



Potato Variety Catalogue of Tanzania 2022



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(Potato = Round Potato = Irish Potato = *Solanum tuberosum*)

Colophon:

COMPILED BY

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It is my pleasure to present the first Potato Variety Catalogue of Tanzania in collaboration with the Tanzania Official Seed Certification Institute (TOSCI). Tanzania and the Netherlands have a long history of collaboration towards sustainable trade and investment in agriculture. The partnership in the potato sector is no exception.

Right from the onset, the role of the private sector became pivotal in strengthening the industry. This is signified with a Memorandum of Understanding (MoU) on developing the potato industry, which was signed between the Ministry of Agriculture of Tanzania and the Ministry of Agriculture, Nature and Food Quality of the Netherlands in 2018. Through this MoU, seed potato breeders together with input and mechanization, storage solutions, financiers worked together with their Tanzania counterparts to support the sector development. A special thanks to Wageningen University & Research (WUR) and the Tanzania Agriculture Research Institute (TARI) for taking up the coordination role.

The tie was then consolidated with a Bilateral Agreement between the two governments on phytosanitary import conditions of seed potato from the Netherlands signed in 2016. This agreement allowed National Plant Protection Organizations from both parties to work together towards strengthening the potato seed systems. Since then, we can speak of a true potato partnership between the two countries which resulted in the registration of 16 potato varieties both local and imported. These varieties have a wide range of use from fries, boiling, processing, baking, etc. These varieties also provide possibilities to increase yields tremendously if good agronomic practices are followed.

I am glad that this catalogue is structured to show the progress the partnership has made in seed supply, seed distribution, storage solutions, potato production, processing and sector development. Hence, it will help the sector to make well-informed decisions.

Finally, I would like to thank everybody who has contributed with their insights and time to the creation of this catalogue: as you will read, there are many! And a special thank you goes to the team of the Tanzania Official Seed Certification Institute, Dr. Patrick Ngwediagi, Mrs. Dorah Bivugile, Southern Agricultural Corridor of Tanzania (SAGCOT), Mr. Geoffrey Kirenga and Mr. Henk Bonthuis, for supporting the sector and compiling this publication.

Bart Pauwels,

Agricultural Counsellor for Kenya and Tanzania

Embassy of the Kingdom of the Netherlands



This Potato Variety Catalogue presents detailed variety descriptions of the 16 registered potato varieties in Tanzania and information on the certification of Seed Potatoes. The varieties included in this catalogue are those that have been registered up to the year 2022. This is the first edition; more editions will be developed as the number of registered potato varieties increase.

The seed potato catalogue comprises different sections. Section one is about TOSCI's responsibilities, vision and mission statements. The second section is about how TOSCI monitors the quality of certified seed potato. The third section is on advice given to farmers on purchasing certified seed potato. The fourth section gives details of registered seed potato dealers in Tanzania. The fifth section is on the ecological requirements of potato in Tanzania. The sixth section is on variety characterization and the seventh section has a list of released varieties and their specific characteristics.

Generally the Potato Variety Catalogue aims at communicating to farmers and other stakeholders on the released potato variety, its descriptions and on the availability of seed potatoes of the released potato varieties in order to improve accessibility of quality seed potato. This will increase the use of certified seed potatoes which in turn increases production, productivity and quality.

It is also set as an important tool in reaching the Ministry of Agriculture Agenda 2010/30, aiming at improving agriculture through the use of quality seed potato.

I would like to extend my sincere thanks to the Ministry of Agriculture and The Netherlands Embassy, who organized and made this work accomplished.

Patrick Ngwediagi

Director General of TOSCI

TANZANIA OFFICIAL SEED CERTIFICATION INSTITUTE (TOSCI)

The Tanzania Official Seed Certification Institute (TOSCI) was established under the Seed Act No. 18 of 2003 as a successor to the Tanzania Official Seed Certification Agency (TOSCA). TOSCI is a government institute under the Ministry of Agriculture responsible for the certification and control of agricultural seeds produced or imported into the country for sale. It is also entrusted with safeguarding the farming community from procuring poor quality or fake seeds from vendors of farm inputs.

