

McNelly, Caroline. Growth of a histidine strain, hist-2 (C94), of Neurospora crassa.

The abundance of growth and conidiation of the double mutant, hist-2, nic-2 (C94, 43002), was found to decrease as the strain was successively backcrossed to either Lindegren or Abbott

wild-type. Using a conidial suspension as inoculum, the following media were tested:- minimal reproductive (Westergaard and Mitchell, 1945), pH 6.7, with histidine and nicotinamide added in a ratio 1:1 and 2:1; malt, peptone and yeast medium (Frost, this Newsletter) pH 6.5, with histidine and nicotinamide added in a 1:1 ratio; and complete malt medium, pH 6.5, supplemented with histidine only. All showed sparse growth and slight conidiation. Bacto-peptone medium (Frost, this Newsletter), pH 5.0, with no supplement and with added histidine: nicotinamide ratios of 1:0, 1:1, 1:2, and 2:1, also showed poor growth. However, this medium adjusted to pH 6.5 - 6.7 showed wild-type growth and conidiation in all cases where histidine had been added. The same results were found for ascospore germination from the cross cr. +, + (F945) x +, hist-2, nic-2 (C94, 43002). It has been found that bacto-peptone from different sources varies widely and the ratio of histidine to nicotinamide added must be adjusted to suit the batch of peptone used. In all cases, however, wild-type growth and conidiation is achieved only at pH 6.5 - 7.0.