

# **IDENTIFICATION OF BEST CULTIVAR OF BLACK NIGHTSHADE**

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# INTRODUCTION

- There is need to increase annual productivity of indigenous vegetables to meet the increasing demand in the country.
- Low yields, lateness to maturity and too much seeding are the major constraints to production.
- These traits can be genetically enhanced by selection to produce high yields and effect earliness in maturity.

# INTRO CONTD'...

- The focus of the this study was *Solanum nigrum* (black nightshade) locally referred to as *managu* or *mnavu*, an indigenous type.
- The vegetable is an annual crop that grows up to 60cm tall and is often found growing as a weed on fertile soils.
- It is propagated by seed.

# OBJECTIVES

## *General:*

- To identify the most preferable *S. nigrum* variety/landrace in terms of earliness in maturity, low seeding rate and high yielding.

## *Specific:*

- To determine the high yielding *S. nigrum* variety.
- To identify an early maturing *S. nigrum* variety.
- To identify the least seeding type of *S. nigrum*.
- To determine the most preferred variety of *S.nigrum*.

# LITERATURE REVIEW

- A study carried out on effects of propagation method on yield concluded that seed propagation is more preferable compared to cuttings(Mwafusi, 1992).
- Study on effect of plant density on yield, less dense crops performed better than the one that were densely populated( Onyango, 1993).
- Research on effects of frequency of harvesting on yield and continuous(daily) harvesting gave a lower yield than harvesting on a fortnight basis(Chweya, 1997).

# METHODOLOGY

- Materials: Black night shade seeds (2 cultivars and 2 landraces) and Fertilizer ( DAP, CAN, Organic manure).
- Modified mass selection with progeny testing was used.
- Experiment was carried out at the Kabete Field Station of the faculty of Agriculture, University of Nairobi.
- Tools: wooden pegs, sisal rope, tape measure and meter rule.
- Experimental layout : Evaluation was done using complete randomized design.

# COLLECTED DATA

- Maturity rate(days to flowering from planting).
- Plant vigor (height in cm after 7 days from 6th week of sowing).
- Individual preference ( organoleptic testing).

# RESULTS AND DISCUSSIONS

## ORGANOLEPTIC EVALUATION OF MANAGU

Sensory analysis was carried out using 20 individuals. A 7-point hedonic scale was used.

Degree of preference	Scale
Like very much	1
Like moderately	2
Like slightly	3
Neither like or dislike	4
Dislike slightly	5
Dislike moderately	6
Dislike very much	7



This was used to score the sensory attributes and acceptance of the product in terms of :taste, bitterness, visual appearance and texture.

## **RESULTS**

	Taste	Bitterness	Appearance	Texture
Variety 1	<b>7</b>	<b>7</b>	<b>6</b>	<b>5</b>
Variety 2	<b>3</b>	<b>2</b>	<b>7</b>	<b>4</b>
Variety 3	<b>5</b>	<b>4</b>	<b>3</b>	<b>4</b>
Variety 4	<b>6</b>	4	<b>5</b>	5

