

## Isogenic Stocks.

1. At each backcross,  $\frac{1}{2}$  of the gene differences between stocks are eliminated, except for those linked to sex.

This applies to genes linked to each other, indeed particularly to those, as they are repelled more than .50. If linkage is 10%, then 90% of the gene differences are eliminated per generation, the remainder being  $(10^{-n})$ . Therefore it will be advisable to repeat Meckel effects on 3 or 4 gener.

As far as sex-linked genes are concerned, after this number of generations, it will suffice simply to recover all mutants <sup>sufficient</sup> into the same sex. Physiol. studies on sex-linked genes will always be subjected to criticism of closely linked genes. In a sense, a and A are different spp! & it is surprising they are not more different! Must be a recent innovation.

Assuming 5000 loci in *Neurospora* & 1000 differences, 10 generations will suffice to eliminate all differences.