

# Results of the 2008 Regional Maize Trials Coordinated by CIMMYT-Kenya



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CIMMYT-Kenya**



**INTERNATIONAL MAIZE AND WHEAT IMPROVEMENT CENTER**

## **CIMMYT**

The International Maize and Wheat Improvement Center (CIMMYT) is an internationally funded, non-profit scientific research and training organization. Headquartered in Mexico, the Center works with agricultural research institutions worldwide to improve the productivity and sustainability of maize and wheat systems for resource-poor farmers in developing countries. It is one of 16 similar centers supported by the Consultative Group on International Agricultural Research (CGIAR). The CGIAR comprises over 50 partner countries, international and regional organizations, and private foundations. It is co-sponsored by the Food and Agriculture Organization (FAO) of the United Nations, the International Bank for Reconstruction and Development (World Bank), the United Nations Development Programme (UNDP), and the United Nations Environment Programme (UNEP).

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**Accuracy of information:** The information in this publication is based on results available at the time of publication. This does not exclude that the germplasm may perform differently if grown at other sites, or under different conditions.

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## 1. Introduction

### Maize germplasm

The trials evaluated elite pre-release and released maize germplasm supplied by CIMMYT and private seed companies from eastern Africa. CIMMYT grouped the germplasm according to vigor and maturity, and formed seven replicated trials:

**ECA-ILHT08:** intermediate to late maturing three-way cross hybrids

**ECA-QHT08:** intermediate maturing three-way cross quality protein maize (QPM) hybrids

**ECA-EDTC08:** early maturing double-top cross hybrids

**ECA-ILVT08:** intermediate to late maturing varietal hybrids

**ECA-EVT08:** early maturing varietal hybrids

**ECA-EQVT08:** early maturing quality protein maize (QPM) OPVs

**ECA-IRHT08:** intermediate to late maturing IR three-way cross hybrids

All trials were alpha (0, 1) lattice design with two to three replicates. Plot size was one or two-rows.

### Trial management

The trials were grown by CIMMYT, National Agricultural Research Programs and private seed companies in eastern and central Africa. Collaborators were encouraged to grow the trials under different types of conditions:

**Well-fertilized/rain-fed conditions:** trials were grown using optimal site-specific agronomic practices

**Managed nitrogen stress:** trials were grown in fields that had been depleted of nitrogen by growing unfertilized, non-leguminous crops for several seasons and removing the crop biomass after each season. Nitrogen fertilization to maize trials was designed so that yields under managed N stress averaged 20-35% of the yield of a well-fertilized maize crop at that site.

**Managed drought stress:** trials were grown during a rain-free period, with irrigation applied at the beginning of the season to establish a good plant stand. Afterwards, irrigation was withheld so that the crop suffered drought stress during flowering and grain-filling, resulting in average yields of about 1-3 t/ha.

**Artificial infestation of biotic stress factors:** trials were grown under artificial infestation of *Striga*.

A complete list of the sites can be found in Section 3.

## Data analysis

In each Table, entries are grouped by anthesis date and sorted according to the average rank for yield across all sites. Within each maturity group, best ranking entries are listed at the top.

**For presenting grain yields, sites were grouped into the following environments:**

Dry Lowland, Dry Mid Altitude, Wet Lower Mid Altitude, Wet Upper Mid altitude, Mid Altitude Humid, and Highland. Within an environment, grouping was also based on management at the different sites (rainfed/well fertilized, managed drought stress, managed N stress, and Striga).

**For each of the seven trials (ECA-ILHT08, ECA-EDTC08, ECA-ILVT08, ECA-EVT08, ECA-QHT08, ECA-EQVT08 and ECA-IRHT08), one Summary Tables and Individual site results are presented. Additional agronomic traits data for individual sites is presented on the accompanying CD.**

## Summary Tables

The Summary Tables present grain yields averaged across sites with significant differences between entries, for each of the management. Data on agronomic performance such as anthesis date, plant and ear height, ear position, root and stem lodging, husk cover, ear rot, leaf diseases, grain texture and grain moisture were averaged across all sites that provided results with significant differences between entries. If no data are presented for these traits, no trial data demonstrating significant differences for these traits was available.