TOSCI's Head Quarter is in Morogoro and has four zonal offices in:

Tengeru	- Arusha Region	- Northern Zone
Ukiriguru	- Mwanza Region	- Lake Zone
Maheve	- Njombe Region	- Southern Highland Zone
Naliendele	- Mtwara Region	- Southern Zone

TOSCI VISION STATEMENT

"A farming community with quality seed and planting materials for productivity and profitability"

TOSCI MISSION STATEMENT

"To control and enable seed quality through variety verification, seed and planting material certification and facilitate the private and public sector to produce and sell seeds of high quality that meet international quality standards"

MANDATE AND FUNCTIONS OF TOSCI

1. Seed dealer registration
2. Training of seed producers, seed inspectors and seed analysts
3. Distinctness, Uniformity and Stability (DUS) testing
4. Registration of varieties
5. Carrying out of National Performance Trials
6. Registration of seed fields and seed inspections

7. Registration of seed sampling and seed testing
8. Issuance of transport orders
9. Issuance of import/export permits
10. Issuance of various certificates
11. Carry out pre- and post-control tests
12. Post-harvest seed inspection
13. Authorization of seed inspectors, samplers, laboratories and analysts
14. Preparation of guidelines and other requirements as regards to the authorization of seed inspectors, samplers, laboratories and analysts
15. Collection of fees or otherwise generate revenue for efficient and effective services
16. Coordinating with international organizations such as the International Seed Testing Association (ISTA) and Organization for Economic Cooperation and Development (OECD) and the International Union for the Protection of New varieties of plants (UPOV) on seed related issues
17. Enforcement of the Seed Act 2003 and its Regulations and promoting self-compliance by stakeholders

TOSCI MONITORING THE QUALITY OF CERTIFIED SEED POTATO

The number of registered potato varieties in Tanzania has increased. These varieties have different traits to meet different farmers' and consumers' needs. The number of seed potato producers has also increased.

The demand for using certified seed potatoes by farmers is increasing which indicates an increasing awareness on the use of certified seed potatoes. The use of certified seed potatoes by farmers will in turn increase income of the farmers due to their high production values as compared to the unregistered and uncertified locally cultivated potatoes.

The Seed Act of 2003 and Regulations of 2007 (and its amendments thereof) gives guidance for monitoring quality of certified seed potato. To implement this, TOSCI has the mandate to protect farmers from acquiring fake seed and this has been in place by the introduction of certification labels by TOSCI as a quality symbol to help farmers recognize quality seeds. Farmers are therefore encouraged to buy seed potatoes with a TOSCI certification label. The TOSCI label should have the following information and look like the samples below:



TOSCI LABELS HAVE THE FOLLOWING DETAILS:

- | | |
|--------------------------------|---|
| a) Species: | <i>Solanum tuberosum</i> (potato) |
| b) Variety name: | e.g. Asante, Jelly, Rodeo, etc. |
| c) Category (seed generation): | Pre Basic, Basic 1, Basic 2, Certified 1, Certified 2 |
| d) Reference no: | |
| e) Date Tested: | |
| f) Label color: | |
| Pre Basic seed: | white with purple stripes |
| Basic seed: | white (B1, B2) |
| Certified seed: | blue (C1), red (C2) |
| Standard seed: | yellow |
| Not finally certified seed: | grey |

Fig 1. Sample of TOSCI labels for each category of seed:



FARMERS' ADVICE ON PURCHASING CERTIFIED SEED POTATO

1. Purchase seeds of the registered varieties which are recommended to be grown in your area. The Variety List is available through <https://www.tosci.go.tz>
2. Purchase seeds from a seed dealer registered by TOSCI.
3. Purchase certified seeds which have a certification label from TOSCI.
4. Purchase seed with proper package, well-sealed and with a label carrying the following information: name of the company, lot number, name of crop and variety, date of testing, etc..
5. Farmers should obtain and keep the original receipt on purchase of seed.
6. After using the seed, farmers should keep the package of seed with its certification label for reference in case of quality complaints.
7. Farmers should inspect the seed on obvious quality concerns such as concerns over sprouting, damage, rotting, etc. These concerns should be reported to TOSCI or any authorized seed inspector at the District office immediately.
8. After planting report on any unknown disease or other anomalies found on certified seed to TOSCI for actions. For this purpose the following should be observed:
 - a. All complaints should be reported immediately and within the growing season
 - b. For your concern to be acted on, the information on the label of the seed should be intact.
9. Any complaints on the quality of seed should be reported to TOSCI to the following address:

TOSCI headquarters, Morogoro:

Tel: +255 232 640 034

Email address: info@tosci.go.tz

Zonal Offices:

Northern Zone (Arusha)

Southern Highland Zone (Njombe)

Lake Zone (Mwanza)

Southern Zone (Mtwara)

