Appendix 2

Eastern Africa Product Profile 1A

Mean yield performance and agronomic attributes of elite Intermediate-maturing CIMMYT hybrids under **EA-PP1A** vis-à-vis commercial and internal genetic check hybrids evaluated in **Eastern Africa 2019 Regional On-station and 2020 Regional On-farm Trials.**

Target agro-ecologies: Mid-altitude, wet

Hybrid	Comment	Grain Yield										Relative grain yield	Grain Moisture	Days to 50% anthesis	Anthesis-silking Interval (ASI) of the Hybrid
			Regional On-station Data												
		Regional On-farm evaluation	Opt.	HD	MD	NUE	Random Stress	FAW	Striga	MLN artificial Inoculation	Grain yield of Single Cross	Grain yield of Pollen parent				
		t/ha	t/ha								t/ha		%	%	d	d
CIM19EAPP1A-17	Available	7.0	8.4	6.4	3.7	5.8	4.6	6.5	4.3	0.6	8.9	2.5	101	14.8	75	2
Internal Genetic Gain check 1		6.5	7.5	5.5	3.6	4.4	3.9	7.6	3.6	0.4			90	14.2	73	1.2
Internal Genetic Gain check 2		6.8	8.2	5.7	2.5	3.8	4.2	7.5	2.8	0.5			99	14.4	76	1.4
Commercial Check 1 / ROFT Check		6.2	6.7	5.0	2.9	4.0	3.4	9.0	3.0	0.3			81	14.2	74	2
Commercial Check 2 / ROFT Check		6.8	8.3	5.2	3.9	3.8	5.2	7.7	2.4	1.8			100	13.5	74	0.1
Commercial Check 3			6.5	4.1	2.8	3.2	2.6	6.5	3.2	0.3			78	13.9	75	2
Mean		**6.2**	**7.4**	**5.7**	**3.8**	**3.9**	**4.0**	**7.1**	**3.3**	**0.6**				**14.0**	**74.8**	**1.1**
LSD (0.05)		**1.9**	**0.8**	**1**	**0.8**	**1.5**	**0.6**	**1.2**	**0.8**	**0.4**				**0.5**	**1.2**	**0.6**
H		**0.9**	**0.7**	**0.6**	**0.5**	**0.5**	**0.8**	**0.2**	**0.3**	**0.8**				**0.6**	**0.9**	**0.7**
CV		**16.7**	**15.5**	**20.7**	**21.2**	**21.2**	**23.1**	**24.1**	**30.8**	**46.5**				**2.9**	**2**	**93.3**
nreps		**27**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**				**2**	**2**	**2**
nLoc		**27**	**8**	**2**	**1**	**3**	**6**	**1**	**1**	**1**				**4**	**7**	**7**

Notes: Opt = Optimum Management; MD = Managed drought; NUE = Nitrogen Use Efficient (managed low nitrogen); HD = High Density (80,000 plants per ha); FAW = Fall armyworm; MLN = Maize Lethal Necrosis

Relative grain yield: % grain yield of an entry against the overall trial mean grain yield

Diseases scored on 1-9 scale: 1 = Highly resistant; 5 = Tolerant; 9 = Highly susceptible

Kernel texture rated on 1-5 scale: 1 = flint, 5= dent

Ear position values are ratios of ear height to plant height, small values indicate low ear position; large values indicate high ear position.

SL = Stem lodging expressed as percent of number of plants lodged (stem) to total number of plants in a plot

RL = Root lodging at root expressed as percent of plants lodged to total number of plants in a plot

Product profile # EA-PP1A

Basic traits for target product profile Intermediate maturing, white, high yielding, drought tolerant, NUE , and resistant to GLS, TLB, Ear rots, and MSV

Nice to have / emerging traits MLN, Striga, FAW

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Target agro-ecologies: Mid-altitude, wet

Hybrid	Difference in flowering between Male & Female Parents	Plant height	Ear height	Ears per Plant	Ear Position	Bad Husk Cover	Ear Aspect	Lodging		MLN Score (under Artificial Inoculation at Naivasha)	Gray Leaf Spot (GLS)	Maize Streak Virus (MSV)	Common Rust (CR)	Turcicum Leaf Blight (TLB)	Ear Rots (ER)
								Root	Stalk						
		cm	cm	#	Ratio	%	1-5	%	%	1-9	1-9	1-9	1-9	1-9	%
CIM19EAPP1A-17	0	240	114	1.0	0.5	3.6	2.4	6.0	3.9	6.5	1.0	0.8	2.8	3.6	4.7
Internal Genetic Gain check 1		228	106	1.1	0.4	4.8	2.1	6.3	4.7	7.5	1.0	1.0	2.6	4.8	6.2
Internal Genetic Gain check 2		247	115	1.1	0.5	4.1	2.2	8.9	2.3	6.0	1.0	3.1	2.8	5.4	8.5
Commercial Check 1 / ROFT Check		243	105	1.0	0.4	3.8	2.2	12.3	6.4		1.0	1.0	3.0	3.8	6.8
Commercial Check 2 / ROFT Check		230	110	1.1	0.5	4.1	1.9	5.0	2.2	7.0	1.5	2.3	2.8	5.1	6.2
Commercial Check 3		239	124	1.1	0.5	4.8	2.8	13.8	6.4	6.5	3.2	1.8	3.0	4.5	9.8
Mean		**232**	**115**	**1.1**	**0.5**	**4.5**	**2.4**	**9.4**	**5**	**6.8**	**1.5**	**1.8**	**2.8**	**4.8**	**6.5**
LSD (0.05)		**8.2**	**6.4**	**0.1**	**0**	**2.5**	**0.2**	**5.3**	**5.1**	**0.6**	**0.5**	**0.1**	**0.2**	**0.5**	**2.5**
H		**0.9**	**0.8**	**0.7**	**0.8**	**0.4**	**0.7**	**0.5**	**0.6**	**0.8**	**0.8**	**0.4**	**0.3**	**0.5**	**0.3**
CV		**5.5**	**10.4**	**14.3**	**10**	**98.3**	**14.7**	**90.4**	**163.2**	**6.4**	**48.9**	**34.3**	**20.1**	**14.9**	**85.3**
nreps		**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**6**	**2**	**2**	**6**	**6**
nLoc		**7**	**7**	**7**	**7**	**7**	**6**	**4**	**5**	**1**	**1**	**1**	**4**	**1**	**1**

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