

Spinach Downy Mildew Spore Trapping and Disease Rating

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Spinach Production on 80" Beds



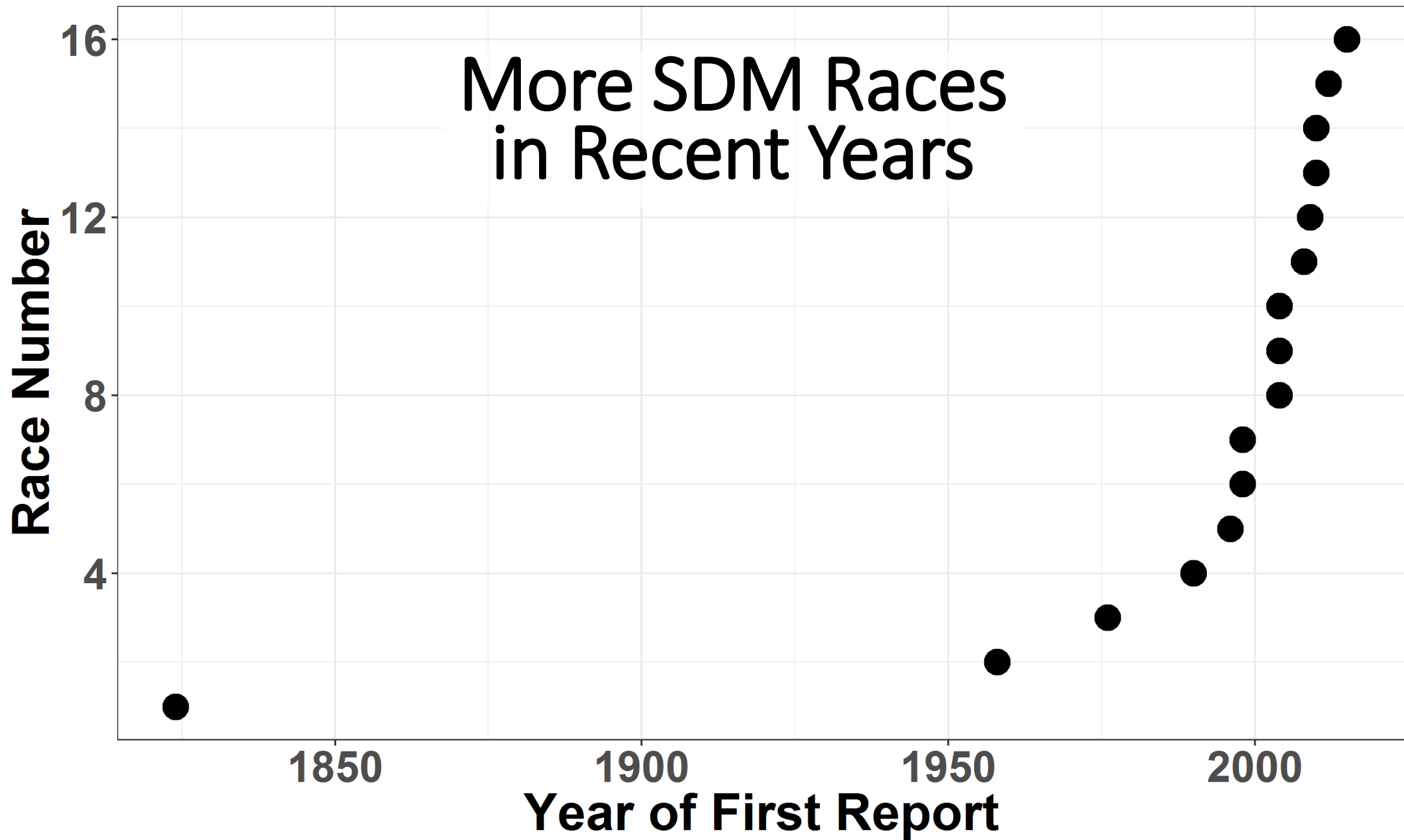
Spinach Downy Mildew Symptoms