**For ECA-ILHT08, ECA-EDTC08, ECA-ILVT08, ECA-EVT08, ECA-QHT08, ECA-EQVT08 and ECA-IRHT08, within each maturity group, grain yields, anthesis date, plant height, root and stem lodging, husk cover, ear rot, leaf diseases, grain texture, ear and plant aspect traits were color-coded.** Within a maturity group, colors that have no letter in common in the legend are different by at least one 'Least Significant Difference' (LSD,  $P \leq 0.05$ ). LSDs were calculated from the mean square error that was pooled across sites. **Note: colors can only be used to compare grain yields within a certain maturity group.** For comparing grain yields between maturity groups, use the LSD listed at the bottom of the Table.

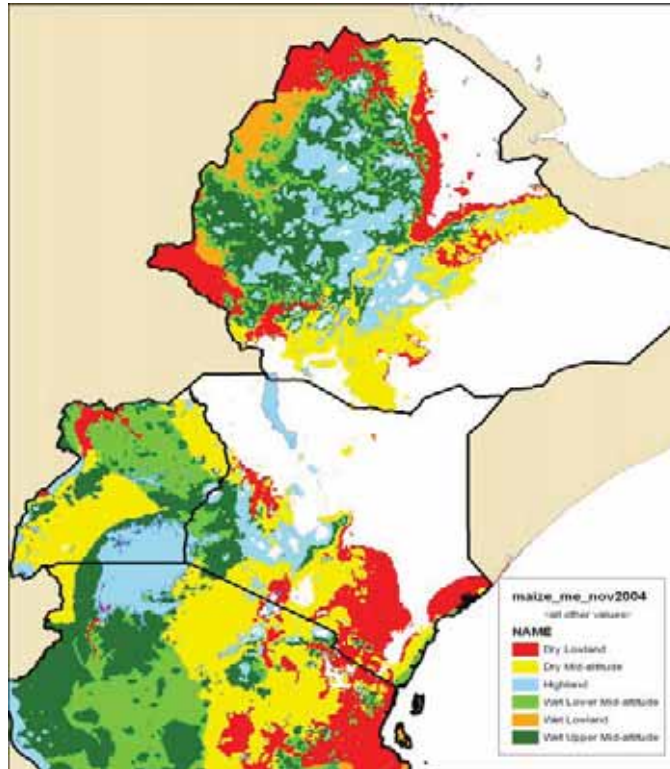
Color Legend		
Within a maturity group, colors that have no letter in common are different by at least one LSD. LSDs were calculated from the mean square error that was pooled across sites.	A	Very Good
	AB	Good
	BC	Average
	CD	Poor
	D	Very Poor

A description of all measurements can be found in Section 2.

