ZIMBABWE CATALOGUE 2017
Building Seed Bridges to improve smallholder access to quality seed of new improved crop varieties

Limited smallholder farmer access to quality seed of a range of new improved varieties of key cash and subsistence crops presents a major bottleneck to food security in sub-Saharan Africa (SSA). Adoption rates of modern crop varieties for a number of crops that are strategic to smallholder livelihoods remains low in the region. This situation persists despite increased global public and private investment in the development of innovative improved crop cultivars with potential to address challenges faced by smallholders in SSA.

The Seeds2B initiative fosters the development of ‘seed bridges’ that facilitate the transfer of new better-yielding, adapted and market-appropriate crop varieties developed by public and private breeders based in Africa and globally to smallholders in SSA. By adding new commercially viable products to the portfolios of local seed enterprises, the Seeds2B Project helps smallholders serve new and existing markets with the best of locally grown produce.

The Syngenta Foundation for Sustainable Agriculture (SFSA) and the African Agricultural Technology Foundation (AATF) co-implement Seeds2B in SSA.

About AATF
The African Agricultural Technology Foundation (AATF) is a not-for-profit organisation that fosters public-private partnerships for the access and delivery of appropriate technologies for improved agricultural productivity in SSA.

About SFSA
The Syngenta Foundation for Sustainable Agriculture (SFSA) creates value for resource-poor small farmers in developing countries through innovation in sustainable agriculture and the activation of value chains.
This booklet provides brief descriptions of cultivars of field crops that have been nominated for release and vegetable crops recommended for marketing. When evaluated against local commercial checks during Seeds2B cultivar evaluation trials managed by AATF, the described cultivars displayed yield benefits in addition to preferred combinations of agronomic and/or stress response attributes. The described cultivars exhibit potential to improve food, nutrition and income security in sub-Saharan Africa (SSA).

The plant materials described in this booklet are available for testing as well as commercial uptake (seed production and/or marketing) by local seed enterprises in SSA through licenses issued by AATF. The licensing strategy aims to facilitate sustainable wide utilisation of commercially viable products by target smallholder farmers. Details on AATF’s licensing program are available in the commercialisation portal of AATFs website.

For more information on the content of this booklet and access to the plant materials described contact:

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Sorghum
SGH02

Very high yielding sorghum hybrid

- **Trial Seasons:** Two
- **Trial locations:** Three (all in natural region V)
- **Registration status:** Nominated for registration trials
- **Licensing status:** Available for licensing to seed companies
- **Origin:** India

**Special Features:**
- **Grain Yield:** 4.5 tonnes/ha (Compared to checks: 163% Macia, 150% SV2, 157% SV4)
- **Maturity:** Medium (116 days)
- **Plant height:** Medium (160cm)
- **Panicle:** Semi-compact head of medium length (27cm)
- **Grain:** Cream/off-white with medium sized grain (26g/1000)
- **Stress response:** Aphid tolerance indicated by breeder
SGH03

Very high yielding sorghum hybrid

- **Trial Seasons:** Two
- **Trial locations:** Three (all in natural region V)
- **Registration status:** Nominated for registration trials
- **Licensing status:** Available for licensing to seed companies
- **Origin:** India

**Special Features:**
- **Grain Yield:** 4.0 tonnes/ha (Compared to checks: 147% Macia, 135% SV2, 142% SV4)
- **Maturity:** Medium (116 days)
- **Plant height:** Medium (164cm)
- **Panicle:** Semi-compact head with medium length (28cm)
- **Grain:** Cream/off-white with medium size (26g/1000)
- **Stress response:** Undetermined
SGH05

Early maturing and high yielding sorghum hybrid

- **Trial Seasons:** Two
- **Trial locations:** Three (all in natural region V)
- **Registration status:** Nominated for registration trials
- **Licensing status:** Available for licensing to seed companies
- **Origin:** India

