## Survival and Infectivity of Potato Late Blight in Soil from Mexico and New York. (S03galbraith071509-Poster)

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## Abstract:

Late Blight caused by the oomycete (Phytophthora infestans), is an extremely destructive plant disease. Little is known about the duration and degree of infectivity of Late Blight as a function of soil type. Surface soils were collected in the fall from multiple sites in the central highland mountains near Mexico City, the Toluca Valley of Mexico, and in central New York. Soils were and analyzed for physical and chemical characteristics. Bioassays were performed by infesting detached potato leaflets and tuber discs with the soils and soil extracts with sporangia of P. infestans. Soils and extracts were tested in sterilized and unsterilized conditions. Toluca Valley and New York soils were similar in chemical characteristics and were significantly more infectious than the mountain soils. The mountain soils had higher organic carbon, extractable Al, and cation exchange capacity but lower extractable P than the Toluca Valley or New York soils. Also, a higher percentage of infectivity was obtained in the nonsterile versus the sterile soil, indicating that other microorganisms play a role in survival and infectivity of P. infestans in soil.

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