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733   **Fig. 1.** Directed acyclic graph (DAG) representing causal paths for powdery mildew and management costs. Arrows are edges that

734   indicate postulated causal relationships between variables. Red arrows indicate edges that are assumed always to be present based

735   on prior knowledge. Variable are described in the text and Table 1. Colors indicate exogenous variable (gold), disease incidence

736   (grey), spray date (blue), type of fungicide use (green), and annual costs (orange).