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Sulfuric acid of air pollutant and the relation of withering of trees-Prevention from withering by charcoal

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Sulfuric acid of air pollutant is carried by wind, and adheres to trees. Only moisture evaporates at the place where the sulfuric acid which dissolved in rain or fog adhered.

Sulfuric acid repeats concentration and accumulation and concentration becomes high.

Sulfuric acid falls to the root of trees with rain. Sulfuric acid acidifies soil. Aluminum and iron of an ingredient of soil become soluble metal salt with the additional sulfuric acid. The absorbed metal ion combines with phosphoric acid of woody layer and becomes compound of insolubility. When phosphoric acid becomes a compound of the insolubility, trees will decline by the same phenomenon as lack of phosphoric acid. In the shortage of phosphoric acid, trees decline regardless of the kind of trees.

The tannin contained in the Japanese oak combines with the iron absorbed from soil, and becomes tannic acid iron.

Tannic acid iron does not have toxicity. As for the declined pine, the amount of exudation of resin decreases. As a result, to the insects which live on the trees of a pine or a Japanese oak as the staple food, environment becomes the optimal and they breed so much.

Bamboo needs much silica to grow. When soil acidifies, silica becomes silicic acid and bamboo can not absorb silicic acid. As a result bamboo declines and withers.

Withering is saved by neutralizing acid soil with the charcoal containing alkaline metal.

Keywords: Air pollution., withers of pine, withere of Japanese oak., Acid soil., tannic acid iron., Phosphoric acid iron