**Special Features:**
- **Grain Yield:** 3.7 tonnes/ha (Compared to checks: 135% Macia, 124% SV2, 130% SV4)
- **Maturity:** Early (110 days)
- **Plant height:** Medium (174cm)
- **Panicle:** Medium head length (29cm)
- **Grain:** Cream/off-white with medium size (27g/1000)
- **Stress response:** Undetermined
High yielding sorghum hybrid with long panicles

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**Special Features:**
- **Grain Yield:** 3.3 tonnes/ha (Compared to checks: 119% Macia, 109% SV2, 114% SV4)
- **Maturity:** Medium (111 days)
- **Plant height:** Medium (162 cm)
- **Panicle:** Semi-compact head of long length (33cm)
- **Grain:** Cream/off-white with small size (23g/1000)
- **Stress response:** Aphid tolerance indicated by breeder
SGH07

Dwarf, early maturing and high yielding sorghum hybrid

- **Trial Seasons:** Two
- **Trial locations:** Three (all in natural region V)
- **Registration status:** Nominated for registration trials
- **Licensing status:** Available for licensing to seed companies
- **Origin:** India

**Special Features:**
- **Grain Yield:** 4.1 tonnes/ha (Compared to checks: 148% Macia, 136% SV2, 143% SV4)
- **Maturity:** Early (109 days)
- **Plant height:** Dwarf (150 cm)
- **Panicle:** Medium head length (30cm)
- **Grain:** Cream/off-white with small size (25g/1000)
- **Stress response:** Undetermined
SGH08

Very high yielding sorghum hybrid with long panicles

Trial Seasons: Two

Trial locations: Three (all in natural region V)

Registration status: Nominated for registration trials

Licensing status: Available for licensing to seed companies

Origin: India

Special Features:

- Grain Yield: 4.3 tonnes/ha (Compared to checks: 158% Macia, 145% SV2, 152% SV4)
- Maturity: Medium (115 days)
- Plant height: Medium (159 cm)
- Panicle: Semi-compact head of long length (31cm)
- Grain: Cream/off-white with medium size (26g/1000)
- Stress response: Drought and Downey mildew tolerance indicated by breeder
SGH09

Dwarf, extra early maturing and high yielding sorghum hybrid

- **Trial Seasons:** Two
- **Trial locations:** Three (all in natural region V)
- **Registration status:** Nominated for registration trials
- **Licensing status:** Available for licensing to seed companies
- **Origin:** India

**Special Features:**
- **Grain Yield:** 4.0 tonnes/ha (Compared to checks: 146% Macia, 135% SV2, 141% SV4)
- **Maturity:** Extra early (102 days)
- **Plant height:** Dwarf (106cm)
- **Panicle:** Medium head length (29cm)
- **Grain:** Red/Brown with small size (25g/1000)
- **Stress response:** Undetermined
SGH10

High yielding sorghum hybrid

**Trial Seasons:** Two

**Trial locations:** Three (all in natural region V)

**Registration status:** Nominated for registration trials

**Licensing status:** Available for licensing to seed companies

**Origin:** India

**Special Features:**
- **Grain Yield:** 4.2 tonnes/ha (Compared to checks: 152% Macia, 140% SV2, 147% SV4)
- **Maturity:** Medium (111 days)
- **Plant height:** Medium (168 cm)
- **Panicle:** Semi-loose head of medium length (29cm)
- **Grain:** Cream/off-white with medium size (27g/1000)
- **Stress response:** Undetermined
High yielding sorghum hybrid

- **Trial Seasons:** Two
- **Trial locations:** Three (all in natural region V)
- **Registration status:** Nominated for registration trials
- **Licensing status:** Available for licensing to seed companies
- **Origin:** India

**Special Features:**
- **Grain Yield:** 3.9 tonnes/ha (Compared to checks: 140% Macia, 129% SV2, 135% SV4)
- **Maturity:** Medium (111 days)
- **Plant height:** Medium (165cm)
- **Panicle:** Semi-compact head of medium length (27cm)
- **Grain:** Cream/off-white with medium size (26g/1000)
- **Stress response:** Downey mildew tolerance indicated by breeder
Dwarf, extra-early maturing and high yielding sorghum hybrid with red grains