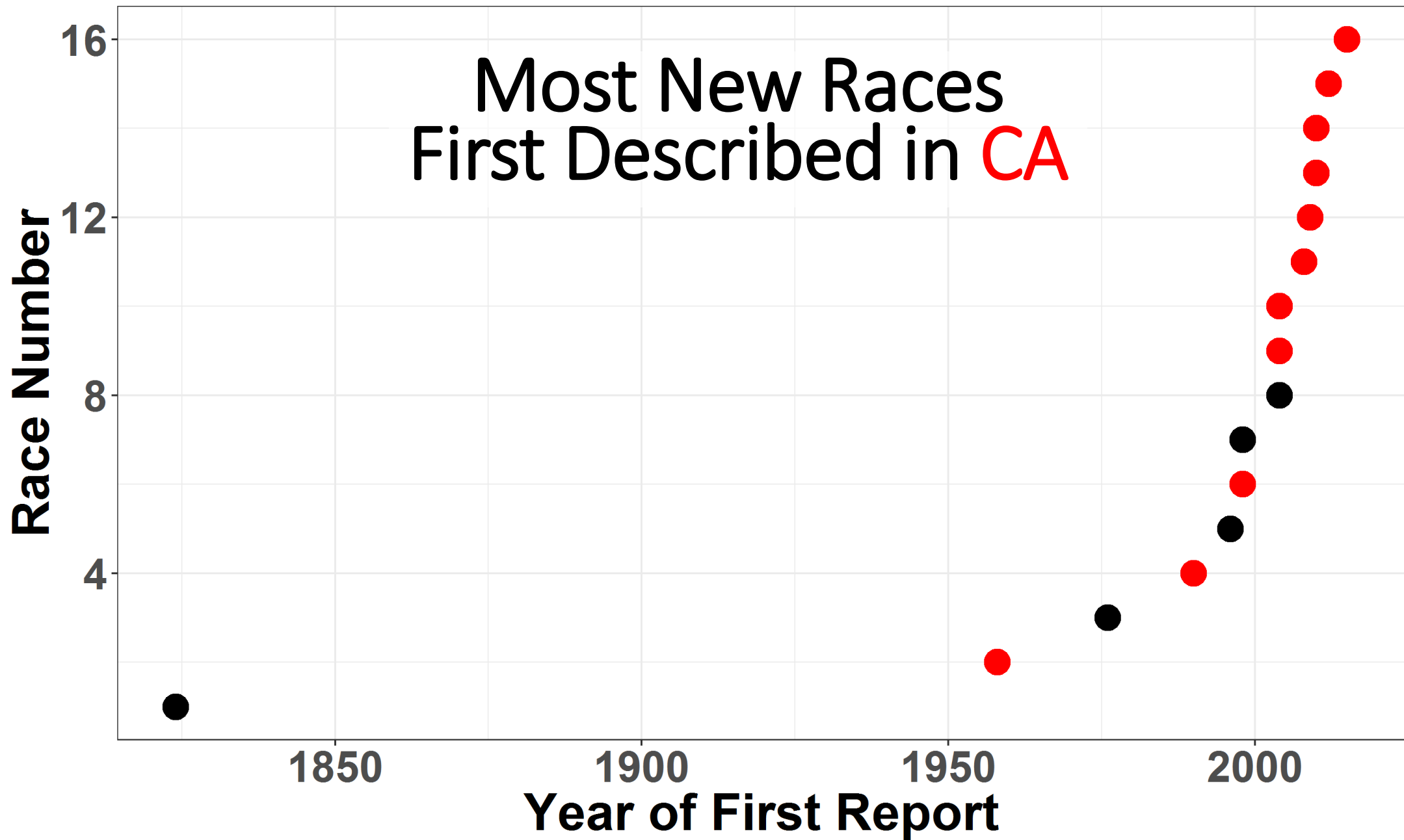


Spinach Downy Mildew Sporulation

Host
Specific
Obligate
Biotroph



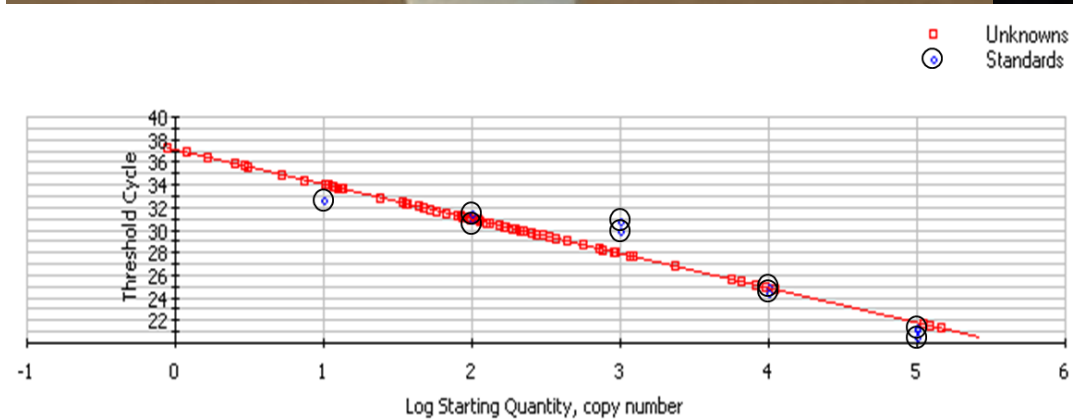




Strict Disease Threshold,
~30% of Fields Destroyed



qPCR Assay and Spore Trap



