

# 유채 1대 잡종 답리작 기계화 직파 파종 연구

권병선, 최승선, 방진기<sup>1</sup>, 김상곤<sup>1</sup>, 배상목<sup>1</sup>, 정동수<sup>1</sup>, 신종섭<sup>2</sup>  
순천대학교, <sup>1</sup>농촌진흥청 작물과학원 목포시험장, <sup>2</sup>순천시 농업기술센터

## Studies on Mechaniged Seeding of Hybrid Rapeseed

Kwon B. S., S. S. Choi, J. K. Bang,<sup>1</sup> S. K. Kim<sup>1</sup>, S. M. Bae<sup>1</sup>,  
D. S. Jung<sup>1</sup> and J. S. Shin<sup>2</sup>

Sunchon Nat'l Univ. Sunchon 540-742, Korea

<sup>1</sup>Mokpo Experiment Station, Nat'l Crop Science Institute, RDA, Muan 534-833, Korea

<sup>2</sup>Sunchonsi Agricultural Techniques Center, Sunchon 540-830, Korea

### 연구목적

답리작 유채 생력 재배를 위한 기계화 파종방법을 구명코자 함

### 재료 및 방법

가. 공시재료: 일대잡종

나. 처리내용

파종기: 10월 14일

파종량(kg/10a): 1.5

시비량(kg/10a): N-P<sub>2</sub>O<sub>5</sub>-K<sub>2</sub>O = 15-8-8, 퇴비 1,000kg

생력처리

가) 인력광산파

나) 휴립로타리기 파종

다) 인력파종 후 경운기로타리 복토

라) 인력파종 후 휴립로타리기 복토

마) 인력파종 후 경운기 휴립 후 인력복토(레기)

바) 인력파종 후 트랙타로타기 복토

시험구배치법: 난괴법 3반복

### 결과 및 고찰

인력 광산파에 비하여 기계화 산파구의 개화기, 성숙기는 거의 동일 하였고, 인력 광산파에 비하여 휴립로타리 기계 파종은 파종 노력이 43% 절감되었으며, 파종법에 따른 초장, 수

장, 분지수, 1수협수 등은 거의 차이가 없었으며 m2당 입모주수는 휴립루타리기 파종구에서 약간 많아 약 8% 증수되어 생력화 재배를 위한 휴립루타리 파종기의 활용이 바람직하였다.

Table 1. Necessary time per 10 a of seeding and Moulding

No. of test	Seeding method	Seeding time	Moulding time	Necessary time	Index
1	Broadcasting of human efforts	50	56	106	100
2	Seeding of ridge rotary	58	-	58	55
3	Broadcasting of human efforts after moulding with ridge rotary	50	46	96	91
4	Broadcasting of human efforts after moulding with power tiller ridge rotary	50	46	96	91
5	Broadcasting of human efforts after with power tiller ridge rotary machine and moulding of human efforts	100	56	156	147
6	Broadcasting of human efforts after moulding with tractor ridge rotary	50	-	50	47

(Unit : min)

Table 2. Variation of inherent characters of hybrid rapeseed under different seeding machine.

No. of test	Seeding method	Bolting date	Flowering date	Flower ending date	Maturing date	Flowering day	Maturing day	Growth duration
1	Broadcasting of human efforts	Apr.4	Apr.20	May 13	Jun.14	26	55	248
2	Seeding of ridge rotary	Apr.4	Apr.20	May 12	Jun.13	25	54	247
3	Broadcasting of human efforts after moulding with ridge rotary	Apr.4	Apr.20	May 13	Jun.14	26	55	248
4	Broadcasting of human efforts after moulding with power tiller ridge rotary	Apr.4	Apr.20	May 12	Jun.13	25	54	247
5	Broadcasting of human efforts after with power tiller ridge rotary machine and moulding of human efforts	Apr.4	Apr.20	May 13	Jun.14	26	55	248
6	Broadcasting of human efforts after moulding with tractor ridge rotary	Apr.4	Apr.20	May 12	Jun.13	25	54	247

Table 3. Variation of agronomic characters of hybrid rapeseed under different seeding machine.

No. of test	Seeding method	Plant height	Ear length	No. of branches	No. of pods per ear	Pod setting	Pod length
1	Broadcasting of human efforts	150	29	6	24	7.6	6.4
2	Seeding of ridge rotary	156	28	6	26	7.7	5.5
3	Broadcasting of human efforts after moulding with ridge rotary	155	28	5	24	9.3	6.2
4	Broadcasting of human efforts after moulding with power tiller ridge rotary	158	28	5	23	8.1	5.8
5	Broadcasting of human efforts after with power tiller ridge rotary machine and moulding of human efforts	157	29	6	25	8.3	6.0
6	Broadcasting of human efforts after moulding with tractor ridge rotary	153	27	6	23	7.0	5.7

Table 4. Variation of yield characters of hybrid rapeseed under different seeding machine.

No. of test	Seeding method	Seed setting rate	Per 10a (kg/10a)			Wt. of 1ℓ	Wt. of 1,000 grains	No. of plant/m <sup>2</sup>
			Seed yield	Index	Seed capacity			
1	Broadcasting of human efforts	93	316	100	465	680	3.2	105
2	Seeding of ridge rotary	85	341	108	503	678	3.3	129
3	Broadcasting of human efforts after moulding with ridge rotary	89	301	95	443	680	3.2	110
4	Broadcasting of human efforts after moulding with power tiller ridge rotary	82	342	108	505	677	3.1	138
5	Broadcasting of human efforts after with power tiller ridge rotary machine and moulding of human efforts	89	306	97	449	681	3.1	90
6	Broadcasting of human efforts after moulding with tractor ridge rotary	88	261	93	395	661	3.1	88

L.S.D(5%) 54.2

(1%) 71.8

C.V(%) 18.8