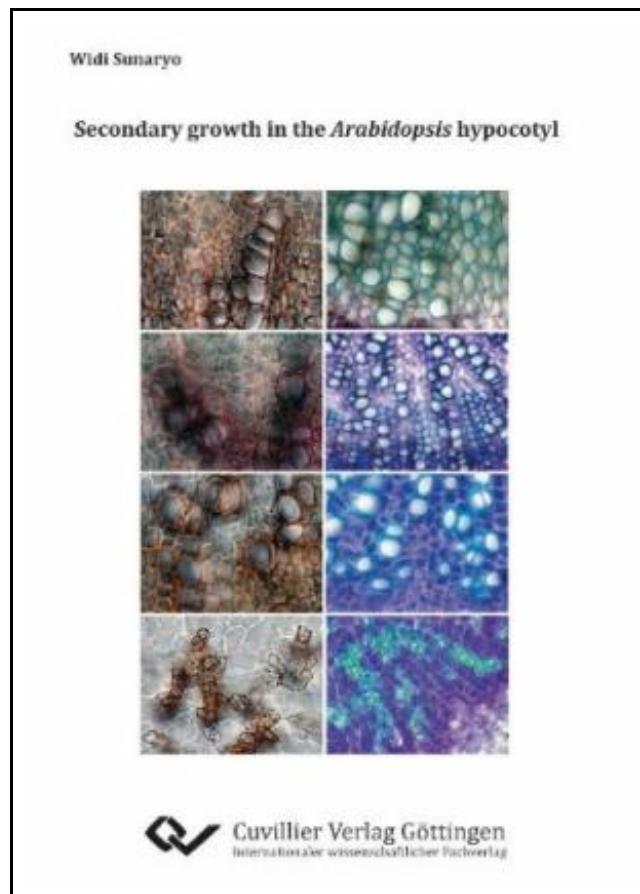


## Secondary growth in the *Arabidopsis* hypocotyl



Filesize: 7.55 MB

### Reviews

*Complete guide! Its such a good go through. It is rally fascinating throgh reading period of time. Its been written in an extremely basic way and is particularly only after i finished reading through this publication through which really changed me, change the way i really believe.*  
*(Mrs. Macy Stehr)*

## SECONDARY GROWTH IN THE ARABIDOPSIS HYPOCOTYL

[DOWNLOAD](#)

Cuvillier Verlag Dez 2010, 2010. Buch. Book Condition: Neu. 216x146x4 mm. Neuware - Secondary growth results from cell division and differentiation in the vascular cambium and gives rise to secondary xylem and phloem. Xylem of trees, commonly referred to as wood, is an important carbon source used for woody materials and industrial purposes such as timber, pulp, furniture, fibers, and also as a energy source. Although abundant data has been collected to address the genetic control of cambial activity and differentiation, the mechanism behind is still little known. The *Arabidopsis* hypocotyl has previously been shown to be a suitable model for secondary growth and xylem differentiation similar as it occurs in angiosperm trees. Plant development requires a tightly controlled balance between undifferentiated dividing cells and cells, which are subjected to undergo differentiation. In the shoot apical meristem of *Arabidopsis*, this process is governed by a complex signaling network involving several classes of transcription factors, which are often expressed in highly distinct patterns. Key-players of differentiation control are the KNOX genes (*Knotted-1* like genes; e.g. *KNAT1*, *KNAT2*, *STM*), which comprise a small gene family with eight members in *Arabidopsis thaliana*. This project was aimed to investigate the role of KNOX genes in secondary growth and differentiation of xylem using the *Arabidopsis* hypocotyl as a model. T-DNA insertion mutants for all *Arabidopsis* KNOX genes were isolated. Mutants of *STM* and *knat1* showed reduced xylem diameter and xylem fiber formation. The double mutant *STM*-GK;*knat1*-bp-9 had a strongly enhanced phenotype. *STM* and *KNAT1* were expressed in the cambial zone and their expression was not dependent on each other. Taken together this shows that *STM* and *KNAT1* have overlapping function and act synergistically on cambial activity and differentiation of xylem derivates. Neither constitutive nor inducible overexpression of *KNAT1* led to overproduction of xylem. Moreover, overexpression...

