























#### Orange-fleshed Sweetpotato for Africa: Catalogue 2014 (Second Edition)

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# A C K N O W L E D G M E N T

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# INTRODUCTION

The second edition of the orange-fleshed sweetpotato (OFSP) catalogue is a revision of the first edition published in 2010. The revision comprises of: a) an update of the list of varieties to include the most recent and newly released and near release OFSP varieties from different countries in Sub-Saharan Africa (SSA), and b) corrections of minor errors that are in the first edition. Like the first edition, the second edition aims to present information on current popular OFSP varieties in SSA. The majority of the varieties are released in at least one country and are being grown by farmers, while others are advanced clones about to be released. A good number of the varieties are important parents in breeding programs to improve levels of  $\beta$ -carotene, root dry matter, and resistance to sweetpotato virus disease in the region. Some of the varieties are landraces from African countries while others are introduced germplasm from the USA, South America, and Asia, and have been found to be adapted to particular environments in SSA. The catalogue is arranged in single pages of information and pictorials for each of the varieties. Each page covers morphological characteristics, root attributes, and other major attributes as well as consumer and processing qualities of a single variety. Additional information about the current status of each variety is presented at the end of the document.

The International Potato Center (CIP) and its partners are breeding and promoting OFSP as a food-based approach to combat Vitamin A deficiency (VAD) and related health problems in SSA. Currently, about 32% of the children under five years of age in Africa suffer from of VAD. As non-OFSP sweetpotato is already a part of many people's diet, the transition to OFSP is just a marginal change. Our studies have shown that OFSP is highly acceptable to many rural African women, men and children and that integrated agriculture-nutrition education campaigns can significantly reduce the prevalence of VAD among young children. This catalogue should serve as a handy reference, providing summary information on current important and popular OFSP varieties in SSA. The information will be relevant to different stakeholders, scientists, development practitioners/ extensionists, and donors. For information on how to obtain varieties, please contact one of the offices listed at the back of this catalogue or the CIP regional office for SSA in Nairobi, Kenya.



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Canopy or

Non-twining and semi-erect

plant type

Leaf Green when mature, purple young

leaves; triangular and no leaf lobes

Vine Green, with purple sections, very

short (≤2.5 cm) internodes, thick

(5-7 mm) diameter

Flowering Early (3 months) and moderate

ability and habits

#### **MAJOR AGRONOMIC ATTRIBUTES**

Maturity period 4 months Root yields 15.3 t/ha

Widely adapted Adaptability

Moderately high to sweetpotato Resistance

to pests weevils

Resistance Moderately high to Alternaria blight

to diseases and sweetpotato virus disease

# **ROOT CHARACTERISTICS**

Shape Long elliptic Skin colour Purple red Dry matter 22.7%

Flesh colour

Dark orange, (28A:29A) (CIP colour chart)

**B**-carotene

11030 μg/100g fwb

content

#### SENSORY CHARACTERISTICS

Colour of Dark orange, appealing to adults

boiled roots and children Texture of Moderate dry mouth feel

boiled roots

Taste

Very sweet



Country of origin: USA Pedigree: NC 228 x NC 234









Canopy or

Semi-erect

plant type

Leaf Moderately lobed with 3 lobes

Vine Pale green vines, very short (≤3.0 cm) internode length, and intermediate

(5 mm) diameter

Flowering Late and sparse

ability and habits

### MAJOR AGRONOMIC ATTRIBUTES

Maturity period Root yields

5 months 20.0 t/ha

Adaptability

Widely adapted Resistance Very low to sweetpotato weevils

to pests

Low to sweetpotato virus disease

Resistance to diseases

#### **ROOT CHARACTERISTICS**

Shape Long oblong Skin colour Cream

Dry matter 34.0% Intermediate orange, (28A:29A) Flesh colour

(CIP colour chart)

