

June 11, 1946+

Dear Sol:

Thanks for your very prompt response- something I am accustomed neither to receive nor dispense.

I'm sorry I did not make myself clearer. For the production of detectable mutants, haploid populations are essential( although the presence of a small proportion of diploids would not be too disturbing)+ A haploid single ascospore culture of *S. cerevisiae* would be ok for this(provided it did not undergo 'illegitimate diploidization') Once having gotten mutants, I thought genetic analysis might be possible by plating out asci (derived from the fertilization of the haploid vegetative cells at random, ie a 'sporulating culture') and then analysing the components of the colonies derived from the asci, by replating/ them individually. If *cerevisiae* can be kept haploid there is no reason why it could not be used, except that in the *Saccharomyces* spp. a manual ~~separ~~ separation would be required to obtain haploid cultures from the asci. I would not mind trying to use the micromanipulator but I never have done so. Since you think it feasible, I would appreciate a copy of any good *cerevisiae* strain, but in particular haploid isolates of different mating types. Any information (or references) to the biochemical characteristics- in particular the vitamin requirements- of such strains would be particularly important. To go back to pombe- do you have any evidence of mating type differentiation in this strain? I thought 'haploid', 'single ascospore' cultures would diploidize and sporulate fairly readily under certain conditions.

Work on the bacteria hasn't gotten too far- a variety of mutants have been obtained in several different strains of *E. coli* with UV, and I'm working on the time of appearance after radiation. Sincerely, Joshua.