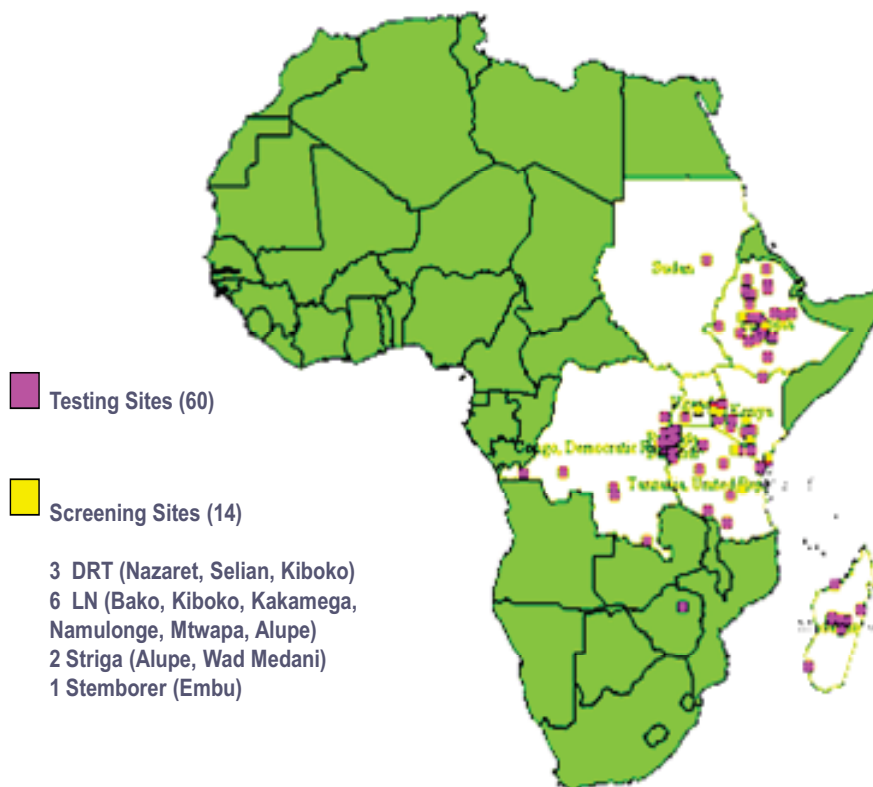
## Individual site results

These Tables present grain yields and other agronomic traits for individual sites, grouped by management. A description of the sites can be found in Section 3.

## Maize Mage-Environments in Eastern Africa



## Testing Sites





### ***How can the results be used.....***

#### ***.... by National Agricultural Research Programs?***

- ◆ Request seed of the very best stress-tolerant, responsive OPVs, hybrids and inbred lines from CIMMYT and further test them in the National Maize Evaluation Trials.
- ◆ Conduct National Maize Evaluation Trials not only under optimal conditions but also under the most important stresses present in farmers' fields. Consider performance under stress conditions and farmers' preferences when making decisions on release of germplasm.
- ◆ Request and use seed of best CIMMYT germplasm (inbred lines, OPVs) in your breeding program and for registration.

#### ***.... by Private Seed Companies?***

- ◆ Foster the distribution of cultivars that are not only high yielding under optimal conditions but as well under the most important stresses present in farmers' fields.
- ◆ Continue to submit seed of your best germplasm for evaluation in Regional Trials (to CIMMYT) and/or National Maize Evaluation Trials (to National Agricultural Research Programs of individual countries).
- ◆ Request and use seed of best CIMMYT germplasm (inbred lines, OPVs) in your breeding program and for commercialization.

#### ***.... by Seed-Distributing Agencies?***

- ◆ Use data from Regional Trials (available from CIMMYT-Kenya) and National Maize Evaluation Trials (available from National Agricultural Research Programs of individual countries) for making decisions on which seed to distribute to farmers.
- ◆ Distribute quality seed of the very best stress-tolerant, responsive hybrids and OPVs that are currently available.

**Conclusion: Foster the availability and distribution of quality seed of the very best maize cultivars - those that are not only high yielding under optimal conditions but as well under the stresses present in farmers' fields.**

## 2. Descriptions of Traits Recorded

<b>Rel. GY</b>	Relative grain yield expressed as percentage of the mean grain yield of the trial. Values above 100% indicate above-average performance; values below 100% indicate below-average performance.
<b>Rank Avg.</b>	Average rank for grain yield across all trials. Small values indicate superior performance; large values indicate inferior performance.
<b>Rank Stdev.</b>	Standard deviation of rank for grain yield across all trials. Small values indicate stable performance; large values indicate variable performance.
<b>Grain yield</b>	Shelled grain weight per plot adjusted to 12.5% grain moisture and converted to tons per hectare.
<b>Anthesis date</b>	Measured as number of days after planting when 50% of the plants shed pollen.
<b>Plant Height</b>	Measured as height between the base of a plant to the insertion of the first tassel branch of the same plant.
<b>Ear Height</b>	Measured as height between the base of a plant to the insertion of the top ear of the same plant.
<b>Ear position</b>	A ratio of ear height to plant height. Small values indicate low ear position; large values indicate high ear position.
<b>Root Lodging</b>	Measured as percentage of plants that show root lodging, i.e. those stems that are inclining by more than 45°.
<b>Stem Lodging</b>	Measured as percentage of plants that show stem lodging, i.e. those stems that are broken below the ear.
<b>Husk Cover</b>	Measured as percentage of plants with ears that are not completely covered by the husks.
<b>Ear Rot</b>	Percentage of ears that are rotten.
<b>GLS</b>	Score for the severity of gray leaf spot ( <i>Cercospora zea-maydis</i> ) symptoms rated on a scale from 1 (= clean, no infection) to 5 (= severely diseased).
<b><i>P. sorghi</i></b>	Score for the severity of common rust ( <i>Puccinia sorghi</i> ) symptoms rated on a scale from 1 (= clean, no infection) to 5 (= severely diseased).
<b><i>E. turcicum</i></b>	Score for the severity of northern leaf blight ( <i>Exserohilum turcicum</i> ) symptoms rated on a scale from 1 (= clean, no infection) to 5 (= severely diseased).
<b><i>H. maydis</i></b>	Score for the severity of maydis leaf blight ( <i>Helminthosporium maydis</i> ) symptoms rated on a scale from 1 (= clean, no infection) to 5 (= severely diseased).
<b>DM</b>	Score for the severity of Downy Mildew ( <i>Pernosclerospora</i> sp.) symptoms rated on a scale from 1 (= clean, no infection) to 5 (= severely diseased).
<b>PLS</b>	Score for the severity of <i>Phaeosphaeria</i> leaf spot ( <i>Phaeosphaeria maydis</i> ) symptoms rated on a scale from 1 (= clean, no infection) to 5 (= severely diseased).

