April 11, 1931

Dear Charlie,

Many thanks for your letter. I was anxious to hear from you. This is just a hurried note. I have some dope on the low sterile which I must send you but I can not do it this evening. I wish to send the seeds so you can get started with their planting. I am sorry but I have nothing on c-sh-wx chromosome but what I sent you which was Ccc ShShSh Wx Wx Wx. x ACrg wx. The right types will have to be synthesized from what we have. I am sorry I have it got what you want.

I am sending #8 (3rd - smallest). It represents.

388 F(1) +1; no sterile x 342(9) homozygous granule; ordinary normal.

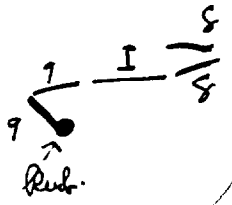
[A sh sh c c Wx wx Pr Pr] [A C R pr wx].

- no large knob.

I have 2n+1 (extra chromosome the long interchange chr.) Do you want any of this? I am enclosing some photographs of one of these plants which was crossed to a ordinary normal, homozygous granule. The photos. are from a 2n+1 showing a ~~[illegible]~~ chain and low sterility in the pollen.

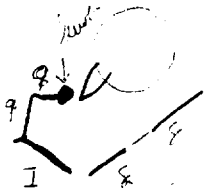
I have numbered them.

1 = 8 bis + group of 5.

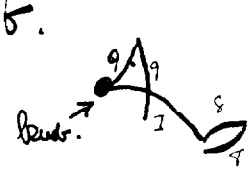


2 =

3 poor -



4a + b.



I stretched.

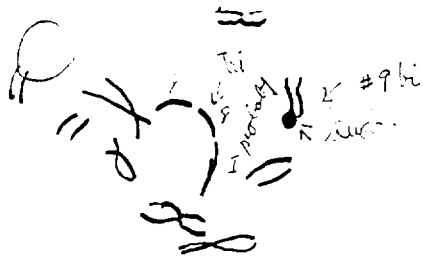
If you don't understand these photos, let me know. They are from the plants which were giving off ratios for ux, sh & c. There are proof of fact that long interchange chromosome carries the c-sh-ux genes. Since knob chr. to c-sh-ux. shows order of genes. I feel it is possible all genes are in short arm of c-sh-ux chr. More of this later.

As usual -

Bart.

Morgan is here but I have not been introduced yet. Hope to see him during the week.

5. 9" + tri = 8" + knob (heterozygous) bi + tri which is 8 8 I



Harriet is getting great evidence on x-over & knob. C sticks with knob nearly always. Ux less & interchange probably less. She will send you the facts soon I believe -

Bart.