1058-15-136 **Minerva Catral*** (mrcatral@iastate.edu), Department of Mathematics, Iowa State University, Ames, IA 50011, **Leslie Hogben**, Department of Mathematics, Iowa State University, Ames, IA 5001, **D. D. Olesky**, Department of Computer Science, University of Victoria, Victoria, BC V8W 3P6, Canada, and **P. van den Driessche**, Department of Mathematics, University of Victoria, Victoria, BC V8W 3R4. *Sign patterns that require or allow power-positivity.*

A matrix A is power-positive if some positive integer power of A is entrywise positive. A matrix A is eventually positive if A^k is entrywise positive for all sufficiently large integers k. A characterization of sign patterns that require power-positivity is presented. It is also shown that a sign pattern $\mathcal{A}$ allows power-positivity if and only if $\mathcal{A}$ or $-\mathcal{A}$ allows eventual positivity. (Received February 11, 2010)