Diagnostic Updates

Inducing
Phomopsis to
Produce Beta
Spores

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For several years we have received samples into the clinic of dogwood with large necrotic leaf blotches, usually coming in late in the

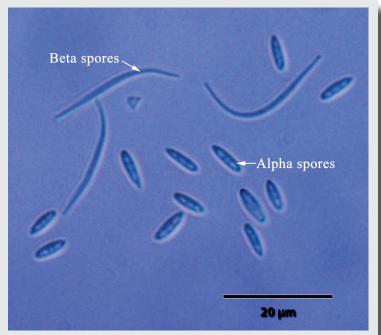
summer. Often there are pycnidia with spores already on the material, or they form

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soon after placing the leaves in a moist chamber. The spores are unicellular and hyaline, but without the typical mucoid appendage of *Phyllosticta*, and without the beta spores typical of *Phomopsis*. I have made mass conidial isolates

many times, and although the cultures (which produce fertile pycnidia) are typical of those of *Phomopsis*, still no beta

spores were produced. As suggested in an article I remember reading, I placed cultures several days old (with immature Tip of the Month pycnidia)in the refrigerator for a week, and then incubated them at room temperature under continuous light. Several days later the pycnidia were exuding spores, most of which were beta spores. Next year I plan to place the symptomatic leaves in the refrigerator for several days, and then into a moist chamber at ambient



Phomopsis alpha and beta spores. Photo courtesy of Charles Hodges, North Carolina State University.

temperature to see if that will induce beta spores to form on the host tissue as well.

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