**Trial Seasons:** Two

**Trial locations:** Three (all in natural region V)

**Registration status:** Nominated for registration trials

**Licensing status:** Available for licensing to seed companies

**Origin:** India

**Special Features:**
- **Grain Yield:** 3.9 tonnes/ha (Compared to checks: 144% Macia, 132% SV2, 138% SV4)
- **Maturity:** Extra-early (103 days)
- **Plant height:** Dwarf (114cm)
- **Panicle:** Medium head length (29cm)
- **Grain:** Red/Brown with medium size (26g/1000)
- **Stress response:** Undetermined
Early maturing and high yielding sorghum hybrid

SGH15

Trial Seasons: Two

Trial locations: Three (all in natural region V)

Registration status: Nominated for registration trials

Licensing status: Available for licensing to seed companies

Origin: India

Special Features:
- **Grain Yield:** 4.0 tonnes/ha (Compared to checks: 145% Macia, 134% SV2, 140% SV4)
- **Maturity:** Early (108 days)
- **Plant height:** Medium (163cm)
- **Panicle:** Loose head of medium length (28cm)
- **Grain:** Cream/off-white with medium size (29g/1000)
- **Stress response:** Undetermined
Tomato
Very high yielding tomato hybrid with dual purpose

**Trial Seasons:** Two

**Trial locations:** Four (natural region IIA, IIB and V)

**Marketing status:** Recommended for marketing trials

**Licensing status:** Available for licensing to seed companies

**Origin:** China

**Special Features:**
- **Fruit Yield:** 11 tonnes/ha (Compared to checks: 173% Campbell, 211% Tengeru, 129% Money Maker, 184% Rodade)
- **Plant type:** Determinate
- **50% flowering:** 36 days after transplanting
- **Fruit:** Obvoid in longitudinal section with 84g average weight
- **Stress response:** Resistance to pressure indicated by Breeder
- **Segment:** Processing and fresh market
**TOM02**

High yielding tomato hybrid with dual purpose

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**Special Features:**

- **Fruit Yield**: 7 tonnes/ha (Compared to checks: 111% Campbell, 135% Tengeru, 118% Rodade)
- **Plant type**: Determinate
- **50% flowering**: 35 days after transplanting
- **Fruit**: Ellipsoid in longitudinal section with 67g average weight
- **Stress response**: Resistance to cracking and pressure indicated by Breeder
- **Segment**: Processing and fresh market
TOM03

High yielding tomato hybrid with dual purpose

- **Trial Seasons:** Two
- **Trial locations:** Four (natural region IIA, IIB and V)
- **Marketing status:** Recommended for marketing trials
- **Licensing status:** Available for licensing to seed companies
- **Origin:** China

**Special Features:**

- **Fruit Yield:** 8 tonnes/ha (Compared to checks: 122% Campbell, 149% Tengeru, 130% Rodade)
- **Plant type:** Determinate
- **50% flowering:** 35 days after transplanting
- **Fruit:** Rectangular in longitudinal section with 82g average weight
- **Stress response:** Resistance to cracking, pressure, Verticillium wilt (race 1 & 2) and tolerance to viruses indicated by breeder
- **Segment:** Processing and fresh market
**TOM04**

**Very high yielding tomato hybrid**

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**Special Features:**
- **Fruit Yield:** 11 tonnes/ha (Compared to checks: 159% Campbell, 194% Tengeru, 119% Money Maker, 169% Rodade)
- **Plant type:** Determinate
- **50% flowering:** 36 days after transplanting
- **Fruit:** Flat in longitudinal section with 76g average weight
- **Stress response:** Tolerance to Bacterial Wilt, Foliar diseases, Tomato yellow leaf curl virus, Tomato Mosaic Virus and Nematode indicated by breeder
High yielding tomato hybrid

