10.1071/FPv44n2toc

# Functional Plant Biology

## Contents

**Volume 44 Issue 2 2017**



*Cover illustration*: Growth regulation according to a pump/leak model (see Wegner pp. 185–197). Note that cell turgor ($P_T$) and, in turn, growth rate are varied at a constant osmotic gradient across the membrane. An increase of the hydraulic conductance of the membrane by de-novo synthesis or activation of aquaporins (left), leads to a decrease in the cellular water potential deficit (i.e. a less negative water potential) and an increase in $P_T$ and in growth, whereas an increase in secondary active water transport (right) entails a downregulation of $P_T$ and growth, associated with an increase in the water potential deficit. Note that only hydraulic effects are considered, that can be masked in a growing cell by a modulation of cell wall properties. Image by Lars Wegner.