

TANZANIA VARIETY LIST UPDATED TO 2008

Species: Maize (*Zea mays L.*)

Variety	Year of release	Owner(s)/Maintainer and seed source	Optimal production altitude range (Masl)	Grain yield (t/Ha)	Distinctive characters	Special attributes/Disease reaction
1. Katumani	Late 1950's	KARI - Katumani	<1500	3.0 – 3.5	-Plant height (cm): 90-160 -Leaf orientation: at 60° - 80° -Days to 50% tasseling: 40-52 -Tassel colour: mostly white -Days to 50% silking:44-56 -Silk colour: white (98%), other (2%)	Suitable in areas with short rainfall
2. H622	1968	EAC/KARI/Kenya Seed Co.	1200 - 1650	6.0-7.0	-Seed or grain: dent, large kernels -Duration to maturity: 5-7 months	Fairly tolerant to leaf blight and leaf rust but susceptible to grey leafspot.
3. H511	1968	EAC/KARI/	1300 - 1700	4.0 -5.0	-Duration to maturity: medium maturity (4-6 months) -Kernal colour: white, but bears purple kernels in some ears	Earlier in maturity
4. H632	1968	Kenya Seed Co.	1200-1650	6.0-7.0	Seed or grain: dent, large kernels Duration to maturity: 5-7 months	Fairly tolerant to leaf blight and leaf rust but susceptible to grey leaf spot
5. H6302	1976	EAC	>1500	8.0 – 8.5	Duration to maturity: early maturing variety (120 days)	Highly tolerant to northern leaf blight and rust
6. UCA	1976	ARI-Ukiriguru	900-1500	4.0 – 6.0	-Leaf orientation: droopy -Days to 50% tasseling: 80-95 -Tassel colour: present -Days to 50% silking: 86-100 -Silk colour: mostly white with purple Seed or grain: flourty to flinty Duration to maturity:140 days	Suitable in drier areas
7.Tuxpeno	1976	ARI - Ilonga	0 -900	3.0 -4.0	-Stem colour: purple -Leaf orientation: at an acute angle, some -Days to 50% tasseling: 58	Suitable in coastal and lowland areas

					<ul style="list-style-type: none"> -Tassel colour: purple mostly -Days to 50% silking: 67-70 -Silk colour: purple (80%)-white and other white with occasional red Seed or grain: dent, long kernel 	
8. H614	1977	EAC	>1500	7.0	<ul style="list-style-type: none"> Duration to maturity:180-190 days Seed or grain: semi flint 	Very susceptible to maize streak virus.
9. ICW	1977	ARI - Ilonga	0-900	4.0 -6.0	<ul style="list-style-type: none"> Leaf orientation: droopy -Days to 50% tasseling: 60 -Tassel colour: present -Days to 50% silking: 66-72 -Silk colour: mostly white with purple Seed or grain:predominantly flint with dent cap 	Suitable in lowland areas
10.Kilima St	1983	ARI - Ilonga	900 -1500	5.0 – 6.0	<ul style="list-style-type: none"> -Leaf orientation: 40° - 60° -Days to 50% tasseling: 70 -Tassel colour: yellow (83%), red (5%), purple (12%) -Days to 50% silking: 80 - Silk colour :(white with (91%), Salmon (9%) -Seed or grain:70% flint, 30% dent 	Streak tolerant
11.Staha	1983	ARI - Ilonga	0 -900	4.0 5.0	<ul style="list-style-type: none"> -Plant height (cm): 170 -Leaf orientation: at angle 40° - 60° -Days to 50% tasseling:60-65 -Tassel colour (anthers): predominantly yellow and red anthers with a small proportion of purple. -Days to 50% silking:60-74 -Silk colour: 80% salmon, 20% white -Seed or Grain: flint 60%, dent 40% 	Streak tolerant
12. Kito	1983	ARI -Ilonga	0 -1300	2.0 – 3.0	<ul style="list-style-type: none"> -Plant height (cm): 60-135 -Leaf orientation: droop -Days to 50% tasseling: 45-47 -Tassel colour (anthers): 50% yellow, 40% red and 10% purple. -Days to 50% silking:52-56 -Silk colour: salmon 80%, white 20 % -Seed or Grain: flint 	Suitable in drier areas

13. TMV - 1	1987	ARI - Ilonga	<1500	4.0 – 4.0	-Plant height (cm):160-210 -Leaf orientation: slightly recurved -Days to 50% tasseling: 55-70 -Tassel colour: Yellow (99%) others (1%) -Days to 50% silking: 65-80 -Silk colour: white (95%), other (5%) -Seed or grain: mostly flint	Streak and rust resistant
14. TMV - 2	1987	ARI - Uyole	>1500	7.5 – 8.0	-Plant height (cm): 180-225 -Leaf orientation: at 45-60° -Days to 50% tasseling: 95-100 days -Tassel colour: Mainly purple -Days to 50% silking: 110-115 - Silk colour: white 90%, Salmon 10% -Seed or grain: mostly flint	Resistant to <i>Turcicum</i> leaf blight
15. Cholima 1	1992	Dakawa	0 -900	6.5	Duration of maturity: early maturing variety (120 days)	Tolerant to maize streak virus, leaf blight and leaf rust
16. Cholima 3	1992	Dakawa	0 -900	6.5	Duration of maturity: early maturing variety (120 days)	Tolerant to maize streak virus, leaf blight and leaf rust
17. CG4142	1993	Cargill Zimbabwe (PTY) Ltd	900- 1500	4.8	-Plant height: 225 -Days to 50% flowering: 65 days -Seed or Grain :dent	Ear rot, leaf blight and leaf rust resistant
18. C6222	1994	Cargill Zimbabwe (PTY) Ltd	900 - 1500	10.0 – 15.0	-Leaf orientation: Recurved -Days to 50% flowering: 72 days -Tassel colouration: purple -Days to 50% silking: 72 days Silk colour: yellow to purple -Seed or Grain :flint	Tolerant to ear rot, leaf blight(<i>Helminthosporium turcicum</i> Pass) and leaf rust (<i>Puccinia sorgh</i>)
19. PAN 6195	1995	Pannar Seeds Co.Ltd	1000 - 1500	6.0	-Plant height: 258 cm -Leaf orientation: Semi-upright -Days to 50% flowering:78 -Days to 50% silking:84 -Seed or Grain: nearly flint	Tolerant to maize streak, intermediate resistant to ear rot and leaf blight
20. PAN6549	1995	Pannar Seeds Co. Ltd	500 - 1500	6.0	-Plant height: medium -Leaf orientation: -Days to 50% flowering: 69-85 days	Tolerant to rust, maize streak, ear rot and leaf blight.

					-Days to 50% silking:84 -Seed or Grain: nearly flint	
21. PAN 6481	1995	Pannar Seeds Co. Ltd	1000- 1500	6.0	-Days to 50% flowering: 70-85 days -Seed or Grain: large and flat	Moderately tolerant to maize streak and leaf blight Tolerant to ear rot and rust
22. PAN 695	1995	Pannar Seeds Co.Ltd	1000 - 1500	6.0	-Plant height: tall -Days to 50% flowering: 50-85 days -Seed or Grain:semi flint	Tolerant to ear rot, leaf blight and rust
23. C5121	1997	Cargill - Zimbabwe	1000 - 1600	10.0 – 15.0	-Plant height (cm): medium -Leaf orientation: angled and curved -Days to 50% tasseling: 64 (at 1300 m.a.s.l.) -Days to 50% silking: 68 (at 1300 m.a.s.l.) -Seed or Grain: hard-dent	Resistant to blight (<i>Helminthosporium turcicum</i> Pass), leaf rust (<i>Puccinia sorghi</i>), ear rot
24. C5051	1999	Cargill - Zimbabwe	1000 - 1600	10.0 – 15.0	-Plant height (cm): 240 -Leaf orientation: angled and curved -Days to 50% tasseling: 68 (at 1300 m.a.s.l.) Days to 50% silking: 72 (at 1300 m.a.s.l.) -Seed or Grain:semi-flint	Resistant to blight leaf (<i>Helminthosporium turcicum</i> Pass), leaf rust (<i>Puccinia sorghi</i>), ear rot
25. PAN 6243	1999	Pannar Seed Co. Ltd	1000 - 1500	8.0	Days to 50% flowering: Medium (from 60 days) Days to 50% silking: medium (from 63 days) Leaf attitude: recurved Plant height: medium Seed or grain: dent	Tolerant to grey leaf spot,Northern Leaf Bright (NLB), rust and ear rot
26. CRN3631	1999	Monsanto Hybrid Seeds Co.	900 - 1500	8.1	-Plant height: 205 cm -Days to 50% flowering: 72-85 days -Silk colour: white- anthocyanin often present -Seed or Grain: semi dent	Resistant to ear rot. Moderately tolerant to maize streak virus and grey leaf spot
27. PHB30A15	1999	Pioneer Seed Co. Ltd	1000 - 1500	5.0 – 10.0	-Plant height: medium -Leaf orientation: floppy, dropping pale green -Days to 50% flowering: Medium (65-70 days) -Days to 50% silking: -Seed or Grain:semi-dent	Partial resistance to maize streak virus. Tolerant to grey leaf spot. Very resistant to leaf blight and ear rot
28. H625	2000	Kenya Seed Co. Ltd	1500 - 2400	9.0 – 10.0	Duration to maturity: 6-8 months	Resistant to lodging, leaf rust, leaf blight, drought and grey leaf spot Prolific

						Good husk cover
29. H513	2001	Kenya Seed Co. Ltd	900 - 1500	7.0 – 8.5	-It bears a total of 16 leaves with 6 above the ear. -Seed or Grain: semi –dent Duration to maturity: 120-150 days	It is fairly resistant to moisture stress
30. Uh615	2001	ARI - Uyole	1200 - 1800	6.0 – 8.0	-Plant height: 200 cm -Days to 50% silking:85-92 days -Silk colour: purple -Seed or Grain: semi-dent	Tolerant to grey leaf spot (GLS) and leaf blight
31. Lishe - HI	2001	ARI - Selian	1000 - 1500	4.0 – 7.0	-Days to 50% flowering: 70-75 days -Days to 50% silking:73-75 days -Plant height: 180-200 cm -Stem colour: green/purple -Tassel colouration: yellow/purple -Silk colour: white (90 %), others (10 %) -Seed or Grain: flint/dent - Duration to maturity: medium/late	Quality protein maize [Has 10 % protein like other maize varieties but its protein has twice level of essential amino acids (Lysine and tryptophane)] Tolerant to GLS and <i>E.turcicum</i> leaf blight, susceptible to MSV, good resistant to Diplodia, Fusarium cob rots and <i>Puccinia sorghi</i> rust
32. Lishe – H2	2001	ARI -Selian	500-1600	4.0 -7.0	-Days to 50% flowering: 67-75 days -Days to 50% silking:73-78 days -Plant height: 184-210 cm -Stem colour: green/purple -Tassel colouration: yellow/purple -Silk colour: white -Seed or Grain: flint/dent - Duration to maturity: medium/late	Quality protein maize [Has 10 % protein like other maize varieties but its protein has twice level of essential amino acids (Lysine and tryptophane)] Very good resistant to Maize streak virus (MSV), good resistant to Grey leaf spot (GLS), <i>Diplodia</i> , <i>Fusarium</i> cob rots, <i>E.turcicum</i> leaf blight and <i>Puccinia sorghi</i> rust
33. Lishe – K1	2001	ARI-Selian	500-1600	4.0-6.0	-Days to 50% flowering: 66-73 days -Days to 50% silking:70-75 days -Plant height: 180-200 cm -Stem colour: green/purple	Quality protein maize [Has 10% protein like other maize varieties but its protein has twice level of essential