**Trial Seasons:** Two

**Trial locations:** Four (natural region IIA, IIB and V)

**Marketing status:** Recommended for marketing trials

**Licensing status:** Available for licensing to seed companies

**Origin:** India

**Special Features:**
- **Fruit Yield:** 9 tonnes/ha (Compared to checks: 136% Campbell, 167% Tengeru, 145% Rodade)
- **Plant type:** Determinate
- **50% flowering:** 35 days after transplanting
- **Fruit:** Ox-heart in longitudinal section with 83g average weight
- **Stress response:** Tolerance to Tomato yellow leaf curl virus, Tomato Mosaic Virus and Nematode indicated by breeder
High yielding tomato hybrid with large fruits

**Trial Seasons:** Two

**Trial locations:** Four (natural region IIA, IIB and V)

**Marketing status:** Recommended for marketing trials

**Licensing status:** Available for licensing to seed companies

**Origin:** China

**Special Features:**

- **Fruit Yield:** 9 tonnes/ha (Compared to checks: 129% Campbell, 157% Tengeru, 137% Rodade)
- **Plant type:** Undetermined
- **50% flowering:** 37 days after transplanting
- **Fruit:** Flat in longitudinal section with 181g average weight
- **Stress response:** Resistance to early and late blight, mosaic virus, tip blight and low temperature indicated by breeder
TOM07

Very high yielding tomato hybrid

- **Trial Seasons:** Two
- **Trial locations:** Four (natural region IIA, IIB and V)
- **Marketing status:** Recommended for marketing trials
- **Licensing status:** Available for licensing to seed companies
- **Origin:** India

**Special Features:**
- **Fruit Yield:** 10 tonnes/ha (Compared to checks: 149% Campbell, 182% Tengeru, 111% Money Maker, 159% Rodade)
- **Plant type:** Undetermined
- **50% flowering:** 36 days after transplanting
- **Fruit:** Round in longitudinal section with 76g average weight
- **Stress response:** Undetermined
**High yielding tomato hybrid**

**Trial Seasons:** Two

**Trial locations:** Four (natural region IIA, IIB and V)

**Marketing status:** Recommended for marketing trials

**Licensing status:** Available for licensing to seed companies

**Origin:** India

**Special Features:**
- **Fruit Yield:** 9 tonnes/ha (Compared to checks: 134% Campbell, 164% Tengeru, 143% Rodade)
- **Plant type:** Undetermined
- **50% flowering:** 35 days after transplanting
- **Fruit:** Rectangular in longitudinal section with 79g average weight
- **Stress response:** Undetermined
**TOM09**

Very high yielding tomato hybrid

- **Trial Seasons:** Two
- **Trial locations:** Four (natural region IIA, IIB and V)
- **Marketing status:** Recommended for marketing trials
- **Licensing status:** Available for licensing to seed companies
- **Origin:** India

**Special Features:**
- **Fruit Yield:** 10 tonnes/ha (Compared to checks: 143% Campbell, 175% Tengeru, 107% Money Maker, 152% Rodade)
- **Plant type:** Undetermined
- **50% flowering:** 37 days after transplanting
- **Fruit:** Rectangular in longitudinal section with 85g average weight
- **Stress response:** Undetermined
TOM10

High yielding tomato hybrid with large fruits

- **Trial Seasons:** Two
- **Trial locations:** Four (natural region IIA, IIB and V)
- **Marketing status:** Recommended for marketing trials
- **Licensing status:** Available for licensing to seed companies
- **Origin:** India

**Special Features:**
- **Grain Yield:** 7 tonnes/ha (Compared to checks: 119% Campbell, 104% Rodade)
- **Plant type:** Undetermined
- **50% flowering:** 36 days after transplanting
- **Fruit:** Round in longitudinal section with 109g average weight
- **Stress response:** Undetermined
Pearl Millet
PMH01

Very high yielding pearl millet hybrid with large grains

- **Trial Seasons:** Two
- **Trial locations:** Three (all in natural region V)
- **Registration status:** Nominated for registration trials
- **Licensing status:** Available for licensing to seed companies
- **Origin:** India

**Special Features:**
- **Grain Yield:** 3.2 tonnes/ha (Compared to checks: 123% Okashana, 119% PMV3)
- **Maturity:** Medium (99 days)
- **Plant height:** Medium (173cm)
- **Panicle:** Compact head of medium length (30cm)
- **Grain:** Grey/off-white with large size (13g/1000)
- **Stress response:** Undetermined
PMH05