Telephone

0735 553 288

0262 965 928

0282 983 105

0232 935 608



TABLE 1: SEED POTATO DEALERS – REGISTERED BY TOSCI

Name	Region	Contacts	Varieties
Mtanga Foods Ltd	Iringa	info@mtangafoods.com 067320291	Asante, Jelly, Meru, Rumba, Tengeru
Silverlands Ndolela Ltd	Njombe	zac@silverlands.co.tz 0767632576 0767032814	Challenger, Jelly, Panamera, Rodeo, Rumba, Sagitta, Sifra, Taurus, Voyager
Tanzanice Agrofoods Company Ltd	Iringa	info@tanzanice.co.tz 076477764	Jelly, Panamera, Sagitta, Taurus
TARI - Tengeru	Arusha	cmtengeru@gmail.com 0737206525	Asante, Meru, Sherekea, Tengeru
TARI - Uyole	Mbeya	cduyole@tari.go.tz 0252510363	Asante, Meru, Sherekea, Tengeru
TARI - Kifyulilo	Iringa	cmkifyulilo@tari.go.tz 0755766812	Sherekea
Rotian	Arusha	0753884832	Rodeo, Sagitta, Taurus
Beula Seed Co & Consultancy Ltd	Mbeya	beulaseed@gmail.com 0744400199 0754765028	Meru, Tengeru
Maua Mazuri TC Ltd	Kilimanjaro	info@maua.mazuri.co.tz 0764250430	Sherekea

ECOLOGICAL REQUIREMENTS OF POTATO IN TANZANIA

POTATO GROWING AREAS

The Mbeya, Iringa and Njombe regions in the Southern Highlands are the main potato growing areas, accounting for 80-90% of the total potato production in Tanzania.

In the Lake Zone potatoes are grown in the Kagera region near the Ugandan border, in the Northern Zone potatoes are grown west of Mount Kilimanjaro (Arusha region) and in the Usambara mountains in the north-eastern part of Tanzania (Tanga region).

PLANTING TIMES

Planting times vary, depending on altitude and rainfall patterns.

In the Southern Highlands at high altitudes (> 2000 meters a.s.l.) potatoes can be planted in September or October. For mid-altitude areas (1500-2000 meters a.s.l.) planting starts after the onset of the rains in November or December, making a second planting possible in February.

Potatoes in the Northern Highlands are mostly planted under good moisture conditions. Rainfall in the Northern Highlands is divided over two seasons, allowing for more than one crop per year. Planting in the long rainy season (*Masika*) mostly starts at the onset of the long rains in March/April. Planting in the short rainy season (*Vuli*) starts at the onset of the short rains in November/December.

ALTITUDES

Potatoes in Tanzania are mostly grown at altitudes ranging from 1200 to 2700 meters a.s.l. The highest potato growing areas are in Iringa and Njombe regions (over 2000 meters a.s.l.).

SOIL TYPE

Soils vary between regions, but well-drained clay loam soils with adequate organic matter are generally most suitable for potato. Soil pH may range from 5.5 to 7, although soils in the Southern Highlands can be slightly more acidic (below pH 5.5).

TEMPERATURE

Average daily temperatures in the potato growing areas of the Northern and Southern Highlands range between 13° C and 19° C. Average maximum temperatures in these areas range from 25° C to 28° C. Frost may occasionally occur at high altitudes in March and April.

RAINFALL

Average annual rainfall in the Southern Highlands is about 800 mm at medium altitudes, most of which is reached in the single wet season from November through April. Rainfall is extended and higher at higher altitudes.

Average annual rainfall in the Northern Highlands is about 1000 mm at medium altitudes (1500 – 2000 meters a.s.l.) and more at higher altitudes, divided over two rainy seasons: a long rainy season (*Masika*) with long rains from March through May and a short rainy season (*Vuli*) with short rains in November and December.

DISEASES

Late blight (*Phytophthora infestans*), bacterial wilt (*Ralstonia solanacearum*), early blight (*Alternaria solani*) and viral diseases such as Potato Virus Y (PVY) and Potato Leaf Roll Virus (PLRV) are some of the major diseases. Important pests include aphids, white flies and Potato tuber moth.

VARIETY CHARACTERISTICS

The following characteristics are specified for each variety:

- Use
 - Table varieties can be used for cooking, mashing, roasting, baking and stew and are usually produced for the fresh market.
 - Chips varieties can be used for chips (French fries)
 - Crisp varieties can be used for crisps (thin fried slices of potato)

- Areas to be grown – suitability of variety for certain areas (regions)
- Maturity – time from planting until harvest
- Yield potential – yield realized in trials under optimal conditions
- Tuber characteristics – tuber shape, size, color of skin and color of flesh
- Tuber dormancy – time from harvest until sprouting (in storage)
- Dry matter content – dry matter in percentage of total tuber weight
- Plant description – crop characteristics (size of plant, growth type, etc.)
- Disease resistance – resistance against diseases prevailing in Tanzania
- Tolerance – tolerance to damage by pests or diseases
- Seed dealer – seed potato supplier registered by TOSCI