**β-carotene** 

11030 μg/100g fwb

Dry mouth feel

content

#### SENSORY CHARACTERISTICS Colour of Orange

boiled roots

Texture of

boiled roots

Taste

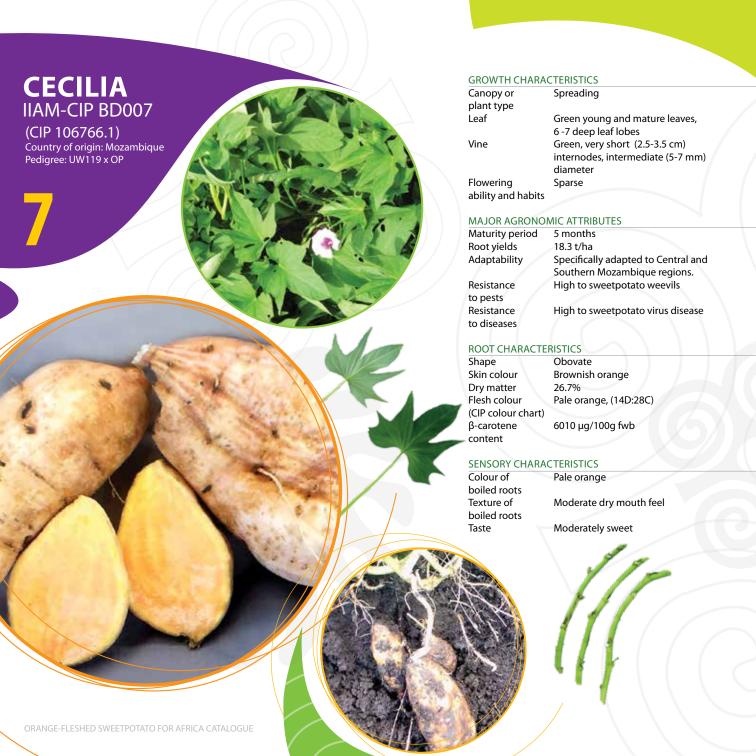
Sweet



Country of origin: Zambia Pedigree: LUS 114 x OP



ORANGE-FLESHED SWEETPOTATO FOR AFRICA CATALOGUE







Canopy or

Non-twining and semi-erect

plant type

Leaf Green when mature, triangular, 3

slight leaf lobes

Vine Green, moderate (3-5 cm) internodes,

thin (3-5 mm) diameter

Flowering Moderate

ability and habits

### MAJOR AGRONOMIC ATTRIBUTES

Maturity period 5 months Root yields 14.9 t/ha

Adaptability Widely adapted

Moderate to sweetpotato weevils Resistance

to pests

Moderate to Alternaria blight and Resistance

to diseases sweetpotato virus disease

# **ROOT CHARACTERISTICS**

Shape Elliptic

Skin colour Orange brown

Dry matter 25.0%

Flesh colour Deep orange, (29A:28D) and cream

(CIP colour chart) secondary colour 3760-7230 μg/100g fwb

**B**-carotene

content

# SENSORY CHARACTERISTICS

Colour of Dark orange, appealing to adults boiled roots and children

Texture of Moderate dry mouth feel

boiled roots

Taste Sweet



Country of origin: USA (material received from Zimbabwe) Pedigree: Uknown



Canopy or

Semi-erect

plant type

Leaf

Green young and mature leaves, with

5-6 very deep lobes

Vine

Green stems, very short (≤3.0 cm)

internodes; thin (4-5 mm) diameter Moderately profuse

Flowering ability and habits

#### MAJOR AGRONOMIC ATTRIBUTES

Maturity period

5 months

Root yields

23.4 t/ha

Adaptability Resistance

Specifically adapted to Mozambique

High to sweetpotato weevils

to pests

Resistance

High to sweetpotato virus disease

to diseases

# **ROOT CHARACTERISTICS**

Root shape

Long elliptic with shallow

longitudinal groves Purple

Root skin colour Dry matter

32.8%

Flesh colour

Orange with yellow, (28C:18B)

(CIP colour chart)

**B**-carotene

5540 µg/100g fwb

content

# SENSORY CHARACTERISTICS Pale yellow

Colour of

boiled roots Texture of

Dry and floury mouth feel

boiled roots Taste

Moderately sweet



(CIP 106771.1)

Country of origin: Mozambique Pedigree: 105369-4 x OP

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Canopy or plant type

Semi-erect

Leaf Green when old, green/purple ends

when young; 5-7 moderate lobes

Vine Pale green, very short (≤3.0 cm)

internodes; intermediate (5-7 mm) diameter

Flowering Sparse

ability and habits

#### MAJOR AGRONOMIC ATTRIBUTES

Maturity period

5 months

Root yields 16.7 t/ha Adaptability

Specifically adapted to Southern and

Central Mozambique

Resistance to pests

High to sweetpotato weevils

High to sweetpotato virus disease Resistance

to diseases

# **ROOT CHARACTERISTICS**

Shape

Round/Round elliptic Light purple

Skin colour Dry matter

25.6%

Flesh colour

Yellow orange, (11B:28D)

(CIP colour chart) **B**-carotene

1000-2000 μg/100g fwb

content

# SENSORY CHARACTERISTICS Orange

Colour of boiled roots

Texture of

boiled roots

Taste

Dry mouth feel

Moderate sweet



(CIP 106763.2) Country of origin: Mozambique Pedigree: UW119 x OP







Canopy or Spreader (>100 cm vine length) and

plant type semi-erect growth habit

Leaf Green with purple margins, no leaf

lobes

Vine Purple, long (4-6 cm)

internodes, thick (4-6 mm) diameter

Flowering Late and sparse

ability and habits

#### MAJOR AGRONOMIC ATTRIBUTES

Maturity period 5 months Root yields 6.5 t/ha

Adaptability Widely adapted

Resistance Low to sweetpotato weevils

to pests

Resistance Moderate to Alternaria blight and

to diseases sweetpotato virus disease

# ROOT CHARACTERISTICS

Shape Long elliptic Skin colour Purple red Dry matter 23.9%

Flesh colour Deep orange, (28A: 29A)

(CIP colour chart)

β-carotene

content

11030 μg/100g fwb

COLLECTIO

# SENSORY CHARACTERISTICS

Colour of Orange, appealing to adults and boiled roots children

Texture of Moderate dry mouth feel

boiled roots

Taste Very sweet





Country of origin: Taiwan Pedigree: CIP breeding line Original name: Tainung 65

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Canopy or

Semi-erect

plant type

Leaf Green when mature, with 5 deep

lobes, purple under veins

Vine Green, short (2.5-4.0 cm)

internodes, thin (4-5 mm) diameter

Flowering Early and profuse

ability and habits

### MAJOR AGRONOMIC ATTRIBUTES

Maturity period 5 months Root yields 22.2 t/ha Adaptability

Widely adapted

Resistance

High to sweetpotato weevils

to pests

High to sweetpotato virus disease Resistance

to diseases

# **ROOT CHARACTERISTICS**

Long elliptic Shape Skin colour Pink

Dry matter 29.3%

Flesh colour Orange, (25A:28D) (CIP colour chart)

