TITLE: EVALUATION OF DIFFERENT METHODS OF WEED MANAGEMENT IN A CARROT GARDEN.

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ECONOMIC IMPORTANCE OF CARROTS

• CARROTS ARE NUTRITIONAL IN NATURE.
• AROMATHEPICALLY
• MEDICINAL

• PROBLEMS FACING CARROTS PRODUCTION

• POOR SOILS, LACK OF FERTILIZERS, INADEQUATE WATER, PLANT DISEASES AND PESTS, WEEDS JUST TO MENTION A FEW.
The term ‘weed’ is given many meanings in the literature although it usually refers to plants occurring in situations where they are unwanted (Radasevich, 1984).

CLASSIFICATION OF WEED BY LIFE HISTORY.
- ANNUALS
- BIENNIALS
- PERENNIALS
- CREEPING HERBACEOUS PERENNIALS
- AQUATIC WEEDS
JUSTIFICATION

• THE CARROT IS AVERY IMPORTANT AGRICULTURE PRODUCT IN THE DIET OF HUMAN BEINGS AS HIGHLIGHTED IN THE INTRODUCTION ABOVE, BUT UNFORTUNATELY THE GROWTH OF THIS CROP IS AFFECTED BY THE FACTORS MENTIONED EARLIER IN THE INTRODUCTION.

• IT IS THEREFORE IMPORTANT THAT FACTORS THAT PREVENT THE PROPER PRODUCTION OF CARROTS SHOULD BE PROPERLY STUDIED SO AS TO FIND AWAY OF REDUCING THEIR NEGATIVE IMPACT TO THE MAXIMUM PRODUCTION OF THIS CROP.

• IN SHORT THE STUDY AIMS AT FINDING CONDITIONS THAT SHOULD BE RECOMMENDED TO MAXIMIZE CARROT PRODUCTUION.
OBJECTIVE OF THE STUDY

• TO FIND OUT THE IMPACT OF THE WEED DENSITY ON THE CARROT GERMINATION AND GROWTH

• TO FIND OUT WHICH CONTROL METHOD IS MORE EFFECTIVE IN WEED MANAGEMENT IN THE CARROT GARDEN.
MATERIALS AND METHODOLOGY

- MEASUREMENT OF THE FIELD—12m by 5.5m
- MEASUREMENT OF THE PLOTS---2m by 1.5m. WHICH SUMMED UP TO 15 IN NUMBER
- TREATMENTS USED WERE:
  - MULCHING(T1), HERBICIDE(T2), CONTROL(T3), POLYTHENE SHEET(T4), HAND PICKING(T5)
- THE TREATMENTS WERE ALL REPLICATED THRICE RANDOMLY.
• FIELD LAYOUT DESIGN – COMPLETELY RANDOMISED DESIGN

• FERTILIZER USED-DAP AT A RATE OF 1.5 KG APPLIED EQUALLY IN ALL THE PLOTS
DATA COLLECTION

• DATA ON WEED INCIDENCE STARTED FROM THE 4TH WEEK AFTER GERMINATION.

• DATA COLLECTION ON WEED INCIDENCE WAS DONE ONCE PER WEEK.

• 1ST AT THE VEGETATIVE STAGE, THEN FLOWERING STAGE, LASTLY THE SENASENCE STAGE. FOLLOWING THE WEED DEVELOPMENT STAGES.

• THE WEED DENSITY WAS DETERMINED BY RANDOMLY THROWING A 0.5m by 0.5m QUADRANT ON EACH PLOT THRICE.
CONTINUATION OF DATA COLLECTION

• COUNTING WAS DONE ON THE NUMBER OF WEED OF DIFFERENT WEED SPECIES WHICH OCCURRED PER PLANT PLOT.

• AVERAGE NUMBER OF WEED DENSITIES PER PLANT PLOT AND SCORING WAS DONE

• AFTER COLLECTING THE REQUIRED DATA FOR 3WEEKS THE EXPERIMENT WAS TERMINATED.
Fig. 4.1: Effect of Treatments on weed density
Fig. 4.2 Effects of time on Weed Density

![Bar chart showing weed counts for Mulch, Polyethene, and Herbicide treatments.](chart.png)
DISCUSSION OF RESULTS

• THE TREATMENTS ADMINISTERED SHOWED SIGNIFICANTLY DIFFERENT SUPPRESSION OF WEEDS (FIG.4.1).
• THE LEAST WEED DENSITY WAS IN HERBICIDE FOLLOWED BY THE MULCH, POLYTHENE SHEET, HAND PICKING WHILE THE HIGHEST WEED DENSITY WAS IN THE CONTROL.
• COMPARED TO CONTROL, HERBICIDE REDUCES WEEDS BY 80%
• MULCHING AND POLYTHENE SHEET ARE NOT SIGNIFICANTLY DIFFERENT (FIG.4.2)
DISCUSSION

• IT SHOULD BE NOTED THAT THE PERIOD OF MY EXPERIMENT WAS SHORT.
• THIS EXPERIMENT HAS SHOWN THAT, THE THICKER THE WEED DENSITY THE MORE DEPRESSED THE GERMINATION WILL BE.
RECOMMENDATION AND CONCLUSION

• HERBICIDE TREATMENT HAS PROVED TO BE VERY ECONOMICALLY VIABLE

• CONTROL TREATMENT HAS SHOWN THAT WEEDS ARE THE MAIN CAUSE OF POOR PRODUCTION OF CARROTS AND OTHER CROPS.

• FURTHER RESEARCH SHOULD BE CARRIED OUT TO DETERMINE THE EFFECTS OF THE WEEDS ON THE YIELDS OF CARROTS.
THANK YOU