STATES OF EXPRESSION

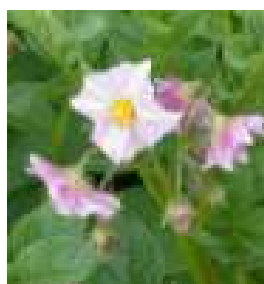
Maturity	Yield potential	Color of skin	Color of flesh	Tuber shape	Dormancy	Resistance to diseases	Tolerance to damage
Early (< 3 months)	Low (< 30 tons/ha)	Light Yellow	White	Round	Short (< 1 month)	Low (susceptible)	Low (sensitive)
Medium (3–4 months)	Medium (30-40 tons/ha)	Bright Yellow	Pale Yellow	Round Oval	Medium (1-2 months)	Moderate	Moderate
Late (> 4 months)	High (> 40 tons/ha)	Yellow	Cream	Oval	Long (> 2 months)	High (resistant)	High (tolerant)
		Pink	Light Yellow	Long Oval			
		Red	Yellow	Long			

ARIZONA



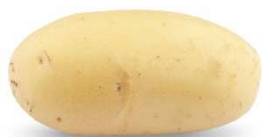
Use	Table (fresh market) variety
Areas to be grown	Suitable for all potato growing areas
Maturity	Early (< 3 months)
Yield potential	High (> 40 tons/ha)
Tuber characteristics	Large, oval tubers - Yellow skin - Light yellow flesh - Shallow eyes. Moderately tolerant to internal bruising.
Tuber dormancy	Medium (1-2 months)
Dry Matter content	17 %
Plant description	Arizona exhibits good initial development. It produces white flowers. Arizona is high yielding and should not be stored for too long before planting.
Disease resistance	Arizona is susceptible to late blight and early blight. Resistant to Potato Virus Y (PVY) and Potato Virus X (PVX). It is susceptible to common scab and powdery scab. Arizona is resistant to Ro1 of Potato Cyst Nematode.
Registered Seed Dealer	

ASANTE (SYNONYM VICTORIA IN UGANDA)



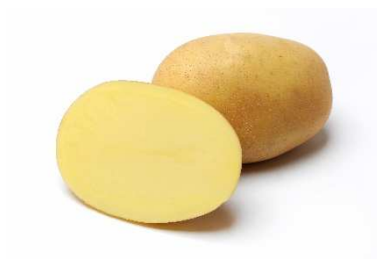
Use	Table (fresh market) variety
Areas to be grown	Suitable for all potato growing areas
Maturity	Medium (3-4 months)
Yield potential	High (> 40 tons/ha)
Tuber characteristics	Round tubers - Smooth pink skin – Cream flesh - Medium eye-depth
Tuber dormancy	Long (2-3.5 months)
Dry Matter content	21 %
Plant description	Asante is an erect, tall variety with strong stems and light green broad leaves. It flowers moderately and the flowers are pink. Asante is tolerant to drought.
Disease resistance	Asante is resistant to late blight but can suffer from late season infections. It is susceptible to early blight. Asante is resistant to Potato Leaf Roll Virus (PLRV) and it is resistant to common scab and powdery scab.
Registered Seed Dealer	Mtanga Foods Ltd / TARI Tengeru / TARI Uyole

CHALLENGER



Use	Table (fresh market) and Chips variety
Areas to be grown	Suitable for all potato-growing areas
Maturity	Late (> 4 months)
Yield potential	Medium (30-40 tons/ha)
Tuber characteristics	Long oval to long tubers - Medium smooth bright yellow skin - Shallow eyes - Light yellow flesh. Challenger is sensitive to internal bruising.
Tuber dormancy	Medium (1-2 months)
Dry Matter content	22 %
Plant description	Challenger is a tall variety. It flowers profusely and the flowers are white. Challenger is tolerant to drought.
Disease resistance	Susceptible to late blight and moderately resistant to early blight. Challenger is susceptible to Potato Virus Y (PVY). It is resistant to common scab and moderately resistant to powdery scab.
Registered Seed Dealer	Silverlands Ndolela Ltd

JELLY



Use	Table (fresh market) and Chips variety.
Areas to be grown	Suitable for all potato growing areas
Maturity	Late (> 4 months)
Yield potential	High (> 40 tons/ha)
Tuber characteristics	Oval, medium to big sized tubers - Yellow, smooth to slightly netted skin - Yellow colored flesh - Shallow eyes. Jelly is tolerant to internal bruising.
Tuber dormancy	Medium (1-2 months)
Dry Matter content	21 %
Plant description	Jelly is a tall variety with erect stems. Leaves are large and green. It flowers scarcely and the flowers are white. Jelly is highly tolerant to drought and heat.
Disease resistance	Jelly is moderately resistant to late blight and resistant to early blight. It is resistant to Potato Virus Y (PVY), resistant to common scab and resistant to Ro1 of Potato Cyst Nematode.
Registered Seed Dealer	Mtanga Foods Ltd / Silverlands Ndolela Ltd / Tanzanice Agrofoods Co. Ltd

