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Shangbing Ai* (ais@email.uah.edu), Department of Mathematical Sciences, University of Alabama in Huntsville, Huntsville, AL 35899. *Traveling Waves for a Model in Phytopathology*. Preliminary report.

We investigate traveling wave solutions for a model of a fungal disease propagating over a vineyard. The model consists of two first order ODEs of the SIR-type and a reaction-diffusion equation. Using a shooting argument, the center manifold theory and the geometric singular perturbation theory we establish the existence of a family of traveling wave solutions of the model when a parameter in the system is sufficiently small. (Received August 29, 2008)