Steve Klosterman, USDA

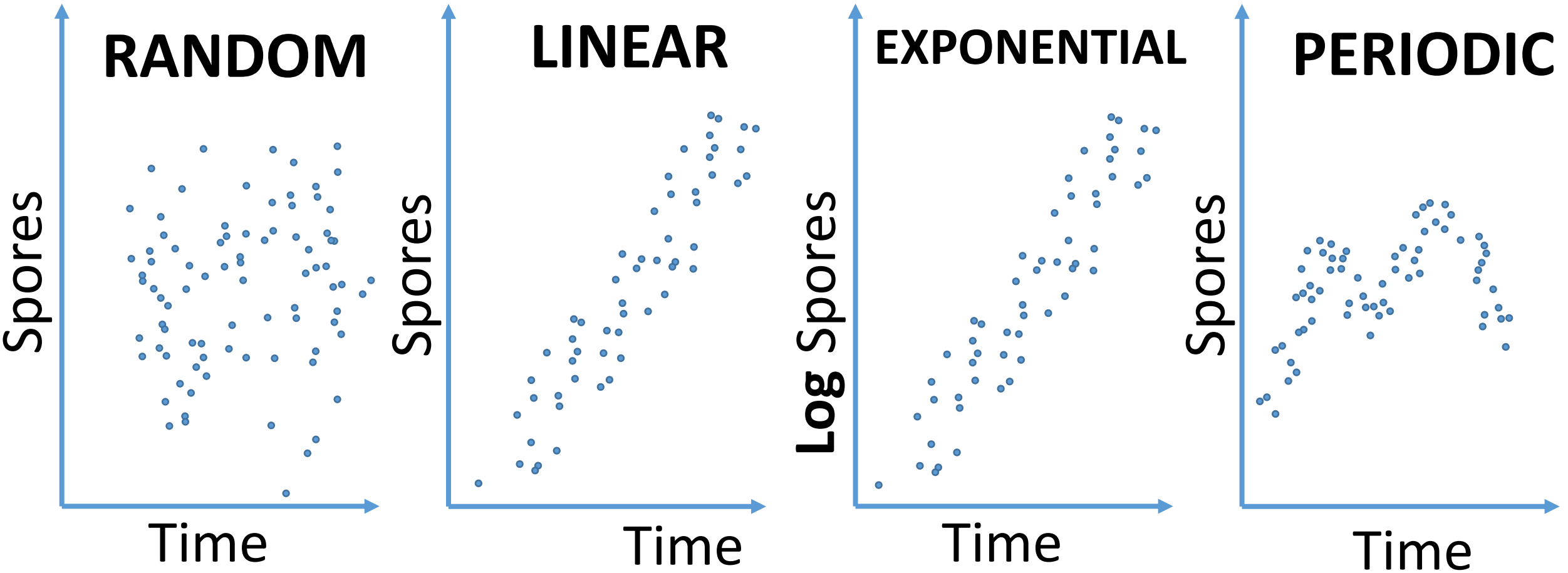
Spore Traps in the Salinas Valley



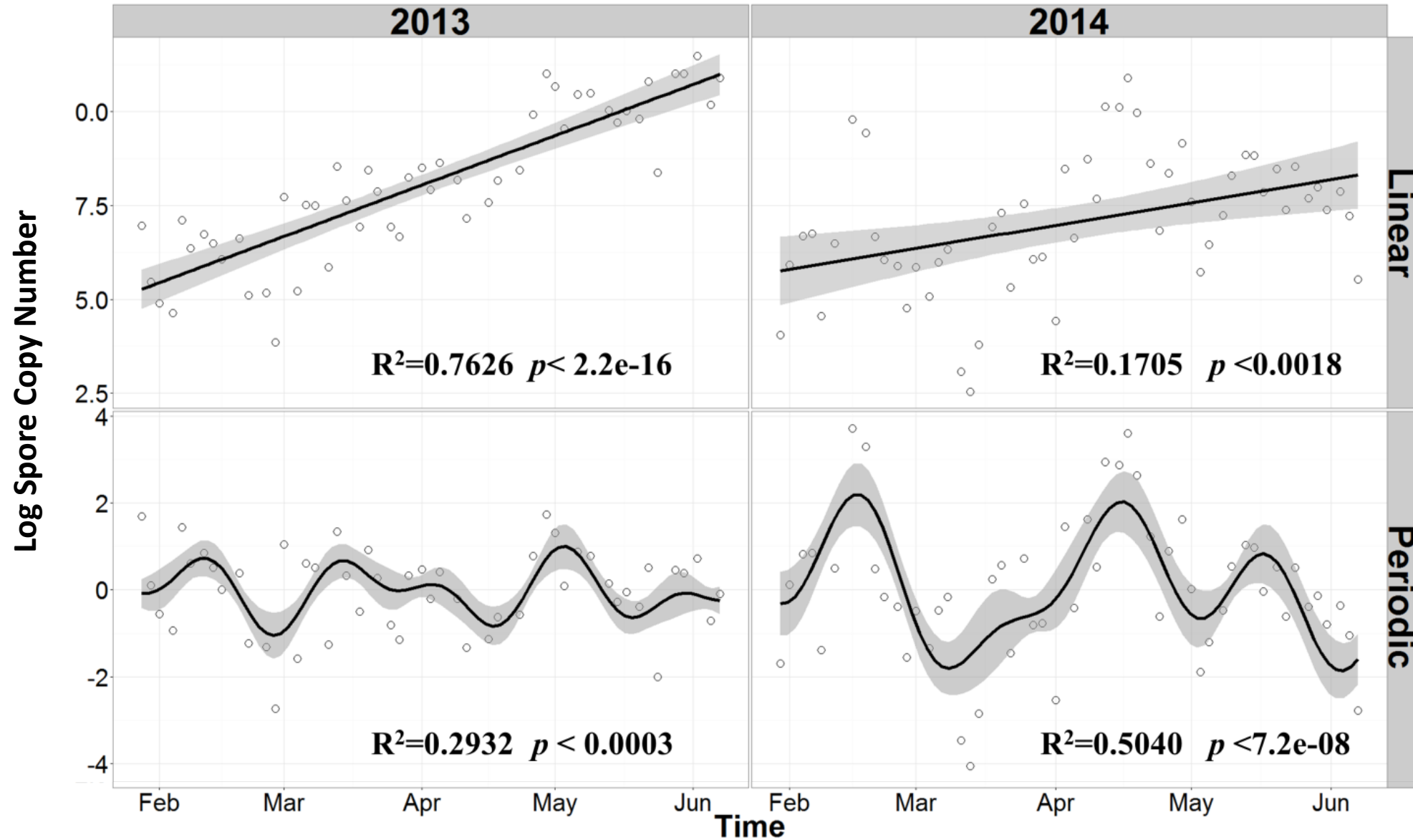
Spore Traps in the Salinas Valley



What Season-Long Spore Patterns Might We Expect?



