend themselves to the production of fruits of various kinds and varieties to the greatest advantage. On the other hand, our markets are large and rapidly increasing, and in those of Canada in particular we are granted considerable protection at the present time. With this combination of fundamentals in our favour, the progress of fruit-growing cannot be prevented indefinitely by artificial conditions, nor can we in the long run fail to secure our logical markets.

Fruit and vegetable growing in British Columbia will continue in the process of evolution until it is adjusted to take the best possible advantage of these very favourable conditions. We see many evidences that this evolution is proceeding at a rapid pace. The culture of small fruits is being centralized in those sections where small fruits can be produced to best advantage. The same thing is occurring with specialized vegetable-crops, as glass-house crops, early truck-crops, celery, and tomatoes. The cosmopolitan vegetable, the potato, is very largely planted to quite an extent under unfavourable conditions, but it must eventually be grown most largely where the conditions are most favourable. With the various types of large fruits the same is true, though, because of the long duration of an orchard when once planted, evolution will proceed much more slowly. There is much orchard that has been planted where the conditions of the district, the site, the soil, or the transportation and marketing conditions are unfavourable, and there are orchards where undesirable varieties predominate. There is much evidence to hand to show that much more discrimination will be shown in the future as to the relative prices of lands more or less adapted to fruit-growing than there has been in the past. The sites for orchards will be chosen with much more care, and varieties which experience has proven most desirable will be given preference.

Intending fruit-growers should consult the revised list of varieties recommended by the Department of Agriculture, which will be available in February, 1913.

LINES OF FUTURE DEVELOPMENT.

In the expectation that suggestions given may help to guide in the rational development of fruit and vegetable growing in different parts of the Province, there are submitted herewith comments on their possible development in the various districts of the Province.

VANCOUVER ISLAND AND THE ISLANDS.

Given suitable conditions, Magoon strawberries, Guthbert raspberries, and loganberries will give excellent returns. The great increase in local markets practically ensures an outlet for all that can be produced in the next few years. The Oliver and English Morello preserving cherries in this section continue to meet a most favourable demand in the Prairies, and further plantings are to be encouraged. The various varieties of pears as recommended in the variety list are bound to do well, and prove remunerative, as will early apples on deeper soils.

Early vegetables around the cities of the district will yield good returns, especially in connection with the greenhouse industry. There is no point on the entire North Pacific Coast with more favourable conditions for the greenhouse industry than Victoria, and this industry, it is expected, will increase.

LOWER MAINLAND.

This district, containing about half the population of the Province, has a local market for all kinds of early vegetables, small fruits, and large fruits. The business of vegetable growing is at the present time very largely in the hands of Chinese, who are aided, by industry and application, to secure large returns in spite of the inadequate methods.

On the higher lands, especially along the railway-lines, all kinds of small fruits will continue to prove very profitable, not only for the fresh-fruit markets of the Coast and Prairies, but for the canneries as well. Pears do

well here, and should be more largely planted, while early apples will give very satisfactory returns to careful growers and shippers. The higher lands are very satisfactory for the production of early vegetables, which are also in strong demand locally and for shipment.

Generally speaking, the Lower Mainland will develop most largely along the lines of supplying local markets. The canning and jam industry but recently established there has already grown to considerable proportions, and because of the favourable conditions of large yields of many kinds of fruits and vegetables, we expect that growing crops for these factories will be an expanding and profitable industry.

NORTH COAST SECTIONS.

In the North Coast sections, particularly those tributary to Prince Rupert, there is all the market on the G.T.P. to supply, and the climatic and soil conditions seem favourable for many types of small fruits and vegetables. Experimental work now being carried on would seem to indicate that in such fruits will become established there as capabilities become better understood.

C.P.R. MAIN LINE SECTION FROM LYTTON TO KAMLOOPS.

This district has an excellent reputation for the quality of both its fruits and its potatoes. The Wealthy, Jonathan, McIntosh, Grimes Golden, and other apples, as recommended in the variety list, should be more largely planted, while vegetables, especially potatoes, but also a long line of other vegetables, will be successfully grown as soon as the growers will co-operate to produce enough for car-load shipments.

SALMON ARM-ARMSTRONG DISTRICT.

The Salmon Arm-Armstrong district is admirably adapted to the production of Jonathan, Grimes Golden, Wagener, Northern Spy, and McIntosh apples, while the trade in many varieties of vegetables, which has already attained large proportions, is worthy of further extension.

VERNON-KELOWNA SECTION.

This is pre-eminently a fine apple district, and many varieties, especially the McIntosh, Jonathan, Rome Beauty, Wagener, Grimes Golden, and Spy, are giving most excellent results. The vegetables now being produced in largest quantity in these districts are well adapted to local conditions, and to the markets which the district has developed. Large and small fruits other than those mentioned do well, and with the facilities provided by additional railroad-line shipments should increase largely.

SOUTHERN OKANAGAN.

This district is devoted most largely to the culture of the peach and the winter apple. It imports potatoes and many other vegetables which might be produced locally, and, in addition, will undoubtedly become the seat of an extensive greenhouse industry, with the completion of the Kettle Valley line to the Coast.

