

Field Experience on commercialization of cannabis in Kwa-Zulu Natal province, South Africa

By Mduduzi Khuzwayo

¹Moses Kotane Institute, Lakeside Unit 14, 1 University Road, Westville, 3629

²University of Kwa-Zulu Natal, Private bag X01, Scottsville, 3201

³Agricultural Research Council, Private Bag X01, Glen, 9360

corresponding e-mail: mduduzi.fokazi6@gmail.com



Overview

- Introduction
- Origin of Cannabis
- Field Experience on Cultivation of Cannabis in KZN
- Conclusion

Introduction

- The global population currently stands at 7.6 billion and is expected to reach 8,6 billion in 2030 (UN, 2017).
- Most of the expected population growth will be in the developing world.
- These projected growth will negatively influence the economic growth and development considering issues around climate variability and current 4IR.
- It is with no doubt that alternative measures are required to cope with these projected population growth coupled with unfavorable conditions.
- Alternative measures includes innovative ways of doing things that will:
 - ❖ promote generation of income,
 - ❖ increased food production through climate smart technologies and crops.
- The alternative approach should be those that will however, not put a strain on the already over allocated natural resources.

Origin of cannabis

- There is no concerted agreement among scholars as to where the cannabis plant originally grew wild and where its cultivation first began
- However, it is generally believed to be an Asiatic plant
- Estimates range within the wide span of temperate Asia from the Caucasus Mountains and the Caspian Sea through western and central Asia to eastern Asia.
- Cannabis is however one of the underutilized climate smart crops
 - ❖ low water use efficiency
 - ❖ Can survive extremely unfavorable climatic conditions
 - ❖ Higher yields under unfavorable climatic conditions
 - ❖ Does not need intense irrigation
 - ❖ Has narrow leaf that reduces evapotranspiration
 - ❖ Good leaf area index to shield the soil surface from surface evaporation

Field experience on cultivation and commercialization of cannabis in KZN

- Study conducted by MKI on commercialization of cannabis in KZN.



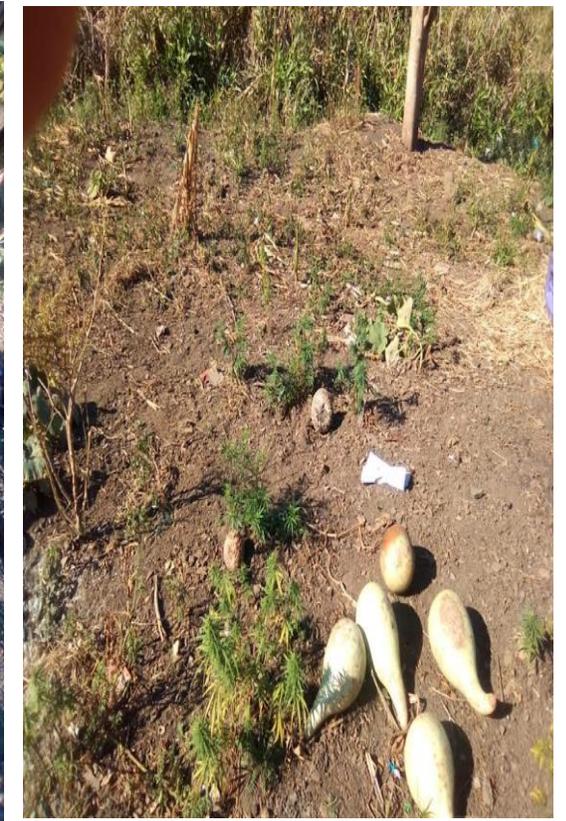
Value Addition: Agro-processing



Cash Crop



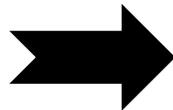
Agro-forestry-Climate Smart Agricultural Technology



Intercropping: CSAT



Pot trial: Protected Cultivation



CSAT



Soil Quality Management



Conservation Agriculture

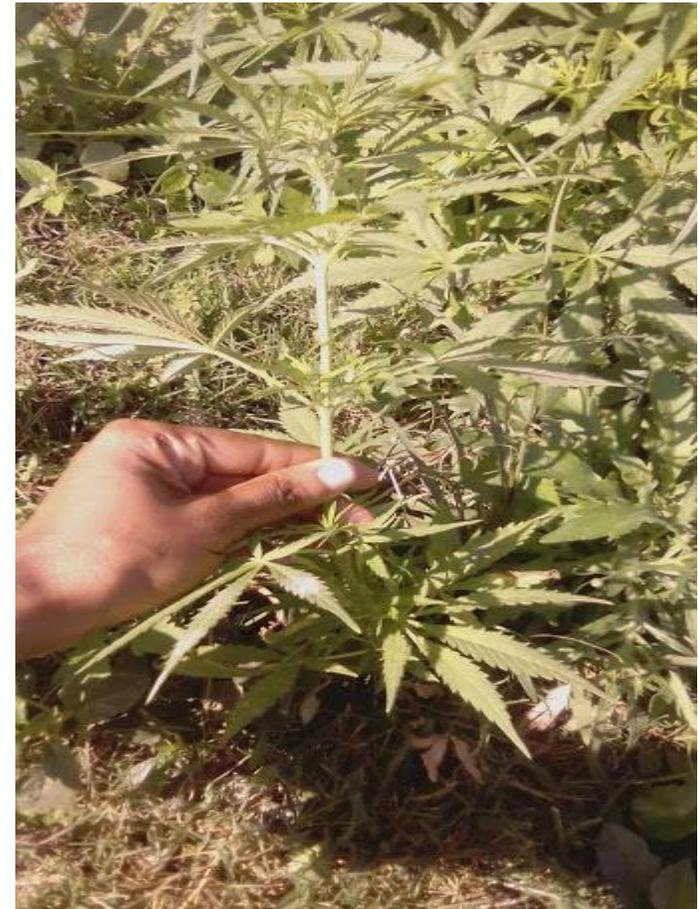
Challenges farmers experience



Cultivating in closed vicinities



Cultivating cannabis as inferior plants = competition with the superior plants for nutrients and moisture



Soil Fertility challenges e.g. N deficiencies



Legalization of Cannabis



Post-harvest handling for quality assurance

Conclusion

- Farmers have realized the economic benefit for cultivation of cannabis
- Furthermore, it has proven to survive under unfavorable climatic conditions.
- However, Challenge remains with the **legalization, land ownership and availability**, soil conditioning etc.
- Based on the field observation:
 - ❖ Policy makers should legalize cultivation of cannabis and set good policies as far as commercializing the cannabis
 - ❖ Farmers should be further equipped with best management practices to improve their productivity and yields
- It can therefore further be concluded that, cannabis is also one of those few crops that are promising to improve yields under severe climatic condition under eve-increasing population growth