

[Abstract:](#)

Abscission layer formation and development of Japanese pear fruit was investigated anatomically using applications of ethephon. At 30 days after application with ethephon, cell walls of the juncture tissue between the peduncle and spur were disintegrated. These responses were found initially in the epidermis and cortex regions. At 40 days after application with ethephon, intercellular cavities were found in the central parenchymatous region at the juncture tissue between the peduncle and spur. Fruit abscission then occurred.