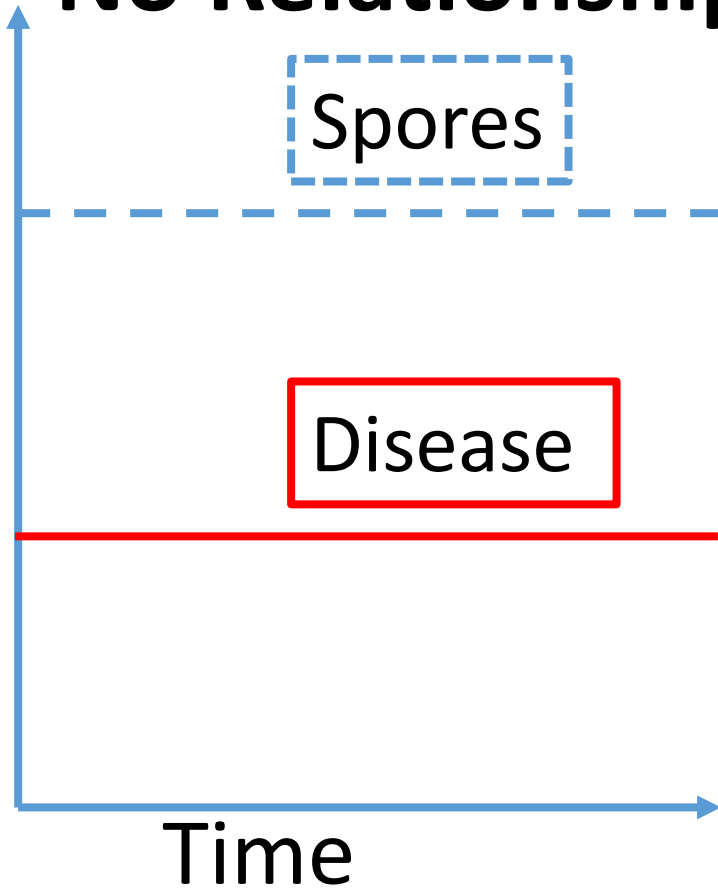
Spore Pattern Exponential and Periodic



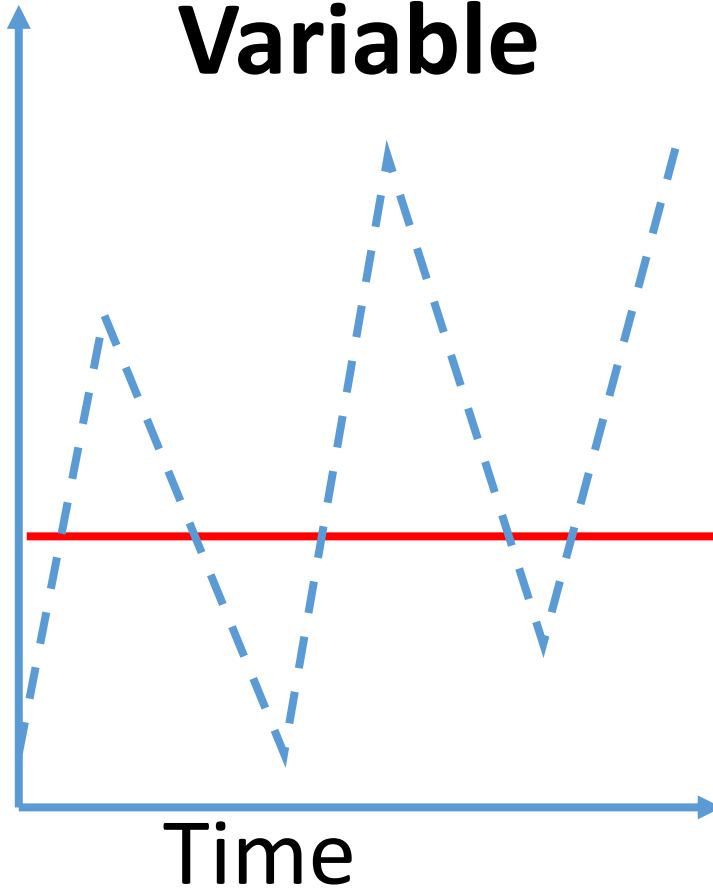
Choudhury
et al. 2016

What Inoculum-Disease Patterns Might We Expect?

