

***Enset* culture and its history in highland Ethiopia**

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Introduction

Enset, *Ensete ventricosum* (Welw.) Cheesman, is frequently cited along with *tef* as one of the endemic staples of Ethiopia (Westphal 1975)¹. Although wild relatives of *enset* grow across many regions of Africa, it seems that only in Ethiopia was it domesticated. Even within Ethiopia, *enset* is confined to a relatively small region of the southwest, in areas inhabited by speakers of Semitic, Cushitic and Omotic languages.

Whether *enset* was ever grown outside Ethiopia is controversial. Bruce (1804, VII:149-153) was the first to argue that it was once cultivated in Egypt, a view later supported by Tackholm (cited in Smeds, 1955:4). It is not now grown there, but there is some iconographic evidence for its presence from the Neolithic onwards. It has been argued that *enset* died out in Egypt after a period of desiccation, but that there are continuities between iconographic representations of cultivation practices in Egypt and those today in Ethiopia (Darby et al. 1977:491). This is very controversial, although there is a case for an 18th Dynasty find (Germer 1985:229). Without evidence for processing techniques, all this can show is that *enset* plants were grown; it seems unlikely that they played the central cultural role they have today in Ethiopia.

Enset is known principally as the staple of a number of peoples of Southwestern Ethiopia, and a number of ethnographers and geographers have described its position in the cultural life of the region (Traversi 1887; Chiovenda 1929; Stiehler 1949; Smeds 1955; Simmonds 1958; Straube 1963; Simoons 1965; Bezuneh & Felleke 1966; Shack 1966; Stanley 1966; Leslau 1969; Olmstead 1974; Minker 1986; Hailemariam 1991; Pijls et al. 1995). Stiehler (1949) argued that its culture must once have been spread more widely across the Ethiopian Plateau, as although it is now confined principally to the southwest, small pockets of cultivation occur elsewhere, suggesting relics left over after the expansion of seed agriculture. Nonetheless, much remains unknown, including its exact distribution, its history and the process of cultivar diversification. Given its importance as a food crop and its capacity to support dense human populations, it might be thought that it would have attracted international attention from plant-breeders and development agencies. In fact, the reverse is true; like *tef*, its very strangeness seems to have deterred research.

This paper is intended to compile existing research, particularly on the cultural aspects of *enset* cultivation and its vernacular names, to establish preliminary hypotheses on its possible original area of domestication and likely spread².

Relationship with wild *enset*

The wild relatives of *Ensete ventricosum* occur across tropical Africa in high-altitude regions, and it remains a matter for debate as to whether all the wild forms can be reduced to a single species. Certainly

¹ Transcription of terms in Ethiopian languages follow the source, in order to avoid inappropriate conversions. Superscript numerals indicate tones in highly tonal languages.

I have adopted the convention for reconstructions used in Niger-Congo, distinguishing those established by regular sound-correspondences from those derived by quick inspection of cognates. Such quasi-reconstructions are marked with hache

² Thanks to Lionel Bender, Dick Hayward and Gerda Rossel for comments on the initial draft, additional data and references.

wild *enset* still grows in Ethiopia and is found in close proximity to gardens of cultivated forms. The first study of wild *enset* appears to be Wittmack (1867) who also reports on the growth habit of a living plant transported to Kew Gardens in the 1860s. Smeds (1955:15) reviews a wide range of sources for the distribution of wild *enset*. Wild *enset* reproduces sexually, in contrast to the cultivated types; indeed, given the altitude at which *enset* gardens are commonly grown, only vegetative reproduction is possible. Shigeta (1996) suggests that the intermingling of wild and cultivated types is an important source of variation in domestic *enset*, since a small percentage of cultivated plants are able to reproduce sexually. Tesfaye & Lüdders (2003) analyse on-farm diversity of *enset* in general and Tsegaye & Struik (2002) *enset* landraces in Sidama. Hildebrand (2001) describes the different morphologies of wild and domestic *enset* in Sheko, where processing technologies are relatively underdeveloped.