<b>Borer damage</b>	Score for the severity of stem borer ( <i>Busseola</i> and <i>Chilo</i> ) damage rated on a scale from 1 (= clean, no damage) to 5 (= severe damage).
<b><i>Busseola</i> larvae</b>	Count of the number of <i>Busseola</i> larvae. Higher the number indicates susceptibility.
<b><i>Chilo</i></b>	Score for the severity of <i>Chilo partellus</i> leaf damage rated on a scale from 1 (= no infestation) to 9 (= severely infested).
<b>Leaf toughness</b>	Force required to puncture leaves between veins as measured by the penetrometer. Genotypes with lower numbers tend to be susceptible to borers.
<b>Grain weevil (Total F1)</b>	Number of grain weevils hatching and emerging from an infested grain sample within a given period. Large values indicate susceptibility to grain weevils, small values indicate partial resistance to grain weevils.
<b>Grain weevil (Wt loss)</b>	Loss of weight of the grain samples caused by weevil feeding during a given period of incubation. Large values indicate susceptibility to weevils.
<b>Grain texture</b>	Rated on a scale from 1 (= flint) to 5 (=dent).
<b>Grain moisture</b>	Percent water content of grain as measured at harvest.
<b>ASI</b>	Anthesis-silking interval. Determined by (i) measuring the number of days after planting when 50% of the plants shed pollen (anthesis date, AD) and show silks (silking date, SD), respectively, and (ii) calculating: $ASI = SD - AD$ . If measured under drought or N stress, small or negative values indicate stress tolerance.
<b>EPP</b>	Number of ears per plant. Counted as number of ears with at least one fully developed grain divided by the number of harvested plants. An EPP of below 1.0 indicates partial barrenness, an EPP of above 1.0 indicates partial prolificacy. If taken under drought or N stress, values of greater or equal to 1.0 indicate stress tolerance.
<b>Leaf rolling</b>	Leaf rolling score measured under drought stress on a scale from 1 (unrolled, turgid leaves, desirable) to 5 (severely rolled leaves, undesirable).
<b>Senescence</b>	Leaf senescence score on a scale from 1 to 10. Taken during grain-filling by estimating the percentage of dead leaf area and dividing it by 10. If taken under drought or N stress, small scores indicate stress tolerance. 1 = 10% dead leaf area;      6 = 60% dead leaf area 2 = 20% dead leaf area;      7 = 70% dead leaf area 3 = 30% dead leaf area;      8 = 80% dead leaf area 4 = 40% dead leaf area;      9 = 90% dead leaf area 5 = 50% dead leaf area;      10 = 100% dead leaf area
<b>QPM Modification</b>	Score for the extent of modification (extent of opaqueness) of quality protein maize (QPM) kernels rated on a scale from 1 (fully modified/normal looking kernels) to 5 (unmodified/opaque kernels) as evaluated on a light table.

