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Varietial difference of leaf senescence in Rice (Oriza sativa L.)

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## (史驗目的)

Relation on leaf senescence and crop productivity are still controvertial. To improve ripening, the effect of leaf senescence and removilization 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 및 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±1°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 呈考案)

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 lelvels 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.

Table 1. List of cultivare used to the experiment

Type	bo. el Cultivat	Cultivar
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IS lines from 18TF ruele mermory (STE-VE)	15 (17)	1821(0-14-0-1, 182380-40-2-), 182882-(1-14-)-2-3, 18272-40-40-2, 182772-40-13-3-4, 182772-40-13-3-3-4, 182772-40-13-3-3-3-4, 182782-40-13-3-3-3-4, 182302-13-3-3-3-2, 182302-13-3-3-3-2, 182302-13-3-3-3-3, 182302-13-3-3-3-3, 182302-13-3-3-3-2, 182302-13-3-3-3-3, 182302-13-3-3-3-3, 182302-13-3-3-3-3, 182302-13-3-3-3-3, 182302-13-3-3-3-3, 182302-13-3-3-3-3, 182302-13-3-3-3-3, 182302-13-3-3-3, 182302-13-3-3-3, 182302-13-3-3-3, 182302-13-3-3-3, 182302-13-3-3-3, 182302-13-3-3-3, 182302-13-3, 182302-13-
(1275-E)	(22)	1234632-206-3-2-2, 123340-83-3-1, 123861-153-1, 123862-45-2-2, 123862-45-2-2, 1231803-40-13-2, 123419-44-2-3-2, 122419-31-3-3-3, 123461-42-3-2, 1234615-42-3-1, 123546-13-3-2-2, 123546-11-3-1-3
: 1E75-IL)	(\$)	1R1988)-180-2-2-2-1, 1B28604-04-1-3-2-3, IRT7316-27-3-2, IRR8E34-3-2-3-2, IR28E28-12-3-2-1-2, IR31808-83-3-2-2
ITE time like dame April 16 other com like-48;		BAD143-27, BG1203, BG731-2, C1136-3, C1156-7, TRAU (AD) 86
(275-R)	(*)	CHIARDEC SED TU 36, CT11087, DR32, DR33, LEI ERORG 124, EE117-67-11, SPELET6103-36-1-1, E26713-19-1-3, E6189-10-2, TATCHRIC RES TU 223
(205-N)	(38)	RCISO-2. REJ16-18-4-4. RWING-2. R41838-83-33-4-1-2, CLASS-4, CLASS-8. REZS. RESI, RAKIISC 80-21-43, RR447-20, RREGOTO, REMATIAS, REWRING RESIDENCE S4958-IN. REGOTO-PH-6-2, UDRISH-65-1-1CAN
imilos y Japanias refrection mareleped in horos		TARAMORTEO, COTIAGORATEO, SAVARTEO, MACQUICALIZZO, MARAMORTEO, MARCINERO, SUREMENTENTE, MARAMORTEO, EL RESIDENZALIZZO, TORRENDEZEO, SINCARASTEO, MARCIARIZZO, TORRENDEZEO, MARCIARIZZO, TORRENDEZEO, DIRECTERRENDO, PROCESSATEO, LARGESDORGITO, OTERNALI, CHEMBOCRETO, SEDEMANGETEO, MARCINETEO, SUNDE 188
inpunion varietien projephi 12 dren	23	COLETTO, SCRAEGETO, TENETROCITO, AMALICOSTITO, INSCRICTO, SEGORAMENTO, CENTUTO, MAYLAGATTO, SAMPRACTITO, WALCHINGHTO, SWASSMERTTO, 18134, SAMPRACTITO, WALCHINGHTO, SWASSMERTTO, 18134, 18135, SEGMANTIC, PALCENE, SEGMINETTO, 181373, 181374, 181374, SHOWANTE, PALCENE, SEGMINETTO, 181373, 181374,
ell leases	2	POKKALI, MONA BOKRA

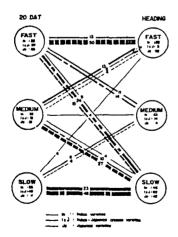


Fig. Charge in degree of assessment expressed as percentage at 20 2.7 and heading.

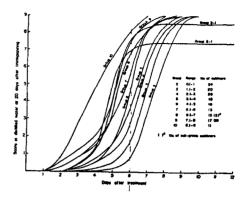


Fig.1 Change in store after treatment with distilled water at 20 days after transplanting.

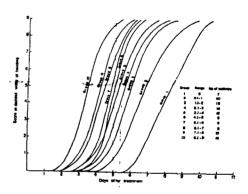


Fig.4 Change in more after treatment with distilled water at heading.

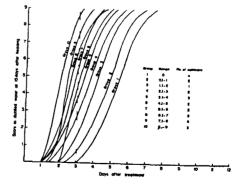


Fig.7- Change in gage after treatment with distilled water at 15 days after