

水稻品種の葉老化に関する研究  
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Varietal difference of leaf senescence in Rice (*Oriza sativa* L.)

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### (実験目的)

Relation on leaf senescence and crop productivity are still controversial. To improve ripening, the effect of leaf senescence and remobilization of nitrogen has to be evaluated independently. Therefore we started to evaluate senescence characteristics first. Present study thus aims to establish screening method and to evaluate varietal difference in leaf senescence of rice.

### (材料と方法)

One hundred and fifty rice varieties were used to establish screening method for varietal difference in leaf senescence. The leaf segments from topmost fully developed leaf were floated in distilled water, ABA (2ppm) and kinetin (2ppm) under dark room condition ( $30 \pm 1^\circ\text{C}$ ) and their senescence was evaluated by the visual observation of chlorosis degree. Relative senescence degree was determined by the rate of chlorosis recorded on selected day in which best separation among varieties was observed.

### (実験結果と考察)

Generally, senescence in ABA proceeded faster, those in kinetin proceeded slower, and that in distilled water showed intermediate significant varietal difference in relative leaf senescence was observed. Relative senescence degree also varied with growth stage in most materials and only few varieties showed consistently faster or slower senescence throughout the growing stages. Scores in ABA and kinetin of Japonica varieties were not related with senescence degree. Other factors than ABA and kinetin may be involved in senescence of Japonica and tall indica varieties. At heading all Japonica varieties showed high levels of scores in ABA but not in kinetin. In dwarf indica varieties senescence was explained chiefly by ABA and kinetin level and the contribution of kinetin on senescence degree was higher than ABA.

