

研究报告

# 测定位点对计算梨树树干液流的影响

孙慧珍<sup>1,2</sup>, 康绍忠<sup>1,3</sup>, 龚道枝<sup>1</sup>

<sup>1</sup>西北农林科技大学旱区农业水土工程教育部重点实验室, 杨凌 712100;

<sup>2</sup>东北林业大学林学院, 哈尔滨 150040;

<sup>3</sup>中国农业大学中国农业水问题研究中心, 北京 100083

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**摘要** 采用热脉冲法, 研究了不同测定位点对计算梨树树干液流速率和液流量的影响. 结果表明, 不同时期内, 各方向木质部液质比、木质比径向变幅分别为0.01~0.03和0~0.02, 而同一深度木质部液质比和木质比季节变幅分别为0.02~0.09和0.02~0.08. 用同一月份不同深度木质部液质比和木质比参数计算特定深度液流速率差异不显著; 而用不同时期测定的同一深度木质部参数计算特定月份相应深度液流速率差异显著或极显著. 内层2个、4个测点平均低估液流量是外层相应测定位点的1.5和4.9倍, 距形成层0~0.6四个位点的液流量基本可以代表整树耗水量.

**关键词** [热脉冲法](#) [位点](#) [液流](#) [梨树](#)

分类号

## Influence of measurement position on calculating pear tree stem sap flow

SUN Huizhen<sup>1,2</sup>, KANG Shaozhong<sup>1,3</sup>, GONG Daozhi<sup>1</sup>

<sup>1</sup>Key Laboratory of Agricultural Soil and Water Engineering in Arid and Semiarid of Ministry of Education, Northwest Sci-Tech University of Agriculture and Forestry, Yangling 712100, China; <sup>2</sup>College of Forestry, Northeast Forestry University, Harbin 150040, China;

<sup>3</sup>Center for Agricultural Water Research in China, China Agricultural University, Beijing 100083, China

### Abstract

By the method of heat pulse, this paper studied the influence of different measurement positions on calculating the stem sap flow velocity and quantity of pear trees. The results showed that at definite depths, the directional variation of the volume fraction of water and wood was lower than the seasonal change of wood physical parameters. The directional and seasonal variation of the volumetric water and wood was 0.01~0.03 and 0~0.02, and 0.02~0.09 and 0.02~0.08, respectively. The sap flow velocity at definite depth, which was calculated by different depths wood physical parameters measured at the same time, had no significant difference, but that calculated by the same depth wood parameters measured at different time was significantly different. The sap flow quantity measured at the inner two points and four points was underestimated 1.5 and 4.9 times of that measured at the outer corresponding measurement positions, relative to the estimation obtained from a multi-point measurement. The sap flow quantity measured by four-point at the position of 0~0.6 from the cambium could represent the water consumption of whole tree.

**Key words** [Heat pulse method](#) [Measurement positions](#) [Sap flow](#) [Pear trees](#)

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