

POTATO MINI TUBER (*Solanum Tuberosum* L) EVALUATION TRIAL

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Introduction

- ❖ Potatoes belong to the solanaceous family
- ❖ Rich source of carbohydrates and also moderate source of Potassium and vitamin C,B1,B3
- ❖ An important cash crop offering high returns in a short period
- ❖ Factors affecting production in Zimbabwe- poor agronomic practices, seed shortages and poor seed, diseases
- ❖ Why mini tubers-: virus cleaned material, portable seed potential for high yields
- ❖ To assess the performance of some introduced potato varieties for production in Zimbabwe.

Conclusion

- ❖ Significant differences among the potato varieties suggest the existence of sufficient genetic variation. Hence varieties had different yield potentials.
- ❖ However the introduced varieties performed well indicating their suitability for production in Zimbabwe.
- ❖ They are adaptable to the local environment.
- ❖ Kexin no.1 and shepody are the most good performing varieties.

Discussion

- Significant differences ($P \leq 0,05$) were noted on Marketable yield, number of tubers /plant, average tuber weight and total yield.
- Of the introduced varieties Ke Xin no1 was the highest yielder with an average of 88.3t/ha followed by Shepody(54t/ha) and Favorita (50t/ha)
- Ke Xin no.1 also had highest number of tubers per plant(9.87). Tis was followed by Shepody and Atlantic with 8.77&8.33 respectively
- There were no significant differences on average tuber size, no of eyes, unmarketable yield

Methods

Site Horticulture Research Institute, Marondera Zimbabwe,
Experimental design : CRBD with 6 treatments and 3 replications
Varieties : Favorita, Shepdy, Ke Xin no.1, Atlanta, Montclair ,BP1
Plot sizes-4.5m x 2,7m

Field Management :spaing 0.9 m x 0.3

Land preparationdiscing ploughing, row marking &planting

Potato production practices were implemented –ridging, fertilisers application, weeding, pest and disease control

Harvesting at maturity

Data collection days to emergence, vigor, marketable yield &nonmarketable yield, average tuber weight, average tuber size

Data analysis : GenStat 14th edition was used for variance tests

Results

Table 1 : Yield and yield components of potatoes grown at HRC

Variety	Yield marketable(t /ha)	Yield not marketable (t/ha)	No. of tubers /plant	Average tuber weight	No.of eyes
Atlantic	44.1	0.73	8.33	10.63	7
Favorita	50.4	0.87	7.53	13.40	9.7
Shepody	54.3	0.77	8.77	11.73	10
Ke Xin no.1	88.3	0.20	9.87	8.10	5.0
BP1	80.1	3.53	5.33	14.07	28.7
Montclair	88.2	0.13	13.33	15.73	8.3
pValue (0.05)	0.001	0.171	0.001	0.025	0.462
Cv%	10.5	31.7	9.7	18.6	18.6



References

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