Figure 1. Enset plant in Bruce (1802)



Only a very few vernacular names for the wild plant have been recorded, but they are usually quite distinct from names for the cultivated form (Table 1 below). This suggests the antiquity of the domestic type, since it is more common for there to be a relation between lexemes, especially where the physical appearance of the plants is so close. However, the use of the Sheko name for wild *enset*, *érfu*, to apply to the cultivated plant among Benc Non speakers, points to a close historical relationship.

Cultural embedding

The degree of cultural embedding can sometimes be a guide to the length of time *enset* has been cultivated among a particular people. In the case of the Aari, a ritual specialist explained this as follows;

We and *ensete* have a long history of relatedness. We rely on them and they rely on us for survival. This means we cannot live without them and they cannot live without us either. We are created to support each other.' Yintiso (1995:56)

Birmeta et al. (2004) point out that the history of ritual protection of *enset* among the Aari is reflected in the genetic diversity of wild types in the region. Nonetheless, this type of data can be subject to misinterpretation. Haberland (in Jensen 1959:421) concluded that the relatively simple techniques used by the Aari to cultivate *enset* were evidence that it was an adopted culture. In the light of the staggering richness of cultivars and the cultural importance of *enset* among the Aari this would seem to be almost precisely the reverse of the truth, and probably says more about the assumptions of ethnographers than it illuminates history.

Numerous other stories and beliefs support the notion of the antiquity of the relation between humans and *enset* and suggest its importance as a staple of the oldest stratum of population in the highlands. Pankhurst (1996) has collected a variety of useful early references to the literature of *enset*. Chioventa (1929:552) noted the proximity of *enset* plants to churches and records the belief that *enset* is a type of human being, wailing if its stem is cut. McCann (1995:121-122) describing the Ankober area, notes that *enset* was planted as shade in church and domestic compounds as well as to provide leaves to wrap bread. Perhaps more significantly, *enset* seeds were used as tribute tokens from subjugated peoples, symbolising the military domination of the ancient root-crop cultivators speaking Omotic languages by the seed-based agriculture of the incoming Semitic-speakers. The Hadicho, an outcaste among the Sidamo, believe that the culture of *enset* was pointed out to them by feral pigs (Stanley 1966:32). The Sidamo proper, however, reject this story as indeed they reject pig production as unclean and instead subscribe to a story whereby

enset grew from the body of a buried cow. Leslau (1969) transcribes Gurage texts describing *enset* as the 'soul' of the Gurage people, and notes interestingly that its prestige has been on the increase in recent times. This may be connected with the collapse of the slave economy, used by the Amhara to produce barley and other seed crops, which temporarily relegated *enset* to a lower rank.

Cultivation and cultivar diversification

A feature of *enset* culture that has attracted the attention of many observers is the remarkable human population densities it supports. *Enset* can be grown without terracing and is thus planted on extremely steep slopes. Moreover, it is commonly interplanted with vegetables (particularly the Ethiopian cabbage) and tubers, notably *Dioscorea* spp. and *Coleus* spp. and can provide the basis of a nutritious diet from a relatively small patch of land. This type of vegetative agriculture was probably once much more widely spread on the Plateau, but has receded as a result of incoming plough-users.

An intriguing aspect of *enset* culture is the spectacular diversity of named cultivars. In some ways, *enset* represents the most biologically diverse of all Africa's indigenous plants. This has been most forcefully described in publications by Shigeta (1990, 1996³) who conducted a detailed investigation of informants' perceptions among the Aari. Shigeta (1996:238) notes 71 Aari varieties, while Yintiso (1995:57) lists 60 names. Leslau's (1979) survey of Gurage in no way claims to be exhaustive, but still there are more than thirty varieties for some lects. Straube (1963) noted some 25 varieties for the Koorete [Koyra] and suggests similar densities for the other peoples in his survey.

