

Supplemental file 2:

### **National Standards of the test methods**

GB7173, 1987. Method for determination of soil total nitrogen. National Standard of the People's Republic of China. 1987.

GB9834, 1988. Method for determination of soil organic matter. National Standard of the People's Republic of China. 1988.

HJ632, 2011. Soil quality-Determination of total phosphorus by alkali fusion-mo-sb anti spectrophotometric method. Standard of Ministry of Environmental Protection of the People's Republic of China.. 2011

GB/T17140, 1997. Soil quality-Determination of copper, zinc-Flame atomic absorption spectrophotometry. Standard of Ministry of Environmental Protection of the People's Republic of China.. 1997

HJ491, 2009. Soil quality-Determination of total chromium-Flame atomic absorption spectrometry. Standard of Ministry of Environmental Protection of the People's Republic of China. 2009.

GB/T17136, 1997. Soil quality-Determination of total mercury-Cold atomic absorption spectrophotometry. National Standard of the People's Republic of China.1997.

GB/T17135, 1997. Soil quality-Determination of total arsenic—Spectrophotometric method with potassium borohyride and silver nitrate. National Standard of the People's Republic of China. 1997.