**B**-carotene

content

5310 μg/100g fwb

### SENSORY CHARACTERISTICS

Colour of boiled roots Texture of

Deep orange and appealing to adults and children Moderate dry mouth feel

boiled roots Taste

Moderately sweet



(CIP 106765.1) Country of origin: Mozambique Pedigree: Tacna – 2 x OP





Canopy or plant type

Erect

Leaf Green leaves, purple leaf stalk, purple

under veins, 4-5 very deep lobes

Vine Purple green apex, very short

(2.5 cm) internodes, thin (4-5 mm)

diameter

Flowering Sparse

ability and habits

#### MAJOR AGRONOMIC ATTRIBUTES

Maturity period Root yields

5 months

21.2 t/ha Adaptability

Specifically adapted to Gurue (Central/ North of Mozambique) and Angonia

(Central of Mozambique) High to sweetpotato weevils

Resistance

to pests Resistance High to sweetpotato virus disease

to diseases

#### **ROOT CHARACTERISTICS**

Shape Skin colour

Cream 29.2%

Flesh colour (CIP colour chart)

Intermediate orange, (25A:28D)

Long elliptic

**B**-carotene

Dry matter

5590 µg/100g fwb

Moderate dry mouth feel

content

#### SENSORY CHARACTERISTICS Colour of Pale orange

boiled roots

Texture of

boiled roots

Taste

Sweet



(CIP 106767.1)

Country of origin: Mozambique Pedigree: LO323 x OP







**JEWEL** (CIP 440031) Country of origin: USA Pedigree: Centennial x nugget 22





Spreading (>100 cm vine length)

plant type

Leaf Green when mature, 5 very deep

Vine Green, short (3-5 cm) vine

internodes, thin (4-6 mm) diameter

Flowering Early (3 months) and profuse

ability and habits

### MAJOR AGRONOMIC ATTRIBUTES

Maturity period 4 months Root yields 16.5 t/ha Adaptability Widely adapted

Low to sweetpotato weevils Resistance

to pests

Resistance Moderate to Alternaria blight and

to diseases sweetpotato virus disease

# **ROOT CHARACTERISTICS**

Shape Long irregular Skin colour Purple red Dry matter 32.0%

Flesh colour Intermediate orange, (28C: 18B)

(CIP colour chart)

**B**-carotene

3760.0 μg/100g fwb

content

# SENSORY CHARACTERISTICS

Colour of Intermediate orange, appealing to boiled roots adults and children

Texture of Dry and floury mouth feel

boiled roots

Taste Moderately sweet



**KAKAMEGA SPK004** 

(CIP 441768) Country of origin: Kenya Pedigree: Landrace



Canopy or

Spreading

plant type

Leaf Green when young and mature; heart

shaped single lobe

Vine Purple with green spots when

> mature, intermediate (4-6 cm) internodes, intermediate (6-7 mm)

diameter

Flowering Late and moderately profuse

ability and habits

#### MAJOR AGRONOMIC ATTRIBUTES

Maturity period 3.5 months Root yields 35.0 t/ha

Adaptability Widely adapted Resistance

to pests

Moderate to sweetpotato weevil

Resistance to diseases

#### **ROOT CHARACTERISTICS**

Shape Round elliptic Skin colour Cream

Dry matter 30.0% Flesh colour

Intermediate orange, 29A:26D (CIP colour chart)

**β**-carotene

content

3200 µg/100g fwb

# SENSORY CHARACTERISTICS

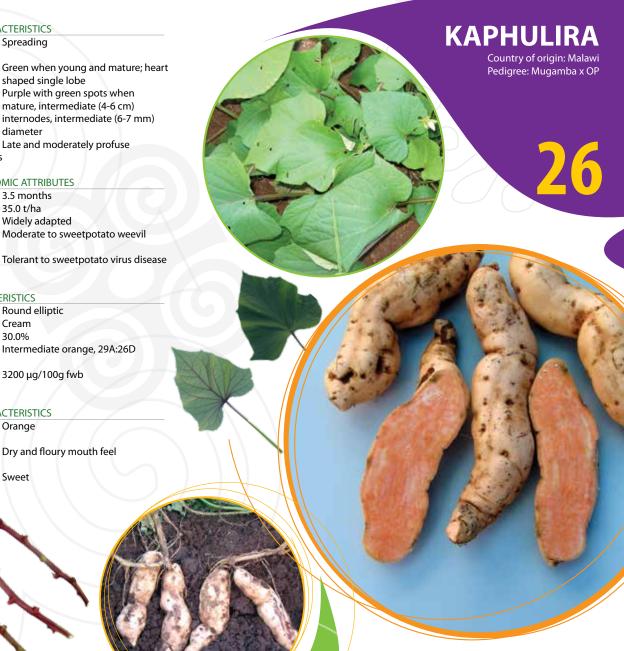
Colour of Orange

boiled roots Texture of

Dry and floury mouth feel boiled roots

Taste

Sweet







Canopy or plant type Semi-erect

Vine

Leaf Green when young and mature,

with light purple midrib at the

back; heart shaped single lobes Light green when mature, green

when young, very short (<3 cm)

internodes, thick (7-9 mm) diameter Does not flower at high altitudes

Flowering

ability and habits

#### MAJOR AGRONOMIC ATTRIBUTES

Maturity period

6 months at high altitude

Root yields 17.1 t/ha

Adaptability So far only tested and released for

high altitude (1700-2300 masl)

agro ecologies

Resistance to pests

Moderate to sweetpotato weevils

Resistance Moderate to sweetpotato virus to diseases

diseases

### **ROOT CHARACTERISTICS** Shape

Skin colour Dry matter

Oblona Purple red 30.4%

Flesh colour Orange, (28C:18B)

(CIP colour chart)

