

McElreath, S.D.; Tainter, F.H.; Birrenkott, G.P.; and others. **Polyclonal antibodies to wetwood bacteria from egg yolk of immunized hens** [Abstract]. 1997. *Phytopathology* 87(6):S113-114. [Ed. note: Leininger, T.D. is SRS author.]

Four Leghorn hens were immunized with formaldehyde-treated whole cells of *Erwinia chrysanthemi* and a *Clostridium* sp. isolated from a wetwood-affected black oak. Two hens received each antigen and were immunized either subcutaneously (SQ) at the base of the neck or intramuscularly (IM) in the pectoralis muscle. Boosters were given at 2, 4, and 10 weeks. IgY antibodies were isolated from yolks collected weeks 1 to 16. Homologous antibody titers were measured by ELISA using a donkey anti-chicken antibody conjugated with alkaline phosphatase. The greatest dilution which gave an ELISA  $A_{410}$  of 0.9 to 1.0 was 1/800 with *Erwinia chrysanthemi* at 7 weeks and 1/400 with the *Clostridium* sp. at 13 weeks. Gross and histological pathology of tissues around the injection sites revealed similar inflammatory responses that were less extensive around the base-of-the-neck injections. An ELISA system for detection of these bacteria in sap and wood samples is under development.