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CIRCULAR No. 48
(New Horticultural Series).



PROVINCE OF BRITISH COLUMBIA.

DEPARTMENT OF AGRICULTURE
 (HORTICULTURAL BRANCH).

Forcing Houses and Frames for Producing Early Vegetable-plants.

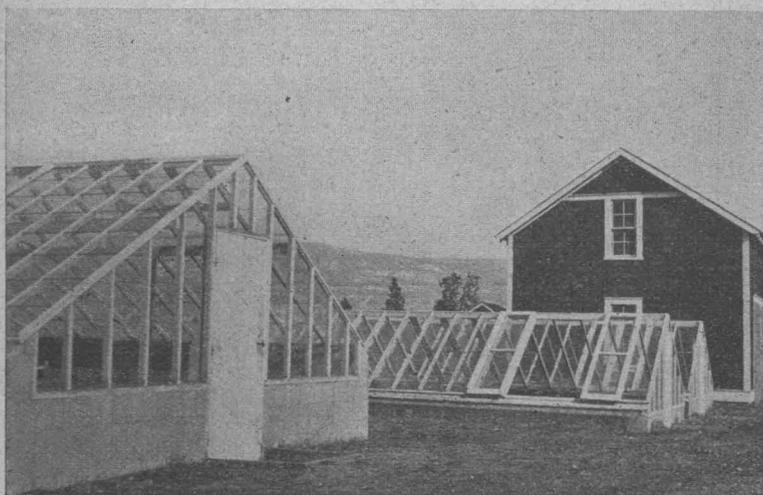
THE size one should build a plant-forcing house depends largely upon the number of plants the grower wishes to produce. It is well to have the starting-house large enough to accommodate the plants until they are about half-grown, when they can be removed to a cool-frame. This is more economical than building a large forcing-house and gives better results.

For the average grower who wishes 4,000 to 6,000 plants a forcing-house 18 x 30 feet should be satisfactory, and cool-frame space sufficient to finish the plants can be provided for the quantity one wishes to produce.

A good forcing-house can be built by excavating about 1 foot deep the size of the proposed building, and erect cement walls on the sides and north end, 3 feet high on the outside (they would, of course, be 4 feet high on the inside). At the south end, if the cement wall is kept 1 foot lower and this end finished with sash doors and glass, it is best. The north end may be finished with lumber.

The side walls should be finished same slope it is proposed to make the roof (half-way between one-quarter and one-third pitch is satisfactory), and if a few long, light bolts are placed in the cement and left above sufficient to receive the 2-inch plates it makes a secure fixture. If material of cedar can be secured for plates and sash-bars it is best, and if painted before erecting it is still better. Glass 16 x 16 inches is a very satisfactory size to use, and four to six ventilators should be placed at top of roof.

If the house is 18 feet inside the walls it will take a 10-foot rafter and will divide to advantage for benches. As "flats" or shallow boxes have been found to be the most satisfactory in which to grow this class of plants, and 13 x 24 inches outside measure a good size to have these, the benches should be made so that the flats fit to advantage; 39 inches in the clear is right for the side benches, which may be brought around to the door at either end. The bottom of these benches should be about 16 inches below top of plates. After allowing for a walk of about 18 inches next side benches the centre bed will be about 80 inches wide. Before erecting the centre bench an excavation should be made about 30 inches deep, and where the south half of this bench will be, and cement walls put about it up to ground-level. In this there should be a large stove. The stove-pipe can pass beneath



Style of forcing-house used by J. L. Hilborn, Summerland, B.C.

this centre bench to the rear, and enter a chimney, always using largest pipe, and arranging it to rise as it runs back, to assist in draught of stove; otherwise there may be trouble from smoke. When erecting the side walls it is well to place a short piece of 2- x 4-inch in the inside of same where the joists are to be placed, and these can be dug out, leaving a hole in which to place joists, and for the support of inside ends and the centre bench small cement posts may be made.

In some cases it may be desirable to make walls of lumber, which, of course, can be done cheaper, but they would not be very durable. However, by using good material for posts and by charring them to a good coal-black before setting them, they will last quite well for a long time.

Cool-frames.

A satisfactory style of cool-frame invented by the writer, and now in common use, is made by erecting walls 20 inches high on the outside and as long as one wishes the building, having them 10 feet apart inside measure. This will allow for a path down centre, which if excavated about 20 inches and planked at sides will allow men to walk straight down centre, making a very convenient place for working with the plants, and a bed 4 feet wide on either side will accommodate two lengths of flats.

The cool-frames can be covered same as greenhouse, using a 2- x 4-inch ridge, and nailing in sash-bars at proper distances to receive glass; but in these it is best to have on either side about 12 feet apart a pair of sash-doors for giving ventilation, and through which the soil can be taken for transplanting, and later for removing the plants. These sashes are made to receive one row each of 16- x 16-inch glass, same as is used for main roof, and should be hinged to a specially made rafter that is heavier than the others. A door should be placed in most convenient end. All plant-houses give best results if extending north and south.

As cool-frames are often used while the nights are quite cold, it will usually pay to excavate beneath one of the beds near the south end (if the door is at that end) and arrange a stove for heating.

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This circular has been prepared by J. L. Hilborn, Kil Kare Fruit Farm, West Summerland, B.C., at the request of the Horticultural Branch.

Copies of this circular may be obtained free of charge on application to the Horticultural Branch, Department of Agriculture Victoria, B.C., or from local branch offices of the Department.

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