					<ul style="list-style-type: none"> -Tassel colouration: yellow/purple -Silk colour: white -Seed or Grain: flint/dent - Duration to maturity: medium 	<p>amino acids (lysine and tryptophane)] Susceptile and moderate resistant to Maize Streak and Gley Leaf Spot respectively, good resistant to <i>Diplodia</i>, <i>Fusarium</i> cob rots, <i>E.turcicum</i> leaf blight and <i>Puccinia sorghi</i> rust</p>
34. Situka-M1	2001	AR-Selian	1000-1500	3.0-5.0	<ul style="list-style-type: none"> -Plant height: 180 -195 cm -Leaf orientation: 45-69° -Days to 50% flowering: 70-75 days -Tassel colouration: purple -Days to 50% silking: 78 days -Seed or Grain: flint/dent 	<p>Tolerant to maize streak and Grey leaf spot. Resistant to <i>Diplodia</i>, <i>Fusarium</i> leaf bright and <i>Puccinia sorghi</i></p>
35. Situka 2	2001	AR-Selian	500-1600	4.0-6.0	<ul style="list-style-type: none"> -Plant height: 184-210 cm -Leaf orientation:45 -60° -Days to 50% flowering: 45-55 days -Tassel colouration: purple -Days to 50% silking: 78 days -Silk colour: white/purple -Seed or Grain : flint 	<p>Tolerant to maize streak and grey leaf spot Resistant to <i>Diplodia</i>, <i>Fusarium</i>, leaf bright and <i>Puccinia sorghi</i></p>
36. PAN 15	2001	Pannar Seeds Co. Ltd	500-1500	7.0	<ul style="list-style-type: none"> -Leaf orientation: slightly recurved -Days to 50% flowering: 70-87 days (late) -Days to 50% silking: 72-89 days (medium) -Seed or Grain : flint-like 	<p>Tolerant to maize streak virus, grey leaf spot , northern leaf blight, Rust, ear rot</p>
37. PAN 77	2001	Pannar Seeds Co. Ltd	>1500	7.0	<ul style="list-style-type: none"> -Leaf orientation: slightly recurved -Days to 50% flowering: 72-89 days (medium) -Days to 50% silking:74-91 days -Seed or Grain: flint 	<p>Tolerant to maize streak virus , grey leaf spot, northern leaf blight , Rust, ear rot</p>
38. PAN 691	2001	Pannar Seeds Co. Ltd	>1500	7.0	<ul style="list-style-type: none"> Plant height: 320 cm -Leaf orientation: erect -Days to 50% flowering: 102 days -Days to 50% silking:103 days -Seed or GrainSeed: flint 	<p>Tolerant to maize streak virus, grey leaf spot, northern leaf blight, Rust, ear rot</p>

39. Pwani H04	2001	Kenya Seed Co	0-800	7.0	-Stem bears 17 leaves of which 10 are above the ear. - It has an open tassels with an average of 19 primary branches -Seed or Grain : dent to semi-dent -Duration to maturity: 3-5 months	Well adapted to hot, humid low lands, Partially resistant to maize streak virus
40.CRN 3891	2001	Mansanto Hybrid Seeds Co.	900-1500	8.0-9.0	-Plant height: 270 cm -Days to 50% flowering: 69 days -Silk colour: white-anthocyanin often present -Seed or Grain: dent	Moderately tolerant to maize streak virus
41. DK 8071	2001	Monsonto Hybrid Seeds Co.	1000-1600	8.0-9.0	-Plant height: 247.0 cm -Leaf orientation: recurved -Days to 50% flowering: 71 days at 130 m a.s.l -Tassel colouration: pale green -Days to 50% silking: 73 days at 1300 m.a.s.l -Silk colour: whitish -Seed or Grain: semi-flint	Tolerant to grey leaf spot and rust
42. PHB30H83	2001	Pioneer Seed Co.	800-1800	7.0-10.0	-Plant height: 235.0 cm (tall) -Leaf orientation: floppy -Days to 50% flowering: 76 days -Tassel colouration: strong -Days to 50% silking: 76 days -Silk colour: pink -Seed or Grain: medium flint	Medium resistant to leaf blight and rust, ear rot and grey leaf spot resistant
43. SC 627	2001	Seed Co. Ltd	500-1400	5.0-10.0	-Plant height: 300 cm -Leaf orientation: recurved -Days to 50% flowering: 74 days -Tassel colouration: clear -Days to 50% silking: 72 days -Silk colour: red -Seed or Grain :semi dent	Excellent resistance to grey leaf spot. Moderately resistant to rust and resistant to leaf blight. Good stress tolerance, lodging resistance and prolificacy. Has very good adaptability Rust resistance: average
44. PHB30G97	2001	Pioneer Seed Co.	800-1500	7.0-10.0	-Plant height: 225.0 cm -Leaf orientation: floppy -Days to 50% flowering: 77 days -Tassel colouration:strong -Days to 50% silking:78 days	Tolerant to grey leaf spot and ear rot.

					-Silk colour: pink -Seed or Grain : flint	
45. DH01	2002	Kenya Seed Co.	90-120	2.0-5.0	-Silk colour: mixture (light purple and cream) -Seed or Grain :semi-dent -Duration of maturity: early maturity (90-120 days)	Drought resistant and good husk cover
46. H628	2002	Kenya Seed Co.	150-180	9.0-12.0	-Tassel colouration: purple -Silk colour: pink -Ear size: big -Seed or Grain: semi-dent	Lodging resistant
47. DK8051	2002	Monsanto Hybrid Seed Co.	120-140	6.0-9.0	-Plant height: 239.0 cm -Leaf orientation: recurved -Days to 50% flowering: 71 days at 1300 a.s.l -Tassel colouration: green -Days to 50% silking:73 days at 1300 m a.s.l -Silk colour: dirty white	Excellent tolerance to grey leaf spot
48. DK8031	2002	Monsanto Hybrid Seed Co.	100-110	5.0-8.0	-Plant height: 249.0 cm -Leaf orientation: recurved -Days to 50% flowering: 64 days at 1300 a.s.l -Tassel colouration: purple -Days to 50% silking: 66 days at 1300 a.s.l -Silk colour: brownish -Seed or Grain: hard dent	Good tolerance to grey leaf spot.
49. Longe 4	2003	FICA SEED Ltd	900 -1500	6.38	-Days to flowering: 60±2 -Plant height : 187±14.1 -Kernael arrangement: regular - 1000 kernel weight (gms): 347 -Seed or grain: semi-dent	Have acceptable levels of resistance to foliar diseases and drought tolerant Drought tolerant and Maize Streak resistant
50. Longe 2H	2003	FICA SEED Ltd	900 - 1500		-Days to 50 % tasseling: 65 -Days to 50 % silking: 68 Plant height: 220-240 cm -Kernel row arrangement: regular -Number of row per cob: 14 -Seed or Grain : semi-flint	
51. DH 04	2003	Kenya Seed Co. Ltd	500-1200	8.0	-Plant height: 280±10 cm -Leaf orientation: slightly recurved -Days to 50% flowering: 72 days -Tassel colouration: light purple (weak)	Very good resistant to Leaf blight and Leaf Rust

					-Days to 50% silking:76 days -Silk colour: cream to pink -Seed or Grain :semi-flint texture:	
52. DH 03	2003	Kenya Seed Co. Ltd	200-1000	Above 6.0	-Plant height: 240±10 cm -Leaf orientation: slightly recurved -Days to 50% flowering:67 days -Tassel colouration: medium (trace purple) -Days to 50% silking:70 days -Seed or Grain : dent	Resistant to Cob rots
53. KS H 519	2003	Kenya Seed Co. Ltd	1400-1700	Above 8	-Plant height: 240±10 cm -Leaf orientation: recurved -Days to 50% flowering:80 days -Tassel colouration: cream to light purple -Days to 50% silking:84 days -Seed or Grain : semi-dent	Good resistant to Leaf blight and Leaf Rust
54. SC 407	2003	SEED CO. Ltd	500-1400	1-8	-Days to 50% flowering: medium -Tassel colouration: medium -Days to 50% silking: 66 -Silk colour: red (young), light brown (mature) -Seed or Grain Seed: flint-like -Days to maturity:132 Seed or Grain : semi-flint	Good stress tolerance and fairly good tolerance to Grey leaf Spot (GLS). Has good tolerance to Maize Streak Virus (MSV)
55. SC 403	2003	SEED CO. Ltd	500-1400	1-6	-Plant height: medium -Days to 50% flowering: 64 -Tassel colouration: weak -Days to 50% silking: 64 -Silk colour: pink -Seed or Grain: intermediate	Very good adaptability and stress tolerance, good lodging resistant Very good resistant to MSV, good resistant to cob rots and leaf blight, and moderate rust resistance
56. SC 513	2003	SEED CO. Ltd	500-1400	4-9	-Plant height: 268 cm -Leaf orientation: slightly recurved -Days to 50% flowering: 66 days -Tassel colouration: strong colouration -Days to 50% silking: 66 days -Silk colour: red	Moderate resistant to Cob rots and good resistant to Leaf blight (<i>Helminthosporium turcicum</i>) and Rust resistance Excellent tolerant to grey

						leaf spot Prone to <i>Phaeosphaeria</i> leaf spot Good adaptability and stress tolerance
57. H 515	2003	Kenya Seed Co. Ltd	1200-1600	4-5	-Stem colour: green with light shades of purples - Leaf colour: dark green with hairy sheaths - Cob shape: cylindrical -Days to 50 % tasseling: 78 -Days to 50 % silking: 85 - Grain size: large -Leaf orientation: slightly recurved -Seed or Grain: semi-flint -Plant height: 270 cm	
58. SC 713	2003	SEED CO. Ltd		6-13	Plant height: 290 cm -Days to 50% flowering: 70 days -Anther colour: cream -Days to 50% silking: 72days -Silk colour: pink (young) light brown (mature) -Glume colour: pale green -Days to maturity:151	It has excellent tolerance to Maize Streak Virus (MSV) and good tolerance to Gley Leaf Spot (GLS)
59. PAN 23	2003	Pannar (Pty) Ltd	850-1500	4-7	-Plant height: 276 cm (variable) -Leaf orientation: erect 30-45° -Days to 50% flowering:74 days -Tassel colouration:very purple -Days to 50% silking:76 days -Silk colour: cream to pink -Seed or Grain : dentlike	Good resistant to Cob rots, Leaf blight (<i>Helminthosporium turcicum</i>) and Leaf Rust
60. PAN 33	2003	Pannar (Pty) Ltd	850 - 1500	4-7	-Plant height: 300 cm -Leaf orientation: slightly recurved -Days to 50% flowering:83 days -Days to 50% silking:83 days -Silk colour: white -Seed or Grain : flint	Good resistant to <i>Maize Streak Virus</i> , Cob rots, Leaf blight (<i>Helminthosporium turcicum</i>) and Leaf rust
61. PAN 63	2003	Pannar (Pty) Ltd	850 - 1500	5-8	-Plant height: 300 cm -Leaf orientation: slightly recurved -Days to 50% flowering:84 days	Good resistant to <i>Maize Streak Virus</i> , Cob rots, Leaf blight (<i>Helminthosporium</i>

