

OCT 27 1941

March 19, 1941.

Dr. G. W. Beadle
Department of Biology
Stanford University
California

Dear Doctor Beadle:

Thanks for your letter of March 13, which carries the good news that you are doing some fine work on nutrition of the fungi. I will send you in a day or two a culture of Neurospora recently obtained from Bermuda. It is just fruiting, so that I don't know whether it is an eight-spored or a four-spored species. It will then be necessary to test out by crossing to determine whether it is a different species from what we have had. But you will not need to worry so much about its identification as long as it is a pure culture. This is certainly a "wild" type because it was found in the woods growing on an old piece of paper and on some cedar leaves.

Mature spores of Neurospora crassa and N. sitophila always contain two nuclei unless they are large spores, then they would contain four, depending on how many nuclei were originally included in the spore when it was delimited. Of course, there was only one nucleus included originally if the ascus is eight-spored. In a race of N. tetrasperma which I have, the presence of a dominant lethal seems to prevent spore delimitation in a fairly large percentage of cases, but the eight nuclei seem to divide again before degenerating.

Conidia of species of N. sitophila vary greatly in size and in morphology. It is hard to distinguish between true conidia and fragments of hyphae which break up and serve as conidia. Ordinarily normal conidia would have several nuclei, but secondary and tertiary conidia that are developed in culture following germination of the monilioid conidia are much smaller. The tertiary conidia probably contain only a single nucleus because they are about as small as the microconidia. I am sending you one or two papers that contain some of this information but if you have a file of Mycologia you could find rather complete accounts of the nuclear situation in various papers that I have published. Dr. Robbins has given me some different kinds of media to grow races of Neurospora on, but we are not following up your problem. He is pleased to see that you are carrying out some experiments along this line. Melanospora desjardinsii is an interesting fungus which pops up every now and then. Sorry it is not heterothallic.

With best wishes and regards to Dr. Malloch.

Sincerely yours,

B. O. Dodge
Pathologist

Mit have got
my wires crossed
B O D