Research and Development of Traditional Vegetables in Zimbabwe: A Review Paper

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Abstract

The role of traditional vegetables in food and nutrition security of both rural and urban populations has gained significant prominence in the last tthree decades. In response interest has grown for research and development to promote production and utilisation among various players including national research and extension services, non-governmental organisations and tertiary institutions. Uncoordinated and disorganised information on properties and uses of traditional vegetables in Zimbabwe exists in various forms. For instance, the Horticulture Research Institute conducted research on *Cleome gynandra*, *Amaranthus* sp and *Brassica carinata and Brassica juncea* focusing on fertiliser requirements and harvesting techniques with an aim to improve productivity. Unfortunately this work and similar research from other institutions has been difficult to access. With this in mind this paper reviews research work and related documentation on traditional vegetables. A desk study was commissioned and the study was delimitated to research on traditional vegetables conducted in Zimbabwe over the past 3 decades with an aim to advance future research and development in traditional vegetables. And also to promote the value chain for improved food and nutrition security

Key words.:
Traditional vegetables; food and nutrition security; research and development, institutions

Introduction

The Zimbabwean, country report of 2009 on the state of plant genetic resources for food and agriculture recognised about 50 types of traditional vegetables. Of these mostly consumed for nutritive values include *Vigna unguiculata* (nyemba), Cleome gynandra (nyevhe), *Cucurbits* (muboora) and *Amaranthus sp* (mowa). With increased interest in utilization of traditional vegetables the need for research and development in the same area has also increased over the years. Shippers, (2000) .

Production and role of indigenous vegetables has been studied by a number scientist from national research institutes and universities in and outside Zimbabwe, However , the information is not readily available, in a single search.

The purpose of this review was to present specific research areas and trends in the research of traditional vegetables in a single document

Expected outcome is increased research and development in traditional vegetables for improved food and nutrition security, . In addition, this mini review will create a foundation for advocacy and for advancing research and development in traditional/indigenous vegetables., which have cultural and economic importance, for local livelihoods. www.actahort.org?books)

Methods and Materials

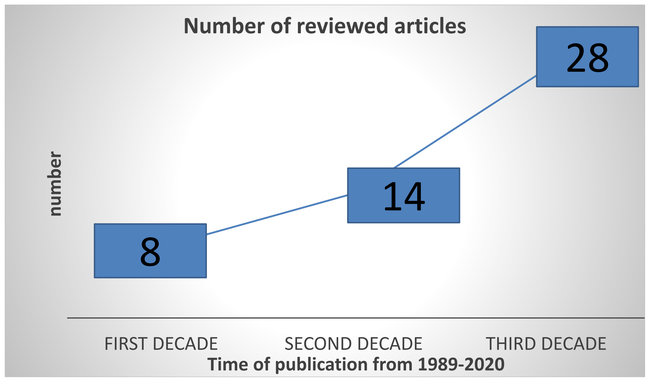
A semi systematic approach to literature review was adopted according to Snyder (2019), to uncover areas that have been researched upon, in a single publication for easy references.

The review employed a qualitative research approach in which articles from World Wide Web, from books and journals were downloaded and reviewed and coded according to emerging themes., over 3 periods (1) before 2010 (2) 2001-2010 (3) 2011-2020

Search words included traditional / indigenous vegetables in Zimbabwe; also names of main traditional vegetables

Thematic data analysis was used supported by descriptive analysis of frequencies from Statistical Product and Service Solution (SPSS) version 20.

Results



2. Ranking of most studied types of vegetables

	Number of articles mentioning	Rank
Cleome gynandra	16	1
Corchorus sp	7	2
Cucumis/cucubits	7	2
Vigna unguiculata	5	3
Amaranthus	4	4
Bidens pilosa	4	4
Solanum sp	2	5
Wild mushroom	2	5
Brassica sp	1	6

3. Trends in areas of study over three decades

Thematic Area %	Period mostly studies		
	Decade 1	Decade 2	Decade 3
Utilisation (16%)			
Production (16%)			
Health/medicinal (7%)			
Characterisation and biodiversity (21%)			
Food and nutrition (37%			
Income and marketing (10)			
Socio-cultural (4)			

4. Map showing provinces in Zimbabwe

Discussion

The steady increase in publications could be attributed to the renewed interest in research and development of traditional vegetables across Africa, (Shippers, 2000)

Widely researched upon vegetables include *Cleome gynandra; Corchorus sp; Cucumis and circubits*. , this could be attributed to the importance and availability of these traditional vegetables in the Zimbabwean culture.

The focus of research has shifted from initial characterisation and biodiversity type of studies to a more diverse area of study involving various disciplines including socio-cultural issues of traditional vegetables on life expectancy of consumers of traditional vegetables, culture and religion..

.Mapping of site location of various traditional vegetables was done (Kamumvuri, 2004) , and this review creates a platform for mapping research sites on specific themes and traditional vegetables throughout Zimbabwe

Rviewed articles show limited coverage of studies in Zimbabwe. It seems most studies were carried out in Midlands, Masvingo and Manicaland provinces. This could be related to the original homes of the authors amongst other factors that need further interrogation

Conclusions

Much has already been studies in Zimbabwe but lack of consistence and persistence in a particular discipline is a major concern, knowledge management of existing information is needed.
Advocacy for policy support through multidisciplinary collaborative research and development will go a long way in strengthening current initiatives

Mapping of existing initiatives and production of a directory of research and development scientists and thematic areas of research is recommended

References

1. DR&SS (2009) State of plant genetic resources for food and agriculture in Zimbabwe (1996-2008): A country report. FAO 2009.
2. Kamumvuri G. (ed) 2004 Plants of Zimbabwe Report No. 1. National Herbarium and Botanic garden, Zimbabwe
3. Schippers, R.R. (2000) African Indigenous Vegetables. An overview of the cultivated Species. Chatham, Uk: Natural Resources Institute/ACP-EU .Technical Centre for Agricultural and Rural Cooperation.
4. Synder, H. (2019) Literature review as a research methodology. An overview and guidelines. Elsevier

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