We developed a behavioral economics game in order to test the way participation in peer networks of varying densities and configurations facilitates or hinders decision-making under conditions of information uncertainty. The specific decision we modeled was a farmer deciding whether to implement a new, environmentally-beneficial management practice. A web-based computer platform was developed using the Python language, which simulated networks of small dairy farm enterprises. Participants operated as farm managers, playing a series of three ten-round computerized games in groups of 10-11 players. Players were networked in either pairs, trios, groups of six, or groups of twelve. After each round, information about the farm management decisions and financial outcomes of all other players in a given network were made available to each participant in the network. Most treatments also included an automated "seed player" who made optimal decisions in every round. Players could thus base their decisions on this information in an effort to maximize their profits. Participants were paid based on their economic performance in the three games. Results indicate that players in networks that were more densely connected made better economic decisions on average, and that this correlation is statistically significant. Furthermore, the shape of the "diffusion curve" of new adoptees confirms other literature on the dynamics of adoption of novel behaviors. Public policy implications from this work include an increased focus on facilitating peer-to-peer learning among farmers where best management practice adoption is a policy goal. This research has been funded by the Northeast Water Resources Network, through a grant from the National Science Foundation.