Leaf cuticular waxes in sesame (*Sesamum indicum* L.) and soybean (*Glycine max* (L.) Merr.) (Poster)

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Introduction
Leaf cuticular waxes cover essentially all aerial plant surfaces and form an important interface between a plant and its environment. These cuticular waxes play an important role in plant resistance to a variety of biotic and abiotic stresses such as those caused by fungal pathogens, phytophagous insects, freezing temperatures, including drought (Jenks and Ashworth 1999).
Objectives
This study was performed to evaluate leaf cuticular wax constituents of sesame and soybean cultivars and their seasonal changes.
Methods
Wax of leaves was extracted by dipping them uncut with chloroform and extracts contained waxes from both abaxial and adaxial leaf surfaces. Wax constituents from the extract were analyzed using gas chromatography (GC).
Results
Leaf cuticular waxes were dominated by alkanes in most cultivars of both plants. The major alkane constituents were C29, C31, C33 and C35 homologues in sesame and C27, C29, C31 homologues in soybean. In addition, waxes on sesame leaves composed of aldehydes dominated by the C30, C32 and C34 homologues, and those on soybean leaves consisted of triterpenoids (lupeol, lupenone, amyrins) with minor amounts of aldehydes and fatty acids. Wax amounts increased during growth development in both plants. Both plants showed that amounts and proportions of wax classes in both plants varied depending on cultivars. We also observed that amount and composition of wax constituents were changed according to leaf position and plant part in sesame.
Conclusion
Cuticular waxes on sesame and soybean leaves composed of alkanes and other constituents and showed their changes depending on cultivars and growth period. What ecological function the induction of alkanes and total waxes by environmental factors has on sesame and soybean requires further study.

Keywords: No words used in Title

Selected References
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