MANITOU



Use	Table (fresh market) variety
Areas to be grown	Suitable for all potato growing areas
Maturity	Late (> 4 months)
Yield potential	High (> 40 tons/ha)
Tuber characteristics	Oval to long oval tubers (uniform in shape) - Red smooth skin - Light yellow flesh - Shallow eyes. Manitou is tolerant to internal bruising.
Tuber dormancy	Short (< 1 months)
Dry Matter content	19 %
Plant description	Manitou is a tall variety with erect to semi-erect stems. Leaves are large and light green to green in color. It flowers profusely and the flowers are violet. Manitou is quite sensitive to harvest damage, after harvest it needs to be hardened off for 3 weeks.
Disease resistance	Manitou is susceptible to late blight and moderately resistant to early blight. It is resistant to Potato Virus Y (PVY) and moderately resistant to Potato Virus X (PVX). It is moderately susceptible to common scab and powdery scab and resistant to Ro1 of Potato Cyst Nematode.
Registered Seed Dealer	

MARKIES



Use	Table (fresh market), Chips and Crisps variety
Areas to be grown	Suitable for all potato growing areas
Maturity	Late (> 4 months)
Yield potential	High (> 40 tons/ha)
Tuber characteristics	Large, oval to long oval tubers, uniform in shape - Yellow skin – Light yellow flesh – Shallow eyes. Markies is tolerant to internal bruising.
Tuber dormancy	Long (> 2 months)
Dry Matter content	23 %
Plant description	Markies is an erect, tall variety with white flowers. It has good heat tolerance.
Disease resistance	Markies is susceptible to late blight and early blight. It is resistant to Potato Virus Y (PVY) and Potato Virus X (PVX) and moderately resistant to Potato Leaf Roll Virus (PLRV). Markies is moderately susceptible to common scab and susceptible to powdery scab. It is resistant to Ro1 of Potato Cyst Nematode.
Registered Seed Dealer	

MERU (SYNONYM KENYA MPYA IN KENYA)

Use	Table (fresh market), Chips and Crisps variety
Areas to be grown	Suitable for all potato growing areas
Maturity	Medium (3-4 months)
Yield potential	Medium (30-40 tons/ha)
Tuber characteristics	Oval tubers - Smooth cream skin - Cream flesh - Medium deep pink eyes
Tuber dormancy	Long (2.5-3 months)
Dry Matter content	23%
Plant description	Meru is a semi-erect tall variety with strong stems and light green medium-sized leaves. It flowers scarcely and the flowers are white. Meru is tolerant to drought.
Disease resistance	Meru is resistant to late blight. It is susceptible to Potato Virus Y (PVY) and Potato Leaf Roll Virus (PLRV). It is resistant to Potato Virus X (PVX). Meru is resistant to common scab and powdery scab.
Registered Seed Dealer	Mtanga Foods Ltd / TARI Tengeru / TARI Uyole / Beula Seed Co. & Consultancy Ltd

PANAMERA



Use	Table (fresh market) and Chips variety
Areas to be grown	Suitable for all potato growing areas
Maturity	Late (> 4 months)
Yield potential	High (> 40 tons/ha)
Tuber characteristics	Large, oval tubers - Very bright and smooth yellow skin – Light yellow flesh - Shallow eyes. It is sensitive to internal bruising.
Tuber dormancy	Long (> 2 months)
Dry Matter content	21 %
Plant description	Panamera has very high and dense foliage with a high number of white flowers
Disease resistance	Panamera is moderately resistant to late blight and resistant to early blight. It is susceptible to Potato Virus Y (PVY) and it is resistant to common scab and moderately resistant to powdery scab.
Registered Seed Dealer	Silverlands Ndolela Ltd / Tanzanice Agrofoods Co. Ltd

RODEO



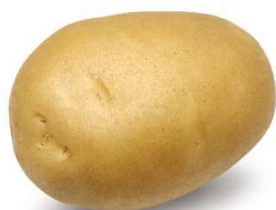
Use	Table (fresh market) variety
Areas to be grown	Suitable for all potato growing areas
Maturity	Late (> 4 months)
Yield potential	High (> 40 tons/ha)
Tuber characteristics	Medium to big long oval tubers - Red skin – Light yellow flesh - Shallow eyes. It is moderately tolerant to internal bruising.
Tuber dormancy	Medium (1-2 months)
Dry Matter content	22 %
Plant description	Rodeo has high foliage development. It flowers profusely and the flowers are violet.
Disease resistance	Rodeo is susceptible to late blight and resistant to early blight. It is susceptible to Potato Virus Y (PVY). Rodeo is moderately resistant to common scab and susceptible to powdery scab.
Registered Seed Dealer	Silverlands Ndolela Ltd / Rotian

