

BIBLIOGRAPHY

BENWASEN, BRYAN D. APRIL 2013. Variety Trial of Radish (*Raphanus sativus* L.) Under Boklaoan, Kapangan, Benguet Condition. Benguet State University.

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ABSTRACT

The study was conducted to evaluate the growth and yield of five varieties of radish and to determine the varieties suitable under Boklaoan, Kapangan, Benguet condition.

Results showed that varieties Minowase and Snowy significantly emerged the earliest, while variety Red Round Chereitte SK was harvested earlier. Variety Minowase had the highest marketable and total root yield and widest root diameter. The longest roots were measured from varieties Minowase and Snowy. Variety Minowase significantly had the highest marketable yield from which the highest return on investment of 80% was obtained.



RESULTS AND DISCUSSION

Number of Days from Sowing to Emergence and to Harvesting and Plant Height

Table 1 shows that Snow White 45D KS and Sinandok CD significantly emerged the earliest at five days from sowing compared to the other varieties.

As presented in Table 1, Red Round Chereitte SK significantly was harvested the earliest at 45 days from seedling emergence.

In Table 1, Snowy was significantly the tallest while the shortest was Red Round Chereitte SK.

Table 1. Days to emergence and to harvesting and plant height

VARIETY	SOWING TO EMERGENCE	EMERGENCE TO HARVESTING	PLANT HEIGHT (cm)
Minowase	6.00 ^a	65.50 ^a	37.75 ^b
Snow White 45D KS	5.00 ^b	51.25 ^b	29.90 ^c
Red Round Chereitte SK	6.00 ^a	45.00 ^c	9.30 ^d
Snowy	5.75 ^a	66.25 ^a	39.68 ^a
Sinandok CD	5.00 ^b	66.25 ^b	29.13 ^c

Within a column means with a common letter are not significantly different at 5% level of DMRT.



Number of Leaves per Plant

Table 2 shows that Snowy and Minowase significantly had more leaves while Red Round Chereitte SK had the least number of leaves.

Table 2. Number of leaves per plant

VARIETY	MEAN
Minowase	26.75 ^b
Snow White 45D KS	21.00 ^a
Red Round Cherieite SK	16.00 ^c
Snowy	27.00 ^a
Sinandok CD	22.50 ^b

Means with a common letter are not significantly different at 5% level of DMRT.

Number of Roots

As seen in Table 3, all the varieties except Red Round Chereitte SK significantly had more marketable roots ranging 69-74 roots per plot.

Table 3 shows that Red Round Chereitte SK significantly had the highest number of unmarketable roots. Minowase and Snowy had the lowest number of unmarketable roots.

Red Round Chereitte SK significantly had the lowest total number of roots harvested (Table 3).



Table 3. Number of roots

VARIETY	NUMBER (1x6m plot)		
	MARKETABLE	UNMARKETABLE	TOTAL
Minowase	74.25 ^a	1.00 ^c	75.50 ^a
Snow White 45D KS	74.50 ^a	6.25 ^b	80.75 ^a
Red Round Chereitte SK	22.75 ^b	42.00 ^a	64.75 ^b
Snowy	72.75 ^a	2.25 ^c	75.00 ^a
Sinandok CD	69.50 ^a	6.75 ^b	76.25 ^a

Within a column means within a common letter are not significantly different at 5% level of DMRT

Weight of Roots

Table 4 shows that Minowase significantly had the highest marketable and total root weight compared to the other varieties. This could be attributed to bigger size roots harvested from this variety.

On the other hand, significantly heavier unmarketable roots were taken from Red Round Chereitte SK (Table 4).



Table 4. Root yield

VARIETY	YIELD (kg/1x6m plot)		
	MARKETABLE	UNMARKETABLE	TOTAL
Minowase	14.85 ^a	0.20 ^d	15.05 ^a
Snow White 45D KS	11.18 ^c	0.93 ^b	12.10 ^b
Red Round Chereitte SK	2.53 ^d	10.05 ^a	12.58 ^b
Snowy	12.83 ^b	0.45 ^c	13.28 ^b
Sinandok CD	10.90 ^c	1.08 ^b	11.98 ^b

Within a column means within a common letter are not significantly different at 5% level of DMRT

Average Root Size

In table 5, Minowase significantly had the widest and longest root. The smallest and shortest was Snow White 45D KS and Red round Chereitte SK.

