

Abstract

Plants, being sessile organisms, need to find some way to cope with insufficient resources and resource competition with their neighbours. In order to be able to react as effectively as possible, it would be advantageous for them to have some mechanism for identifying other plants in the environment and easily determining how to treat them. In the last few decades a number of works have been published that suggest the existence of such abilities in plants. After the performed experiments, some of the proposed types of such recognition seem to be very close to reality. The main aim of this thesis is to present the individual above-ground and below-ground types of plant identification – mechanical contact, light signaling, volatile stimuli, root exudates, acoustic emissions and electrical signaling, and summarize their possible effect and use in communication between plants.

Key words:

plant communication, plant ecology, kin recognition, mechanical signaling, light signaling, volatile signaling, root exudates