RUMBA



Use	Crisps and Chips variety
Areas to be grown	Suitable for all potato growing areas
Maturity	Medium (3-4 months)
Yield potential	High (> 40 tons/ha)
Tuber characteristics	Round oval tubers (uniform in shape) - Yellow, slightly netted skin - Light yellow flesh - Shallow eyes. Rumba is sensitive to internal bruising.
Tuber dormancy	Medium (1-2 months)
Dry Matter content	21 %
Plant description	Rumba has white flowers with yellow tips. It has good tolerance to drought.
Disease resistance	Rumba is moderately resistant to late blight and resistant to early blight. It is resistant to Potato Virus Y (PVY) and Potato Leaf Roll Virus (PLRV). It is moderately resistant to common scab and resistant to powdery scab. It is resistant to Ro1 of Potato Cyst Nematode.
Registered Seed Dealer	Mtanga Foods Ltd / Silverlands Ndolela Ltd

SAGITTA



Use	Table (fresh market) and Chips variety
Areas to be grown	Suitable for all potato growing areas
Maturity	Medium (3-4 months)
Yield potential	High (> 40 tons/ha)
Tuber characteristics	Oval tubers - Yellow skin - Light yellow flesh - Shallow eyes. Sagitta is tolerant to internal bruising.
Tuber dormancy	Medium (1-2 months)
Dry Matter content	22 %
Plant description	Sagitta is a medium to tall plant with an intermediate type of foliage structure and a high frequency of pink flowers. The plants are semi-erect with medium thick stems.
Disease resistance	Sagitta is susceptible to late blight and moderately resistant to early blight. It is resistant to Potato Virus Y (PVY). Sagitta is moderately resistant to common scab and resistant to powdery scab. Sagitta is resistant to Ro1 of Potato Cyst Nematode.
Registered Seed Dealer	Silverlands Ndolela Ltd / Tanzanice Agrofoods Co. Ltd / Rotian

SHEREKEA



Use	Table (fresh market) and Crisps variety
Areas to be grown	Suitable for all potato growing areas
Maturity	Medium (3-4 months)
Yield potential	High (> 40 tons/ha)
Tuber characteristics	Round tubers - Smooth red skin - Cream flesh - Deep eyes.
Tuber dormancy	Long (4-4,5 months)
Dry Matter content	21 %
Plant description	Sherekea is a semi-erect, tall variety with strong stems and light green, small to medium-sized leaves. It flowers profusely and the flowers are light purple. Sherekea is tolerant to drought.
Disease resistance	Sherekea is resistant to late blight, Potato Virus Y (PVY) and Potato Virus X (PVX). It is resistant to common scab.
Registered Seed Dealer	TARI Tengeru / TARI Uyole / TARI Kifyulilo / Maua Mazuri TC Ltd

SIFRA



Use	Table (fresh market) variety
Areas to be grown	Suitable for all potato growing areas
Maturity	Late (> 4 months)
Yield potential	High (> 40 tons/ha)
Tuber characteristics	Large, round to round oval tubers - Bright smooth, light yellow skin - Cream flesh - Shallow eyes. Sifra is moderately tolerant to internal bruising.
Tuber dormancy	Medium (1-2 months)
Dry Matter content	19 %
Plant description	Sifra is a medium to tall variety with dense foliage. It flowers profusely and the flowers are white.
Disease resistance	Sifra is moderately resistant to late blight and early blight. It is susceptible to Potato Virus Y (PVY). Sifra is moderately susceptible to common scab and powdery scab and it is resistant to Ro1 of Potato Cyst Nematode.
Registered Seed Dealer	Silverlands Ndolela Ltd

TAURUS



Use	Table (fresh market) and Crisps variety
Areas to be grown	Suitable for all potato growing areas
Maturity	Medium (3-4 months)
Yield potential	Medium (30-40 tons/ha)
Tuber characteristics	Round to round oval tubers – Smooth yellow skin - Light yellow flesh - Medium deep eyes. Taurus is sensitive to internal bruising.
Tuber dormancy	Long (> 2 months)
Dry Matter content	24 %
Plant description	Taurus is a medium to tall plant. It has an upright to semi upright stem. It has a medium to high frequency of white flowers. Taurus is tolerant to drought.
Disease resistance	Taurus is moderately resistant to late blight and early blight. It is moderately resistant to Potato Virus Y (PVY). It is moderately resistant to common scab and resistant to powdery scab. It is resistant to Ro1 of Potato Cyst Nematode.
Registered Seed Dealer	Silverlands Ndolela Ltd / Tanzanice Agrofoods Co. Ltd / Rotian

TENGERU (SYNONYM TIGONI IN KENYA)



