

INFLUENCE OF SHADE TREE CHARACTERISTICS ON PRESENCE OF AMERICAN LEAF SPOT FUNGUS (*Mycena citricolor*) ON COFFEE IN CENTRAL COSTA RICAN HIGHLANDS

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The Los Santos region in Costa Rica is internationally known for their cultivation of premium coffee, which is highly attributed to the area's optimal growing conditions for the crop. Unfortunately, these growing conditions also aid the proliferation of pests such as American Leaf Spot Fungus (*Mycena citricolor*), which is a problem not only for the region but a concern for Central America as a whole. This study took place in March and April of 2015 in the Los Santos region, Costa Rica in farms belonging to The Cooperative of Coffee Cultivators of Llano Bonito R.L. (CoopeLlanoBonito). I determined relationships between the level of *M. citricolor* infection and a series of variables concerning shade management, crop management, and topographical features. As the number of shade trees/m² increased, the level of fungal infection increased (P<0.0001); shade tree species with denser cone shapes had higher levels of fungal infection (P=0.0007); as the distance between coffee plants increased, the level of fungal infection decreased (P=0.0006); and as the slope angle increased, the level of fungal infection decreased (P<0.0001). I conclude that cultivators should tailor shade management to prevent risk of infection by decreasing the amount of shade, choosing species that are less dense in shape and easy to prune, and pruning shade trees in regards to the conditions of the topography and seasons.