					-Days to 50% silking: 84 days -Seed or Grain :(flint and dent)	<i>turcicum</i>) and Leaf rust
62. UH615	2003	ARI Uyole	1200 - 1800	8-9	Plant height: 200 cm -Tassel colouration: purple -Days to 50% silking:85-92 days -Silk colour: cream to pink -Seed or Grain : semi-flint	Good level of tolerance to Grey Leaf Spot Lodging resistance
63. PAN 4 M-17	2004	Pannar (Pty) Ltd	0- 1500	4-6	-Plant height: 245 cm (variable) -Leaf orientation: erect 35-45° -Days to 50% flowering: 66 days -Tassel colouration: absent to very pale -Days to 50% silking:65 days -Silk colour: cream to pink (variable ratio) -Seed or Grain : intermediate to flinty	Good resistant to Cob rots, Leaf blight (<i>Helminthosporium turcicum</i>), and Leaf Rust Good adaptability, stress tolerance, lodging resistance, and prolificacy
64. PAN 4M-19	2004	Pannar (Pty) Ltd	0-1500	4-7	-Plant height: 248 cm (variable) -Leaf orientation: erect 30-50° -Days to 50% flowering: 63 days -Tassel colouration: cream to faint pink -Days to 50% silking:65 days -Silk colour: white to pink (variable) -Seed or Grain : intermediate to almost round (flint)	Good resistant to Cob rots, Leaf blight (<i>Helminthosporium turcicum</i>), and Leaf Rust
65. UH 6303	2004	ARI-Uyole	1200-1800	9-10	-Days to 50% flowering: 92 days -Tassel colouration: purple -Silk colour: light pink -Seed or Grain :semi-flint	Good resistant to Leaf blight (<i>Helminthosporium turcicum</i>), and Grey Leaf Spot
66. Longe 6H	2004	Finca Seed Ltd	900 - 1500	8 -9	-Leaf colour: dark green -Days to 50% flowering: 66 days -Days to 50% silking: 71 days -Anther colour: cream -Silk colour: purple -Seed or Grain :semi-dent -Plant height: 203± cm	Drought tolerant Good poundability Early maturity
67. TAN H611	2006	Tanseed International Ltd	Low to medium	4-7	-Days to 50% tasseling: 54-70 days -Tassel anthocyanin colouration: absent to very pale -Days to 50% silking: 54-70 days -Seed or grain: semi-flinty Plant height: 1.7-2.8m (variable)	Good resistance to Maize streak virus, Turcicum leaf blight, Cob rots, Grey leaf spot and Common rust Has twice level of essential

						amino acids: Lysine and Tryptophane than normal maize
68. TAN 250	2006	Tanseed International Ltd	Low to medium	3-5	-Leaf orientation: medium angle -Days to 50% tasseling: 58- 65 days -Glume anthocyanin colouration: very weak -Days to 50% silking: 62 – 69 days -Silk anthocyanin colouration: present Seed or grain : flinty Plant height: 1.5 – 2.5 m (variable)	Excellent resistance to Maize streak virus and Grey leaf spot, good resistance to Turcium leaf blight, Cob rot and Common rust
69. TAN 254	2006	Tanseed International Ltd	Low to medium	4-6	-Leaf orientation: angle moderately small -Days to 50% tasseling: 57 days -Glume anthocyanin colouration: very weak -Days to 50% silking: 71 days -Silk anthocyanin colouration: weak -Seed or grain: flinty -Plant height: 2.5-2.8 m (variable)	Good resistance to Maize streak virus, Turcium leaf blight, Cob rots, Grey leaf spot and Common rust
70. VUMILIA K1	2007	ARI Selian	Medium	3.6 - 5.2	Leaf orientation: slight zigzag -Days to 50% tasseling: 66 days -Glume anthocyanin colouration: strong -Days to 50% silking: 66 days -Silk anthocyanin colouration: red -Seed or grain: flint like -Plant height: 1.69 m	Very good resistant to Maize Sreak Virus
71. VUMILIA H1	2007	ARI Selian	Medium	6.0 – 7.0	Leaf orientation: slight zigzag -Days to 50% tasseling: 66 days -Glume anthocyanin colouration: medium -Days to 50% silking: 66 days -Silk anthocyanin colouration: present -Seed or grain: flint like -Plant height: 1.69 m	Good resistant to Maize Sreak Virus, cob rots, leaf blight and rust

72. WH 505	2007	Western Seed Co. Ltd	1000-1800	5.2 – 7.2	-Leaf orientation: slightly recurved -Days to 50% tasseling:75-80 days -Glume anthocyanin colouration: strong -Days to 50% silking: 80-90 days -Silk anthocyanin colouration: pink -Seed or grain: dent-like -Plant height: 2.15-2.30 Maturity 135 -150	Tolerant to Maize Streak Virus, Leaf blight, and rust
73. WH 502	2007	Western Seed Co. Ltd	1000-1800	5.2 – 6.9	-Leaf orientation: recurved -Days to 50% tasseling:75-80 days -Glume anthocyanin colouration: medium -Days to 50% silking: 80-90 days -Silk anthocyanin colouration: pink -Seed or grain: dent -Plant height: 2.15 - 2.30 -Maturity 135-165 days	Tolerant to Maize Streak Virus, Leaf blight, and rust
74. WH 403	2007	Western Seed Co. Ltd	1000-1800	4.5 – 6.0	-Leaf orientation: recurved -Days to 50% tasseling: 70-75 days -Glume anthocyanin colouration: medium -Days to 50% silking: 80-90 days -Silk anthocyanin colouration: pink -Seed or grain: dent -Plant height: 2.20-2.35 -Maturity 135 -165	Tolerant to Maize Streak Virus, Leaf blight, and rust
75. Bora	2008	ARI Ilonga	0-1000	4.5	Maturity 105 days -Best for the eastern zone and other low land maize growing areas -Days to 50% tasseling:51-52 days -Plant height 180 – 210 cm	Tolerant to maize streak virus, leaf blight and leaf rust

Species: Paddy (*Oryza sativa*)

Variety	Year of release	Owners/ Maintain er and seed source	Optimal production altitude range (Masl)	Grain yield (t/Ha)	Distinctive characters	Special attributes
1. Supa	Before 1950's	ARI KATRIN	0-400	1.5-3.5	-Leaf blade pubescence: pubescent -Leaf angle: erect -Auricle colour: pale green -Days to heading: 93-100 -Culm angle:erect -Flage leaf angle:erect -Panicle type:intermediate -Second branching: light -Awn presence:absent -Grain shape:slender -Seed coat colour: white	Moderately resistant to rice yellow mottle virus and sheath rot
2. IR 54	1980's	KATRIN	400-600	4.0-7.0	-Leaf blade pubescence:intermediate -Leaf angle:erect -Auricle colour:pale green -Days to heading:93-100 -Culm angle:intermediate -Flage leaf angle:erect -Panicle type: intermediate -Second branching:heavy -Awn presence:long and partly awned -Awn colour:gold -Grain shape: some white belly -Seed coat colour:white -Scent (aroma):aromatic	Moderately resistant to blight and sheath rot
3. IR 22	1983	KATRIN	400-1000	6.6-8.0	Days to maturity: 120-134	Resistant to bacterial blight
4. KATRIN	1983	KATRIN	400-1000	6.6-8.0	-Leaf blade pubescence: intermediate -Culm angle:erect -Flage leaf angle:erect -Panicle type: compact	Very low panicle shattering

					<ul style="list-style-type: none"> -Second branching -Awn presence:absent -Scent (aroma):not scented Plant height: medium statured 	
5. Dakawa	1990	Dakawa	400-1000	3.5-5.2	<ul style="list-style-type: none"> -Leaf blade pubescence: pubescent -Leaf angle:horizontal -Days to heading: 75-85 days -Culm angle:intermediate -Flage leaf angle:horizontal -Panicle type: compact -Awn presence:absent -Awn colour:absent -Grain shape:medium slender grains -Seed coat colour: straw -Scent (aroma): scented -Plant height: 108 cm (semi-tall) 	None-photoperiod sensitive. Resistant to lodging except under very high N levels. Easy to thresh
6. TXD 85	2001	Dakawa	0-400	4.8-7.0	<ul style="list-style-type: none"> -Leaf blade pubescence: glabrous -Leaf angle:erect -Days to heading:98-98 days -Flage leaf angle:erect -Panicle type: intermediate -Awn presence:short and partly awned -Awn colour: gold -Grain shape:slender -Scent (aroma): lightly scented -Plant height: semi-dwarf 103.5 cm 	Moderately resistant to sheath rot, rice blast and Rice Yellow Mottle Virus
7. TXD 88	2001	Dakawa	0-400	2.8-6.5	<ul style="list-style-type: none"> -Leaf blade pubescence:glabrous -Leaf angle:erect -Days to heading:86-95 days -Flage leaf angle:erect -Panicle type: intermediate -Plant height: semi-dwarf -Awn presence: absent -Grain shape:slender -Scent (aroma):lightly scented 	Moderately resistant to sheath rot, rice blast and Rice Yellow Mottle Virus
8. TXD 306 (SARO 5)	2002	Dakawa	0-600	4.0-6.5	<ul style="list-style-type: none"> -Leaf blade pubescence:pubescent -Leaf angle:mixture of different types 	Moderated susceptible to Rice Yellow Mottle Virus and sheath rot.

					<ul style="list-style-type: none"> -Days to heading: 100-102 -Flage leaf angle: mixture of different types -Panicle type: intermediate Awn presence:absent Seed coat colour: light brown Scent (aroma): semi-aromatic 	Adapted to rain-fed lowlands and irrigated ecosystems.
9. Kalalu	2006	SUA		2-3	<ul style="list-style-type: none"> -Leaf blade pubescence: glabrous -Leaf angle: horizontal -Flage leaf angle: horizontal -Panicle type:intermediate -Awn presence: shortly and partly awned -Scent (aroma): -Plant height: 118 cm 	Resistant to Rice Yellow Mottle Virus and Rice blast
10. Mwangaza	2006	SUA		2-3	<ul style="list-style-type: none"> -Leaf blade pubescence: glabrous -Leaf angle:horizontal -Flage leaf angle: horizontal -Panicle type: heavy -Awn presence:shortly and fully awned -Plant height: 118 cm 	Resistant to Rice Yellow Mottle Virus and Rice blast

Species: Wheat (*Triticum aestivum.L*)

Variety	Year of release	Owner(s)/ Maintainer and seed source	Optimal production altitude range (Masl)	Grain yield (t/Ha)	Distinctive characters	Special attributes/Disease reaction
1.Mamba	1973	ARI Selian	1283-2400	2.0-3.0		Resistant to stripe rust
2.Nyati	1973	ARI Selian	1283-2400	2.0-3.0	-Leaf glaucosity: strong -Flag leaf altitude: drooping -Culm glaucosity: strong -Sheath glaucosity: strong -Spike density:moderate dense -Spike glaucosity: weak -Awns: very long -Plant height: 87 cm -Awn colour: -white -Colour:medium red Shape: elliptical and shriveled	Moderately resistant to yellow, leaf and stem rusts.
3.Mbuni	1975	ARI Selian	1200-2400	1.5-4.1	-Leaf glaucosity: weak -Growth habit: upright -Culm glaucosity: semi-prostate -Auricle pubescence: strong -Sheath glaucosity: strong -Spike shape: fusion -Spike density: lax -Spike glaucosity: weak -Awns: awned -Glume pubescence:absent -Glume colour:light green -Plant height: 80 cm -Awn colour: white -Spike attitude: inclined - Kernel colour:white - Kernel shape: ovate	Susceptible to leaf, stem and yellow rust.
4.Kweche	1975	ARI Selian	1283-2400	2.0-3.0	-Leaf glaucosity: weak	Medium susceptible to yellow rust

					<ul style="list-style-type: none"> -Growth habit:upright -Culm glaucosity: mod+pubescence -Stem node pubescence: absent -Auricle pubescence: weak -Sheath glaucosity: strong -Spike shape: fusiform -Spike density: mid-dense -Spike glaucosity: strong -Awns: awned -Glume pubescence:absent -Glume colour:bluish green -Plant height : 104 cm -Spike attitude: nodding -Kernel colour:medium red -Kernel shape: elliptical and shriveled 	
5.Trophy	1975	ARI Selian	1283-2400	2.0-3.0	<ul style="list-style-type: none"> -Leaf glaucosity: weak -Growth habit:upright -Flag leaf altitude: erect -Culm glaucosity: strong -Auricle pubescence: weak -Sheath glaucosity: strong -Spike shape: oblong -Spike density: lax -Spike glaucosity: medium -Awns: spical awnletted -Glume pubescence:absent -Plant height: 113 cm -Spike attitude: erect -Kernel colour:medium red -Kernel shape: ovate 	Medium red seed colour. Susceptible to yellow rust
6.Tai	1977	ARI Selian	1283-2400	2.0-3.0	<ul style="list-style-type: none"> -Leaf glaucosity: weak -Growth habit: upright -Culm glaucosity: medium -Auricle pubescence: weak -Sheath glaucosity: oblong -Spike shape: mid-dense -Spike density: weak -Spike glaucosity: weak 	Has dark red kernel colour Moderately susceptible to yellow and stem rust.

