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Preservation of Neurospora stock cultures with the silica gel method for extended periods of time

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Preservation of Neurospora stock cultures with the silica gel method for extended periods of time

Abstract

Preservation of Neurospora stock cultures with the silica gel method for extended periods of time

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Preservation of *Neurospora* stock cultures with the silica gel method for extended periods of time.

The silica gel method for preservation of *Neurospora* stock cultures has now been in use for almost 25 years. Perkins (1962 *Can. J. Microbiol.* 8: 591-594) reported survival of silica gel cultures for six years. It is of interest to collect information about long term survival to know approximately how long it is safe to keep stocks before transfer to new gels.

At our laboratory we have preserved 22 cultures with this method since October 1968. The method described by Brockman and de Serres (1962 *Neurospora Newsl.* 1: 8) was generally followed. Pyrex tubes (12.5 x 1.5 cm) with rubber lined screw caps were used. The caps were tightened soon after the conidial suspension in skim milk had been added at ice water temperature. The tubes were stored at 2-4°C and each strain was maintained in duplicate.

To test survival, one tube of each strain was sampled after 5, 7 and 10 years. Some of the tubes have also been opened for transfers on other occasions. Upon sampling in November 1978, it was found that all 22 germinated after transfer to Fries' minimal medium with appropriate supplementation.

The 22 cultures represent a rather restricted sample with regard to their genetic composition. All have wild type morphology with good conidia formation. They are reisolates of the mutants ure-1 (9) and ure-2 (47) from crosses with the standard wild types 74-OR8-1 a and 74-OR23-1 A, as well as combinations of these urease-defective mutants with the closely linked markers am (32213) and his-1 (C91). The wild types and the separate marker stocks were also preserved.

It is reassuring that the silica gel method, besides being very convenient, also allows a satisfactory survival over periods of many years. ■ ■ ■ Department of Genetics and Plant Breeding, 750 07 Uppsala, Sweden.