

DERMATOLOGY PEARLS

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Pearl of the month: Optimizing dermatophyte cultures

1. **Obtaining samples for culture:** Reduce false negative cultures by using both the hair pluck technique combined with the toothbrush technique—brush a new toothbrush on and around the suspect area, and then gently impress the bristles into the culture media. This is also a great way to culture asymptomatic carriers. You can find inexpensive bulk toothbrushes which are individually packaged online, such as amazon.com, they can also be gas sterilized for repeat use if needed.
2. **Performing the culture:** I recommend rectangular culture plates (ie. Vetlab Supply Dermatoplate-Duo, <http://www.vetlab.com/Dermatoplate.htm>) or round plates (ie. Hardy Diagnostics Derm Duet https://catalog.hardydiagnostics.com/cp_prod/CatNav.aspx?oid=13935&prodoid=J175) rather than the harder to use screwtop tubes. Incubate fungal cultures at room temperature, and increase the humidity in the culture area (to reduce culture plate dessication) by placing culture plates in a partially covered plastic container which also contains a little dish of water. Monitor the cultures daily for 21 days, as *Trichophyton* tends to grow more slowly, as do cultures from animals undergoing antifungal treatment.
3. **Interpreting the culture:** Dermatophytes are characterized by white or tan colonies, they are never green, black, or grey. Media color change occurs at the *exact same time* as a dermatophyte fungus appears, whereas most contaminant fungal colonies can change the media color a few days after the colony has grown. However since some contaminant fungi can mimic dermatophytes in colony morphology and media color change, any suspect case should be examined microscopically for the characteristic dermatophyte macroconidia (large boat-shaped spores) or the entire culture can be submitted to a reference lab for fungal identification (Antech has a special submission code for this: 86425)

For more information, please see the complete article at:

<http://veterinarymedicine.dvm360.com/vetmed/Diagnostic+Center/How-to-perform-and-interpret-dermatophyte-cultures/ArticleStandard/Article/detail/679006>

