

# 약용식물 황금의 잿빛곰팡이병 방제를 위한 종자소독제 개발

권병선, 신동영

## Development of Useful Chemicals Reducing of Gray mold on *Scutellaria baicalensis* Georg

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### 연구목적

남부지방에서 황금의 잿빛곰팡이병을 종자소독 방법으로 방제코자 시험하였다.

### 재료 및 방법

- 가. 공시품종 : 여천재래, 승주재래, 광양재래
- 나. 공시약제 : 성적참조
- 다. 파종기 : 6월 1일
- 라. 파종밀도 : 30×10cm 점파
- 마. 시비량(kg/10a) : N-P<sub>2</sub>O<sub>5</sub>-K<sub>2</sub>O = 6-9-6
- 바. 시험구배치법 : 분할구배치 3반복

### 결과 및 고찰

This study was conducted to evaluate the control effect of fungicides on control of Gray mold, growth characteristics, and root yield in the cultivation of *Scutellaria baicalensis* after barley cropping. All fungicides treated had no effect on the growth and flowering rate of *Scutellaria baicalensis*.

All seed disinfectant, treated had no effect on the growth and flowering date of *Scutellaria baicalensis* Georg. The major seed disinfectants were benomyl Wp, 20%, Captan Wp, 50%, Hymexazol Ec, 30%, Carboxin D, 37.5%. Dry root yield were increased largely with benomyl Wp, 20%, seed disinfectant than the other 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 *Scutellaria baicalensis* Georg.

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

PH(H <sub>2</sub> O) 1 : 5	OM (g/kg)	Av : P <sub>2</sub> O <sub>5</sub>	Ex. cation(molt/kg)			CEC(me/100g)
			K	Ca	Mg	
6.4	4.5	382	0.74	3.10	3.9	11.2

Table 2. Disease control effect of *Scutellaria baicalensis* Geory field.

Seed disinfectant	Infected plant(%)				Significant difference (KMRT)	Control value (%)
	Yeochon	Seungju	Gwangyang	Mean±SD		
Benomyl Wp, 20% (100g/20 ℓ)	1.1	1.2	1.3	1.2±0.1	a	93.2
Captan Wp, 50% (40g/20 ℓ)	1.2	1.3	1.4	1.3±0.2	a	90.0
Hymexazol Ec. 30% (40ml/20 ℓ)	1.3	1.4	1.5	1.4±0.3	a	89.4
Carboxin D, 37.5% (25g/kg)	1.4	1.5	1.7	1.5±0.3	a	87.6
Control	14.2	15.3	16.2	15.2±0.6	b	-

Table 3. Comparison of growth characteristics and yield of *Scutellaria baicalensis* treated with seed disinfectant.

Seed disinfectant	Flowering date	Stem length	Main root length(cm)	Branch root length(cm)	Main root diameter (mm)	Yield of dry root (kg/10a)	Index (%)
Benomyl Wp, 20% (100g/20 ℓ)	Y July 23	35	26.2	30.1	9.5	178	144
	S July 22	34	25.6	29.4	8.5	159	128
	G July 20	32	24.9	28.6	8.2	144	116
Captan Wp, 50% (40g/20 ℓ)	Y July 23	34	25.4	29.4	9.4	172	139
	S July 22	33	24.4	28.8	8.4	152	123
	G July 20	31	23.5	27.5	8.1	140	113
Hymexazol Ec. 30% (40ml/20 ℓ)	Y July 23	33	24.7	28.3	9.3	170	137
	S July 22	32	23.5	27.2	8.2	148	119
	G July 20	30	22.8	26.3	7.8	137	110
Carboxin D, 37.5% (25g/kg)	Y July 23	32	24.0	27.7	9.1	166	134
	S July 22	31	22.7	26.5	7.9	143	115
	G July 20	29	21.4	25.5	7.4	130	105
Control	Y July 23	30	23.5	26.1	8.8	162	131
	S July 22	29	21.6	25.4	7.5	140	113
	G July 20	28	20.3	24.7	7.2	124	100

Y : Yeochon Local, S : Sungju Local, G : Gwangyang Local

Table 4. Plant injury of *Scutellaria baicalensis* of seed disinfectant.

Seed disinfectant	Standard dosage			Doble dosage			
	10 <sup>+</sup>	20	30	10	20	30	
Benomyl Wp, 20% (100g/20 ℓ)	Y	0	0	0	1	1	1
	S	0	0	0	1	1	1
	G	0	0	0	1	1	1
Captan Wp, 50% (40g/20 ℓ)	Y	0	0	0	1	1	1
	S	0	0	0	1	1	1
	G	0	0	0	1	1	1
Hymexazol Ec. 30% (40 ml/20 ℓ)	Y	0	0	0	1	1	1
	S	0	0	0	1	1	1
	G	0	0	0	1	1	1
Carboxin D, 37,5% (25g/kg)	Y	0	0	0	1	1	1
	S	0	0	0	1	1	1
	G	0	0	0	1	1	1
Control	Y	0	0	0	1	1	1
	S	0	0	0	1	1	1
	G	0	0	0	1	1	1

<sup>+</sup> Days after seed disinfectant

Y : Yeochon Local, S : Sungju Local, G : Gwangyang Local

Plant injury : 0 (No injury) : 1 (Soft chemical injury)