

An improved glycerol minimal medium

G. W. Charlang

California Institute of Technology

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Abstract

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Growth (mg dry weight) of 74A in different minimal media

Medium	Ascorbic acid 100 µg/ml	
2% sucrose with NH ₄ NO ₃	327	
2% glycerol with NH ₄ NO ₃	30	73
2% glycerol with L-asparagine	108	143

Anyone who has grown *Neurospora* in a liquid glycerol medium knows the frustrations of low yield and difficulties of harvesting such cultures. We have found a way to significantly improve yield by using an organic nitrogen source and/or ascorbic acid.

The medium consists of Vogel's salts (without NH₄NO₃), plus glycerol (2%) and L-asparagine (0.5%). Tween 80 (3 drops or 42mg per flask) is added before autoclaving. We inoculate wild type 74A at a concentration of 10⁴ conidia per ml in 50ml of this medium (125 ml flasks). The flask cultures are incubated at 30° C with shaking for 48 hours; some typical results (dry weight in mg per flask) are given in the table.

Ascorbic acid improves yield with or without asparagine. The ascorbic acid solution is freshly prepared in sterile distilled water and filter sterilized before adding it to the autoclaved medium. (Supported by Grant NGR 05-002-121 from the National Aeronautics and Space