CORCHORUS PHOTO ALBUM



Bissah - M.NDzokoto - C

•Ansah – J.R •Kotey – D.A

Table Of Contents

Preface	4
Leaf And Capsule Morphology	5
Diversity In Corchorus Capsules	36
Diversity In Corchorus Stem And Fruit Arrangement	37
Reference	42

Photo album of Corchorus spp. from Ghana Genebank

• Family: Malvaceae

• Genus: Corchorus

• Kingdom: Plantae

• Species: C. olitorius

Bissah, M. N., Ansah, J. R., Dzokoto, C. & Kotey, D. A

PREFACE

Corchorus olitorius spp. is an edible leafy vegetable belonging to the family Malvaceae. Corchorus olitorius is variedly known as bush or wild okra, wild jute, West African sorrel or Jute nalta (Loumeren and Alercia, 2016).

It is an annual herbaceous plant whose leaves are distributed in an alternate appearance, contains a small yellow inflorescence (flowers) and the seeds enclosed in a capsule form (Loumeren and Alercia, 2016). Corchorus spp. performs well in the lowland tropics warm temperate zones and tropical deserts. Itisconsumedasfood(fresh,cookedordried),andisknowntocontain sufficient nutrients and energy (Ndlovu J. and Afolayan, 2008)

In Ghana, Corchorus olitorius spp. is commonly called "Ayoyo" by the Hausas in Northern Ghana and "Ademe" by Ewe the people of the Volta region. It is used to produce sauces which accompany a variety of maize and millet dishes. Aside from the food value, Corchorus spp. is used as fibre in the textile and paper industries. Extracts from different parts of the plant are used for the treatment of various ailments (Kuete, et al, 2017).

The genetic diversity of Corchorus olitorius spp. and the wild relatives are considered relevant to the food and nutrition needs of people in Ghana and relevant for adaptation to biotic and abiotic stress (Bissah et al., 2022; Maity et al., 2012). The Ghana National Genebank is responsible for the collecting, conservation, production and distribution of genetic resources. The collection of Corchorus spp. in the Genebank of Ghana needs to be documented to support better germplasm curations and to promote the use of the collection for addressing the food and nutrition needs of the population. This photo album is developed as part of the critical resources to support the exploration of the phenotypic diversity of Corchorus spp. for breeding and use.