Shigeta (1996) argues that the usual motives for cultivar diversification do not seem to apply among the Aari; that informants do not emphasise differences in taste, harvestability or agronomy, that might be a response to variations in micro-environment. He concludes that the diversification is therefore cultural, rather like favouring cattle with diverse coat colours. However, this seems an inappropriate conclusion without more detailed agronomic data; more likely is that this is a risk-aversion strategy and that different species respond to variations in micro-climate, ensuring yield whatever the rainfall pattern.

Evidence from vernacular names

Apart from the evidence of cultivar diversification, there is also the names for the plant itself. Table 1 compiles all the vernacular names available from published sources, listed by language group. Beneath the table are analyses and some proposed etymologies for individual terms. Cultivar names are not given in general, nor are the many names for parts of the plant, but clearly these would be useful topics for further analysis.

Table 1. Citations of Names of *Enset* Species and Sources

Phylum/ Family	Language	Generic name for <i>Enset</i>	Other comments	Source(s) used
OMOTIC				
North				
Ometo				
North	Wolaytta	ʔuúttá	plant	Adams (1983); Azeb Amha (p.c.);
		ʔúnc'a	enset bread	Lamberti and Sottile (1997)
		yeecá	enset leaf	
		gúrba	enset leaf midrib	
		wóssa	enset seed	
		ʔítima	enset filtrate used for porridge	
	Kullo-Konta	uca		Allan (1976)
	Dorze/Dita	uts		Olmstead (1974)

³ Other publications by Shigeta are in Japanese and are listed in the bibliography of Shigeta (1996)

Phylum/ Family	Language	Generic name for Enset	Other comments	Source(s) used	
South	Maale	úta		Straube (1963:154)	
	Zayse- Zergula	uugutsi unčaa		Bender (p.c.) Cerulli (1938b)	
	Koorete Basketto	?úutsi šúnša uutaa		Hayward (1990) Straube (1963:88) Cerulli (1938b)	
Gimira	Benc Non*	uurs erpu ²⁴ daş ¹		Azeb Amha (p.c.) Wedekind (1990) Wedekind (1990)	
Janjero Kefoid	Yemsa Kefa	eewa ²² uut'oo		Wedekind (1990) Cerulli (1951)	
Dizoid	Mocha	epoo	wild enset	Bieber (1920)	
		qàào		Leslau (1959)	
	Shinasha Dizi Sheko	gāmó		Leslau (1959)	
		'qoč'č'ō ecc'eec'a	enset bread	Leslau (1959) Lamberti (1993a)	
South (=Aroid)	Nayi (=Nao) Aari	wudu		Lamberti & Sottile (1997)	
		údú	wild <i>enset</i>	Aklilu Yilma (1994) Straube (1963:27)	
		érfu		Aklilu Yilma (1994)	
		aqim gela		Yintiso (1995) Yintiso (1995)	
CUSHITIC					
Agaw	Awngi	gangi		cited in Leslau (1979)	
East	Burji	d'íiši, d'íišo, d'íinsi		Sasse (1982), Hudson (1989)	
	D'iraassh (Gidole)	d'upanna d'iraašate d'oopasaate		Minker (1986)	
	Konso	d'upana		Minker (1986)	
	Dullay	helagaučiče, helagauše	red cultivar	Hadaya & Gedeno (1996) Minker (1986)	
	=Tsamay	~ amäčä	with white leaf backs	Minker (1986)	
	Harso, Dobase		~ kom'ō	with red leaf	Minker (1986)
			awakkó awacakkó		Minker (1986)
	Gawwada		komako áwakko	'black' cultivar	Minker (1986) Minker (1986)
	Gollango		wark'e awakkó, awatakkó		Haberland and Lamberti (1988) Minker (1986)
	Gorrose Sidamo		auwakko weese, wešoo		Minker (1986) Cerulli (1938a) Hudson (1989)

