PROSPECTS FOR THE CONTROL OF THE BACTERIAL-BLIGHT DISEASE OF COTTON

W. WINFIELD RAY, Oklahoma Agricultural Experiment Station, Stillwater

Seed treatment with suitable chemicals will adequately control bacterial blight of cotton in the seedling stage, but no method for controlling blight beyond this point is now practicable. The likelihood of control by the use of resistant varieties has been enhanced by the recent discovery of a single blight-resistant strain of cotton in Tennessee. A further search for resistant cottons has been going on at the Oklahoma Experiment Station for the past three years. During this time over 300 varieties have been tested in the field and in the greenhouse by a rapid technique, developed at the Oklahoma Station, which yields useful results within 10 days. A few strains of cotton bred at this station do show some resistance but not enough to prevent serious losses from blight under field conditions. A breeding program has been started that involves the mating of the Tennessee strain with some of those from Oklahoma showing the most resistance. The ultimate goal is to produce progeny possessing high resistance to blight as well as satistfactory agronomic characteristics.