Very high yielding pearl millet hybrid with large grain

- **Trial Seasons:** Two
- **Trial locations:** Three (all in natural region V)
- **Registration status:** Nominated for registration trials
- **Licensing status:** Available for licensing to seed companies
- **Origin:** India

**Special Features:**
- **Grain Yield:** 3.2 tonnes/ha (Compared to checks: 123% Okashana, 118% PMV3)
- **Maturity:** Medium (100 days)
- **Plant height:** Medium (177cm)
- **Panicle:** Compact head of medium length (27cm)
- **Grain:** Grey/off-white with large size (12g/1000)
- **Stress response:** Undetermined
High yielding pearl millet hybrid with large grain

- **Trial Seasons:** Two
- **Trial locations:** Three (all in natural region V)
- **Registration status:** Nominated for registration trials
- **Licensing status:** Available for licensing to seed companies
- **Origin:** India

**Special Features:**
- **Grain Yield:** 2.8 tonnes/ha (Compared to checks: 107% Okashana, 103% PMV3)
- **Maturity:** Medium (98 days)
- **Plant height:** Medium (174cm)
- **Panicle:** Compact head of medium length (27cm)
- **Grain:** Grey/off-white, with large size (13g/1000)
- **Stress response:** Downey mildew tolerance indicated by breeder
High yielding pearl millet hybrid with very large grain

**Trial Seasons:** Two

**Trial locations:** Three (all in natural region V)

**Registration status:** Nominated for registration trials

**Licensing status:** Available for licensing to seed companies

**Origin:** India

**Special Features:**
- **Grain Yield:** 3.1 tonnes/ha (Compared to checks: 118% Okashana, 113% PMV3)
- **Maturity:** 98 days
- **Plant height:** Medium (173cm)
- **Panicle:** Compact head of medium length (27cm)
- **Grain:** Grey/off-white with very large size (14g/1000)
- **Stress response:** Downey mildew tolerance indicated by breeder
Early maturing, high yielding pearl millet hybrid with large grain

**Trial Seasons:** Two

**Trial locations:** Three (all in natural region V)

**Registration status:** Nominated for registration trials

**Licensing status:** Available for licensing to seed companies

**Origin:** India

**Special Features:**
- **Grain Yield:** 2.9 tonnes/ha (Compared to checks: 112% Okashana, 108% PMV3)
- **Maturity:** Early (97 days)
- **Plant height:** Medium (161cm)
- **Panicle:** Compact head of medium length (26cm)
- **Grain:** Grey/off-white with late size (13g/1000)
- **Stress response:** Downey mildew tolerance indicated by breeder
Very high yielding pearl millet hybrid with large grain

**Trial Seasons:** Two

**Trial locations:** Three (all in natural region V)

**Registration status:** Nominated for registration trials

**Licensing status:** Available for licensing to seed companies

**Origin:** India

**Special Features:**
- **Grain Yield:** 3.2 tonnes/ha (Compared to checks: 124% Okashana, 119% PMV3)
- **Maturity:** Medium (99 days)
- **Plant height:** Medium (180cm)
- **Panicle:** Compact head of medium length (28cm)
- **Grain:** Brown/off-white with large size (13g/1000)
- **Stress response:** Undetermined
PMH12

Tall, high yielding pearl millet hybrid with large grain

**Trial Seasons:** Two

**Trial locations:** Three (all in natural region V)

**Registration status:** Nominated for registration trials

**Licensing status:** Available for licensing to seed companies

**Origin:** India

**Special Features:**
- **Grain Yield:** 2.8 tonnes/ha (Compared to checks: 108% Okashana, 104% PMV3)
- **Maturity:** Medium (99 days)
- **Plant height:** Medium (183cm)
- **Panicle:** Compact head of medium length (28cm)
- **Grain:** Grey/off-white with large size (13g/1000)
- **Stress response:** Downey mildew tolerance indicated by breeder