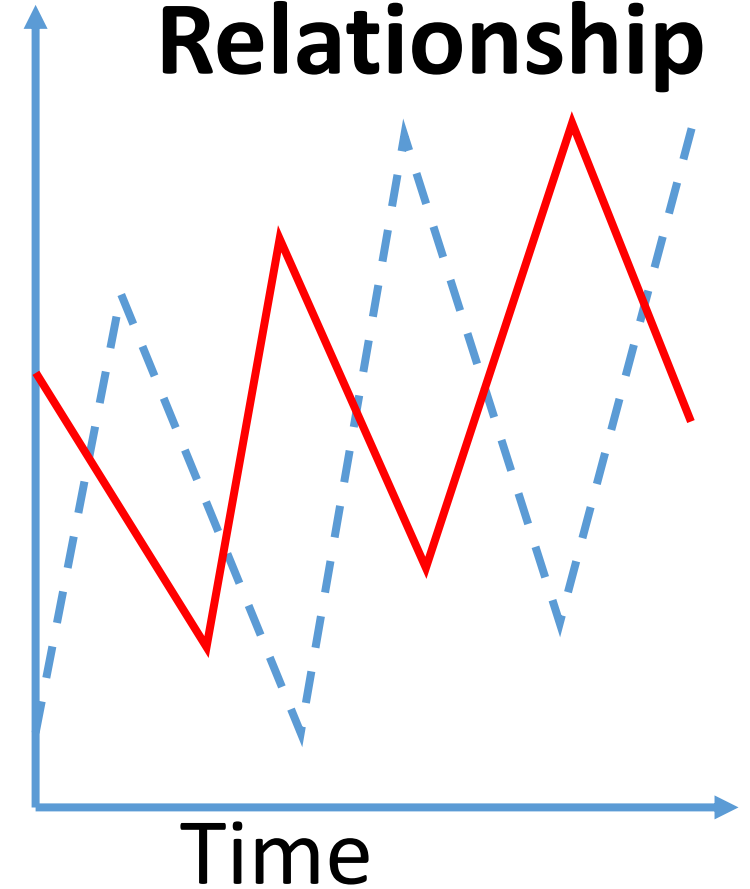
No Relationship



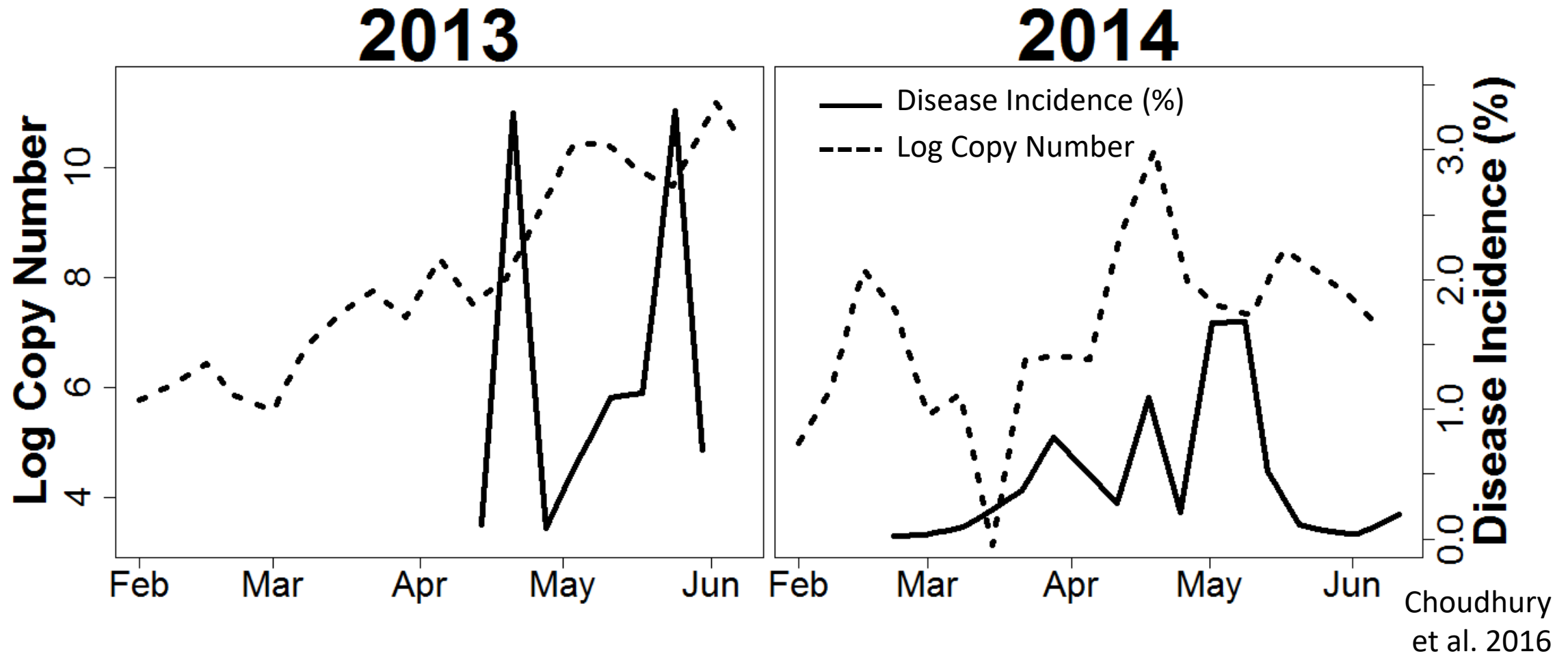
