Summary of Results for Foliar Fungicide Trials, 2002

Thanks to the generous support of the Colorado Potato Administrative Committee (Area II) and several agricultural companies, full season comprehensive fungicide efficacy trials were conducted this past summer at the San Luis Valley Research Center (see protocol). Over the course of the growing season thirty-two different fungicide programs were assessed for blight control (Table 1). The trials depended on natural infection, early blight (*Alternaria solani*) developed within the trial, however, late blight (*Phytophthora infestans*) did not.

The incidence of early blight within the trials was natural and similar to what occurred in commercial potato production across the San Luis Valley. At the time of final disease readings on August 29, early blight incidence had reached 100 percent in the untreated control. AUDPC values provide clear separation among fungicide programs. In general, disease suppression by fungicide program can be grouped into four categories. Early blight disease development was significantly reduced by all treatments over the untreated control. Treatments 8 and 9 reduced disease by less than 60%. Treatments 3-5, 7, 11, 12, 18, 22, 23, and 24 reduced disease from 60-65%. Treatments 2, 6, 10, 14, 15, 17, 19-21, 25, 29, 32 and 33 reduced disease from 65-70%. Treatments 13, 16, 26-28, 30 and 31 reduced disease incidence by more than 70%. In general, the highest degree of early blight control was achieved in programs where Quadris or Headline was utilized (Table 2). Suppression of foliar early blight did not, however, translate directly to increased tuber yields (Table 3).