As the peach-trees have been most largely planted as fillers in the apple-orchards, they are likely to produce less fruit than in the past, and the product will likely be absorbed to good advantage in mixed car shipments for canneries. The district will then be most largely devoted to winter apples. Those varieties mentioned in the departmental list are all doing well, and should be given the preference.

THE SIMILKAMEEN.

This district should produce the necessary vegetables and small fruits called for by railway-construction, and an increasing market in the mining towns. This is the district British Columbia must very largely rely on for Whiclops, and to some extent for Rome Beauty and Yellow Newtown apples. If they come down with Vancouver will put this district in a very favourable position for the production of all kinds of early vegetables and fruits for that market.

KETTLE RIVER VALLEY.

This district, centring around Grand Forks, not only has a very favourable local market for vegetables and small fruits, but especially in view of the reduced freight rates granted last year through the British Columbia Fruit-growers' Association, is in a favourable position to compete on the Prairies. With the extension of the Kettle Valley line to the Coast, its facilities will be complete. Further plantings of fruit should be along the lines of the McIntosh Red, Jonathan, Rome Beauty, Red-checked Pippin, and other recommended varieties.

WEST KOOTENAY.

In this large and extensive district conditions are favourable for production along many lines. Large local markets provide an excellent outlet for most vegetables and small fruits, while the high quality of the late fruits should ensure a very satisfactory outside market as shipments become large enough. The main fruit-production should eventually embrace the McIntosh, Wagener, Northern Spy, Ontario, and some other varieties.

With reference to all these districts, the scope of this circular has not permitted of an extensive description of the facts, for which the interested reader is referred to the revised bulletin on "Varieties of Fruits recommended," which contains at greater length comments on the possibilities of each of these districts.

SUMMARY.

The results of the season of 1912 again prove conclusively that British Columbia can produce many kinds of vegetables and fruits to great advantage. On the other hand, they also indicate that there must continue to be an adjustment of crops to meet market conditions. It is probable that the planting of orchards will go on more slowly until the scope of our facilities and our markets has been more clearly demonstrated. The production of small fruits will increase more rapidly, and there will be much more attention paid than at any time in the past to vegetables of various kinds to meet market requirements.

There will be a decline in the acreage of potatoes planted next year. It has been demonstrated, time and time again, that the man who wins out in potato-growing is he who plants every year, selects his seed carefully, and grades his product. His speculative neighbour, who dips in and out, cannot expect to get such satisfactory results.

In all lines of vegetables, other than potatoes, there will probably be an increased acreage in 1913. Skill in culture, combined with proper soil and preparation, keeps down the cost of production and ensures satisfactory profit.

The manufacture of fruits and vegetables into preserved products is going to increase rapidly. There is a very large market for these, both on the Coast and in the Western Prairies, and the canning and jam-making industry in

British Columbia at the present time is in a very healthy state. There is room in many of the districts of the Province for the profitable operation of efficient canneries and jam-factories. These must be economically and properly managed, but, if so handled, they will prove excellent investments, and will do much to afford stability to the industry. The development of the so-called by-product industries will be a most important one in our fruit industry.

The crop of large fruits in 1913 is not likely to be as great, either relatively or absolutely, as that of 1912, owing to the natural reaction which always follows an exceedingly good crop. If the same is true, as it undoubtedly will be, in the North-west States, it will give our growers an ample opportunity to prepare for the great crop which we would logically expect in 1914.

The prices of many lines of fruits were low in 1912, and the following reasons seem the most important: The very large crop in the North-west States, combined with unsatisfactory market conditions in the United States, tight money, and marketing organizations incapable of handling the task, a consequent flooding of Canadian markets with fruits either at low prices or on consignment; softness of many of our fruits, due to the unusually wet summer; a bumper crop in British Columbia, extending beyond the abilities of our organizations under the conditions; some minor handicaps in competition, such as different packages, different marks, different grades, etc., from those used by our competitors; the extension of our fruit business into new markets.

Undoubtedly there must be created a marketing organization fitted to cope with such conditions as existed this year as far as that is possible. There must also be an increase in the quality of our various grades. Just as 1912 was a tremendous improvement over 1911, so there must be an advance in 1913 and 1914.

The one thing which will do more than all other factors to make our marketing conditions more satisfactory is the natural growth of the business. With increased production, better development, organization, with better trained labour, and with adaptations to meet our markets, the industry will be put on such a stable basis as those who have little faith in the natural evolution of methods can scarcely credit or realize.

In all the developments which must take place to facilitate the handling of increased crops, and to steady our markets, the key-note must be co-operation. There must be co-operation to increase the supply, to produce a more uniform and better article, to improve the grading and packing; co-operation in prices between different districts, co-operation in the handling and selling of products. Co-operation can be made to decrease the cost of production, to increase the saleability of the product, and to lessen the cost of transportation and of marketing, which are all bound to result in greater profits and a more stable and prosperous industry.

Victoria, B.C., December, 1912.

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