DEPARTMENT OF AGRICULTURE
EXPERIMENTAL FARMS SERVICE
CANADA

Interim Report of Garden and Field Tests Conducted on the Whitehorse Substation in 1947

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The growing season of 1947 at Mile 1019 was extremely dry. The preceding winter had been severe and had registered record-breaking minima temperatures over the Yukon north. Precipitation during May, June and July totalled 3.22". A further 1.70" was received during August.

The spring thaws, nonetheless, were not appreciably retarded, and field operations commenced on May 1st, as in '46. The old land was in fair condition; the new land, somewhat lower, at this date was still too wet for surface operations.

Field seeding commenced on May 1st, and was completed on May 19th. Over-all germination was fair.

Garden sowings were completed at intervals throughout May. Moisture conditions were not as promising in that area as they were in '46. In consequence a percentage germination of small seeds resulted. After prompt germination vegetables of good size and quality were produced. Produce from retarded germination was somewhat undeveloped and immature; the percentage thus represented was probably 80% - 20%.

Cabbage and cauliflower, sown in flats and later transplanted, again produced bountifully. It should be added that through June the growth was slow, and was sustained by periodical watering.

Potatoes also responded, though with considerably less early vigour than in '46. Vine development was retarded, in fact cut by light June frosts, and reached the blossoming stage later, and with less abundant foliage. Tuber development was interrupted in August, again by snap frosts, and the resulting yields were disappointingly light. The sample, all varieties, was clean but small.

Other root vegetables were nonetheless good. Turnips, carrots, beets and parsnips were of good size and quality. And as reported, cabbage and caulfiflower produced abundantly.

A draft for $281.00 was credited to the Receiver General's Account, for garden produce shipped to the Whitehorse merchants in September 1947.

Tomatoes, raised in the greenhouse, were of excellent quality, and the yield therefrom was gratifying.

Severe winter conditions probably accounted for much mortality in the ornamentals and small fruits. Strawberries succumbed 100%. Raspberry canes were severely cut down. Currants suffered, blacks 50%, reds 80%. Gooseberries all were lost but one seedling out of two dozen. Sandcherries and saskatoons survived, but responded quite late in the spring, and with natural vigour impaired.

Peonies, pre-winter planting, made a 50% response. The foliage thereof was stunted and achieved only a weak presentation. No blooms developed.

Some rhubarb plants were killed out. Surviving plants started slowly, but later recovered vigour and achieved excellent growth.

Field crops responded well, particularly where moisture conditions were favourable. Stubble sowings on old land revealed a more uniform growth than did similar sowings on the same area in '46. It should be added though that uniformity was still marred by patchy spots across the whole area. (Patchiness in '46 was a major controversial problem) Over the new area, somewhat lower and of heavier soil, uniformity was a pleasing aspect. One strip only, extending across much of the width, resembled the atrophied areas of the '46 field.

A rough summary would reveal the following yield figures:-

Stubble yields of wheat ..... 8 to 10 bus. acre.
" " " oats ..... 25 bus. per acre.
" " " barley ..... 25 bus. per acre.

Wheat samples reveal some immaturity, and with a varying degree of bran-frost.

Oat samples were fair.

Barley samples were fair.

Breaking fallow crops were good, oats and barley. Ajax oats yielded a good sample, and a yield of some eighty bushels per acre.

Brighton oat stand was extremely heavy, and late. Much of this crop was green and immature, but produced a stack of excellent feed bundles.

Barley stand was good, and the threshed sample fair. The yield was computed at 56 bushels per acre.

A plot of Kharkov winter wheat, sown July 31st, '46 killed out 100% through the extreme winter period of '46-'47. Its condition was excellent in October '46. In the following spring not a plant had survived.

The forage sowings of '46 revealed much winter damage. Brome and Crested wheat grass both survived and made maturity by mid-July. The stands were both light, but it should be added that the plot area indicated was of the poorest under cultivation. The main field is a gradual slope, and in the forage range erosion had borne away much top-soil, down almost to clay exposure. It was here the forage tests were laid out.