**B**-carotene content

3960 µg/100g fwb

# SENSORY CHARACTERISTICS

Colour of

boiled roots

Texture of

boiled roots

Taste

Orange

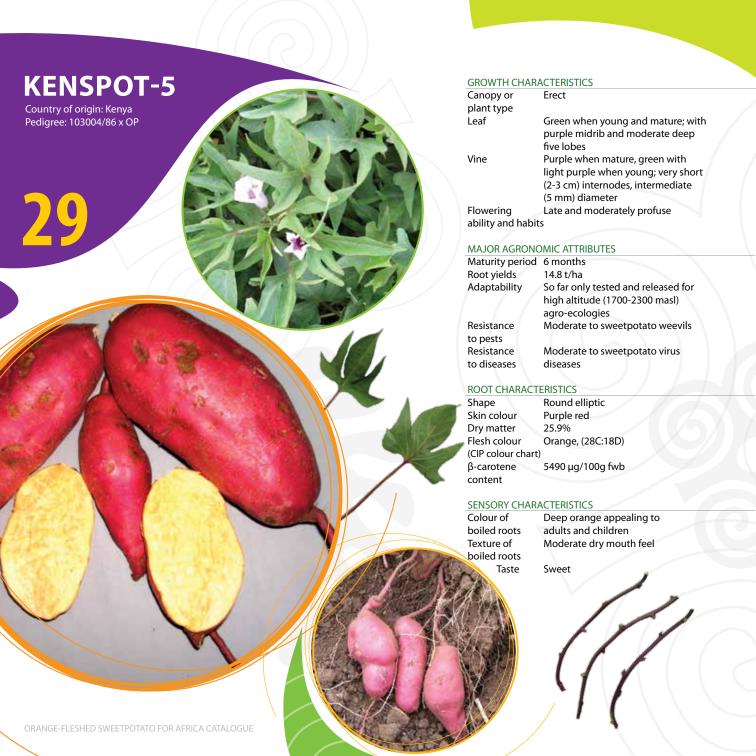
Moderate dry mouth feel

Sweet



Country of origin: Kenya Pedigree: 103004/86 x OP





Canopy or Slightly Spreading

plant type

Leaf Green when mature, 3-5 moderate to

slight lobes

Vine Green, intermediate (4.5 cm)

internodes, very thin (3-3.6 mm)

diameter

Flowering Profuse

ability and habits

#### MAJOR AGRONOMIC ATTRIBUTES

Maturity period 5 months Roots yields 24.5 t/ha

Adaptability Widely adapted in South African

agro-ecologies

Resistance Moderate to sweetpotato weevils

to pests

Resistance Very low to Sweet potato feathery to diseases mottle virus disease high to

Alternaria blight

# ROOT CHARACTERISTICS

Shape Long elliptic to elliptic

Skin colour Pale red purple

Dry matter 18.2%

Flesh colour Deep orange, (30D:29B); large

(CIP colour chart) amounts of latex

β-carotene

11987 - 15565 µg/100g fwb

content

# SENSORY CHARACTERISTICS

Colour of boiled roots Texture of Dark orange, appealing to adults and children Moderate dry mouth feel

boiled roots

Taste Not sweet







Canopy or Semi-erect

plant type

Leaf Green when mature, purple when

young, 5-6 moderately deep lobes

Vine Green, short (≤3 cm) internodes,

very thin (<4 mm) diameter

Flowering Late and profuse

ability and habits

#### MAJOR AGRONOMIC ATTRIBUTES

Maturity period 4 months Root yields 15.0-20.0 t/ha

Widely adapted except in water Adaptability

stressed areas

Resistance Low to sweetpotato weevils

to pests

Resistance Moderate to Alternaria blight and to diseases low to sweetpotato virus disease

#### **ROOT CHARACTERISTICS**

Shape Round elliptic Skin colour Intermediate pink

25.0-26.0% Dry matter

Flesh colour Deep orange, (29A: 28D) (CIP colour chart)

**B**-carotene

7000 - 8000 µg/100g fwb

content

# SENSORY CHARACTERISTICS

Colour of Deep orange, appealing to boiled roots adults and children Texture of Moderate dry mouth feel

boiled roots

Taste Very sweet



Country of origin: Kenya Pedigree: Unknown but SSR analysis suggests closely related to Resisto







Canopy or

Non-twining and erect

plant type

Leaf Green with purple margins and

stalks, 4-5 very deep lobes

Vine

Purple, moderate (3-5 cm)

internodes, thick (4-7 mm) diameter

Flowering Late and sparse

ability and habits

#### MAJOR AGRONOMIC ATTRIBUTES

Maturity period 5 months Root yields

13.6 t/ha

Adaptability

Widely adapted

Resistance

Moderate to sweetpotato weevils

to pests

Resistance

Low to sweetpotato virus disease

to diseases

### **ROOT CHARACTERISTICS**

Shape

Ovate

Skin colour

Pale purple 21.0%

Dry matter Flesh colour

Intermediate orange, (28C: 18D)

(CIP colour chart)

**B**-carotene

5490 μg/100g fwb

content

# SENSORY CHARACTERISTICS

Colour of boiled roots Intermediate orange, appealing to adults and children

Texture of Moderate dry mouth feel

boiled roots

Taste Sweet



Country of origin: USA Pedigree: Unknown





Canopy or

Semi - erect

plant type

Leaf

Green when young and mature; with purple veins under surface;

5 moderate lobes

Vine

Green with purple spots when young and mature, intermediate (5-6 cm) internodes, intermediate (5-6 cm)

diameter

Flowering Late and sparse

ability and habits

#### MAJOR AGRONOMIC ATTRIBUTES

Maturity period 5 months Root yields 25.0 t/ha

Adaptability

Well adapted to high to mid-altitude

areas of Malawi

Resistance to pests

Moderate to sweetpotato weevil

Tolerant to sweetpotato virus disease

Resistance to diseases

#### ROOT CHARACTERISTICS

Shape Skin colour

Obovate Purple

Dry matter 29.0% Intermediate orange, (28D:28C) Flesh colour

(CIP colour chart)

