Work in the dark to harvest large liquid-grown cultures

Robert Schnittker, Senthil Sivagurunathan and Michael Plamann
School of Biological Sciences, University of Missouri-Kansas City, Kansas City, MO 64110, USA mplamann@umkc.edu

Fungal Genetics Reports 57:7

Biochemical purification of low-abundance proteins from *Neurospora crassa* often requires collection of >100 g wet weight of mycelial mass. For purification of the dynein motor from *N. crassa*, 4 to 8 one liter liquid cultures are inoculated with 1 x 10^6 conidia/ml at 3:00 pm and incubate overnight at 28°C with shaking. At 9:00 am the next morning, mycelia (10- 15 g/flask) are collected by filtration using a new cellulose filter for each flask (Fisherbrand P8). Unfortunately, we frequently find that mycelia are easily collected from the first one to three flasks, however, mycelia cannot be harvested from the remaining flasks because the filters become clogged. We have determined that this is a light-dependent phenomenon. If the incubators are covered in black trash bags for the overnight incubation and the lab lights are not turned on during the morning harvesting period, we no longer see any clogging of filters. We suspect that light-induction of hydrophobins is the cause of the clogging of cellulose filters (Lauter et al. 1992).

References:
Lauter, F. R., V. E. Russo, and C. Yanofsky. 1992. Developmental and light regulation of *eas*, the structural gene for the rodlet protein of Neurospora. Genes Dev. 6:2373-2381.