

4/9

Program.

1. Sex
2. Auxanography
3. Mutant method
4. UV- + time delay
5. *Schizosaccharomyces versatilis* - mutation & genetics.
Use small colony technique?
6. *Leucoides inhibita*
7. *Uromyces auxanography.*
8. " mutant production
9. " selection after v.v.
10. Heterozygous transformation
11. Genetic studies.
12. Sp. absorption

Neurospora —

Variation in genetic composition of hyphal tips - isolate from a hetero-cayon to complete and test on minimal.

Cytoplasmic inheritance in heterocayons Transformation.

Nuclear mutations by irradiation of cytoplasm.

Adaptation is not organic basis must be studied.

Alleles of 33757 - adaptability + selectivity.

Co₂ as 299.

Interspecific heterocayons.

Growth of *E. coli* mutants in terms of sp. factors + their interactions:

Exchange reactions. Composition of organisms. Availability vs. synthesis

Mutator reactions: temperature analysis.

Reverse mutations. Correlations in mutations at different loci in various cultures. Technical considerations selective phenomena, and inhibition of colony formation. Coincidental reversions. Association \bar{c} forward mutations. Influence of age, temperature, radiation, chemical agents.

Induction of mutations with radioactive isotopes. ^3H particularly.

Isolation of enzyme systems from prototroph blocked in mutants. Supplement mutants with enzymatic fractions? Transformation? Immunologic analysis.

Microorganisms as agents in isotope work.

Selection phenomena mutants vs. wild type. Use a natural heterozygote + compare with adapted forms.

Induction of mutations with anti-sera.

Reversions in yeast \bar{c} rudimentary genetic analysis.