					<ul style="list-style-type: none"> -Awns: awned -Glume pubescence:absent -Glume colour:light green -Plant height: 109 cm -Awn colour: brown -Spike attitude: inclined Kernal colour:dark red Kernal shape: ovate 	
7.Kozi	1977	ARI Selian	1283-2400	2.0-3.0	<ul style="list-style-type: none"> -Leaf glaucosity: weak -Growth habit: upright -Culm glaucosity: strong -Steam node pubescence: medium -Auricle pubescence: absent -Sheath glaucosity: strong -Spike shape: oblong -Spike density: mid-lax -Spike glaucosity: weak -Awns: awned -Glume pubescence:absent -Glume colour:light green -Plant height : 80 cm -Awn colour: white -Spike attitude: inclined -Kernel colour:white -Kernel shape: ovate 	Has dark red kernel colour Moderately susceptible to yellow rust
8.Joli	1977	ARI Selian	1283-2400	2.0-3.0	<ul style="list-style-type: none"> -Leaf glaucosity: weak -Growth habit: upright -Culm glaucosity: medium -Steam node pubescence: absent -Auricle pubescence: weak -Sheath glaucosity: strong -Spike shape: fusion -Spike density: lax -Spike glaucosity: weak -Awns: awned -Glume pubescence:absent -Glume colour:grass green -Plant height:85 cm 	Moderately resistant to yellow rust.

					<ul style="list-style-type: none"> -Awn colour: white -Spike attitude: nodding -Kernel colour:white - Kernel shape: ovate 	
9.Viri	1983	ARI Selian	1283-2400	1.5-4.7	<ul style="list-style-type: none"> -Leaf glaucosity: medium -Groth habit: upright -Culm glaucosity: strong -Auricle pubescence: medium -Sheath glaucosity: strong -Spike shape: oblong -Spike density: mid dense -Spike glaucosity: medium -Awns: awned -Glume pubescence:absent -Glume colour:bluish green -Plant height:89 cm -Awn colour: white -Spike attitude: inclined - Kernel colour:white -Kernel shape: ovate 	Resistant to yellow and leaf rust. Moderately susceptible to stem rust.
10.Duma (Durum)	1983	ARI Selian	1283-2400	1.1-4.5	<ul style="list-style-type: none"> -Leaf glaucosity: weak -Growth habit:upright -Culm glaucosity: strong -Auricle pubescence: absent -Sheath glaucosity: strong -Spike shape: oblong -Spike density: mid-dense -Spike glaucosity: strong -Awns: awned -Plant height: 79 cm -Awn colour: -brown -Spike attitude: inclined -Kernel colour:amber -Kernal shape: ovate 	Resistant to stem rust
11.Mbayuwayu	1987	ARI Selian	1200-2400	1.4-2.8	<ul style="list-style-type: none"> -Leaf glaucosity: strong -Growth habit: erect -Flag leaf altitude: erect -Culm glaucosity: strong 	Moderately resistant to yellow, stem and leaf rusts. Has brown seed colour.

					<ul style="list-style-type: none"> -Spike density: medium -Awns: medium -Plant height: 92 cm -Awn colour: white -Spike attitude: inclined -Kernel colour:pale red -Kernel shape: ovoid 	
12.Azimio 87	1987	ARI Selian	1200-1800	1.8-3.0	<ul style="list-style-type: none"> -Growth habit: erect -Flag leaf altitude: erect -Culm glaucosity: strong -Spike density: strong -Awns: strong -Glume pubescence: -Plant height: 80 cm -Awn colour: white -Spike attitude: inclined -Kernel colour:white -Kernel shape: semi-elongated 	Resistant to stem, leaf and yellow rusts.
13.Tausi	1987	ARI Selian	1283-2400	2.0-4.0	<ul style="list-style-type: none"> -Leaf glaucosity: strong -Growth habit: erect -Flag leaf altitude: erect -Culm glaucosity: strong -Spike density: strong -Plant height:70 cm -Awn colour: white -Spike attitude: inclined -Kernel colour:white 	Susceptible to leaf, stem and yellow rusts.
Tembo					<ul style="list-style-type: none"> -Leaf glaucosity: weak -Growth habit:upright -Flag leaf altitude: -Culm glaucosity: mod+pubscence -Steam node pubescence: absent -Auricle pubescence: weak -Sheath glaucosity: strong -Spike shape: fusform -Spike density: mid-dense -Spike glaucosity: strong -Awns: awned 	

					<ul style="list-style-type: none"> -Glume pubescence:absent -Glume colour:bluish green -Plant height: 104 cm -Spike attitude: nodding -Kernel colour:medium red 	
14.Selian 87	1987	ARI Selian	1200-1800	1.8-3.0	<ul style="list-style-type: none"> -Leaf glaucosity: strong -Growth habit: erect -Flag leaf altitude: erect -Culm glaucosity: strong -Spike density: medium -Awns: medium -Plant height: 92 cm -Awn colour: white -Spike attitude: inclined -Kernel colour:pale red -Kernel shape: ovoid 	Highly resistant to stem, leaf and yellow rusts
15.Juhudi No:1	1987	TANWAT	1700-2200	3.0-4.0	<ul style="list-style-type: none"> -Days to maturity: 90-110 	Resistant to all yellow, stem and leaf rusts. Resistant to <i>Septoria</i>
16.Njombe 6	1987	TANWAT	1500-2400	2.1-4.1	<ul style="list-style-type: none"> - Days to maturity:110-120 	Highly resistant to leaf, stem and yellow rusts
17.Njombe 7	1987	TANWAT	1500-2400	3.0-4.2	<ul style="list-style-type: none"> - Days to maturity: 110-120 	Highly resistant to all rusts <i>Fusarium</i> spp and root fungi. Resistant to <i>Septoria</i> spp.
18.Kware	1989	ARI Selian	1300-1400	2.0-3.0	<ul style="list-style-type: none"> -Growth habit:erect -Flag leaf altitude: straight -Culm glaucosity: strong -Auricle pubescence: absent -Spike shape: straight inclined -Spike density: mid-dense -Awns: present -Glume colour:white at maturity -Awn colour: -blue green before, maturity white maturity Spike attitude: nodding -Kernel colour:white -Kernel shape: ovate 	Moderately resistant to yellow, leaf and stem rusts. Moderately resistant to <i>Septoria</i> , leaf and spot blotch
19.Chiriku	2002	ARI Selian	1300-2400	2.2		Slow rusting

20. Sifa	2004	ARI Uyole	1700-2300	4.5 – 5.0	<ul style="list-style-type: none"> -Growth habit:erect -Culm glaucosity:present-whitish -Auricle pubescence: hairs present -Spike density: dense -Awns: awned -Glume pubescence: very weak or absent -Glume colour:whitish green -Kernelcolour:yellow -Kernel shape: ovate -Plant height: 83 cm 	Moderate resistant to Septorial leaf blotch and Stripe rust
21. Riziki –C ₂	2006	ARI Selian	1000 - 1500	2.7	<ul style="list-style-type: none"> -Leaf glaucosity: present (medium) -Growth habit:erect -Culm glaucosity:weak -Auricle pubescence: medium -Sheath glaucosity: medium -Spike shape: parallel -Spike density: medium -Spike glaucosity: medium -Awns: awned -Glume pubescence: absent -Glume colour:straw white -Plant height:86 cm -Awn colour: -white -Spike attitude: straight -Kernel colour:brown -Kernel shape: semi elongated 	Moderate resistant to Stripe rust, Stem and Leaf rust
22. RIZIKI – C ₁	2006	ARI Selian	1000-2000	3.5	<ul style="list-style-type: none"> -Leaf glaucosity: absent -Growth habit: erect -Culm glaucosity: absent -Auricle pubescence: weak -Sheath glaucosity: absent -Spike shape: parallel -Spike density: medium -Spike glaucosity: absent -Awns: awned -Glume colour:white -Plant height: 99 cm 	Moderate resistant to Stripe rust, Stem and Leaf rust

					<ul style="list-style-type: none"> -Awn colour: white -Spike attitude: straight -Kernel colour: brown -Kernel shape: semi elongated 	
23. Lumbesa	2006	ARI Selian	1000-2000	3.5	<ul style="list-style-type: none"> -Leaf glaucosity: absent/weak -Growth habit: erect -Culm glaucosity: absent -Auricle pubescence: weak -Sheath glaucosity: absent/weak -Spike shape: parallel -Spike density: medium -Spike glaucosity: absent/weak -Awns: awned -Glume pubescence: medium -Glume colour: straw white -Plant height: 80 cm -Awn colour: white -Spike attitude: straight -Kernel colour: brown -Kernel shape: semi elongated 	Moderate resistant to Stripe rust, Stem and Leaf rust

Species: Barley (*Hordeum vulgare* L.)

Variety	Year of release	Owner(s)/Maintainer and seed source	Optimal production altitude range (Masl)	Grain yield (Tons/Ha)	Distinctive Characters	Special attributes/Disease reaction
1.Makete-I (Naked barley)	1987	ARI Uyole	1850-2500	2.0-3.5	-Ear glaucosity: weak -Flag leaf altitude: drooping -Culm glaucosity: strong -Plant height : 80 cm	Resistant to leaf rust and tan spot
2.Kibo	1991	ARI Serian	1300-1900	3.5-4.0	Growth type: erect -Colour of leaves : green -Tillering capacity: moderate -Spike: spikelets have long awns -Colour of spike at grain filling: light green -Awns colour: light green -Hairiness of awns: rough	Moderate malting quality. Resistant to powdery mildew, loose and covered smut. Resistant to leaf and stem rusts.
3.Subira	1995	TBL	1300-200	2.6	-Growth type: erect -Spike density: long very lax -Colour of spike at grain filling: pinkish -Leaf colour: green -Length and shape of basal rachis internode: short, curved -Degree of awning: moderate -Plant height: 60 cm -Awns colour: pinkish -Hairiness of awns: rough	Moderate malting quality. Resistant to powdery mildew, loose and covered smut Resistant to leaf and stem rusts. Tolerant to net and spot blotches.
4. 8519	1996	TBL	1000-1200	2.0-3.5	-Growth type: erect -Colour of leaves : pale green -Size of leaves: large -Tillering: fair -Spike density: long very lax -Colour of spike at grain filling:	Moderate malting quality. Tends to have high N content. Resistant to powdery mildew, loose and covered smut. Resistant to leaf and stem rusts. Tolerant to net and spot blotches

					<p>green</p> <p>-Colour of spike at grain filling: pinkish</p> <p>-Awns colour: pinkish</p> <p>-Hairiness of awns:</p>	
5.Bima	1998	TBL	1500-2200	1.0-2.1	<p>-Growth type: semi-erect</p> <p>-Colour of leaves: pale green</p> <p>-Size of leaves: small</p> <p>-Tillering: heavy</p> <p>-Spike density: medium lax</p> <p>-Colour of spike at grain filling: pinkish</p> <p>-Plant height: medium</p> <p>-Awns colour: pinkish</p>	<p>Very good malting quality.</p> <p>Resistant to powdery mildew, loose and covered smut.</p> <p>Resistant to leaf and stem rusts. Susceptible to net and spot blotches.</p>
6.Kusini	2001	TBL	1000-1200	2.0-3.0	<p>-Growth type: erect</p> <p>-Colour of leaves: pale green</p> <p>-Size of leaves: small</p> <p>-Tillering: medium</p> <p>-Spike density: medium lax</p> <p>-Number of fertile rows in spike: 2</p> <p>-Colour of spike at grain filling: pinkish</p> <p>-Plant height: medium</p> <p>-Awns colour: green</p>	<p>Good malting quality.</p> <p>Resistant to powdery mildew, loose and covered smut.</p> <p>Resistant to leaf and stem rusts.</p> <p>Tolerant to net and spot blotches. Susceptible to lodging in more fertile and humid environment.</p>
7. 9831	2004	TBL	1000-1200	80 – 90	<p>-Growth type: erect</p> <p>-Colour of leaves: pale green</p> <p>-Spike density: medium lax</p> <p>-Colour of spike at grain filling: strongly pink</p> <p>-Plant height: medium</p> <p>-Awns colour: strongly pink</p> <p>-Grain length: medium long</p> <p>-Days to 50 % ear emergency: early, about 50 DAP</p>	<p>Disease Reaction: Moderate</p>

Species: Oats (*Avena sativa* L.)

