

## ABSTRACT

**A METHOD FOR DETERMINING SEEDLING QUALITY AND STRESS  
PROPERTIES**

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The present invention a method (100) for determining seedling quality and stress properties, the method comprises the steps of: acquiring soil (101) and ambient environment conditions (102) data of a location, where the seedling is planted, from one or more sensor modules; generating a time sequence (110) based on the soil (101) and ambient environment conditions (102) data for image capturing; triggering an image capturing device to capture one or more images of the seedling (120) based on the generated time sequence; processing the captured images (130) to obtain parameters information of the seedling; applying a classification model to classify quality property of the seedling (140) based on the parameters information; and applying a plant stress model to determine stress property of the seedling (150) based on the classified quality property of the seedling; wherein the time sequence is generated (110) by the steps of: computing a time delay (112) based on the soil (101) and ambient environment conditions data (102); obtaining an averaged time delay (114) by averaging the computed time delay with a pre-defined time delay (113); and generating the time sequence (110) based on the averaged time delay.

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*(The most illustrative figure: Fig. 1)*