Legumes included herein failed to survive the winter, and only scattered plants of alfalfa and S. clover responded weakly in the spring. Alfalfa, Red clover, Altaswede and Sweet clover had been included in the tests; no Red clover or Altaswede plants survived. Timothy may also be recorded a failure; some light, stunted growth responded through the early season, but was eventually plowed under in fallowing operations.

Brome grass, Crested wheat grass and Western rye grass were all three outstandingly hardy. Red Fescue and Kentucky blue came through the winter admirably.

One alfalfa selection, Ottawa 1943-44, survived 100%, and subsequently made good growth. All other varieties and selections suffered more or less, up to 100%.

All the clovers revealed the ravages of a hard winter. Red clover succumbed 100%. Altaswede, a trace survival. White clover, odd plant survival. Alsike, trace survival. Sweet clover, Arctic, Yellow blossom and Brandon dwarf all suffered more or less through the winter. Arctic survived 60%, Brandon dwarf 40%, and Yellow blossom 30%.

A shipment of 100 Barred Rock chicks was received from the Oliver hatchery on May 20th. Subsequently the birds did well, and little mortality was reported during the brooder period. Roughly, nearly one hundred birds are now semi-developed into a flock of healthy poultry. The permanent house was completed, and the birds moved therein in August.

Tests were conducted also to determine the effects of the application of bacteriozed peat. Oats were used in the field, potatoes in the garden. The detailed results are enclosed herewith in separate form. Plot, straw and grain weights are disclosed for the cereal test; tuber yield only in potatoes.

Over the Yukon generally the season of '47 was described by old-timers as one outstandingly unfavourable. Nonetheless excellent samples of vegetables and flowers were on display at the Dawson City Fair on August 18th, and much good garden produce was produced elsewhere in the interior.

"Supplementary to Interim Annual Report"
Whitehorse, Y.T. - 1947

A brief summary of developmental activities, completed and in progress, may be appended hereto.

At the present time residential facilities completed and functioning, with minor additions pending, include the following:-

Main farm residence, processed log construction, One, 28' x 24'
Farm help residences, Processed log construction, Two, each 18' x 24'
Indian help residences, salvaged lumber construction, Three, small.
Office building, processed log construction, One, 14' x 18'
Main garage building, with upstairs dormitory quarters for single men; salvaged lumber with slab-siding outside finish, One, 32' x 28'
Garage lean-to, constructed and finished as is the main portion, Two, each 32' x 14'
Greenhouse, four-log-high base, One, 17' x 30'
Poultry house, salvaged lumber, finished with slab-siding outside, One, 15' x 27'
Power house, salvaged lumber, finished with slab-siding outside, One, 15' x 17'

Under construction, or proposed

Farm help residence, cement base completed, and to be salvaged lumber, finished with slab-siding outside, One, 18' x 24'
Open cattle shelter, salvaged lumber, One, 38' x 14'
Implement shed, One ?

In June a 3 acre frontage was sown down to a lawn mixture, Fescue, K. Blue, Fairway Crested wheat grass and W. Clover. On most of the area a fair catch was established.

During the summer of '47 an additional area of virgin land, 12 acres, was brushed, burned and broken, and subsequently worked to a seed-bed condition. Later in the fall another area, again 12 acres, immediately north of the farm H.Q.'s. was brushed, burned and broken, and worked down. This will serve both as a cultivated stock pasture, and as a safeguard from fortuitous bush fires. A further 12 acres will be similarly converted in '48, thus completing a cultivated encirclement on the North,

It had been planned to establish live stock on the substation during the fall of '47. Uncertainty regarding the probable winter feed stocks prompted a postponement, and the live stock will be included in the program for '48.

A total of 52-54 acres have to date been cleared and brought under cultivation on the Substation.