**B**-carotene

content

2900 µg/100g fwb

# SENSORY CHARACTERISTICS

Colour of

Orange

Sweet

boiled roots

Texture of

Moderate dry mouth feel

boiled roots

Taste



Country of origin: Malawi Pedigree: Mugamba x OP





Canopy

Spreading

or plant type

Leaf

Light green with purple leaf stalk and under veins, purple end margins for young leaves,

5 moderate deep lobes

Vine

Purple when old and light green apical part of the stem and hairy; very short (3-4 cm) internodes; intermediate (5-6 mm)

diameter

Flowering

Moderate profuse

ability and habits

# MAJOR AGRONOMIC ATTRIBUTES

Maturity period Root yields

5 months 27.1 t/ha

Adaptability

Specifically adapted to Southern and Central Mozambique regions

Resistance

High to sweetpotato weevils

to pests

Resistance

High to sweetpotato virus disease

to diseases

### **ROOT CHARACTERISTICS**

Shape Skin colour Round elliptic Cream

Dry matter 23.6% Flesh colour Light orange, (25D:28C)

(CIP colour chart)

**B**-carotene

content

5710 μg/100g fwb

#### SENSORY CHARACTERISTICS

Colour of

Intermediate orange

Moderate dry mouth feel

boiled roots Texture of

boiled roots

Taste

Sweet



(CIP 106763.1)

Country of origin: Mozambique Pedigree: UW119 x OP





Canopy or Semi - erect

plant type

Leaf Green old leaves, green young leaves

with purple margins, 5 slight lobes,

green leaf stalk

Vine Green vine, very short (≤3 cm)

internodes, thin (4-5 mm) diameter

Flowering Early and profuse

ability and habits

### MAJOR AGRONOMIC ATTRIBUTES

Maturity period 5 months Root yields 19.3 t/ha

Adaptability Widely adapted

Resistance High to sweetpotato weevils

to pests

Resistance High to sweetpotato virus disease

to diseases

### **ROOT CHARACTERISTICS**

Shape Long elliptic Skin colour Cream Dry matter 27.0%

Flesh colour Intermediate orange, (28C:18B)

β-carotene 8390 μg/100g fwb

content

# SENSORY CHARACTERISTICS

Colour of Intermediate orange

boiled roots

Texture of Moderate dry mouth feel

boiled roots

Taste Moderately sweet

Canopy or

Semi-erect

plant type

Leaf Green when mature, and green

> with purple edges when young; 6-7 deep lobes and lanceolate middle lobe, purplish veins on lower leaf surface

Vine Green when mature; short (3-6 cm)

internodes, intermediate (5-6 mm)

diameter Sparse

ability and habits

Flowering

#### MAJOR AGRONOMIC ATTRIBUTES

Maturity period 5 months Root yields 20 t/ha

Adaptability Widely adapted Moderate to sweetpotato weevil

Resistance

to pests Resistance High to Alternaria stem blight and to

diseases sweetpotato virus disease

#### **ROOT CHARACTERISTICS**

Round elliptic Shape Skin colour Purple red Dry matter 32.5%

Flesh colour Intermediate orange, (28C: 18B)

(CIP colour chart)

**B**-carotene

2878-4000 μg/100g fwb

content

# SENSORY CHARACTERISTICS

Colour of Orange and appealing to adults and boiled roots children

Dry mouth feel Texture of

boiled roots

Taste Moderately sweet







Canopy or

Non-twining and semi-erect

plant type

Leaf

Green when mature, and slightly

purple when young, 7 moderate

deep lobes

Vine Green, with purple tip,

short (3-5 cm) internodes,

thin (<4 mm) diameter

Flowering Late and sparse ability and habits

#### MAJOR AGRONOMIC ATTRIBUTES

Maturity period 4 months Root yields

16.0 t/ha

Adaptability

Does well in most

agroecologies of Uganda

Resistance

Low to sweetpotato weevils

to pests

Resistance Moderate to Alternaria blight and to

to diseases sweetpotato virus disease

# **ROOT CHARACTERISTICS**

Shape Skin colour Long irregular Purple red

Dry matter

30.5%

Flesh colour

Deep orange, (28A: 29A)

(CIP colour chart)

**B**-carotene

11030 μg/100g fwb

content

### SENSORY CHARACTERISTICS

Colour of

Deep orange, appealing to adults

boiled roots and children Texture of Moderate dry mouth feel

boiled roots

Taste

Moderately sweet







Canopy or Semi-erect

plant type

Leaf Green when mature, with purple tips

and 5 deep lobes

Vine Light green when young and mature,

very short (≤3 cm) internodes, moderate (5-6 mm) diameter

Flowering Early and profuse

ability and habits

#### MAJOR AGRONOMIC ATTRIBUTES

Maturity period 4 months
Root yields 38.0 t/ha
Adaptability Widely adapted

Resistance Low

Low to sweetpotato weevils

to pests

Resistance Moderate to sweetpotato virus disease

to diseases

### **ROOT CHARACTERISTICS**

Shape Elliptic Skin colour Cream Dry matter 28.0% Flesh colour Deep or

Flesh colour Deep orange, (28A:29A) (CIP colour chart)

(Cir coloui chan

 $\beta$ -carotene

 $11030 \, \mu g/100g \, fwb$ 

content

# SENSORY CHARACTERISTICS

Colour of Deep orange and appealing to children

boiled roots and adults
Texture of Moderate

Texture of Moderate dry mouth feel boiled roots

Taste

aste Sweet



Country of origin: Uganda Pedigree: NASPOT 7 x OP

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ORANGE-ELESHED SWEETPOTATO FOR AFRICA CATALOGUE





Canopy or

Non-twining and semi-erect

plant type

Leaf Green when mature, 5 very deep

lobes

Vine Green when mature, long (4-7 cm)

internodes, thin (3-5 mm) diameter

Flowering Moderate

ability and habits

# MAJOR AGRONOMIC ATTRIBUTES

Maturity period 5 months Root yields 5.0 t/ha

Adaptability Does well in Central Mozambique Resistance High to sweetpotato weevils

to pests

Resistance Moderately high to Alternaria blight

to diseases and sweetpotato virus disease

# ROOT CHARACTERISTICS

Shape Long irregular Skin colour Cream

Dry matter 37.0%

Flesh colour Dark orange, (28A:29A)