Variety	Year of release	Owner(s)/ Maintainer and seed source	Optimal production altitude range (Masl)	Grain yield (t/Ha)	Distinctive Characters	Special attributes/Disease reaction
1. Kudu	1987	ARI Uyole	1770-2350	7.0	<ul style="list-style-type: none"> -Standability at late tillering:erect -Plant height: 121 (cm) -Culmglaucosity:medium -Flag leaf attitude at booting:drooping -Flag leaf sheath glaucosity:strong -Flag leaf hairiness:weak -Leaf blade glaucosity:weak -Mature ear colour:white -Ear glaucosity:very weak -Ear density:loose -Degree of awning:slight -Grain brush hairs:heavy -Days to spike emergence:65-70 	Forage crop. Resistant to <i>Septoria</i> , crown rust and tan spot

Species: Triticale

Variety	Year of release	Owner(s)/ Maintainer and seed source	Optimal production altitude range (Masl)	Grain yield (t/Ha)	Distinctive Characters	Special attributes/ Disease reaction
1.T. Tembo	1982/3	ARI Uyole	1000-2400	3.4	<ul style="list-style-type: none"> -Leaf glaucosity: weak -Growth habit: upright -Culm glaucosity: medium -Sheath glaucosity: strong -Spike density: mid dense -Spike glaucosity: strong 	Resistant to all rusts, tolerant to tan spots, spot blotch and <i>Septoria</i>

					-Awns: awned -Plant height: 104 cm -Awn colour: white -Kernel colour:medium red -Kernel shape:elliptical and shrived	
2. Uyole Sangara	1986/7	ARI Uyole	1500-2400	>4.0	-Leaf glaucosity: weak Growth habit: erect -Days to 50 % flowering: 68-76 days -Culm glaucosity: medium -Sheath glaucosity: strong -Spike density: weak -Spike glaucosity: weak -Awns: awned medium -Plant height: 107 cm -Awn colour: white -Kernel colour:white -Kernel shape:elliptical	Resistant to all rusts and <i>Septoria</i>
3.TANWAT T.87	1987	TANWAT	1500-2400	4.0	-Leaf glaucosity: weak -Growth habit: semi prostrate -Culm glaucosity: medium -Sheath glaucosity: medium -Spike glaucosity: medium -Awns: awned -Plant height: 127 cm -Awn colour: brown -Kernel colour: ambercolour -Kernel shape:elliptical	Resistant to <i>Septoria</i> , <i>Helminthosporium</i> and <i>Fusarium</i> spp

Species: Sorghum (*Sorghum bicolor* (L.) Moench

Variety	Year of	Owner(s)/	Optimal	Grain yield	Distinctive Characters	Special attributes/Disease reaction
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	release	Maintainer and seed source	production altitude range (Masl)	(t/Ha)		
1.Serena	1960	EAC	600-1500	3.0-3.5	Grain colour: red	Tolerant to <i>Striga hermonthica</i> and <i>S. asiatica</i> and <i>S. Forbesii</i> .
2.Tegemeo	1978	ARI Ilonga	600-1500	2.5-3.0	-Hairiness: absent -Plant colour: tan -Leaf colour: light green, some plants have purplish pigments on lower leaves -Plant height: 1.5-1.8 m -Days to 50 % flowering: 70-72 -Awn at maturity: absent -Head shape: bell -Grain colour: white (pearl), -Glume colour: straw,	Susceptible to <i>Striga hermonthica</i> and <i>S. asiatica</i> and <i>S. Forbesii</i> .
3.Pato	1997	ARI Ilonga	600-1500	1.6-3.3	-Leaf colour:green medium leafy, drooping -Plant height: 190 -240 cm -Days to 50 % flowering: 67-72 days, -Head shape: medium sized semi open, short bulky heads -Grain colour: creamy white with purple specks -Glume colour: black, very conspicuous -Grain form: elliptic	Susceptible to <i>Striga hermonthica</i> and <i>S. asiatica</i> and <i>S. Forbesii</i>
4. Macia	1998	ARI Ilonga	600-1500	2.5-3.0	-Plant colour: tan -Plant height: 120-150 cm (semi-dwarf) -Days to 50 % flowering: 60-65	Moderately resistant to <i>Striga hermonthica</i> and <i>S. asiatica</i> and <i>S. Forbesii</i>

					<ul style="list-style-type: none"> -Awn at maturity: absent -Head shape: symmetric, semi-compact, large and bulbous with good exertion (10-15 cm) -Grain colour: creamy white -Grain form: elliptic 	
5. Wahi	2002	ARI Ilonga	600-1500	3.5	<ul style="list-style-type: none"> -Stem diameter of lower third (at maturity): large -Glume colour at maturity: reddish brown -Glume length at maturity: short -Cariopsis colour after threshing: straw yellow -Grain shape in dorsal view: circular -Grain shape in profile view: circular - Leaf width: broad 	Highly tolerant to <i>Striga hermonthica</i> , <i>S. asiatica</i> and <i>S. Forbesii</i> . Resistant to leaf blight and sooty stripe. Susceptible to long smut.
6. Hakika	2002	ARI Ilonga	600-1500	3.5	<ul style="list-style-type: none"> Stem diameter of lower third (at maturity): small -Glume colour at maturity: reddish brown -Short -Glume length at maturity: short -Cariopsis colour after threshing: orange -Grain shape in dorsal view: elliptic -Grain shape in profile view: elliptic - Leaf width: narrow -Rooting ability : has high power of rooting 	Resistant to <i>Striga hermonthica</i> and <i>S. asiatica</i> and <i>S. forbesii</i> . Resistant to leaf blight.
Sila	2008	SEEDCO	600-1500	2.2- 2.6	-Drought tolerant	

					-Plant height – 120 – 138 cm -50% heading; 55 – 76 100 days to maturity	
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Species: Pearl Millet (*Pennisetum glaucum* L.)

Variety	Year of release	Owner(s)/ Maintainer and seed source	Optimal production altitude range (Masl)	Grain yield (t/Ha)	Distinctive characters	Special attributes/ Disease reaction
1. Shibe	1994	ARI Ilonga	0-1200	1.8-2.0	-Tillering attitude at head emergency: erect -Spike shape:cylindrical -Bristle length :absent -Days to flowering: 90-95 -Spike shape:cylindrical -Seed colour:grey -Seed shape:obovate -Plant height (m):1.5-2.5	Resistant to <i>Striga hermonthica</i> and <i>S. asiatica</i> and <i>S. Forbesii</i>
2. Okoa	1994	ARI Ilonga	0-1300	2.0-2.5	-Tillering attitude at head emergency: erect -Spike shape:cylindrical -Bristle length :absent -Days to flowering: 87-92 -Spike shape:cylindrical -Spike density at maturity: compact -Seed colour:grey -Seed shape:obovate -Plant height (m):1.8-2.8	Resistant to <i>Striga hermonthica</i> and <i>S. asiatica</i> and <i>S. Forbesii</i> Moderately tolerant to ergot disease (Sugary disease)

Species: Bean (*Phaseolus vulgaris* L.)

Variety	Year of release	Owner(s)/ Maintainer and seed source	Optimal production altitude range (Masl)	Grain yield (t/Ha)	Distinctive characters	Special attributes/ Disease reaction
1.	1977	ARI Selian	1000-1800	1.1-2.4	-Anthocyanin	Moderately resistant to halo blight and bean

Canadian wonder					<ul style="list-style-type: none"> colouration:present - Leaf colour:green -Growth habit:upright erect -Twining tendency: absent -Plant height (cm):46 -Days to flowering:33 -Flower colour:purple -Pod colour at maturity:yellow -Seed shape:kidney -Testa texture:smooth -Testa colour:dark red -Seed size:large 	common mosaic virus
2. Kabanima	1980	ARI Uyole	1200-1800	1.5-1.8	<ul style="list-style-type: none"> -Anthocyanin colouration:present -Leaf colour:green -Growth habit:upright erect -Twining tendency: absent -Plant height (cm):40 -Days to flowering:39 -Flower colour:white -Pod colour at maturity:cream -Seed shape:kidney -Testa texture:smooth -Testa colour:mottled red -Seed size:large 	Resistant to anthracnose and rust
3. Uyole 84	1984	ARI Uyole	900-2000	1.5-2.0 (non staked) 2.5-4.0 (staked)	<ul style="list-style-type: none"> -Anthocyanin colouration:absent -Leaf colour:light green -Growth habit:climber (aggressive) -Twining tendency: present 	Resistant to anthracnose and halo blight

					<ul style="list-style-type: none"> -Plant height (cm): up to 200 -Days to flowering:42-46 days -Flower colour:white -Pod colour at maturity:cream yellow -Seed shape:round and semi -Testa texture:smooth -Seed size:medium 	
4. Uyole 90	1990	ARI Uyole	1500-2000	1.5-2.0	<ul style="list-style-type: none"> -Days to maturity: 60-62 -Days to 50 % flowering: 30-32 	It is tolerant to halo blight and angular leaf spot
5. Uyole 94	1994	ARI Uyole	1000-1800	1.0-1.8	<ul style="list-style-type: none"> Days to maturity: 90-92 -Days to 50 % flowering: 40 	Resistant to <i>ascochyta</i> and rust, tolerant to Bean Common Mosaic Virus and Angular Leaf Spot
6. Uyole 96	1996	ARI Uyole	1000-1800	1.0-1.8	<ul style="list-style-type: none"> Days to maturity: 85 -Days to 50 % flowering: 38 	Tolerant to rust, <i>ascochyta</i> and Bean Common Mosaic Virus
7. Uyole 98	1998	ARI Uyole	1000-2000	1.2-2.0	<ul style="list-style-type: none"> -Days to maturity: 85 -Days to 50 % flowering: 38 	Resistant to anthracnose, angular leaf spot and rust. Tolerant to halo blight and <i>ascochyta</i>
8. Ilomba	1990	ARI Uyole	1200-2000	1.5-2.5	<ul style="list-style-type: none"> -Days to maturity: 88 -Days to 50 % flowering: 40 	Resistant to anthracnose, halo blight and rust, Tolerant to <i>ascochyta</i>
9. Lyamungu 85	1985	ARI Lyamungu	900-1800	1.2-1.5	<ul style="list-style-type: none"> -Anthocyanin colouration:present - Leaf colour:green -Growth habit:upright erect -Twining tendency: absent -Plant height (cm):46 -Days to flowering:33 	Resistant to anthracnose, angular leaf spot, Bean Common Mosaic Virus and intermediate to common bacteria blight.

					<ul style="list-style-type: none"> -Flower colour:purple -Pod colour at maturity:yellow -Seed shape:kidney -Testa texture:smooth -Seed size:large 	
10. Lyamung u 90	1990	ARI Lyamungu	900-1800	1.2-1.6	-Days to maturity: 80-85	Has low tannin content Resistant to leaf rust and anthracnose
11. Selian 94	1994	ARI Selian	900-1500	2.5-3.5	<ul style="list-style-type: none"> -Anthocyanin colouration:weak -Leaf colour:dark green -Growth habit: erect -Twining tendency: present -Plant height (cm):50-60 -Days to flowering:42 -Flower colour:pink -Pod colour at maturity:light yellow -Seed shape:oval -Testa texture:smooth -Testa colour:light pink with red speckles -Seed size:medium 	Moderately susceptible to anthracnose and angular leaf spot
12. JESCA	1997	ARI Selian	1000-1500	2.0-3.4	<ul style="list-style-type: none"> -Days to maturity: 80-85 -Days to 50 % flowering: 35 	Resistant to anthracnose, Bean Common Mosaic Virus and halo blight, moderately resistant to bean rust, angular leaf spot, common bacterial blight
13. Selian 97	1997	ARI Selian	1000-1500	2.0-2.8	<ul style="list-style-type: none"> -Leaf colour:dark green -Growth habit:strong erect stem with braches -Twining tendency: absent -Plant height (cm):40 -Days to flowering:40 	Resistant to anthracnose, Bean Common Mosaic Virus and halo blight, moderately resistant to bean rust, angular leaf spot, common bacterial blight