Use	Table (fresh market), Chips and Crisps variety
Areas to be grown	Suitable for all potato growing areas
Maturity	Late (>4 months)
Yield potential	Medium to High (35-45 tons/ha)
Tuber characteristics	Tubers are long-oval - White cream skin – Light yellow flesh - Shallow eyes.
Tuber dormancy	Long (2-3 months)
Dry Matter content	23%
Plant description	Tengeru is an erect tall variety with strong stems and light green broad leaves. It flowers profusely and the flowers are white. Tengeru is tolerant to drought.
Disease resistance	Tengeru is resistant to late blight and moderately resistant to early blight. It is susceptible to Potato Virus Y (PVY) and to Potato Leaf Roll Virus (PLRV) and highly resistant to Potato Virus X (PVX). Tengeru is moderately resistant to common scab.
Registered Seed Dealer	Mtanga Foods Ltd / TARI Tengeru / TARI Uyole / Beula Seed Co. & Consultancy Ltd

VOYAGER



Use	Table (fresh market) and Chips variety
Areas to be grown	Suitable for all potato growing areas
Maturity	Late (> 4 months)
Yield potential	High (> 40 tons/ha)
Tuber characteristics	Large, long oval tubers - Bright, smooth yellow skin - Yellow flesh - Shallow eyes. It is tolerant to internal bruising.
Tuber dormancy	Long (> 2 months)
Dry Matter content	21 %
Plant description	Voyager is a medium to tall variety. It flowers profusely and the flowers are white.
Disease resistance	Voyager is moderately resistant to late blight and resistant to early blight. It is susceptible to Potato Virus Y (PVY). It is moderately resistant to common scab and susceptible to powdery scab.
Registered Seed Dealer	Silverlands Ndolela Ltd

TABLE 2: SUMMARY OF THE MAIN CHARACTERISTICS

VARIETY	Table (fresh market)	Chips	Crisps	Dry Matter content (%)	Maturity	Yield potential	Skin color	Eye depth	Flesh color	Tuber dormancy	Late blight	Early blight	PVY	PLRV
ARIZONA	*			17	●	▶▶▶	Y	Sh	LY	Med	S	S	R	
ASANTE	*			21	●●	▶▶▶	Pi	M	Cr	Long	M	S		R
CHALLENGER	*	*		22	●●●	▶▶	BY	Sh	LY	Med	S	M	S	
JELLY	*	*		21	●●●	▶▶▶	Y	Sh	Y	Med	M	R	R	
MANITOU	*			19	●●●	▶▶▶	R	Sh	LY	Short	S	M	R	
MARKIES	*	*	*	23	●●●	▶▶▶	Y	Sh	LY	Long	S	S	R	M
MERU	*	*	*	23	●●	▶▶	Cr	Sh	Cr	Long	R		S	S
PANAMERA	*	*		21	●●●	▶▶▶	BY	Sh	LY	Long	M	R	S	
RODEO	*			22	●●●	▶▶▶	R	Sh	LY	Med	S	R	S	
RUMBA		*	*	21	●●	▶▶▶	Y	Sh	LY	Med	M	R	R	R
SAGITTA	*	*		22	●●	▶▶▶	Y	Sh	LY	Med	S	M	R	
SHEREKEA	*		*	21	●●	▶▶▶	R	D	Cr	Long	R		R	
SIFRA	*			19	●●●	▶▶▶	BY	Sh	Cr	Med	M	M	S	
TAURUS	*		*	24	●●	▶▶	Y	M	LY	Long	M	M	M	
TENGERU	*	*	*	23	●●●	▶▶▶	Cr	Sh	LY	Long	R	M	S	S
VOYAGER	*	*		21	●●●	▶▶▶	BY	Sh	Y	Long	M	R	S	

KEY (FOR TABLE 2)

Term	Maturity	Disease Resistance	Yield potential	Dormancy	Eye-depth	Color of Skin, Flesh or Flower
State of expression of terms	Early (< 3 months) Medium (3 - 4 months) Late (> 4 months)	Susceptible Moderate Resistant	Low (< 30 tons/ha) Medium (30 – 40 tons/ha) High (> 40 tons/ha)	Short (< 1 month) Medium (1 - 2 months) Long (> 2 months)	Shallow Medium depth Deep	White Cream Pale Yellow Light Yellow Bright Yellow Yellow Red Pink Purple Light Purple Violet
Symbols used	● ●● ●●●	S M R	▲ ▲▲ ▲▲▲	Short Med Long	Sh M D	W Cr PY LY BY Y R Pi Pu LP V

Note:

1. All varieties are susceptible to Bacterial Wilt (*Ralstonia solanacearum*).
2. States of expression in table 1 are based on trials in the country of origin combined with results from various trials in Tanzania and Kenya. Trial conditions can be different in different years and different locations and variety performance can be different under real-time farmer's conditions. In other words, predictions indicated in this Catalogue can deviate from reality. Farmers are therefore recommended to try small units of seed potato before starting full production of any new variety.
3. Empty cells = information not available

