

*Agrobacterium tumefaciens* is a gram-negative soil bacterium found in the rhizosphere. If a plant is wounded, the bacteria infects the wound and transfers a piece of DNA to the host cells to induce the formation of crown gall tumors. Pectin is a polysaccharide found in the cell walls of plants. Pectin plays roles in intracellular adhesion, cell fate specification, and intracellular communication. Pectinase, an enzyme found in the wild type agrobacterium C58, breaks down pectin in plant cell walls. The role that pectinase plays in agrobacterium infection of a plant cell is unknown. A mutant of C58 called 3129/4560 had both genes involved in pectinase production mutated. Tomato roots and tomato fruits were infected with C58 and with 3129/4560. Both C58 and 3129/4560 were able to infect tomato fruit but 3129/4560 was not able to bind to tomato roots as well as C58. This suggests pectinase might be necessary for proper binding to tomato roots.