(CIP colour chart)

β-carotene

11030 μg/100g fwb

content

# SENSORY CHARACTERISTICS

Colour of Dark orange, appealing to adults boiled roots and children

Texture of Floury and dry mouth feel

boiled roots

Taste Very sweet

PERSISTENTE
(MGCL01)
Country of origin: Mozambique
Pedigree: Landrance

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Canopy or Semi-erect

plant type

Green when young; 5 moderate deep lobes Leaf Vine Green when mature; very short (≤3.0 cm)

internodes, thin (4-6 mm) diameter

Flowering Early and moderately profuse

ability and habits

#### MAJOR AGRONOMIC ATTRIBUTES

Maturity period 5 months Root yields 20.0 t/ha Adaptability Widely adapted

Resistance to pests

High to sweetpotato weevils

Resistance to diseases High to sweetpotato virus disease

#### **ROOT CHARACTERISTICS**

Shape Round Skin colour Cream 21.0% Dry matter

Deep orange, (30D:29B) Flesh colour

(CIP colour chart)

**β**-carotene 10500 µg/100g fwb content

#### SENSORY CHARACTERISTICS

Colour of Deep orange boiled roots

Texture of

Moderate dry mouth feel

boiled roots

Taste Moderately sweet



Pedigree: SPK004 x OP





Canopy

Semi-erect

or plant type

Leaf

Green with purplish young leaves, green leaf stalk, 5 moderate deep lobes

Vine

Green when young and mature, short (2.5-4.0 cm) internodes; intermediate

(6-7 mm) diameter

Flowering Sparse

ability and habits

#### MAJOR AGRONOMIC ATTRIBUTES

Maturity period Root yields

5 months 21.6 t/ha

Adaptability

Specific adapted in Chokwe (South/

Central of Mozambique) and Gurue

(Central/North Mozambique) Low to sweetpotato weevils

Resistance

to pests Resistance

Moderate to sweetpotato virus disease

to diseases

# **ROOT CHARACTERISTICS**

Root shape Root skin colour Long elliptic Cream

Dry matter

25.2% Deep orange, (30D:29B)

Flesh colour (CIP colour chart)

**B**-carotene

7700 µg/100g fwb

content

### SENSORY CHARACTERISTICS

Colour of boiled roots Deep orange, appealing to adults and children

Texture of Moderate dry mouth feel

boiled roots

Taste

Moderately sweet

SUMAIA IIAM-CIPBD010

(CIP 106763.4) Country of origin: Mozambique

Pedigree: UW119 x OP





Canopy or

Spreading

plant type

Leaf

Light greeen when young and mature; heart

shaped single lobe

Vine Light green when mature, green with

purple when young; intermediate

(6-9 cm) internodes, thin (4-5 mm) diameter Early and moderately profuse

Flowering

ability and habits

#### MAJOR AGRONOMIC ATTRIBUTES

Maturity period 5 months Root yields 20.0 t/ha Widely adapted Adaptability

Resistance

High to sweetpotato weevils

to pests

Resistance

High to sweetpotato virus disease

to diseases

# **ROOT CHARACTERISTICS**

Root shape Long elleptic Root skin colour Brown Dry matter 26.7%

Flesh colour

(CIP colour chart)

**B**-carotene

10320 µg/100g fwb

Dark orange, (30D:29B)

content

#### SENSORY CHARACTERISTICS

Colour of Deep orange, appealing boiled roots to adults and children Texture of Moderate dry mouth feel

boiled roots Taste

Moderately sweet



(CIP 106769.1)

Country of origin: Mozambique Pedigree: NC99573 x OP





Canopy or Erect

plant type

Deep green when mature and green with Leaf

purple edges when young

Vine Predominant vine colour: green when

mature; intermediate (3-6 cm) internodes,

intermediate (5-6 mm) diameter

Flowering Very sparse

ability and habits

#### MAJOR AGRONOMIC ATTRIBUTES

Maturity period 4 months Root yields Over 25.0

Adaptability Widely adapted across the agro-ecologies from the humid forest in Southern Nigeria

to the Northern Guinea Savannahs

Resistance Moderately resistant to weevils

to pests

Moderate to Alternaria blight and Resistance to diseases very low to sweetpotato virus disease

### ROOT CHARACTERISTICS

Shape Long elliptic Skin colour Pink

36.3% Dry matter Flesh colour

Light orange (25D:23D) (CIP colour chart)

700 - 1650 μg/100g fwb **β**-carotene

content

# SENSORY CHARACTERISTICS

Colour of Orange appealing to adults and

boiled roots children Texture of Moderate dry mouth feel

boiled roots

Taste Moderately sweet





Canopy or Spreading

plant type

Green when mature, 3 moderately Leaf

deep lobes

Green, intermediate (5-7 cm) Vine

internodes, very thin (2.4-3.0 mm) diameter

**Flowering Profuse** 

ability and habits

#### MAJOR AGRONOMIC ATTRIBUTES

Maturity period 4 months Root yields 19.5 t/ha

Widely adapted in South African Adaptability

agro-ecologies

Intermediate to sweetpotato weevils Resistance

to pests

Low to sweetpotato virus, sensitive to Resistance

to diseases Alternaria blight

### **ROOT CHARACTERISTICS**

Shape Long elliptic Skin colour Purple Dry matter 25.0%

Flesh colour Orange, (30D:29B)