Constant - Variable



Lagged-Relationship

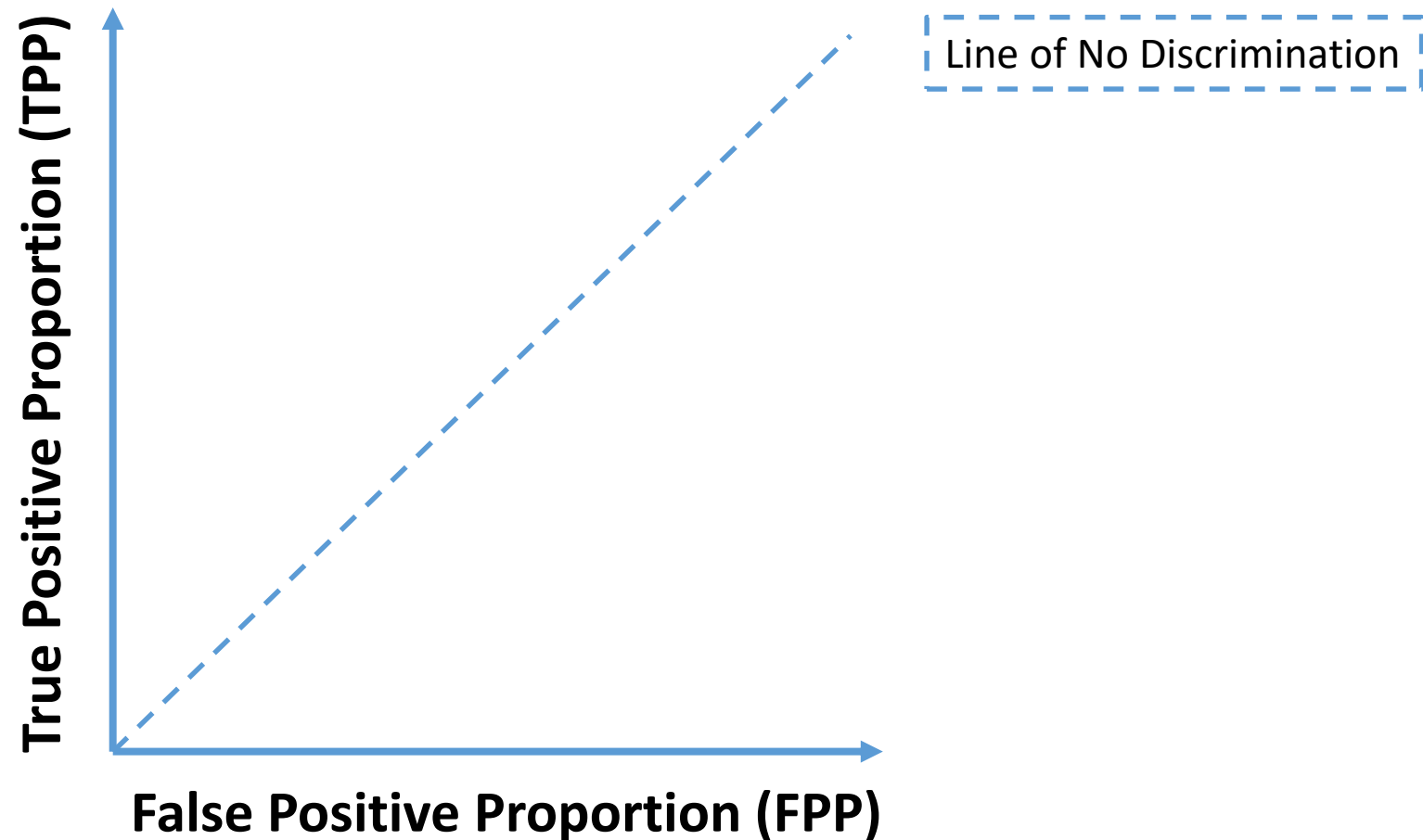


Lagged Inoculum-Disease Patterns