Table 5. Average root size

VARIETY	DIAMETER (cm)	LENGTH (cm)
Minowase	4.53 ^a	40.48 ^a
Snow White 45D KS	3.63 ^d	23.75 ^b
Red Round Cherettie SK	3.93 ^c	3.80 ^c
Snowy	4.33 ^b	39.50 ^a
Sinandok CD	3.58 ^d	23.95 ^b

Within a column means within a common letter are not significantly different at 5% level of DMRT



Weight of Individual Root

Table 6 shows that Minowase and Snowy significantly had the highest weight compared to the other varieties.

Table 6. Weight of individual root

VARIETY	MEAN (g)
Minowase	203.75 ^a
Snow White 45D KS	142.75 ^b
Red Round Cheriette SK	78.33 ^c
Snowy	199.58 ^a
Sinandok CD	144.17 ^b

Means with a common letter are not significantly different at 5% level of DMRT

Insect Pest and Disease Incidence

As presented in Table 7, Minowase, Snow White 45D KS, Snowy, and Sinandok CD were resistant to cut worm except Red Round Chereitte SK.

Minowase and Snowy were resistant to root rot (Table 7) that would imply that the cultivars may suitable in the locality.



Table 7. Insect pest and disease incidence

VARIETY	CUT WORM	ROOT ROT
Minowase	2 ^a (Resistant)	2 ^a (Resistant)
Snow White 45D KS	2 ^a (Resistant)	3 ^b (Moderately resistant)
Red Round Chereitte Sk	3 ^b (Moderately resistant)	4 ^c (Susceptible)
Snowy	2 ^a (Resistant)	2 ^a (Resistant)
Sinandok CD	2 ^a (Resistant)	3 ^b (Moderately resistant)

Within a column means within a common letter are not significantly different at 5% level of DMRT

Cost and Return Analysis

Table 8 shows that the highest return on investment of 80% was obtained from Minowase followed by Snowy, Sinandok CD, Snow White 45D KS, and Red Round Chereitte SK.

This shows that the yield potential of certain cultivars and the quality of yield are the factors in the profitability.



Table 8. Cost and return analysis

ITEM	MINOWASE	SNOW WHITE 45D SK	RED ROUND CHERIETTE SK	SNOWY	SINANDOK
Marketable yield (kg)	14.85	11.18	2.53	12.83	10.90
Sales (Php)	649	308	30	510	344
Farm Inputs (Php)					
Seeds	30	10	7	25	15
Lorsban	10	10	10	10	10
Furadan	10	10	10	10	10
Labor	200	200	200	200	200
Transportation	88.50	66	15	76.50	64.50
TOTAL EXPENCES (Php)	338.50	296	242	321.50	299.50
NET INCOME (Php)	319.50	12	-212	188.50	44.50
ROI (%)	80	4.50	-87.60	58.63	14.86
RANK	1	4	5	2	3



Pictorial Presentation



17 days from sowing



33 days from sowing

Figure 1. Over view of the study

*Variety Trial of Radish (Raphanus sativus L.) Under Boklaoan, Kapangan, Benguet
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Minowase



Snow White 45D KS



Red Round Chereitte SK



Snowy



Sinandok CD

Figure 2. Harvesting stage

SUMMARY, CONCLUSION AND RECOMMENDATION

Summary

The study was conducted to evaluate different varieties of radish as to their growth and yield performance and to determine the varieties that are suitable under the condition of Boklaoan, Kapangan, Benguet.

Results show that Snow White 45D KS and Sinandok CD emerged the earliest while Red Round Chereitte Sk was significantly the earliest to be harvest at 45 days.

Any of the varieties had more harvested roots than Red Round Chereitte SK. Minowase significantly had the highest marketable and total root yield and had wider roots. All the varieties except Red Round Chereitte SK were resistant to cut worm and Minowase and Snowy were resistant to root rot. The highest return on investment at 80% was obtained from growing Minowase.

Conclusion

Based on the results, Minowase could perform well in Boklaoan, Kapangan, Benguet condition.

Recommendation

It is then recommended that cultivar Minowase be grown in Boklaoan, Kapangan, Benguet to obtain high yield and profit.



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