					<ul style="list-style-type: none"> -Flower colour: pink -Pod colour at maturity: light yellow -Seed shape: kidney -Testa texture: smooth Testa colour: red (but lighter than Canadian wonder) -Seed size: large 	
14. Rojo	1997	SUA	<1000	2.2	<ul style="list-style-type: none"> -Days to maturity: 67-74 -Days to 50 % flowering: 32-37 	Resistant to Bean Common Mosaic Virus, moderately resistant to common bacterial blight and nematodes. Grains are fast cooking
15. Wanja	2002	ARI Uyole	800-1800	1.5	<ul style="list-style-type: none"> -Anthocyanin colouration: green -Leaf colour: green -Growth habit: upright -Twining tendency: absent -Plant height (cm): 35-45 Days to flowering: 38-38 -Flower colour: pink -Pod colour at maturity: cream -Seed shape: large kidney -Testa texture: smooth -Testa colour: greenish Khaki -Seed size: large 	Early maturity and drought tolerant. Large khaki seeds with black halo around the hilum
16. BILFA 16	2004	ARI Uyole	1000-1900	1.5-2.5	<ul style="list-style-type: none"> -Anthocyanin colouration: green -Leaf colour: green -Growth habit: bushy with many branches -Twining tendency: absent -Plant height (cm): 40-44 	Tolerant to Halo blight, Drought resistant Resistant to Anthracnose and bean rust

					<ul style="list-style-type: none"> -Days to flowering:30-38 -Flower colour:pink -Pod colour at maturity:yellow -Seed shape:plumb -Testa texture:smooth -Testa colour: broken white stripes on dark red background -Seed size:medium 	
17. Uyole 04	2004	ARI Uyole	1200-2000	2.0 – 2.5	<ul style="list-style-type: none"> -Leaf colour:green -Growth habit: many branches and tendency to tail -Twining tendency: semi climber -Plant height (cm):45-60 -Days to flowering:30-38 -Flower colour:pink -Pod colour at maturity:pale cream/whitish -Seed shape:kidney -Testa texture:smooth -Seed size:large 	Resistant to Bean rust, Anthracnose and Tolerant to Halo blight and drought
18. Pesa	2006	SUA	Low to medium	0.9-1.5	<ul style="list-style-type: none"> -Growth habit:bush -Twining tendency: none -Plant height (cm):44 -Days to flowering:28-32 -Flower colour:pink - Pod colour at maturity:light brown -Seed shape:kidney -Testa texture:smooth -Testa colour: dark red 	Moderate resistant and Angular Leaf Spot. Resistant to Bean Common Mosaic Virus and short to modern cooking time
19. Mshindi	2006	SUA	Low to medium	0.9-1.5	<ul style="list-style-type: none"> - Anthocyanincolouration:p resent 	Moderate resistant to Angular Leaf Spot and Resistant to Bean Common Mosaic Virus Has short to modern cooking time

					<ul style="list-style-type: none"> -Leaf colour:green -Growth habit:bush -Twining tendency: none -Plant height (cm):48 -Days to flowering:28-32 -Flower colour:pink -Pod colour at maturity:light brown -Seed shape:roundish -Testa colour:grey mottled -Seed size:medium 	
20. Selian 05	2005	ARI Selian	1000-1500	1.0-1.6	<ul style="list-style-type: none"> -Days to flowering:43 -Flower colour:white -Pod colour at maturity:yellow -Seed shape:oval -Testa colour: khaki -Seed size:large 	Resistant to Bean rust, Anthracnose, Mosaic Virus, and Halo blight
21. SELIAN 06	2007	ARI Selian	>1500	2.5-3.0	<ul style="list-style-type: none"> -Days to flowering:40 -Flower colour:white -Pod colour at maturity: light brown -Seed shape:oval -Testa colour: white -Seed size:medium 	Resistant to Bean rust, Anthracnose, Mosaic Virus, and Halo blight
22. CHEUPE	2007	ARI Selian	>1500	2.5-3.0	<ul style="list-style-type: none"> -Days to flowering:42 -Flower colour:white -Pod colour at maturity: light brown -Seed shape:oval -Testa colour: white -Seed size:medium 	Resistant to Bean rust, Anthracnose, Mosaic Virus, and Halo blight
23. Njano Uyole	2008	ARI Uyole	1000 - 2000	2.5 – 3.0	<ul style="list-style-type: none"> -Days to maturity 75 – 90 -Plant height: 63 cm. 	<ul style="list-style-type: none"> -Proposed for release in S. Highland -Resistant to Anthracnose

					-Colour: yellow seeded	
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Species: Cow pea (*Vigna unguiculata* (L.) Walp.)

Variety	Year of release	Owner(s)/ Maintainer and seed source	Optimal production altitude range (Masl)	Grain yield (t/Ha)	Distinctive characters	Special attributes/Disease reaction
1. Tumaini	1978	ARI Ilonga	0-1500	2.4	-Leaf colour:darkness Leaf texture: smooth -Growth habit:indeterminate -Twining tendency: slight -Days to flowering:48 -Flower colour:purple -Seed colour: tan -Seed shape:kidney -Seed size:medium	Resistant to mosaic virus and intermediately resistant to bacterial blight
2. Fahari	1978	ARI Ilonga	0-1500	2.4	-Growth habit:indeterminate -Twining tendency: semi-erect -Days to flowering:50 -Flower colour:purple -Seed colour: cream -Seed shape:kidney	Resistant to mosaic Virus
3. Vuli -I	1984	ARI Ilonga	0-1500	1.8-2.0	-Leaf texture: smooth -Growth habit:determinate -Twining tendency: erect -Flower colour:purple -Seed colour: red	Resistant to mosaic virus and intermediately resistant to bacterial blight

					-Seed shape: kidney	
4. Vuli-2	2003	ARI Ilonga	Below 1500	2.0-2.5	-Growth habit: determinate -Twining tendency: semi-trailing -Flower colour: purple -Seed colour: white/cream -Seed shape: kidney	Moderately susceptible to pests Resistant to, Bacterial blight, Cowpea Mosaic Virus

Species: Green gram (*Phaseolus aureus* Roxb)

Variety	Year of release	Owner(s) /Maintainer and seed source	Optimal production altitude range (Masl)	Grain yield (t/Ha)	Distinctive characters	Special attributes/Disease reaction
1. Nuru	1978	ARI Ilonga	0-1350	1.5	-Growth habit: determinate -Plant height (cm): 14-66 -Days to flowering: 50 -Flower colour: purple -Pod colour at maturity: black -Seed shape: rhomboid -Testa texture: smooth	Resistant to mosaic virus and intermediately resistant to bacterial blight
2. Imara	1982	ARI Ilonga	0-1350	1.5	-Growth habit: semi-prostrate -Plant height (cm): 42 -Flower colour: purple -Pod colour at maturity: brown -Seed shape: rhomboid -Testa texture: smooth -Seed size: Large than Nuru	Resistant to mosaic virus and moderately resistant to bacterial blight. Wide adaptability

Species: Pigeon pea (*Cajanus cajan*)

Variety	Year of release	Owner(s) /Maintainer and seed source	Optimal production altitude range (Masl)	Grain yield (Tons/Ha)	Distinctive characters	Special attributes/Disease reaction
1. Kombo a	1999	ARI Ilonga	<1500	4.0 (grain) and 10.0 (green pods)	<ul style="list-style-type: none"> -Growth habit:compact -Plant height (cm): 100 -Days to flowering:65 (under optimum temp. 20-24°C) -Base flower colour: red (exterior) -Second flower colour:orange (interior) -Duration of flowering: synchronous -Pod colour: green with slight stripes -Seed colour pattern: mottled -Seed eye colour:brown -Base seed colour: white (cream) -Seed second colour: brown 	Early maturing variety
2. Mali	2002	ARI Ilonga	500-1500	1.0 – 3.0	<ul style="list-style-type: none"> -Growth habit:compact to semi-erect -Growth habit:compact -Leaf: large and green -Plant height (cm): 100 -Days to flowering:113-130 -Flower: ivory-coloured and do not open fully -Pods: green with purple streaks and are borne in clusters at the branch 	Resistant to fusarium wilt. Has desirable seed and consumer acceptability. Tolerant to insect pest and drought.

					terminals	
3. Tumia	2003	ARI Ilonga	Below 1500		-Growth habit:compact and semi erect - Leaf colour large green leaf Flower colour: ivory coloured. - Pod colour:the pods are green and very broad, and are borne in clusters at the branch terminals	It is susceptible to Fusarium wilt

Species: Ground nut (*Arachis hypogaeae* L.)

Variety	Year of release	Owner(s) /Maintainer and seed source	Optimal production altitude range (Masl)	Grain yield (t/Ha)	Distinctive characters	Special attributes/Disease reaction
1. Red Mwitunde	1976	ARI Naliendele	< 1500	0.1-1.7	-Days to maturity: 120	May suffer from sprouting if late rained during harvest or if lifting is delayed.
2. Nyota (Span cross)	1983	ARI Naliendele	< 1500	1.2	-Stem branching:sequential -Stem hairiness:scarce -Laateral branches habit:non distichous -Leaf colour:light green -Leaflet shape:cunoate -Leaflet hairiness:sparce and short -Length of reproductive branch:short	Tolerant to <i>Cercospora</i> leaf spots

					<ul style="list-style-type: none"> -Flower colour: yellow -Days to 50 % flowering:38 -Pod break:slight -Pod constriction:slight -Seed colour:small -Growth habit: small seeds light 	
3. Johari	1985	ARI Naliendele	< 1500	1.3	<ul style="list-style-type: none"> -Leaf colour:dark green -Leaflet shape:cunoate -Flower colour: yellow -Days to 50 % flowering:45 -Pod break:deep -Pod constriction: moderate -Seed colour: tan -Growth habit:decumbent -Plant colour:darkgreen 	Resistant to <i>Cercospora</i> leaf spot. Has seed dormancy.
4. Pendo 98 (Spanish)	1998	ARI Naliendele	< 1500	1.5	<ul style="list-style-type: none"> -Lateral branches habit: erect -Leaf colour: light green -Days to 50 % flowering: 27-30 -Pod break: incnspicuous -Pod constriction:not marked -Seed colour: tan (monochrome) -Growth habit: erect 	The seed exhibits no seed dormancy. Has better shelling % and 100 seed weight than Sawia (Virginia)
5. Sawia 98 (Virginia)	1998	ARI Naliendele	< 1500	1.5	<ul style="list-style-type: none"> -Lateral branches habit: erect -Leaf colour: dark green -Length of reproductive branch:- -Flower colour: 	The seed exhibits seed dormancy. Has less shelling % and 100 seed weight compared to Pendo 98

					-Days to 50 % flowering: 30-32 -Pod break: absent or very incnspicuous -Pod constriction:absent or very shallow -Seed colour: tan (monochrome) -Growth habbit: semi- erect	
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Species: Sesame (*Sesamum indicum* L.)

Variety	Year of release	Owner(s) /Maintainer and seed source	Optimal production altitude range (Masl)	Grain yield (Tons/Ha)	Distinctive characters	Special attributes/Disease rection
1. Naliendele 92	1992	ARI Naliendele	< 1500	1.2	-Has basal, compact branching -Heavy leaf shedding at maturity	Susceptible to bacterial blight
2. Zawadi 94	1994	ARI Naliendele	Up to 1500	1.0	-Has basal, profuse branching -Capsules turn from green to purple at maturity -Dull white seed, however if harvested during prolonged rains the colour changes to brown	Tolerant to leaf spots <i>Cercoseptoria sesame</i> , stem rot and <i>Fusarium</i> spp
3. Ziada 94	1994	ARI Naliendele	Up 1500	1.0	-Late maturing plant (120-130 days) - Plant colour:light green -Branching: has profuse	Tolerant to leaf spots <i>Cercoseptoria sesami</i> Good oil content: 56.87 %

					branching -Seed colour:white-brown bold seeds but change to cream white if harvested in prolonged rains	
4. Lindi 02	2006	ARI Naliendele	Up to 1500	1.2	- Branching:has basal, compact branching -Capsules size: long capsules, 2-3 carpels within the same plant - Seed colour:very white seeds	Tolerant to leaf spots, <i>Cercoseptoria sesame</i> , stem rot, and <i>Fusarium</i> spp. Susceptible to Flea beetles, (<i>Alocyphes bimaculate</i>) Good oil content: 55.61 %

Species: Soya Bean [*Glycine max* (L.) Merr.]

