

Conidiating colonial strains suitable for replication

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Abstract

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Perkins, D. D. **Conidiating colonial strains**
that **are homozygous fertile and suitable** for replication.

from **ascospore platings**. rg cr colonies **are smaller** and replicate well with velveteen or filter paper, but rg cr x rg cr crosses are sterile, so that **applications are limited to conidial platings**. Maling employed cr effectively to study **recombination** by using a 32-pronged replicator and specially prepared **master plates**. rg cr or derivative **microconidiating strains** (rg cr; pe ff) have been used for selecting **auxotrophic (Maling) and radiation-sensitive mutants** (Chang and Tuveson 1967 *Genetics* 56: 801; Schroeder 1970 *Mol. Gen. Genet.* 107: 291).

I have **found another** combination of genes that seems to possess the **favorable features** of both cr and rg cr. When sn (snowflake, C136; Mitchell 1959 *Genetics* 44:847) is combined with cr (B123), the **double mutant** is homozygous fertile, and sn cr ascospores or conidia form **compact conidiating colonies similar to rg cr**, that plate and replicate efficiently. (sn, like rg, is located close to the **centromere** of linkage group I not far from cr). **Although sn cr** hasn't yet been tried out in **actual mutant hunts** or recombination experiments, its **potential usefulness** prompts this **preliminary account**.

Crosses are conveniently made in 15 cm tubes on **slants of minimal synthetic cross media** using mixed suspensions of sn cr A and sn cr a conidio. **Perithecia are abundant** but **mature** rather slowly, and **ascospores are oozed** but not shot from the **ostioles**. **Ascospores** from well-aged crosses were suspended, **surface-spread** and heat-shocked on pm-poured plates. The colonies resemble those of rg cr figured by Maling, and **conidiate and pigment well**. Conidio do not become **airborne**. Well over 100 colonies per plate **should be resolvable** when **replicated as** described by rg cr by Maling (filter paper) or Schroeder (velveteen).

m cr stocks of both **mating types** have been deposited with the **Fungal Genetics Stock Center (FGSC#2001 and 2002)**. - - -
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Replication of the **conidiating colonial strains** cr (crisp, B123) and rg cr (ragged, crisp 853, B123) has been **described** by Maling (1960 *J. Gen. Microbiol.* 23: 257). cr x cr crosses are fertile, but colonies are **too large** to make it **worthwhile** to replicate directly