LEAF AND CAPSULE MORPHOLOGY



Accession GH 10123

Leaf Margin Double Serrate

Leaf Shape Lacerate

Pod Colour Light Green

Pod Shape Flat constricted

Stem Colour Golden Yellow



Leaf Margin Entire

Leaf Shape Linear

Pod Colour Green with pink lines

Pod Shape Slender contricted



Leaf Margin Denticulate

Leaf Shape Lanceolate

Pod Colour Green with pink lines

Pod Shape Flat constricted



Accession GH 10302 - C

Leaf Margin Denticulate

Leaf Shape Lanceolate

Pod Colour Light Green

Pod Shape Slender constricted

Stem Colour Light Green



Accession GH 9652 - A1

Leaf Margin Denticulate

Leaf Shape Lanceolate

Pod Colour Green

Pod Shape Sub Cylindrical

Stem Colour Golden Yellow



Leaf Margin Denticulate

Leaf Shape Lanceolate

Pod Colour Green with pink lines

Pod Shape Flat constricted

Pink Stem Colour



Leaf Margin Double Serrate

Leaf Shape Lacerate

Pod Colour Green

Pod Shape Flat non - constricted

Stem Colour Light Green



Accession GH 10189 - A

Leaf Margin Double Scrrate

Leaf Shape Lacerate

Pod Colour Green

Pod Shape Flat constricted

Stem Colour Light Green



Leaf Margin Denticulate

Leaf Shape Lanceolate

Pod Colour Green with pink lines

Pod Shape Flat constricted



Accession GH 10076 - B

Denticulate Leaf Margin

Leaf Shape Lanceolate

Pod Colour Green

Pod Shape Flat non - constricted

Stem Colour Light Green



Accession GH 10659 - B

Leaf Margin Serrulate

Leaf Shape Rhomboid

Pod Colour Green

Pod Shape Flat constricted

Stem Colour Light Green



Accession GH 9652 B - 1

Denticulate Leaf Margin

Leaf Shape Lanceolate

Pod Colour Green

Pod Shape Flat constricted

Stem Colour Light Green



Leaf Margin Denticulate

Leaf Shape Lanceolate

Pod Colour Green with pink lines

Pod Shape Flat constricted



Leaf Margin **Double Serrate**

Leaf Shape Lacerate

Pod Colour Green

Pod Shape Flat constricted

Stem Colour Light Green



Leaf Margin Denticulate

Leaf Shape Lacerate

Pod Colour Light Green

Pod Shape Flat constricted

Stem Colour Light Green



Leaf Margin **Double Serrate**

Leaf Shape Lacerate

Pod Colour Green

Pod Shape Flat constricted

Stem Colour Light Green



Accession GH 10133 - B

Leaf Margin Double Serrate

Leaf Shape Lacerate

Pod Colour Green

Pod Shape Flat constricted

Stem Colour Light Green



Accession GH 10244 - A

Leaf Margin Serrulate

Leaf Shape Lanceolate

Pod Colour Green

Pod Shape Slender constricted

Stem Colour Light Green



Accession GH 10302 - A

Leaf Margin Double Serrate

Leaf Shape Lacerate

Pod Colour Light Green

Pod Shape Flat constricted

Stem Colour Light Green



Accession GH 9625 -BB - 1

Leaf Margin Denticulate

Leaf Shape Linear

Pod Colour Green

Pod Shape Flat constricted

Stem Colour Golden Yellow



Accession GH 10301 - B

Leaf Margin Denticulate

Leaf Shape Lanceolate

Pod Colour Green with pink lines

Pod Shape Flat constricted



Leaf Margin Denticulate

Leaf Shape Lanceolate

Pod Colour Green with pink lines

Flat constricted Pod Shape

Pink Stem Colour



Leaf Margin Denticulate

Leaf Shape Lanceolate

Pod Colour Green with pink lines

Pod Shape Flat constricted



Leaf Margin Denticulate

Leaf Shape Lanceolate

Pod Colour Green with pink lines

Flat constricted Pod Shape



Leaf Margin Denticulate

Leaf Shape Lanceolate

Pod Colour Green with Pink Lines

Pod Shape Flat constricted



Leaf Margin Denticulate

Leaf Shape Lanceolate

Pod Colour Green

Pod Shape Flat constricted



Accession GH 10397 - C

Leaf Margin Denticulate

Leaf Shape Lanceolate

Pod Colour Green

Pod Shape Flat constricted



Denticulate Leaf Margin

Leaf Shape Lanceolate

Pod Colour Green with pink lines

Pod Shape Flat constricted



Leaf Margin Double Serrate

Leaf Shape Lacerate

Pod Colour Green with pink lines

Pod Shape Slender constricted



Accession GH 10397 - A

Leaf Margin Denticulate

Leaf Shape Lacerate

Pod Colour Light Green

Slender constricted Pod Shape

Stem Colour Red



Accession GH 10133 - B

Leaf Margin Double Serrate

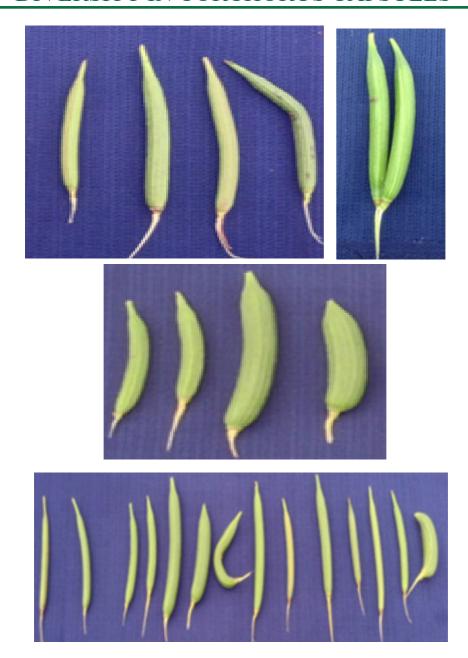
Leaf Shape Lacerate

Pod Colour Green

Pod Shape Flat constricted

Stem Colour Light Green

DIVERSITY IN CORCHORUS CAPSULES



DIVERSITY IN CORCHORUS STEM AND FRUIT ARRANGEMENT







GH 10133 - B GH 10132 - B GH 9625 - BB - 2







GH 10125 GH 10074 GH 10243



GH 10126 GH 9652 - A1 GH 10132 - B





GH 10073 GH 10133 GH 100131

REFERENCE

- 1. Bissah, M.N., Dzokoto, C., Ansah J. R., Amissah A., Gyasi E.G., Ochar K., and Kotey D. A. (2022). Phenotypic diversity of Corchorus spp. In Ghana. CSIR-PGRRI/TR/BMN/2022/114
- 2. Kuete, V., Karaosmanoğlu, O., and Sivas, H. (2017). Anticancer Activities of African Medicinal Spices and Vegetables In: Kuete V (Editor), Medicinal Spices and Vegetables from Africa, Academic Press; 271-297.
- 3. Loumerem, M., and Alercia, A. (2016). Descriptors for Jute (Corchorus olitorius L.). Genet Resour crop Evol., 63:1103-11.
- 4. Maity, S., Chowdhury, S., and Datta, A.K. (2012). Sustainable Agriculture Reviews 9: 227-262.
- 5. Ndlovu J, and Afolayan, A. J. (2008). Nutritional analysis of the South African wild vegetable Corchorus olitorius L, Asian J. Plant Sci; 7(6):615-8.