Phylum/ Family	Language	Generic name for Enset	Other comments	Source(s) used
	Gedeo	weese		Hudson (1989)
	Kambata	weesa, weesshu		Hudson (1989)
	Hadiyya	weesa		Hudson (1989)
	Ba'iso	work'e		Haberland and Lamberti (1988)
	Oromo (Bale)	koba		Mooney (1963)
		war'k'e		Haberland and Lamberti (1988)
		weke, wese		Bekele-Tesemma <i>et al.</i> (1993)
	Somali	wees	plant used as camel food	Lamberti and Sottile (1997)
SEMITIC				
Ethio- Semitic	Tigre	gunaguna		Smeds (1955)
	Amharic	ĩnsät fri gunaguna koba	wild enset seeds	Leslau (1979) Leslau (1979) Bekele-Tesemma <i>et al.</i> (1993) Bekele-Tesemma <i>et al.</i> (1993)
	Harari	waazaa gurage muuz	also juniper tree 'Gurage banana'	Cerulli (1936) Leslau (1963)
Gurage	Čaha	āsät		Leslau (1979)
	Ezha	āsät		Leslau (1979)
	Ennemor	āsät		Leslau (1979)
	Endegen	āsät		Leslau (1979)
	Gyeto	āsät		Leslau (1979)
	Muher	ässät		Leslau (1979)
	Masqan	ässät		Leslau (1979)
	Gogot	ässät		Leslau (1979)
	Soddo	ässät		Leslau (1979)
	Selt'i	wēsse		Leslau (1979)
	Wolane	wesse		Leslau (1979)
	Zway	wärqe		Leslau (1979)
NILO-SAHARAN				
	Majang	uti		Stauder (1971)

* Note that in languages with complex tonal systems, superscript numerals are used to denote tones. This convention occurs only within this table.

Sources such as Bekele-Tesemma *et al.* (1993) are so inconsistently transcribed that it is hard to make use of the vernacular names they give without comparing them to other sources, which seems somewhat inappropriate in a handbook designed to be useful to development workers.

Individual terms

The vernacular names for the basic *enset* plant are surprisingly diverse, suggesting a long and complex history. It is likely that there has been a considerable flow between generic names for the plant and those of individual cultivars, resulting in a situation where there are only rather local names. However, some clear points do emerge from Table 1;

- Enset is not basic to speakers of Nilo-Saharan, Agaw and Northern Ethio-Semitic languages.
- Despite a certain diversity, one basic form, **udu**, accounts for much of North Omotic, while evidence for South Omotic is confined to one language.
- Terms in Cushitic are extremely diverse, and it is likely that different groups borrowed *enset* cultivation at different times from *in situ* Omotic speakers.

- d) Despite the significant cultural association between the Semitic-speaking Gurage and *enset* the similarity of terms in almost every lect suggests that the cultural patterns were borrowed relatively recently.

The last point is likely to be controversial, especially as the etymology of **äsät** itself is unclear, but even the other Gurage terms, **wässe** in Selt'i and Wolane, **wärqe** in Zway, appear to be borrowed from Highland East Cushitic.

Other hypotheses on the history of *enset* have tended to look at statements on cultural embedding, the 'soul of the Gurage' approach, for example Rahmato (1995);

Among the primary cultivators of *enset* are the Gurage, Hadiya, Kambatta, Wollaita, Sidama, Gedeo and other groups that live in the Gamo highlands. The area inhabited by these ethnic groups can be considered the original center of *enset* cultivation; however, *enset* has 'migrated' to the adjacent areas west of the Gibe valley inhabited by Oromo speakers.

Rahmato (1995:24)

However, the evidence seems to contradict this at a deeper historical level, though the migration out to Oromo speakers may well be true of the recent past.

Discussion of individual roots

The following section discusses the possible origin and spread of all the roots that appear in more than one language.

