

研究论文

# 锌对茶树体内无机元素含量及分布的影响

吴彩, 方兴汉, 沈星荣

中国农业科学院茶叶研究所, 浙江杭州, 310008

收稿日期 1992-2-26 修回日期 1992-12-4 网络版发布日期 接受日期

**摘要** 测定了不同浓度处理的水培茶苗根、茎、叶中及土施和喷施Zn的茶树叶中P、K、S、Ca、Mg、Mn、Al、Zn、Mo、Na、B、Cu、Fe的含量。结果表明, 茶苗对Zn有较强的吸收能力, Zn处理<0.50ppm时, 茶苗体内Zn大多运往叶中; 当叶中达生理需要量后, Zn也在根、茎中积累; 当生长介质中Zn达一定量后, Zn在叶中积累。茶树Zn-P间有明显的拮抗作用, 但拮抗效应存在于一定范围内。Zn处理降低水培苗体内Ca、Mg、Cu、Mn、K、S、Al、B的含量, 但土施和喷施Zn均提高K、S、Al、B的含量。同时, Zn处理明显减少茶树体内Mo、Na的含量, Zn与茶树体内Mo、Na间有一定的拮抗作用。

**关键词** [茶树, 锌, 无机元素](#)

分类号

## The Effects of Zinc on Content and Distribution of Inorganic Elements in Tea Plants

Wu Cai, Fang Xin-han, Shen Xin-rong

Tea Research Institute, Chinese Academy of Agricultural Science, Hangzhou zhejiang Province, 310008

**Abstract** The content of P, K, Ca, Mg, Mn, Al, Zn, Fe, Cu, Mo, Na, B in root, stem and leaf of water-cultured tea seedlings treated with Zn in solution, and in new shoots of by tea plant spraying and soil application of different concentrations of Zn, were determined. The results showed that the ability of Zn absorption was stronger in tea seedlings, when the concentration of Zn>0.50ppm, the more Zn translocated to leaves from roots. Zn accumulated in roots and stems when the concentration of Zn was at the critical level in leaves; Zn accumulated in leaves when the concentration of Zn in culture medium reached a certain level. There was significant antagonism between Zn and P, but the antagonism was in some extent. Zn decreased the content of Ca, Mg, Cu, Mn, K, S, Al, B in water-cultured seedlings and increased the content of K, S, Al, B in new shoot of tea plant treated by spraying and soil application. Meanwhile, Zn decreased the content of Mo and Na in tea plants significantly. There was an antagonism between Zn and Mo, Na in tea plants.

**Key words** [Tea plant](#) [Zinc](#) [Inorganic elements](#)

DOI:

通讯作者 吴彩

### 扩展功能

#### 本文信息

▶ [Supporting info](#)

▶ [PDF\(282KB\)](#)

▶ [HTML全文\(0KB\)](#)

▶ [参考文献](#)

#### 服务与反馈

▶ [把本文推荐给朋友](#)

▶ [加入我的书架](#)

▶ [加入引用管理器](#)

▶ [复制索引](#)

▶ [Email Alert](#)

▶ [文章反馈](#)

▶ [浏览反馈信息](#)

#### 相关信息

▶ [本刊中包含“茶树, 锌, 无机元素”的相关文章](#)

▶ 本文作者相关文章

· [吴彩](#)

· [方兴汉](#)

· [沈星荣](#)