[Read Secondary growth in the Arabidopsis hypocotyl Online](#)[Download PDF Secondary growth in the Arabidopsis hypocotyl](#)

## Other eBooks

---



### **Programming in D**

Ali Cehreli Dez 2015, 2015. Buch. Book Condition: Neu. 264x182x53 mm. This item is printed on demand - Print on Demand Neuware - The main aim of this book is to teach D to readers...

[Read PDF »](#)

---



### **Psychologisches Testverfahren**

Reference Series Books LLC Nov 2011, 2011. Taschenbuch. Book Condition: Neu. 249x191x7 mm. This item is printed on demand - Print on Demand Neuware - Quelle: Wikipedia. Seiten: 100. Kapitel: Myers-Briggs-Typindikator, Keirsey Temperament Sorter, DISG,...

[Read PDF »](#)

---



### **California Version of Who Am I in the Lives of Children? an Introduction to Early Childhood Education, Enhanced Pearson Etext with Loose-Leaf Version -- Access Card Package**

Pearson, United States, 2015. Loose-leaf. Book Condition: New. 10th. 249 x 201 mm. Language: English . Brand New Book. NOTE: Used books, rentals, and purchases made outside of Pearson If purchasing or renting from companies...

[Read PDF »](#)

---



### **Kindergarten Culture in the Family and Kindergarten; A Complete Sketch of Froebel's System of Early Education, Adapted to American Institutions. for the Use of Mothers and Teachers (Paperback)**

Rarebooksclub.com, United States, 2012. Paperback. Book Condition: New. 246 x 189 mm. Language: English . Brand New Book \*\*\*\*\* Print on Demand \*\*\*\*\*.This historic book may have numerous typos and missing text. Purchasers can download...

[Read PDF »](#)

---



### **Fart Book African Bean Fart Adventures in the Jungle: Short Stories with Moral (Paperback)**

Createspace, United States, 2013. Paperback. Book Condition: New. 229 x 152 mm. Language: English . Brand New Book \*\*\*\*\* Print on Demand \*\*\*\*\*.Black White Illustration Version! BONUS - Includes FREE Dog Fart Audio Book for...

[Read PDF »](#)

**Genuine entrepreneurship education (secondary vocational schools teaching book) 9787040247916(Chinese Edition)**

paperback. Book Condition: New. Ship out in 2 business day, And Fast shipping, Free Tracking number will be provided after the shipment. Paperback. Pub Date :2008-08-01 Pages: 175 Publisher: Higher Education Basic information title: entrepreneurship education

[Read Document »](#)**Sleeping Beauty - Read it Yourself with Ladybird: Level 2**

Penguin Books Ltd. Paperback. Book Condition: new. BRAND NEW, Sleeping Beauty - Read it Yourself with Ladybird: Level 2, In this classic fairy tale, Sleeping Beauty pricks her finger on a spinning wheel and falls

[Read Document »](#)**Freight Train (UK ed)**

Phoenix Yard Books. Paperback. Book Condition: new. BRAND NEW, Freight Train (UK ed), Donald Crews, Red guard's van at the back. Orange petrol tanker next. Yellow grain hopper. A perfect book for introducing very young children

[Read Document »](#)**Daycare Seen Through a Teacher's Eyes: A Guide for Teachers and Parents (Paperback)**

America Star Books, United States, 2010. Paperback. Book Condition: New. 224 x 152 mm. Language: English . Brand New Book \*\*\*\*\* Print on Demand \*\*\*\*\*. Between the good mornings and the good nights it's what

[Read Document »](#)**Access2003 Chinese version of the basic tutorial (secondary vocational schools teaching computer series)**

paperback. Book Condition: New. Ship out in 2 business day, And Fast shipping, Free Tracking number will be provided after the shipment. Pages Number: 192 Publisher: People's Post Pub. Date :2011-10-01 version 1. Access 2003 Tutorial

[Read Document »](#)