(CIP colour chart)

**B**-carotene

8806 - 12978 μg/100g fwb

content

# SENSORY CHARACTERISTICS

Colour of boiled roots Orange with slight discoloration

Texture of

Moderate dry mouth feel

boiled roots Taste

Moderately sweet



**W-119** (CIP 440004)

Country of origin: USA Pedigree: W72 x OP







Canopy or

Non-twining and semi-erect

plant type

Leaf Green when mature, deep purple young

leaves, triangular with very slight lobes

Vine Green with purple spots, short (3-5 cm)

internodes, very thin (<4 mm) diameter

Flowering Early and moderate

ability and habits

#### MAJOR AGRONOMIC ATTRIBUTES

Maturity period 4 months

Root yields 15.1 t/ha

Adaptability Does well in most areas except

drought-prone ones Low to sweetpotato weevils

Resistance

to pests

Moderate to Alternaria blight and Resistance to diseases very low to sweetpotato virus disease

#### **ROOT CHARACTERISTICS**

Round elliptic Shape

Skin colour Pink Dry matter 28.5%

Flesh colour Deep orange, (29A:28D)

(CIP colour chart)

**B**-carotene

10900 μg/100g fwb

content

### SENSORY CHARACTERISTICS Deep orange, appealing to children

Colour of

boiled roots Texture of

Moderate dry mouth feel boiled roots

Taste

Moderately sweet



Country of origin: Zambia Pedigree: TIS2537 x OP





Canopy or Spreading

plant type

Leaf Light green when mature, purple

margins on young leaves; 3-4

moderate deep lobes

Vine Light green when young and mature,

short (3.5-5.0 cm) internodes, intermediate (5-6 mm) diameter

Flowering Late and sparse

ability and habits

#### MAJOR AGRONOMIC ATTRIBUTES

Maturity period 6 months

Root yields 8.0 – 16.0 t/ha

Adaptability Resistance High to mid altitudes of Malawi Moderate to sweetpotato weevils

to pests

Resistance

Moderate to sweetpotato virus disease

to diseases

# ROOT CHARACTERISTICS

Shape Long irregular Skin colour Cream

Dry matter 30.0 – 32.0%

Flesh colour Deep orange, (30D:29B)

(CIP colour chart)

β-carotene

9000 μg/100g fwb

content

#### SENSORY CHARACTERISTICS

Colour of Deep Orange

boiled roots

Texture of

Dry and floury mouth feel

boiled roots Taste

Moderately sweet





Canopy or

Non-twining and semi-erect

plant type

Leaf

Green when mature, 5 deep lobes; a

large middle lobe

Vine

Green, moderate (3-6 cm)

internodes, thin (3-5 mm) diameter

Flowering Moderate

ability and habits

#### MAJOR AGRONOMIC ATTRIBUTES

Maturity period 4 months Root yields

22.0 t/ha

Adaptability

Widely adapted

Resistance

Moderate to sweetpotato weevils

to pests

Resistance

Moderate to sweetpotato viruses

to diseases

# **ROOT CHARACTERISTICS**

Shape

Ovate/Obovate

Skin colour Pale purple

Dry matter

31.0%

Flesh colour Intermediate orange, (29A: 28D)

(CIP colour chart) **B**-carotene

content

3760-7230 μg/100g fwb

# SENSORY CHARACTERISTICS

Colour of boiled roots Light orange, appealing to adults and children

Texture of Moderate dry mouth feel

boiled roots

Taste

Sweet



Additional Information

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#### **ADDITIONAL INFORMATION**

Variety	Importance
1. Amelia	Released in Mozambique and grown by farmers for home food and income
2. Ana Akwanire	Released in Malawi and is grown by farmers for home food and income. It is a late maturing variety and therefore suitable for high rainfall areas
3. Bela	<ul> <li>Released in Mozambique and grown by farmers for home food and commercial purposes</li> <li>Currently used as a parent in the crossing block in Mozambique</li> </ul>
4. Caromex	Released and grown by farmers in Mozambique
5. Carrot C	<ul> <li>Not released, but grown by farmers in Tanzania</li> <li>Used as a parent to improve β-carotene and root dry matter in Uganda, Kenya, Mozambique, Rwanda, and Tanzania</li> </ul>
6. Chiwoko	<ul> <li>Has been tabled for release in Zambia, and is currently being grown by farmers for home food and income</li> <li>Used as parent in the crossing block in Zambia to improve β-carotene content</li> </ul>
7. Cecilia	<ul> <li>Released in Mozambique and grown by farmers for home food and income</li> <li>Currently used as a parent in the crossing block in Mozambique</li> </ul>
8. CN-1424-9	Released and grown by farmers in Mozambique
9. CN 1448-49	Released and grown by farmers in Mozambique
10. Cordner	Released and grown by farmers in Mozambique
11. CRI-Apomuden	Released and promoted in Ghana
12. Delvia	Released in Mozambique and grown by farmers for home food and commercial purposes

Additional Information

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Variety	Importance
13. Ejumula	Released in Uganda, Madagascar, Mozambique and Tanzania and near release in Kenya and Rwanda
	Used as a parent to improve β-carotene and root dry matter
	in Uganda, Kenya, Mozambique, Rwanda, Tanzania
14. Erica	Released in Mozambique and grown by farmers for home food and commercial purposes
	Currently used as a parent in the crossing block in Mozambique
15. Esther	Released in Mozambique and grown by farmers for home food and income
	Currently used as a parent in the crossing block in Mozambique
16. Gaba Gaba	Released and grown by farmers in Mozambique
17. Impilo	Released and promoted in South Africa
18. Ininda	Released in Mozambique and grown by farmers for home food and income
19. Irene	Released in Mozambique and grown by farmers for home food and income
20. Jane	Released in Mozambique and grown by farmers for home food and commercial purposes
21. Japones Tresmesino Selecto	Released and grown by farmers in Mozambique
22. Jewel	Promoted in Tanzania and grown for home food
	Used as a parent in many countries to improve β-carotene content
23. Kadyaubwerere	Released in Malawi (in 2011) and is grown by farmer for home food and income
	Used as a parent in the crossing block to generate breeding populations
	with high contents of β-carotene and dry matter
24. Kakamega	Released in Uganda, Kenya, Rwanda and Tanzania
	Used as a parent to improve β-carotene and root dry matter content
25. Kandee	Released and grown by farmers in Mozambique