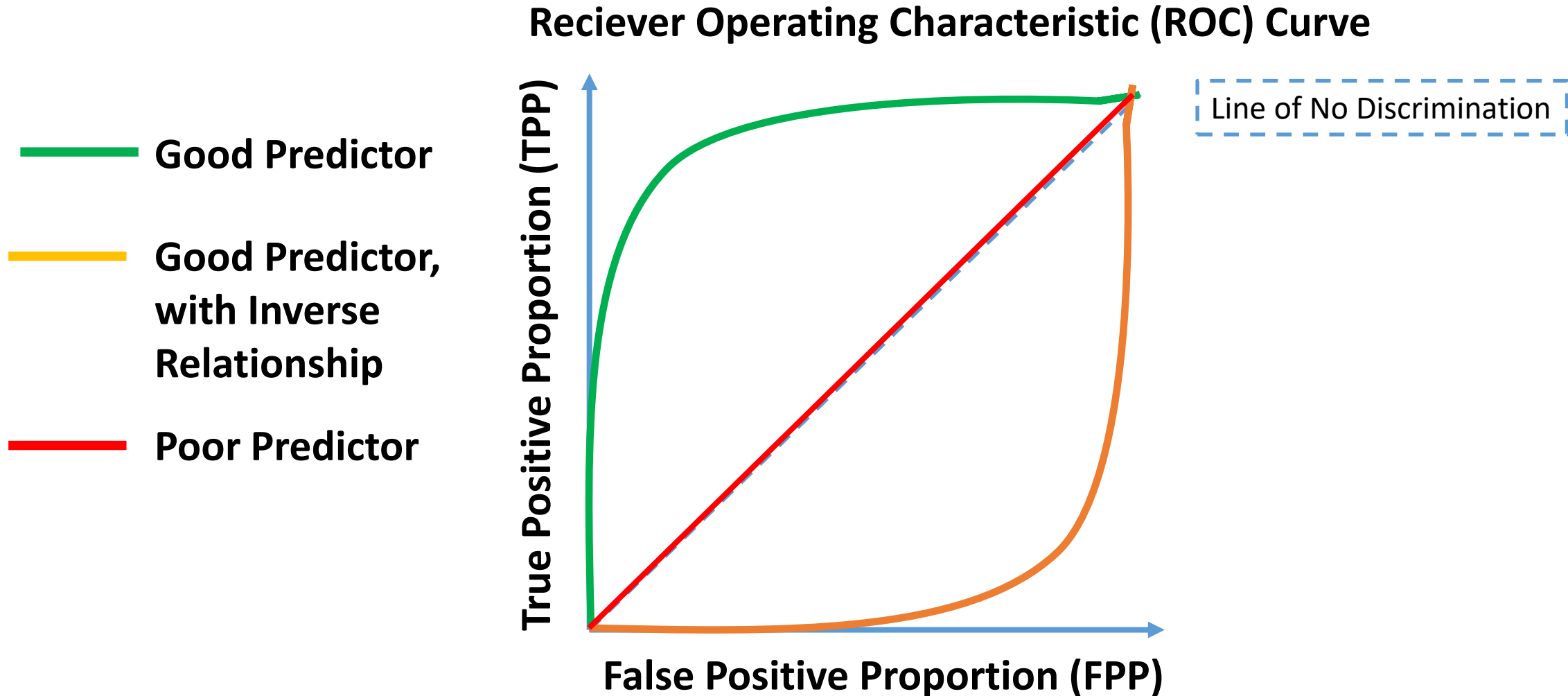


How Well Does Spore Load Predict Disease Incidence?