TABLE 3: TUBER SKIN COLOR

Cream	Bright Yellow	Yellow	Pink	Red
<i>Meru</i>	<i>Challenger</i>	<i>Arizona</i>	<i>Asante</i>	<i>Manitou</i>
<i>Tengeru</i>	<i>Panamera</i>	<i>Jelly</i>		<i>Rodeo</i>
	<i>Sifra</i>	<i>Markies</i>		<i>Sherekea</i>
	<i>Voyager</i>	<i>Rumba</i>		
		<i>Sagitta</i>		
		<i>Taurus</i>		

TABLE 4: TUBER FLESH COLOR

Cream	Light Yellow	Yellow
<i>Asante</i>	<i>Arizona</i>	<i>Jelly</i>
<i>Meru</i>	<i>Challenger</i>	<i>Voyager</i>
<i>Sherekea</i>	<i>Manitou</i>	
<i>Sifra</i>	<i>Markies</i>	
	<i>Panamera</i>	
	<i>Rodeo</i>	
	<i>Rumba</i>	
	<i>Sagitta</i>	
	<i>Taurus</i>	
	<i>Tengeru</i>	

TABLE 5: TUBER SHAPE

Round	Round to Round Oval	Round Oval (= short oval)	Oval	Oval to Long Oval	Long Oval
<i>Asante</i>	<i>Taurus</i>	<i>Rumba</i>	<i>Arizona</i>	<i>Markies</i>	<i>Challenger</i>
<i>Sherekea</i>		<i>Sifra</i>	<i>Jelly</i>		<i>Manitou</i>
			<i>Meru</i>		<i>Rodeo</i>
			<i>Panamera</i>		<i>Tengeru</i>
			<i>Sagitta</i>		<i>Voyager</i>

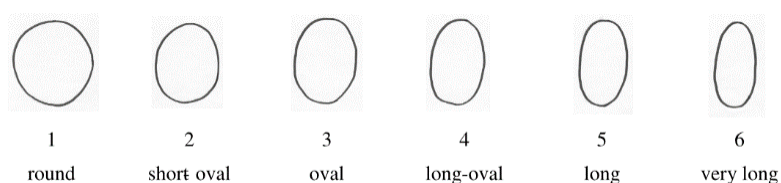


TABLE 6: MATURITY

Early (< 3 months)	Medium (3 - 4 months)	Late (> 4 months)
<i>Arizona</i>	<i>Asante</i>	<i>Challenger</i>
	<i>Meru</i>	<i>Jelly</i>
	<i>Rumba</i>	<i>Manitou</i>
	<i>Sagitta</i>	<i>Markies</i>
	<i>Sherekea</i>	<i>Panamera</i>
	<i>Taurus</i>	<i>Rodeo</i>
		<i>Sifra</i>
		<i>Tengeru</i>
		<i>Voyager</i>

TABLE 7: DORMANCY

Short (< 1 month)	Medium (1 - 2 months)	Long (> 2 months)
<i>Manitou</i>	<i>Arizona</i>	<i>Asante</i>
	<i>Challenger</i>	<i>Markies</i>
	<i>Jelly</i>	<i>Meru</i>
	<i>Rodeo</i>	<i>Panamera</i>
	<i>Rumba</i>	<i>Sherekea</i>
	<i>Sagitta</i>	<i>Taurus</i>
	<i>Sifra</i>	<i>Tengeru</i>
		<i>Voyager</i>

TABLE 8: RESISTANCE TO LATE BLIGHT

Low	Moderate	High
<i>Arizona</i>	<i>Asante</i>	<i>Meru</i>
<i>Challenger</i>	<i>Jelly</i>	<i>Sherekea</i>
<i>Manitou</i>	<i>Panamera</i>	<i>Tengeru</i>
<i>Markies</i>	<i>Rumba</i>	
<i>Rodeo</i>	<i>Sifra</i>	
<i>Sagitta</i>	<i>Taurus</i>	
	<i>Voyager</i>	

TABLE 9: RESISTANCE TO EARLY BLIGHT

Low	Moderate	High	Information not available
<i>Arizona</i>	<i>Challenger</i>	<i>Jelly</i>	<i>Meru</i>
<i>Asante</i>	<i>Manitou</i>	<i>Panamera</i>	<i>Sherekea</i>
<i>Markies</i>	<i>Sagitta</i>	<i>Rodeo</i>	
	<i>Sifra</i>	<i>Rumba</i>	
	<i>Taurus</i>	<i>Voyager</i>	
	<i>Tengeru</i>		

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