Variety	Year of release	Owner(s) /Maintainer seed source	Optimal production altitude range (Masl)	Grain yield (Tons/Ha)	Distinctive characters	Special attributes/Disease reaction
1. Soya Uyole-1	2002	ARI Uyole	1000-1800	1.5-3.0	- Growth habit:plant has up-right growth habit -Leaf colour: has green leaf colour with hairy texture -Pod colour:pod has cream/brownish colour at maturity - Seed shape:seed has short plump shape, -Testa colour: cream -Helium colour: brown	Does not lodge and shatter

Species: Sweet potatoes [*Ipomea batatas* (L.) Poir.]

Variety	Year of	Owner(s)	Optimal	Grain yield	Distinctive characters	Special attributes/Disease reaction
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	release	/Maintain er seed source	production altitude range (Masl)	(t/Ha)		
1. Simama	2000	ARI Ukiriguru	0-2000	10.0-20.0	-Plant type: Semi-compact -Vine predominant mature colour: Green -Vine tip pubescence: None -Mature leaf shape: Lobed -Leaf shape of mature lobe: Elliptic -Storage root shape: Elliptic -Storage root skin colour (predominant): cream Storage root flesh colour (predominant): cream -Storage root arrangements: closed cluster	Moderately resistant to sweet potato feathery mottle virus, sweet potato sunken vein virus and sweet potato mild mottle virus. Moderately resistant to weevils.
2. Vumilia	2000	ARI Ukiriguru	800-2000	10.0-20.0	-Plant type: Spreading -Vine predominant mature colour: Green -Vine tip pubescence: Sparsed -Mature leaf shape: Lobed - Leaf shape of mature lobe: Elliptic -Storage root shape: Oblong -Storage root skin colour (predominant): Cream	Moderately resistant to sweet potato feathery mottle virus, sweet potato sunken vein virus and sweet potato mild mottle virus. Moderately resistant to weevils.

					<ul style="list-style-type: none"> -Storage root flesh colour (predominant): Cream -Storage root arrangements: Closed cluster 	
3. Sinia	2000	ARI Ukiriguru	800-2000	10.0-20.0	<ul style="list-style-type: none"> -Plant type: Spreading -Vine predominant mature colour: Mostly purple -Vine tip pubescence: Sparse -Mature leaf shape: Lobed -Mature leaf shape of mature lobe: Semi-elliptic -Storage root shape: Long elliptic -Storage root skin colour (predominant): Purple --Storage root flesh colour (predominant): Orange -Storage root arrangements: Open cluster 	Moderately resistant to sweet potato feathery mottle virus, sweet potato sunken vein virus and sweet potato mild mottle virus. Moderately resistant to weevils.
4. Mavun o	2000	ARI Ukiriguru	800-2000	10.0-25.0	<ul style="list-style-type: none"> -Plant type: Spreading Vine predominant mature colour: Green -Vine tip pubescence: None -Mature leaf shape: Cordate -Leaf shape of mature lobe: Teeth -Storage root shape: 	Moderately resistant to sweet potato feathery mottle virus, sweet potato sunken vein virus and sweet potato mild mottle virus. Moderately resistant to weevils.

					<p>Elliptic</p> <ul style="list-style-type: none"> -Storage root skin colour (predominant): Cream - -Storage root flesh colour (predominant): Cream -Storage root arrangements: Closed cluster 	
5. Jitihada	2000	ARI Ukiriguru	0-2000		<ul style="list-style-type: none"> -Plant type: Semi-compact -Vine predominant mature colour: Green -Vine tip pubescence: Moderate -Mature leaf shape: Lobed - Leaf shape of mature lobe: Linear (narrow) -Storage root shape: Oblong -Storage root skin colour (predominant): White ---Storage root flesh colour (predominant): white -Storage root arrangements: open cluster 	<p>Moderately resistant to sweet potato feathery mottle virus, sweet potato sunken vein virus, and sweet potato mild mottle virus.</p> <p>Moderately resistant to weevils.</p>

6. Ukerewe	2002	ARI Kibaha	< 1000	9.0	-Plant type: Spreading -Vine predominant mature colour: Green -Vine tip pubescence: None -Mature leaf shape: Lobed -Mature leaf shape of mature lobe:Semi- elliptic -Storage root shape: Long elliptic -Storage root skin colour (predominant): Purple --Storage root flesh colour (predominant): Cream -Storage root arrangements: very dispersed	Moderately resistant to sweet potato feathery mottle virus, sweet potato sunken vein virus and sweet potato mild mottle virus. Moderately resistant to weevils.
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Species: Cassava (*Manihot* spp.)

Variety	Year of release	Owner(s) /Maintain er and seed source	Optimal production altitude range (Masl)	Grain yield (t/Ha)	Distinctive characters	Special attributes/Disease reaction
1. Kibaha	2003	SRI Kibaha		30.0	- Outer skin root colour: dark brown -Inner skin root colour: cream - Ground storability: 12- 15 months -Time of root biodegradation: starts after 6 day from	Resistant to drought, moderate resistant to Cassava Mottle Virus and Cassava Brown spot diseases Resistant to Cassava Green Mottle pest Ecological adaptability: Humid sub-humid (coastal areas) tested for more than 15 years

					harvesting	
2. Naliendele	2003	SRI Kibaha		12.0	-Outer skin root colour: Brown -Inner skin root colour: purple -Ground storability: 12-15 months -Time to root biodegradation: starts after 3 day from harvesting	Ecological adaptability: Humid sub-humid (coastal areas) tested for more than 5 years
3. Mumba	2003	SRI Kibaha		29.0	-Outer skin root colour: brown -Inner skin root colour: cream -Ground storability: 12-15 months -Time to root biodegradation: starts after 4 day from harvesting	Moderate resistant to drought, Cassava mottle Disease and Cassava Brown spot disease, Resistant to Cassava Green Mite pest Ecological adaptability: Semi-arid (Hombolo) tested for 6 years
4. Kiroba	2004	SRI Kibaha		26.0	-Outer skin root colour: dark brown -Inner skin root colour: purple -Ground storability: 10-12 months -Time to root biodegradation: starts after 4 day from harvesting	Ecological adaptability: Humid sub-humid (coastal areas)
Hombolo 95	2004	SRI Kibaha		39.0	-Outer skin root colour: brown -Inner skin root colour: cream -Ground storability: 12-15 months	Resistant to CMD, CBSD, CGM and drought Ecological adaptability: Semi-arid (Hombolo) tested for 5 years

					-Time to root biodegradation: starts after 6 days from harvesting	
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Species: Sunflower (*Helianthus annuus* L.)

Variety	Year of release	Owner(s) /Maintainer and seed source	Optimal production altitude range (Masl)	Grain yield (t/Ha)	Distinctive characters	Special attributes/Disease reaction
1. Record	Before 1950's	ARI Ilonga	0-2000	1.0-2.0	-Days to maturity: 110-130 -Days to 50 % flowering: 35-45	Susceptible to sunflower rugose mosaic virus and sunflower yellow ringspot Oil content: 50%
2. CRN 1435	1999	Monsanto South Africa	900-1500	2.0-2.5	-Leaf shape: Cordate -Depth of margin indentations: Intermediate -Blade altitude: Descending -Corolla colour: Yellow -Anther colour: Brown -Pericarp main colour: Black -Stripe colour: Gray -Has wide adaptation, good lodging resistance and stress tolerance	Resistant to <i>Septoria</i> , <i>Alternaria</i> spp, sunflower rugose mosaic virus and sunflower yellow ringspot
3. PAN 7352	2002	Pannar Seed Co.	500-1500	1.5-2.5	-Leaf shape: Cordate -Depth of margin indentations: Medium -Blade altitude: Flat -Corolla colour: Yellow	Moderately resistant to <i>Septoria</i> , <i>Alternaria</i> spp, sunflower rugose mosaic virus and sunflower yellow ringspot Has excellent adaptation and stress tolerance, good lodging resistance

					-Anther colour: Black -Pericarp main colour: Black -Stripe colour: White	
4. K.Fedha	2006	Kenya Seed Co.Ltd	1500 - 2250	3.0 – 3.5	-Leaf shape: Flat -Depth of margin indentations: ---Deep to medium -Blade altitude: Scabrous -Corolla colour: Yellowish -Anther colour: Yellow -Pericarp main colour: Black -Stripe colour: Gray	Moderately resistant to <i>Septoria helianth</i> , <i>Alternaria</i> spp and Sunflower Viral Diseases -Has wide adaptation (from coastal to highlands), good lodging resistance and stress tolerance

Species: Tomato (*Lycopersicon lycopersicum* Mill.)

Variety	Year of release	Owner(s) /Maintainer seed source	Optimal production altitude range (Masl)	Grain yield (t/Ha)	Distinctive characters	Special attributes/Disease reaction
1. Tengeru 97	1997	HORTI-Tengeru	400-1500	60-80	-Growth habit: indeterminate -Day to 50 % flowering: 31 days from transplanting -Days to 50 % fruiting: 47 days from transplanting -Leaf shape: ovate to lanceolate in outline interrupted-pinnate to twice pinnate -Fruit colour:red	Resistant to root-knot nematodes, tomato mosaic virus (ToMV) and <i>Fusarium</i> wilt. Tolerant to Tomato Yellow Leaf Curl Virus (TYLCV)

					-Firmness:very firm -Plant height: 95-100	
2. Tanya	1997	HORTI-Tengeru	400-1500	40-60	-Growth habit: Determinate -Day to 50 % flowering: 30 days from transplanting -Days to 50 % fruiting: 45 days from transplanting -Leaf shape: ovate to lanceolate in outline interrupted-pinnate -Fruit colour:red -Firmness:very firm -Plant height: 45-50	Susceptible to most common diseases of tomatoes
3. Meru	2007	HORTI-Tengeru	500-1500	60-100	-Growth habit: Indeterminate -Day to 50 % flowering: 24-27 days from transplanting -Days to 50 % fruiting: -Leaf shape: -Fruit colour:red -Firmness:firm -Plant height: 45-50	Resistant to <i>M.incognita</i> , <i>M.javanica</i> , <i>M.hapla</i> , Powdery mildew and late blight Agency respo
4. Kiboko	2008	HORTI Tengeru	500-1500	50 - 100	-Maturity: 90 – 100 days -Resistant to late blight	

Species: Coffee (*Coffea arabica*)

Variety	Year of release	Owner(s) /Maintainer seed source	Optimal production altitude range (Masl)	Dry bean yield (t/Ha)	Distinctive characters	Special attributes/Disease reaction
1. N 39-1	2005	TaCRI	900-1800	2.5-3.0	-Plant habit: shrub -Plant height: tall >170 cm	Resistant to Coffe Berry Diseases (<i>Colletotrichum kahawae</i>), Leaf rust (<i>Hemileia vastatrix</i>),

					<ul style="list-style-type: none"> -Overall appearance: pyramidal -Vegetable development: sympodial -Branching habit (primary): many with many secondary and tertiary -Angle of insertion of primary branches: semi-erect -Young leaf colour: bronze -Inflorescence position: axillary -Number of flowers per axil: 17 -Fruit colour: red -Fruit shape: oblong -Seed colour: cream -Seed shape: elliptic 	Added advantage in bean size
2. N 39-2	2005	TaCRI	900-1800	2.5-3.0	<ul style="list-style-type: none"> -Plant habit: shrub -Plant height: tall >165 cm -Overall appearance: pyramidal -Vegetable development: sympodial -Branching habit (primary): many with many secondary and tertiary -Angle of insertion of primary branches: semi-erect -Young leaf colour: bronze -Inflorescence position: 	Resistant to Coffe Berry Diseases (<i>Colletotrichum kahawae</i>), Leaf rust (<i>Hemileia vastatrix</i>), Added advantage in bean size

