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The late blight pathogen, *Phytophthora infestans*, is an important pathogen of tomato and potato typically managed by the use of fungicides. Some of the most common fungicides are mefenoxam, azoxystrobin, cymoxanil, and mandipropamid; since these are systemic or translaminar, resistance might evolve more readily. My effort involves characterizing levels of fungicide resistance of the US population from 2011. This involves two trials using all four fungicides at several concentrations. Mycelial growth in the presence of the fungicide will be measured, allowing an EC50 to be determined using nonlinear regression. EC50 is the effective dose of the fungicide at which radial growth in vitro is reduced by 50%. This will show whether the growth of *P. infestans* is inhibited at a reasonable concentration level. This information is useful to the industry, as it will help growers achieve the greatest crop yield, sustaining both the economy and the health of the people.