Additional Information

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Variety	Importance
26. Kaphulira	<ul> <li>Released in Malawi (in 2011) and is grown by farmers for home food and income.</li> </ul>
	<ul> <li>Matures very early and therefore ideal for piecemeal harvesting.</li> </ul>
	<ul> <li>Used as a parent in the crossing block to generate breeding populations</li> </ul>
	with high contents of β-carotene and dry matter.
27. KENSPOT-3	Released in Kenya for food and income in the highlands
	Currently used as a parent in the crossing block
28. KENSPOT-4	Released in Kenya for food and incomes in highlands
	Currently used as a parent in the crossing block
29. KENSPOT-5	Released in Kenya for food and incomes in highlands
30. Khano	Released in South Africa
	Not used for production, only used as
	parent in generating crosses. Has very soft skin and vulnerable to skin damage
31. Kiegea	Released in Tanzania and is grown for food and income
	Currently being used as a parent in the crossing block in Tanzania
32. K566632	Near release in Kenya
	Used as a parent in Uganda, Tanzania, Kenya to improve β-carotene levels
33. Lourdes	Released in Mozambique and grown by farmers for home food and income
34. Lo-323	Released and grown by farmers in Mozambique
35. Mataya	Released in Tanzania and is grown for food and income
	Currently being used as a parent in the crossing block in Tanzania
36. Mathuthu	Released in Malawi and is grown by farmers for home food and income. It is
	also used as a parent in the crossing block to generate breeding populations with high content of $\beta$ -carotene and dry matter
37. Mayai	Grown by farmers in Zanzibar Island and coastal Tanzania
,	Used as a parent in Uganda, Kenya, Tanzania to improve β-carotene and root
	dry matter

Variety	Importance
38. Melinda	<ul> <li>Released in Mozambique and grown by farmers for home food and income</li> <li>Currently used as a parent in the crossing block in Mozambique</li> </ul>
39. Namanga	<ul> <li>Released in Mozambique and grown by farmers for home food and income</li> <li>Currently used as a parent in the crossing block in Mozambique</li> </ul>
40. NASPOT 8	• Released in Uganda and is grown by farmers for food and income. It is also being used as a parent in the crossing block to improve $\beta$ -carotene content, dry matter and resistance to sweetpotato virus disease.
41. NASPOT 9 O	Released in Uganda and Kenya, and is also being tested in Tanzania, Rwanda, Ethiopia, and Mozambique
42. NASPOT 10 O	Released in Uganda and also being tested in Uganda and Kenya and is also being tested in Tanzania and Rwanda
43. NASPOT 12 O	<ul> <li>Released in Uganda and is grown by farmers for food and income</li> <li>Currently used as a parent in the crossing block in Uganda</li> </ul>
44. NASPOT 13 O	<ul> <li>Released in Uganda for food and income</li> <li>Currently used as a parent in the crossing block in Uganda</li> </ul>
45. Olympia	<ul> <li>Has been tabled for release in Zambia, and is already being grown by farmers for its good quality leaf vegetable and roots for home food and income</li> <li>Used as a parent in the crossing block in Zambia to improve quality leaf vegetable</li> </ul>
46. Persistente	Released and grown by farmers in Mozambique
47. Resisto	<ul> <li>Released in Mozambique, South Africa, Madagascar</li> <li>Used as a parent to improve β-carotene content in Uganda, Kenya, Rwanda,</li> </ul>
	Ghana, Mozambique, South Africa, Tanzania and Zambia
48. RW11-2560	Released in Rwanda and is grown by farmers for food and income
49. RW11-2910	Released in Rwanda and is grown by farmers for food and income
50. Sumaia	Released in Mozambique and grown by farmers for home food and commercial purposes  Currently used as a parent in the greening black in Mozambique.
	Currently used as a parent in the crossing block in Mozambique

Additional Information

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Variety	Importance
51. Tainung 64	Released and grown by farmers in Mozambique
	Currently used as a parent in the crossing block in Mozambique
52. Tio Joe	Released in Mozambique and grown by farmers for food and income
	Currently used as a parent in the crossing block in Mozambique
53. Twatasha	Has been tabled for release in Zambia, and is currently being grown by
	farmers for home food and income
	<ul> <li>Used as a parent in the crossing block in Zambia to improve β-carotene content</li> </ul>
54. Umuspo/1	Released in Nigeria and is grown by farmers for food and income
55. Umuspo/3	Released in Nigeria and is grown by farmers for food and income
	Currently used as a parent in the crossing block in Nigeria
56. W-119	Released and promoted in South Africa
57. W-151	Advanced and promising in Kenya
58. Zambezi	Released in Zambia and Madagascar
	Used as a parent to improve β-carotene content
59. Zondeni	Released in Malawi (in 2008) and is grown by farmer for home food and
	income. It is also used as a parent in the crossing block to generate breeding populations with high content of β-carotene and dry matter
60. 199062.1	Released in Mozambique, Madagascar, and Ghana where it is grown for  hama food and income. Promotod in South Africa where it is grown.
	home food and income. Promoted in South Africa where it is grown by farmers for food and income.
	Used as a parent to improve root yield performance

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