					<ul style="list-style-type: none"> axillary -Number of flowers per axil: 16 -Fruit colour: red -Fruit shape: roundish -Seed colour: cream -Seed shape: elliptic 	
3. N 39-3	2005	TaCRI	900-1800	2.5-3.0	<ul style="list-style-type: none"> -Plant habit: shrub (distinct trunk) -Plant height: tall >170 cm -Overall appearance: pyramidal -Vegetable development: sympodial -Branching habit (primary): many with many secondary and tertiary -Angle of insertion of primary branches: semi-erect -Young leaf colour: bronze -Inflorescence position: axillary -Number of flowers per axil: absent -Fruit colour: red -Fruit shape: oblong -Seed colour: cream -Seed shape: elliptic 	<p>Resistant to Coffe Berry Diseases (<i>Colletotrichum kahawae</i>), Leaf rust (<i>Hemileia vastatrix</i>), Added advantage in bean size</p>
4. N 39-4	2005	TaCRI	900-1800	2.5-3.0	<ul style="list-style-type: none"> -Plant habit: shrub -Plant height: tall >170 cm -Overall appearance: bushy -Vegetable 	<p>Resistant to Coffe Berry Diseases (<i>Colletotrichum kahawae</i>), Leaf rust (<i>Hemileia vastatrix</i>), Added advantage in bean size</p>

					<p>development: sympodial</p> <ul style="list-style-type: none"> -Branching habit (primary): many with many secondary and tertiary -Angle of insertion of primary branches: semi-erect -Young leaf colour: bronze -Inflorescence position: axillary -Number of flowers per axil: absent -Fruit colour: red -Fruit shape: roundish -Seed colour: cream -Seed shape: elliptic 	
5. N 39-5	2005	TaCRI	900-1800	2.5-3.0	<p>Vegetable development: sympodial</p> <ul style="list-style-type: none"> -Branching habit (primary): MMS & T -Angle of insertion of primary branches: semi-erect -Young leaf colour: greenish -Inflorescence position: axillary -Number of flowers per axil: 15 -Fruit colour: red -Fruit shape: obovate -Seed colour: cream -Seed shape: oblong 	<p>Resistant to Coffe Berry Diseases (<i>Colletotrichum kahawae</i>), Leaf rust (<i>Hemileia vastatrix</i>), Added advantage in bean size</p>
6. N 39-6	2005	TaCRI	900-1800	2.5-3.0	<p>Vegetable development: sympodial</p> <ul style="list-style-type: none"> -Branching habit 	<p>Resistant to Coffe Berry Diseases (<i>Colletotrichum kahawae</i>), Leaf rust (<i>Hemileia vastatrix</i>),</p>

					(primary): MMS &T -Angle of insertion of primary branches: horizontal -Young leaf colour: brownish -Inflorescence position: axillary -Number of flowers per axil: 19 -Fruit colour: red -Fruit shape: oblong -Seed colour: cream -Seed shape: oblong	Added advantage in bean size
7. N 39-7	2005	TaCRI	900-1800	2.5-3.0	Vegetable development: sympodial -Branching habit (primary): MMS &T -Angle of insertion of primary branches: semi-erect -Young leaf colour: bronze -Inflorescence position: axillary -Number of flowers per axil: 9 -Fruit colour: red purple -Fruit shape: roundish -Seed colour: cream -Seed shape: oblong	Resistant to Coffe Berry Diseases (<i>Colletotrichum kahawae</i>), Leaf rust (<i>Hemileia vastatrix</i>), Added advantage in bean size
8. KP 423-1	2005	TaCRI	900-1800	2.5-3.0	Vegetable development: sympodial -Branching habit (primary): MMS &T -Angle of insertion of primary branches: horizontal	Resistant to Coffe Berry Diseases (<i>Colletotrichum kahawae</i>), Leaf rust (<i>Hemileia vastatrix</i>), Added advantage in bean size

					<ul style="list-style-type: none"> -Young leaf colour: brownish -Inflorescence position: axillary -Number of flowers per axil: 14 -Fruit colour: red -Fruit shape: roundish -Seed colour: cream -Seed shape: oblong 	
9. KP 423-3	2005	TaCRI	900-1800	2.5-3.0	<p>Vegetable development: sympodial</p> <ul style="list-style-type: none"> -Branching habit (primary): MMS & T -Angle of insertion of primary branches: horizontal -Young leaf colour: greenish -Inflorescence position: axillary -Number of flowers per axil: 9 -Fruit colour: red -Fruit shape: oblong -Seed colour: cream -Seed shape: elliptic 	<p>Resistant to Coffe Berry Diseases (<i>Colletotrichum kahawae</i>), Leaf rust (<i>Hemileia vastatrix</i>), Added advantage in bean size</p>

Species: Tobacco (*Nicotiana tabacum* L.)

Variety	Year of release	Owner(s) /Maintainer and seed source	Optimal production altitude range (Masl)	Grain yield (t/Ha)	Distinctive characters	Special attributes/Disease reaction
1. PD4	1992	ARI Tumbi	1050-1500	2.5	<ul style="list-style-type: none"> -Coleoptile hairiness: present -Leaf colour at maturity: 	<p>Moderately susceptible to root knot nematodes. Slightly susceptible to tobacco mosaic virus (TMV), frog –eye and <i>Alternaria</i></p>

					<p>dark green</p> <ul style="list-style-type: none"> -Leaf colour at curing: greenish yellow -Leaf hairiness: present -Stem colour: dark green -Stem strength: strong -Plant hairiness: present -Plant height: 90-130 cm -Days to flowering: 59-69 -Flower colour: pink -Capsule colour at maturity: light brown -Seed colour: light brown 	
2. RG 17	2006	Tanzania Leaf Tobacco Company	900-1500	0.112	<ul style="list-style-type: none"> -Coleoptile hairiness: present -Leaf colour at maturity: green -Leaf colour at curing: deep lemon -Leaf hairiness: 50 % -Stem colour: pale green -Stem strength: not very strong -Plant hairiness: 50 % -Plant height: 60 cm -Days to flowering: 70 days -Flower colour: white-pink or pinkish -Capsule colour at maturity: dark brown -Seed colour: dark 	Moderately susceptible to root knot nematodes. Slightly susceptible to tobacco mosaic virus (TMV), frog –eye and <i>Alternaria</i>

					brown	
3. ULT F 10	2006	Tanzania Leaf Tobacco Company	900-1500	0.154	-Coleoptile hairiness: present -Leaf colour at maturity: green -Leaf colour at curing: deep orange -Leaf hairiness: 80 % -Stem colour: pale green -Stem strength: not very strong -Plant hairiness: 80 % -Plant height: 70 cm -Days to flowering: 70 % -Flower colour: white- pink or pink -Capsule colour at maturity: dark brown -Seed colour: dark brown	Moderately susceptible to root knot nematodes. Slightly susceptible to tobacco mosaic virus (TMV), frog –eye and <i>Alternaria</i>
4. K 326	2006	Tanzania Leaf Tobacco Company	900-1500	0.125	-Coleoptile hairiness: present -Leaf colour at maturity: green -Leaf colour at curing: deep orange -Leaf hairiness: 80 % -Stem colour: pale green -Stem strength: not very strong -Plant hairiness: 80 % -Plant height: 70 cm -Days to flowering: 70 % -Flower colour: white-	Moderately susceptible to root knot nematodes. Slightly susceptible to tobacco mosaic virus (TMV), frog –eye and <i>Alternaria</i>

					<p>pink or pink</p> <p>-Capsule colour at maturity: dark brown</p> <p>-Seed colour: dark brown</p>	
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Species: Cashew (*Anacardium occidentale* L.)

Variety	Year of release	Owner/Maintenance and seed source	Optimal production altitude range (Masl)	Grain yield (t/Ha)	Distinctive characters	Special attributes/Disease reaction
AC 1	2006	ARI Naliendele	0-800	36	<p>-Brown flush</p> <p>-Apple shape: cylindrical</p> <p>-Apple colour: orange</p> <p>-Nut shape: kidney</p> <p>-Flower colour: pink</p>	Resistant to Powdery mildew, Anthracnose, and Die back
AC 4	2006	ARI Naliendele	0-800	59	<p>-Red flush</p> <p>-Apple shape: cylindrical</p> <p>-Apple colour: orange</p> <p>-Nut size: Large</p> <p>-Nut apex orientation: slightly tend to bend (on either the left or right side) away from direction of suture</p>	Resistant to Powdery mildew, Anthracnose, and Die back
AC 4/17	2006	ARI Naliendele	0-800	16	<p>-Nut apex: thin and relatively small-flattened</p> <p>-Dominantly thick bulging flanks starting from just near the lower end of the stylar</p>	Resistant to Powdery mildew, Anthracnose, and Die back

					scar and extend up to the upper shoulders, behind their side of suture -One side of the flank protrudes more than other side	
AC 10	2006	ARI Naliendele	0-800	39	-Aged leaves turn reddish, the aged leaves colour resembles mature apple colour -Very loose nut attachment to cashew apples, some nuts detach when or before falling on ground	Resistant to Powdery mildew, Anthracnose, and Die back
AC 10/129	2006	ARI Naliendele	0-800	67	-Brown flushes -Apple shape: cylindrical -Apple colour: yellow	Resistant to Powdery mildew, Anthracnose, and Die back
AC 10/220	2006	ARI Naliendele	0-800	53	-Green flushes relatively broad and large -Apple colour: yellow -Apple shape: conical	Resistant to Powdery mildew, Anthracnose, and Die back
AC 14	2006	ARI Naliendele	0-800	41	-Apple shape: long conical -Apple colour: orange -Pink/purple colouration that remain on nuts up to maturity	Resistant to Powdery mildew, Anthracnose, and Die back
AC 22	2006	ARI Naliendele	0-800	36	-Growth habit: natural tendency of the stem to grow relatively	Resistant to Powdery mildew, Anthracnose, and Die back

					upright, even in the case of grafted plant	
AC 34	2006	ARI Naliendele	0-800	47	-Green flushes, which are relatively narrow -Apple colour: yellow -Apple shape: round	Resistant to Powdery mildew, Anthracnose, and Die back
AC 43	2006	ARI Naliendele	0-800	55	-Apple shape: cylindrical -Apple colour: red with entire dark red strips at harvesting maturity	Resistant to Powdery mildew, Anthracnose, and Die back
AZA 2	2006	ARI Naliendele	0-800	49	-Growth habit: semi dwarf tree -Apple shape: conical -Apple colour: greenish yellow at harvesting maturity	Resistant to Powdery mildew, Anthracnose, and Die back
AZA 17	2006	ARI Naliendele	0-800	47	-Apple shape: conical -Apple colour: yellow -Nut shape: elongated	Resistant to Powdery mildew, Anthracnose, and Die back
AZA 17/79	2006	ARI Naliendele	0-800	14	-Apple colour: yellow -Apples shape: conical -Nut shape: flattened -Nut apex shape: round	
AZA 17/156	2006	ARI Naliendele	0-800	62	-Apple colour: orange -Apple shape: round	Resistant to Powdery mildew, Anthracnose, and Die back
AZA 17/158	2006	ARI Naliendele	0-800	14	-Dark brown flushes -Apples shape: Conical -Apple colour: yellow	Resistant to Powdery mildew, Anthracnose, and Die back
AC 4/285	2006	ARI Naliendele	0-800	29	-Red (bright red) flushes, -Leaf shape: Obovate	Resistant to Powdery mildew, Anthracnose, and Die back

					leaves -Apple colour: orange apples -Apple shape: Cylindrical	
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Species: Grape vine (*Vitis venifera L.*)

Variety	Year of release	Owner/ Maintain ance and seed source	Optimal production altitude range (Masl)	Grain yield (t/Ha)	Distinctive characters	Special attributes/Disease reaction
Makutupora Red	2007	Viticulture Research and Training Centre Makutup ora	1050	10-15	Red colour when ripped	Adaptability to drought: highly adapted Transportability: good Uses: Red wine
Chenin Nyeupe	2007	Viticulture Research and Training Centre Makutup ora	1050	10-30	Produce green grapes when ripped	Fairly drought resistant Uses: White wine making

Species: Cotton (*Gossypium hirsutum L.*)

UKM 08	2008	ARI Ukiriguru	900 - 1372	2.5 (seed cotton)	High yielding Number of bolls per plant – 26 Ginning outturn: 44%	Maturity: 146 – 148 days
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					Plant height: 114cm. Average lint yield: 1050 Kg/ha	
UK O8	2008	ARI Ukiriguru	900-1372	2.0 (seed cotton)	High yielding Number of bolls per plant – 26 Ginning outturn: 41.4% Plant height: 99cm. Average lint yield: 808 Kg/ha	Maturity: 165-180 days