1020-35-140 Xiaojie Hou\* (houx@email.uc.edu), Department of Mathematical Sciences, University of Cincinnati, Cincinnati, OH 45220, and Paul Tian (tianjj@mbi.ohio-state.edu), Mathematical Biosciences Institute, The Ohio State University, Columbus, OH 43210. Traveling Wave Solutions To A Reaction Diffusion Equation Arising From Forest Succession. Preliminary report.

We study the existence, uniqueness and asymptotic behaviors of the traveling wave solutions for a reaction diffusion system arising from forest succession. The analysis uses methods of positive invariant region, silding method, sub-super solutions. Comparisons are made between the results from the current system and single species to study the effect of competition. Numerical results are also presented to illustrate the theortical results.

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