

ETHNOMEDICINE: APPROACH TO AMR

Nassimbwa Florence PhD.KYU

Nakabazzi Lucy BBLT

Aine Francis BBLT



ACALISE



MAKERERE UNIVERSITY



Traditional Medicine

The sum total of the knowledge, skills and practices based on the theories, beliefs and experience indigenous to different cultures about natural remedies that are effective and based on natural products (WHO 2001).

Practically every culture on the earth has developed on herbal tradition.

According to world Health Organization provide the health needs of about 80% of the World's population especially for millions of people in the vast rural areas developing countries.

More than 25% of our modern drugs contain plant extracts as active ingredients and there is a continual bio-prospecting for new plant-derived drugs (Hoareau and DaSilva, 1999).

Plants are rich in a wide variety of secondary metabolites called phytochemicals such as tannins, terpenoids, alkaloids and flavonoids which exhibit medicinal properties

Studies have identified numerous medicinal plants used for various diseases of public health significance such as malaria and tuberculosis in Uganda (Adjanooun et al 1993; Tabuti et al 2003)CONAS

The demand for medicinal plants and herbal products continues to rise.

Excessive harvesting by herbalists and local populace, and emerging interest of pharmaceutical industries, thus making some of these species endangered or vulnerable (Barirega et al 2012)

AMR and ethnomedicine

- Quick and readily available
- Success stories are everywhere
- Community approach (One Health Approach)
- Reduces dependence on anti-microbials



Success story: Organic

Agriculture

- **Bio-rationals;** neem, garlic, merigold, chilli
- **IPM;** Natural enemies; parasitoids (NaCCORI)
- **IMO;** Indigenous Micro-organisms for bio-remediation
- **Nutrient cycling;** composite manure, silage
- **Food supplements;** aquaponics, hydroponics, flying food, commercial entomology
- **Organic;** fertilizers, pesticides, acaricides
- **Antibiotic free farm products,** diary, piggery, poultry, fish



ACALISE

www.umu.ac.ug



THE WORLD BANK



Indigenous Microorganisms IMO



Poultry feed

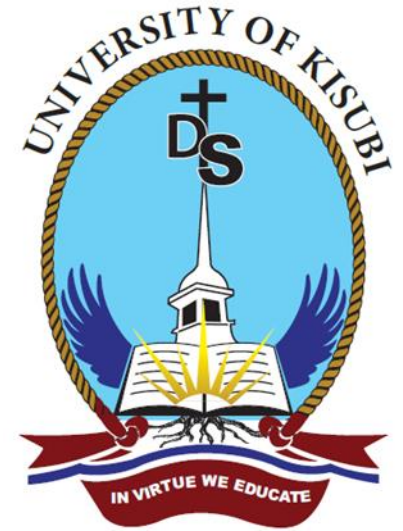


Aquaponics



Upcoming Project

- Survey local Ugandan Indigenous Knowledge IK and document it.
- Grow medicinal plants in Organic environment (ACALISE)
- Use herbarium techniques to handle and store harvested samples (CONAS-MUK)
- Extract phytochemical from plants of medicinal importance
- (Test extracts on selected microbes *in-vitro*, culture with antimicrobials)
- Optimize and obtain doses for herbal concoctions (UNIK)
- Demonstrate value addition, packaging and certification of herbal products.(UIRI-UNBS)



References

1. Adjanohoun, J.E., Ahyi, M.R.A., Ake Assi, L., Alia, A.M., Amai, C.A., Gbile, Z.O., Johnson, C.L.A., Kakooko, Z.O., Lutakome, H.K., Morakinyo, O., Mubiru, N.K., Ogwal-Okeng, J.W., and Sofowora, E.A. (1993). *Traditional medicine and pharmacopoeia: Contribution to ethnobotanical and floristic studies in Uganda*. Scientific, Technical and Research Commission of the Organization of African Unity (OAU/STRC)
2. Hoareau L, DaSilva EJ (1999) *Medicinal plants: a re-emerging health aid*. Electronic Journal of biotechnology 2:3-4
3. Kefalew A. and Sintayehu S. (2017). *Transference of Ethnobotanical Knowledge and Threat & Conservation Status of Medicinal Plants in Ethiopia: Anthropological and Ethnobotanical Perspectives*. Arch & Anthropol Open Acc. 1(1). AAOA.000503
4. Owuor B, Ochanda J. O, Kokwaro J.O. (2012). *In vitro antiplasmodial activity of selected Luo and Kuria medicinal plants*. Journal of Ethnopharmacology.
5. Tabuti, J.R., Lye, K.A., Dhillon, S.S., 2003. *Traditional herbal drugs of Bulamogi, Uganda: plants, use and administration*. Journal of Ethnopharmacology 88, 19-44.