äsät

The common term in Gurage, this is the same element as in Gidole **d'oopasaat^e**, whence it was probably borrowed. It has been further borrowed into Amharic and provides the basis for the English name. The source of the inserted -n- is unclear.

d'iiši

Sasse (1982:64) relates the Burji name **d'iiši** to the more general term **d'iišo** meaning all tuber or bulb plants, and ultimately to the verb root **d'iš-** 'to dig'.

erfu

This term occurs in Benc Non **erpu**, Sheko **érfu**, Kefa **epoo** and perhaps in Amharic **fri⁴** and is almost certainly an Omotic root for wild *enset*. If more names for wild *enset* were recorded the pattern would perhaps become clearer.

koba

This root is found as a *Wanderwort* in major languages such as Amharic and Oromo and it seems likely it is somehow connected with the widespread African forms **-gomba** or **-komba** (Rossel 1998). Shack (1966) notes that Gurage (**h**)**ensat** is the name for the root (corm) of **koba**. As the corm is the useful part of cultivated *enset*, **koba** may originally have been the term for the plant itself.

qoč'č'ō

The Mocha term for 'en^e bread' is probably borrowed into Oromo as **kočo** 'en^e bread' and thence into Amharic (Leslau 1959:46).

(w)udu

Dizoid languages have *udu but reflexes with a devoiced consonant and lowered back or central vowel are found in all branches of Northern Omotic and should probably be reconstructed to the proto-language. Borrowed into the Nilo-Saharan Majang.

-wakko

Appears in a restricted set of Cushitic languages.

wees-

⁴ I am grateful to Gerda Rossel for this suggestion.

Hudson (1989:57) reconstructs this for Proto-Highland East Cushitic, and it seems to have been subsequently borrowed into Gurage and Oromo.

Conclusion and synthesis

Cultural and linguistic evidence concerning the origin and distribution of *enset* culture seem to point generally in the same direction. *Enset* was part of a widespread and ancient system of cultivation of vegetative crops formerly distributed much more widely through the Ethiopian highlands. The main cultivators of *enset* were Omotic-speakers, though it was probably adopted early by some groups of Cushitic-speakers. However, when the Ethio-Semites entered Ethiopia bringing seed agriculture and the plough, *enset* and other root crops such as yams (*Dioscorea* spp.) and the Labiates (*Coleus* spp.) were pushed into residual cultivation, except where the terrain was so highly dissected that ploughing was effectively impossible. In this situation, notably in the southwest, the Gurage Semitic-speakers adopted *enset* and it became central to their production system, permitting the expansion of population to levels such that no other crop would support comparable densities in similar terrain.

Enset has thus a long-term history of decline and writers in the 1950s portrayed this reduction as potentially terminal. However, in more recent times, its cultivation is on the increase and this undoubtedly reflects its capacity to support large human populations in regions with steep slopes without causing erosion, even where terraces are absent (Birmeta et al. 2004:147). Given its importance, *enset* remains greatly under-researched, for reasons that have to do with its relative unfamiliarity rather than its significance in farming systems. Even apart from the agronomy of *enset*, its ethnobotany remains known only in fragments. Considering that *enset* has one of the largest repertoires of landraces of any of Africa's crops, this is regrettable at the very least. At the same time, the rich and complex terminology associated with *enset* cultivars, production and processing is recorded in only a fragmentary manner, but further data will make possible a more nuanced unravelling of its complex history.

References⁵

- Allan, Edward J. 1976. Kullo. In: *The non-Semitic languages of Ethiopia*. Bender, M. L. and Fleming, Harold C. (eds.) 324-350. East Lansing: Michigan University Press.
- Bekele-Tesemma A., A. Birnie and B. Tengnäs 1993. *Useful trees and shrubs for Ethiopia*. Nairobi: RSCU/SIDA.
- Bezuneh, Taye and Asrat Felleke 1966. The production and utilization of the Genus *ensete* in Ethiopia. *Economic Botany*, 20(1):65-70.
- Bezuneh, Taye et al. 1967. The cultivation of the Genus *ensete* in Ethiopia. *Proceedings of the Soil and Crop Science Society of Florida*, 27:133-141.
- Bieber, F. 1920. *Kaffa, Ein altkuschitisches Volkstum in Inner-Afrika*. Münster: Verlag der Aschendorffschen Verlagsbuchhandlung.
- Birmeta, Genet, Hilde Nybom & Endashaw Bekele 2004. Distinction between wild and cultivated *enset* (*Ensete ventricosum*) gene pools in Ethiopia using RAPD markers. *Hereditas* 140, 2: 139-148.
- Bruce, J. 1804. [2nd enlarged edition] *Travels to discover the Source of the Nile. In the Years 1768, 1769, 1770, 1771, 1772, 1773*. [8 volumes] London: Longman and Rees; Edinburgh: Constable, Mannors and Miller.
- Cerulli, E. 1936. *Studi etiopici. I. La Lingua e la storia di Harar*. Roma: Istituto per L'Oriente.
- Cerulli, E. 1938a. *Studi etiopici. II. La Lingua e la storia di Sidamo*. Roma: Istituto per L'Oriente.
- Cerulli, E. 1938b. *Studi etiopici. III. Il linguaggio dei Giangerò ed alcune lingue Sidama dell'Omo*. Roma: Istituto per L'Oriente.
- Cerulli, E. 1951. *Studi etiopici. IV. La Lingua Caffina*. Roma: Istituto per L'Oriente.

