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Storage of slime strains.

The slime variant of N. crassa (FGSC #326: fz;sg;os-1,arg-1,cr-1,aur) can be maintained by repeated passage on liquid or agar-solidified medium and can be stored frozen in 10% dimethyl sulfoxide (Creighton and Trevithick (1973) Neurospora Newsl. 20: 32) or as a component of a heterokaryon (Nelson et al. (1975) Neurospora Newsl. 22: 15-16). However, I have found that petri dish and slant cultures of slime strains can be frozen in situ, stored at -70°C and subsequently thawed and revived. Simply, petri dishes and/or slants containing Nelson's medium B 17.5% Sorbitol (w/v), 1.5 Sucrose (w/v), 1X Vogel's Salts| solidified with 1.5% agar (and appropriate supplements) are inoculated and incubated for 5-10 days at 28°C. Petri dishes are wrapped en masse with aluminum foil (slants are sealed with parafilm) and placed in a -70° C freezer. To revive stored strains, dishes and slants are allowed to thaw completely at room temperature and cell masses transferred to fresh dishes (or slants) with the aid of a rubber policeperson. Alternatively dishes or slants can be flooded with medium B and the liquid used as an inoculum for fresh agar-solidified medium. Thus far slime and two derivatives strains (slime strains containing cys-11 or inl) have been stored for four months and all cultures subsequently revived. Longer storage periods are currently being tested. - - - Department of Boric Microbiology, Merck and b., Ins., Rahway, New Jersey 07065.