

서남부간척지 저염답에서 벼 담수표면직파재배시 파종전후 물관리 방법

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Proper Water Management Before and After Direct Seeding on Flooded Paddy Surface at Low Saline Soil in Reclaimed Saline Land of Rice

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실험목적

서남부간척지 저염답에서 벼 담수표면직파재배시 입모향상을 위한 파종전 로타리 후 환수횟수와 파종 후 물관리방법을 구명하고자 함

재료 및 방법

- 공시품종 : 남평벼
- 공시토양 : 세사양토(문포통)
- 토양염농도 : 0.1%
- 처리내용
 - 로타리후 환수횟수 : 1회환수(로타리직후), 2회 및 3회 환수(2일간격)
 - 파종후 물관리 : 파종직후 낙수, 파종 3일 및 6일후 낙수
- 파종기 및 파종량 : 5월 18일, 5kg/10a
- 시비량(N-P₂O₅-K₂O) : 20-5.1-5.7kg/10a

실험결과

- 서남부간척지 저염토양에서 벼 담수표면직파재배시 입모향상을 위해 로타리 후 1회 환수만 실시해도 적정입모수 확보가 가능하였으며, 쌀수량도 로타리 후 환수횟수간에 별 차이가 없었다.
- 저염토양에서는 파종 후 낙수시기가 빠를수록 입모가 양호하고 균일하였으며, 쌀 수량도 많았다.

Table 1. Difference of seedling status by the irrigation times of fresh water before seeding in broadcasting of rice on flooded paddy soil at low saline reclaimed soil

Irrigation times after soil rotary	No. of seedling stand(ea./m ²)	Seedling stand rate	Seedling stand uniformity(CV,%)
One time	191	71	10.9
Two times	210	78	9.5
Three times	224	83	7.4

Table 2. Difference of rice yield and its components by the irrigation times of fresh water before seeding in broadcasting of rice on flooded paddy soil at low saline reclaimed soil

Irrigation times after soil rotary	No. of spikelets/m ²	No. of spikelete/m ² (x1,000)	Ripened grain rate	1,000-grain wt. of brown rice(g)	Yield of milled rice (kg/10a)
One time	347	30.4	93	21.9	519
Two times	370	31.9	94	21.9	537
Three times	393	32.8	94	21.7	552
LSD(5%)	-	-	-	-	35

Table 3. Difference of seedling status by the irrigation methods of fresh water after seeding in broadcasting of rice on flooded paddy soil at low saline reclaimed soil

Irrigation method after seeding	No. of seedling stand(ea./m ²)	Seedling stand rate	Seedling stand uniformity(CV,%)
Drainage immediately after seeding	230	85	6.8
Drainage in three days after seeding	202	74	10.0
Drainage in six days after seeding	156	57	15.0

Table 4. Difference of rice yield and its components by the irrigation methods of fresh water after seeding in broadcasting of rice on flooded paddy soil at low saline reclaimed soil

Irrigation method after seeding	No. of spikelets/m ²	No. of spikelete/m ² (x1,000)	Ripened grain rate	1,000-grain wt. of brown rice(g)	Yield of milled rice (kg/10a)
Drainage immediately after seeding	452	34.1	93	20.4	549
Drainage in three days after seeding	415	32.4	93	20.5	530
Drainage in six days after seeding	365	29.4	94	20.6	494
LSD(5%)	-	-	-	-	31