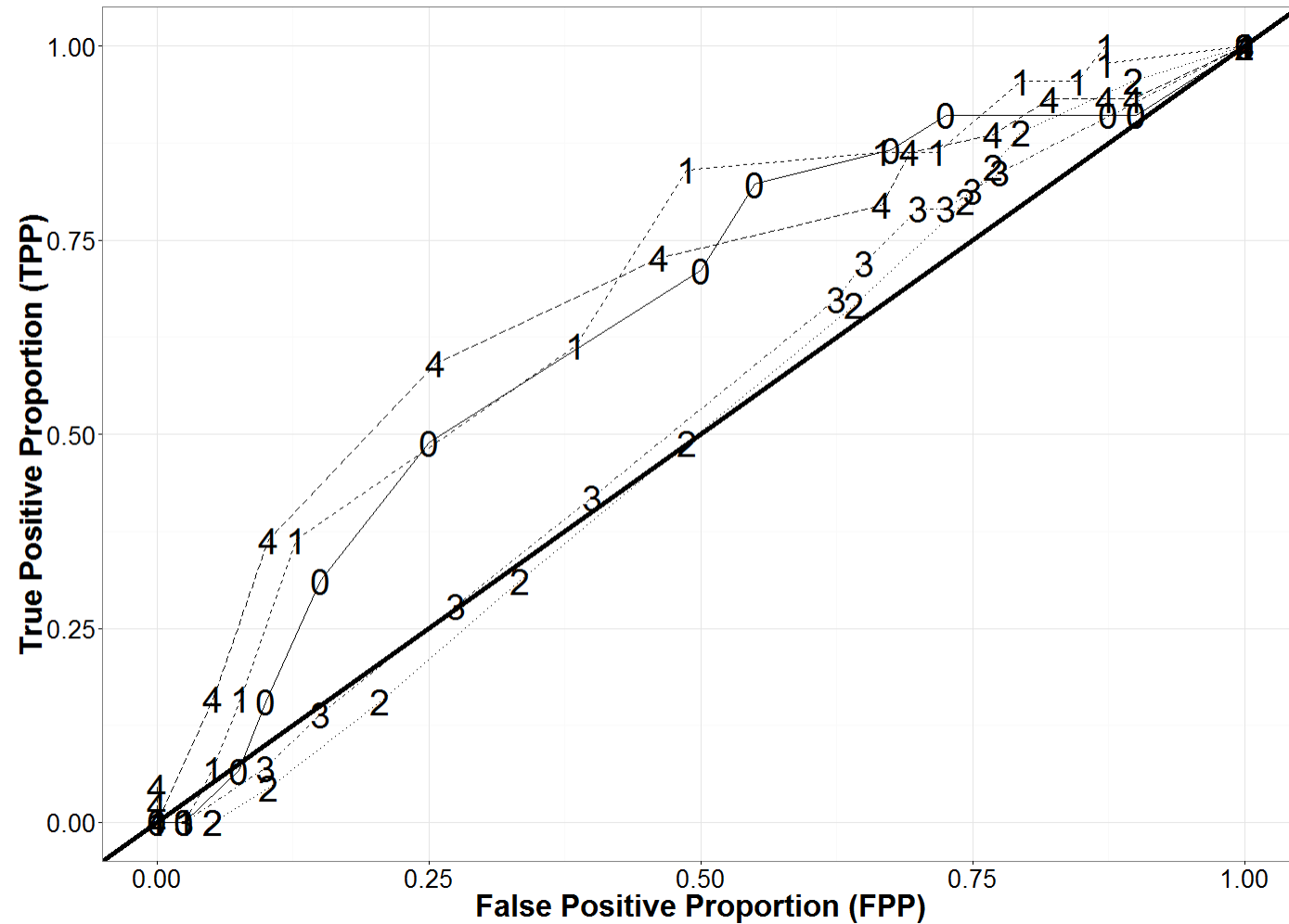
Receiver Operating Characteristic (ROC) Curve



How Well Does Spore Load Predict Disease Incidence?



Spore Traps Have Some Predictivity



Choudhury
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