This list consists of an initial set of characterization and evaluation descriptors for yam utilization. This strategic set of descriptors, together with passport data, will become the basis for the global accession level information portal being developed by Bioversity International with the financial support of the Global Crop Diversity Trust (GCDT). It will facilitate access to and utilization of yam accessions held in genebanks and does not preclude the addition of further descriptors, should data subsequently become available.

Based on the comprehensive ‘Descriptors for Yam (Dioscorea spp.)’ published by IITA and IPGRI (now Bioversity International) in 1997, the list was subsequently compared with a number of sources,1 and with the traits that were awarded funds for further research by The TRUST through the Evaluation Awards Scheme (GCDT, EAS, 2008).

This minimal set defines a first priority set of descriptors to describe, to access and to utilize Dioscorea genetic resources. A worldwide distribution of experts were involved in an online survey and the list was afterwards validated by a Core Advisory Group (see ‘Contributors’) led by Dr Danny Hunter of Bioversity International and Ranjana Bhattacharjee of the International Institute of Tropical Agriculture.

Biotic and abiotic stresses included in the list were chosen because of their wide geographic occurrence and significant economic impact at a global level.

Numbers in parentheses on the right-hand side are the corresponding descriptor numbers listed in the 1997 publication. Descriptors with numbers ending in ‘X’ are new descriptors that were added during the development of the list below.

**PLANT DATA**

**Spines on stem base**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>3</td>
<td>Few</td>
</tr>
<tr>
<td>7</td>
<td>Many</td>
</tr>
</tbody>
</table>

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1. (a) Basic list of descriptors for Yam (Dioscorea alata) from Guarino L. and Jackson G. 1986. Describing and documenting Root Crops in the South Pacific. RAS/83/001. Field Document 12.
   (b) Basic list of descriptors for Yam (Dioscorea esculenta) from Guarino L. and Jackson G. 1986. Describing and documenting Root Crops in the South Pacific. RAS/83/001. Field Document 12.
   (c) The Global Crop Diversity Trust 2008 Award Scheme (EAS) ‘Enhancing the Value of Crop Diversity in a World of Climate Change’.
## 2 Key access and utilization descriptors for yam genetic resources

### Tuber shape

1. Round
2. Oval
3. Oval-oblong
4. Cylindrical
5. Flattened
6. Irregular
7. Other (specify in the descriptor Notes)

### Tuber length

1. \( \leq 20 \text{ cm} \)
2. 21–40 cm
3. \( \geq 41 \text{ cm} \)

### Flesh colour at central transverse cross-section

1. White
2. Yellowish white or off-white
3. Yellow
4. Orange
5. Light purple
6. Purple
7. Purple with white
8. White with purple
9. Outer purple/inner yellowish
10. Other (specify in the descriptor Notes)

### Total weight of harvested tubers [kg]

Calculated on ten plants per accession at harvest

### Overall assessment of cooked tuber

1. Low
2. Intermediate
3. High

### Stay-green ability

Retention of green colour at maturity

### ABIOTIC STRESSES

### Reaction to high soil moisture

(9.4)
BIOTIC STRESSES

Yam mosaic potyvirus (YMV) (10.1.1.4)

Anthracnose susceptibility (10.1.2)

Fusarium spp. (10.1.3)

Pratylenchus coffeae (10.2.3.2)

Yam beetle damage on tubers (10.2.9)

NOTES
Any additional information may be specified here, particularly that referring to the category ‘Other’ present in some of the descriptors above.

CONTRIBUTORS
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