⁵ A useful supplementary bibliography is found in Rahmato (1995) which contains a list of unpublished materials, especially student essays on regional aspects of *enset* culture.

- Chioyenda, E. 1929. Le piante alimentari nelle nostre Colonie. *Atti di Societa Italiana per il Progresso di Scienze*, VII:522-552.
- Darby, W.J., Ghaliougli, P. and Grivetti, L. 1977. *Food, the gift of Osiris*. (2 vols.) London: Academic Press.
- Fiori, A. 1939. Le piante economiche dell'Impero. *Agricoltura coloniale*, 33, 7:427-429.
- Germer, R. 1985. *Flora des Pharaonischen Ägypten*. Mainz am Rhein: Von Zabern. [FPA]
- Haberland, E. and M. Lamberti 1988. *Ibaaddo ka-Ba'iso: culture and language of the Ba'iso*. Heidelberg: Carl Winter.
- Haberland, E. 1961. *Altvölker Süd-Äthiopiens*. Stuttgart: W. Kohlhammer.
- Hadaya, Yohannes and Gemechu Gedeno 1996. *Konso-English-Amharic Agricultural Dictionary*. Addis Ababa: Farm-Africa.
- Hailemariam, Gabreyesus 1991. *The Guragué and their culture*. New York: Vantage Press.
- Hayward, R.J. 1990b. Notes on the Zayse language. In: R.J. Hayward ed. *Omoti Language Studies*. 210-355. London: School of Oriental and African Studies.
- Hildebrand, E. 2001. Morphological characterization of domestic vs forest-growing Ensete ventricosum (Welw.) Cheesman, Musaceae, in Sheko district, Bench-Maji Zone, southwest Ethiopia. In: Friis, I. and Ryding, O. (eds), Biodiversity research in the Horn of Africa region. *Biologiske Skrifter*, 54: 287-309.
- Hudson, G. 1989. Highland *East Cushitic dictionary*. Cushitic Language Studies Bd. 7. Hamburg: Buske.
- Lamberti, M. 1993a. *Die Shinassha-Sprache: Materialien zum Boro*. Heidelberg: Carl Winter.
- Lamberti, M. 1993b. *Materialien zum Yemsa*. Heidelberg: Carl Winter.
- Lamberti, M. and R. Sottile 1997. *The Wolaytta language*. Köln: Rüdiger Köppe.
- Leslau, W. 1956. *Étude descriptive et comparative du Gafat*. Paris: Klincksieck.
- Leslau, W. 1959. *A dictionary of Moča (southwestern Ethiopia)*. Berkeley and Los Angeles: University of California Press.
- Leslau, W. 1963. *Etymological Dictionary of Harari*. Berkeley and Los Angeles: University of California Press.
- Leslau, W. 1969. Asät, the soul of the Gurage. *Africa*, 39,3:281-290.
- Leslau, W. 1979. *Etymological Dictionary of Gurage*. (3 vols). Wiesbaden: Harrassowitz.
- McCann, J.C. 1995. *People of the Plow*. Wisconsin: University of Wisconsin Press.
- Minker, G. 1986. *Burji-Konso-Gidole-Dullay. Materialien zur Demographie, Landwirtschaft und Siedlungsstruktur eines südäthiopischen Kulturareals*. Bremer Afrika Archiv, Band 22. Bremen: Bremen Museum.
- Mooney, H.F. 1963. *A glossary of Ethiopian plant names*. Dublin: Dublin University Press.
- Olmstead, Judith 1974. The versatile *ensete* plant: its uses in the Gamu highlands. *Journal of Ethiopian Studies*, XII(2):147-158.
- Pankhurst, R. 1996. Enset as seen in early Ethiopian literature: history and diffusion. In: Abate, T., Hiebis, C., Brandt, S.A. et al. (eds), *Enset based sustainable agriculture in Ethiopia*. 47-52. Addis Ababa: Institute of Agriculture.
- Pijls, Loek, Arnold Timmer, Zewdie Wolde-Gebriel and Clive West 1995. Cultivation, preparation and consumption of *Enset* in Ethiopia. *Journal of the Science of Food and Agriculture*, 67:11, 1-11.
- Rahmato, Dessalegn 1995. Resilience and vulnerability: *Enset* agriculture in Southern Ethiopia. *Journal of Ethiopian Studies*, XXVIII(1):23-51.
- Rossel, Gerda 1998. *Taxonomic-linguistic study of the plantain in Africa*. Leiden: CNWS.
- Sasse, Hans-Jurgen 1982. *An etymological dictionary of Burji*. Hamburg: Buske.
- Shack, William A. 1966. *The Gurage, a people of the ensete culture*. London: OUP for IAI.
- Shigeta, M. 1990. Folk *in-situ* conservation of *ensete*. *African Study Monographs (Kyoto)*, 10(3):93-107.