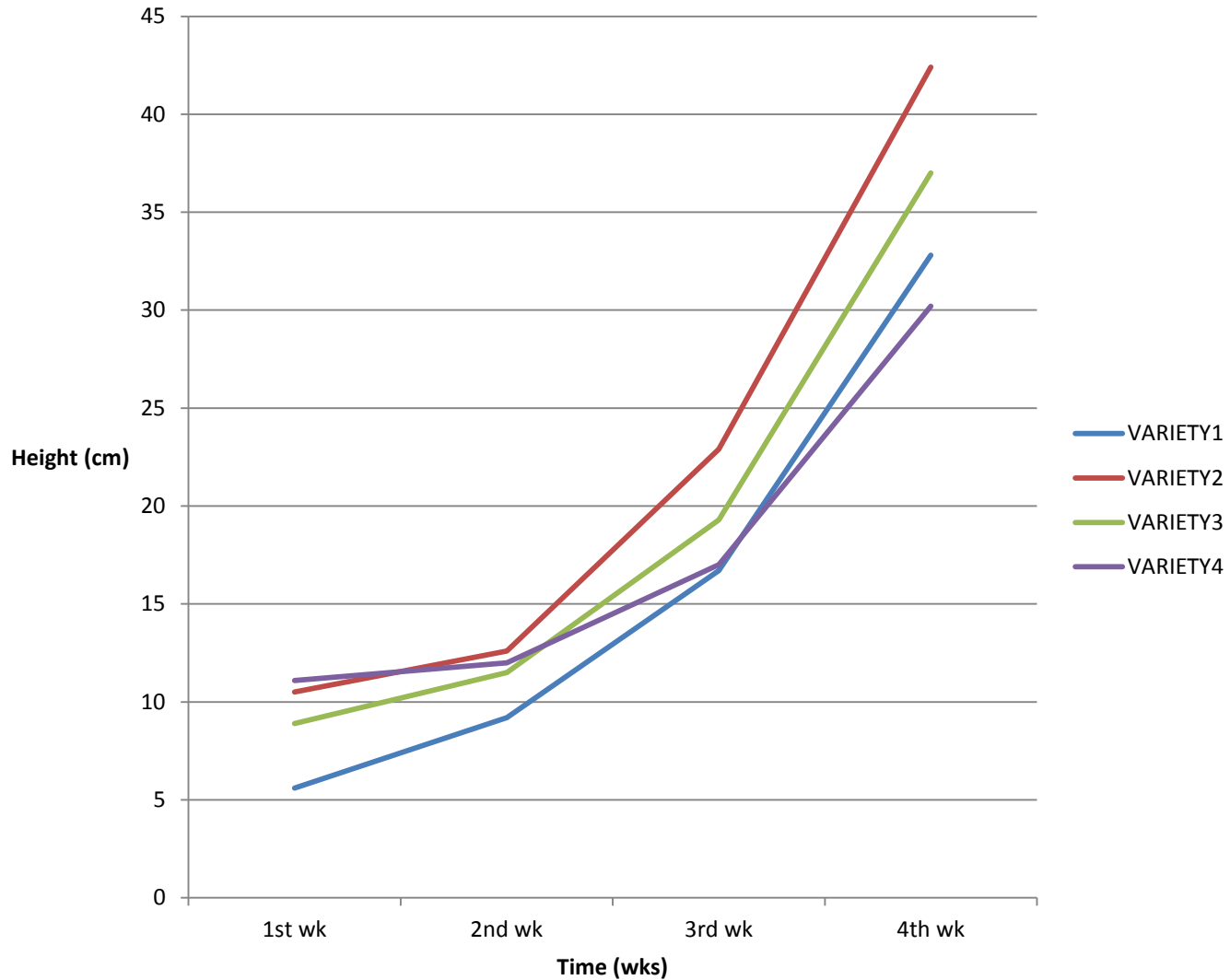
# BITTERNESS SCORE

- The score was done on a 1 to 10 scale
- 1=less sweet,5=bitter,10=very bitter.

## RESULTS

Variety	score
Variety1	9
Variety2	4
Variety3	3
Variety4	6

# MEAN PLANT HEIGHTS



# DISCUSSIONS

- Variety 2 was most preferred in terms of taste, bitterness and texture . It is less bitter with good taste when cooked.
- Yield is proportional to height hence variety 2 had the highest yields. Therefore, good for commercial production and home gardening.
- Variety 1 flowers earlier and seeds much compared to other varieties. Varierty 2 and 3 were the least seeding types

# CONCLUSION

In conclusion, variety 2 is the best cultivar however it needs to be improved in terms of appearance.

# REFERENCES

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- Mwafusi C. N, 1992.Effects of propagation and deflowering on the vegetative growth, leaf yield and phenolic content of three varieties of black nightshade.M Sc Thesis.University Of Nairobi.
- Onyango M .A,1993.Effects of plant density and harvesting frequency and age on nitrite quality of four variants of *Solanum spp* .MSc Thesis.University Of Nairobi.

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*THANK*

*YOU*