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약용작물 택사의 종자 소독제 선발

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Screening of Seed Disinfectant for Control of Brown Leaf Blight in *Alisma plantago* Double Cropping after Early Rice

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연구 목적

남부지방 택사재배에서 종자 소독이 택사의 갈생잎마름병 방제에 미치는 영향을 구명하여 병충해 방제 체계를 확립하고자 시험하였다.

재료 및 방법

가. 공시품종 : Sunwol, Gusang, Youngjun
나. 종제소독제 : 베노밀수화제, 캡탄수화제, 사프롤유제, 에디졸유제, 지오람수화제
다. 묘상 파종기 : 7월 20일
파종량 : 단책형양상(120cm)에 산파(ℓ /66m^2)
묘상시비량 : 관행복비 21-17-17 (25kg/66m^2)
라. 시험구배치법 : 난괴법 3반복

시험구분	처리수	반복수	총구수	구당면적	시험면적	총면적
시험 1. 약효시험	6	3	18	10m^2	180m^2	200m^2
시험 2. 약해시험	10	3	30	1m^2	30m^2	50m^2

마. 주요조사 항목 : 병해조사, 방제효과, 약해조사

결과 및 고찰

This study was conducted to evaluate the control effect of seed disinfectant, on control of brown leaf blight, growth characteristics, and dry root yield in the cultivation of *Alisma plantago* after early maturing rice cropping.All seed disinfectant treated had no effect on the growth and flowering date of *Alisma plantago*.

The major seed disinfectants were benomyl Wp, 20%, Captan Wp, 50%, Triferine Ec, 17%, Etridia zole Ec, 25%, and Thioplant-mythyl Wp, 50%. Dry root yield were increased largely with benomyl Wp, 20%, seed disinfectant than the other seed disinfectants and contorl. All seed disinfectants had no injury with standard dosage. On the other hand all seed disinfectants had slight injury in the double dosage level for the

Alisma plantago.

Table 1. Soil properties of the experimental plot at the beginning of experiment.

PH(H_2O)	EC	OM	T-N	Av.P_2O_5	Ex.cation(molt/kg)			
1:5	(ds/m)	(g/kg)	(mg/kg)		K	Ca	Mg	SiO_2
5.2	0.093	20.7	0.34	952	0.66	3.74	0.98	40

Table 2. The control effect of seed disinfectant on brown leaf blight in *Alisma plantago* varieties.

Seed disinfectant	Infected plant (%)				Siginficant difference (DMRT)	Control value (%)
	Sunwol	Gusang	Youngjun	Mean±SD		
Benomyl Wp+. 20% (100g/20ℓ)	1.1	1.3	1.2	1.2±0.3	a	91.5
Captan Wp. 50% (40g/20 ℓ)	1.2	1.3	1.3	1.3±0.3	a	90.1
Triferine Ec. 17% (20ml/20ℓ)	1.5	1.7	1.6	1.6±0.6	a	88.4
Etridiazole Ec*. 25% (10ml/20ℓ)	1.4	1.6	1.5	1.5±0.6	a	86.7
Thioplanat-mythyl Wp. 50% (20ℓ/20ℓ)	1.6	1.7	1.7	1.7±0.4	a	85.4
Control	13.5	14.2	14.8	14.2±0.5	b	-

Table 3. Comparison of growth characteristics and yield of *Alisma plantago* treated with seed disinfectants.

Seed disinfectant	Plant height (cm)	No. of leaves	Dry root yield (kg/10a)	Yield index
Benomyl Wp+. 20% (100g/20ℓ)	S+ 63	23	327	126
	G 55	21	286	111
	Y 57	22	315	122
Captan Wp. 50% (40g/20ℓ)	S 61	22	313	121
	G 54	20	272	105
	Y 56	21	296	114
Triferine Ec. 17% (20ml/20ℓ)	S 59	21	307	118
	G 53	20	265	102
	Y 55	21	285	110
Etridiazole Ec*. 25% (10ml/20ℓ)	S 57	21	286	110
	G 53	19	263	101
	Y 55	20	277	107
Thioplanat-mythyl Wp. 50% (20ℓ/20ℓ)	S 57	21	280	108
	G 52	19	263	101
	Y 54	20	270	104
Control	S 55	18	264	102
	G 50	16	256	99
	Y 52	17	258	100

S+ . Sunwol Local, G : Gusang Local, Y . Youngjun Local

Table 4. Plant injury of *Alisma plantago* by application of seed disinfectants.

Seed disinfectant		Standard dosage			Double dosage		
		10+	20	30	10	20	30
Benomyl Wp+. 20% (100g/20ℓ)	S	0	0	0	1	1	1
	G	0	0	0	1	1	1
	Y	0	0	0	1	1	1
Captan Wp. 50% (40g/20ℓ)	S	0	0	0	1	1	1
	G	0	0	0	1	1	1
	Y	0	0	0	1	1	1
Triferine Ec. 17% (20ml/20ℓ)	S	0	0	0	1	1	1
	G	0	0	0	1	1	1
	Y	0	0	0	1	1	1
Etridiazole Ec≠. 25% (10ml/20ℓ)	S	0	0	0	1	1	1
	G	0	0	0	1	1	1
	Y	0	0	0	1	1	1
Thioplanat-mythyl Wp. 50% (20ℓ/20ℓ)	S	0	0	0	1	1	1
	G	0	0	0	1	1	1
	Y	0	0	0	1	1	1
Control	S	0	0	0	1	1	1
	G	0	0	0	1	1	1
	Y	0	0	0	1	1	1

+ Days after apply seed disinfectant

≠ S : Sunwol Local, G : Gusang Local, Y : Youngjun Local

Plant injury : 0 (No injury),

: 1 (Soft chemical injury)