- Simmonds, N.W. 1958. Ensete cultivation in the Southern Highlands of Ethiopia; a review. *Tropical Agriculture*, 35:302-7.
- Simoons, F.J. 1965. Some questions on the economic prehistory of Ethiopia. *Journal of African History*, vi:1-13.
- Smeds, H. 1955. The ensete planting cultures of Eastern Sidamo, Ethiopia. *Acta Geographica, Helsinki*: XIII(4):3-39.
- Stanley, S. 1966. *Ensete* in the Ethiopian economy. *Ethiopian Geographical Journal*, 4(1):30-37.
- Stiehler, W. 1949. Studien zur Landwirtschafts- und Siedlungsgeographie Äthiopiens. *Erdkunde*, II:257-282.
- Straube, H. 1963. *Westkuschitische Völker Süd-Äthiopiens*. Stuttgart: W. Kohlhammer.
- Tesfaye, B. and Lüdders, P. 2003. Diversity and distribution patterns of enset landraces in Sidama, southern Ethiopia. *Genetic Resources and Crop Evolution*, 50: 359-371.
- Traversi, L. 1887. Viaggi negli Arussi, Guraghi. *Ecc. Bolletino della Societa Geographica Italiana*, I,XII:267-268.
- Tsegaye, A. and Struik, P.C. 2002. Analysis of enset (*Ensete ventricosum*) indigenous production methods and farmbased biodiversity in major enset-growing regions of southern Ethiopia. *Experimental Agriculture*, 38: 291-315.
- Wedekind, Klaus 1990. Gimo-Jan or Ben-Yem-Om: Bench and Yemsa phones, tones and words. In: R.J. Hayward ed. *Omotic Language Studies*. 68-184. London: School of Oriental and African Studies.
- Westphal, E. 1975. *Agricultural Systems in Ethiopia*. Wageningen, Centre for Agricultural Publishing and Documentation.
- Wittmack, L. 1867. Musa ensete. Ein Beitrag zur Kenntnis der Banana. *Linnaea*, 3:210-223.
- Yintiso, Gebre 1995. *The Ari of Southwestern Ethiopia*. Social Anthropology Dissertation Series, 2. Addis Ababa: Department of Sociology, Anthropology and Social Administration, Addis Ababa University.