### 3. Sites and Collaborators

	Location	Country	Mega Environment	Management	Collaborator
1	Pawe	Ethiopia	Dry Lowland	Well-fertilized/rainfed	B. Nigusie
2	Pawe	Ethiopia	Dry Lowland	Striga	B. Nigusie
3	Kiboko	Kenya	Dry Mid-altitude	Managed Drought Stress	CIMMYT/KARI
4	Kiboko	Kenya	Dry Mid-altitude	Well-fertilized/rainfed	CIMMYT/KARI
5	Melkasa	Ethiopia	Dry Mid-altitude	Well-fertilized/rainfed	G. Bogale
6	Nebo	South Africa	Dry Mid-Altitude	Well-fertilized/rainfed	M. Dimakatso
7	Chiredzi	Zimbabwe	Mid Altitude Humid	Managed Drought Stress	C. Magorokosho
8	Afsf-Arusha	Tanzania	Wet Lower Mid-altitude	Managed Low Nitrogen Stress	K. Kitenge
9	Afsf-Arusha	Tanzania	Wet Lower Mid-altitude	Well-fertilized/rainfed	K. Kitenge
10	Bugiri	Uganda	Wet Lower Mid-altitude	Striga	G. Asea
11	Busia	Kenya	Wet Lower Mid-altitude	Well-fertilized/rainfed	W. Muasya
12	Busia	Uganda	Wet Lower Mid-altitude	Striga	G. Asea
13	Embu	Kenya	Wet Lower Mid-altitude	Well-fertilized/rainfed	S. Njoka
14	Gandajika	DR Congo	Wet Lower Mid-altitude	Well-fertilized/rainfed	K. Mbuya
15	Kagio	Kenya	Wet Lower Mid-altitude	Well-fertilized/rainfed	W. Muasya
16	Kibos	Kenya	Wet Lower Mid-altitude	Well-fertilized/rainfed	C. Adhiambo
17	Kutus	Kenya	Wet lower Mid-altitude	Well-fertilized/rainfed	W. Muasya
18	Masaka	Uganda	Wet Lower Mid-altitude	Well-fertilized/rainfed	G. Asea
19	Mtwapa	Kenya	Wet Lower Mid-altitude	Well-fertilized/rainfed	R. Musila
20	Namulonge	Uganda	Wet Lower Mid-altitude	Well-fertilized/rainfed	G. Asea
21	Ngetta	Uganda	Wet Lower mid-altitude	Well-fertilized/rainfed	G. Asea
22	Selian	Tanzania	Wet Lower Mid-altitude	Well-fertilized/rainfed	K. Kitenge
23	Thika	Kenya	Wet Lower Mid-altitude	Well-fertilized/rainfed	W. Muasya
24	Weruweru	Tanzania	Wet Lower Mid-altitude	Well-fertilized/rainfed	K. Kitenge
25	Bako	Ethiopia	Wet Upper Mid-altitude	Managed Low Nitrogen Stress	W. Mosisa
26	Bumula	Kenya	Wet Upper Mid-altitude	Well-fertilized/rainfed	W. Muasya
27	Bungoma	Kenya	Wet Upper Mid-altitude	Well-fertilized/rainfed	S. Esmail
28	Elgon Downs	Kenya	Wet Upper Mid-altitude	Well-fertilized/rainfed	W. Muasya
29	Kakamega	Kenya	Wet Upper Mid-altitude	Well-fertilized/rainfed	S. Ajanga
30	Kakamega	Kenya	Wet Upper Mid-altitude	Well-fertilized/rainfed	W. Muasya
31	Kakamega	Kenya	Wet Upper Mid-altitude	Well-fertilized/rainfed	S. Esmail
32	Kakamega	Kenya	Wet Upper Mid-altitude	Managed Low Nitrogen Stress	S. Ajanga
33	Kimaeti	Kenya	Wet Upper Mid-altitude	Well-fertilized/rainfed	W. Muasya
34	Maseno	Kenya	Wet Upper Mid-altitude	Random Drought	S. Esmail
35	Mosso	Burundi	Wet Upper Mid-Altitude	Well-fertilized/rainfed	M. Ndayisenga
36	Mparambo	Burundi	Wet Upper Mid-Altitude	Well-fertilized/rainfed	M. Ndayisenga
37	Siaya	Kenya	Wet Upper Mid-altitude	Well-fertilized/rainfed	W. Muasya
38	Kitale	Kenya	Highland	Well-fertilized/rainfed	J. Mito
39	Palotaka	Sudan	Unclassified	Well-fertilized/rainfed	A. Luka
40	Rahad Res	Sudan	Unclassified	Well-fertilized/rainfed	S. Meseka
41	Wad Medani	Sudan	Unclassified	Well-fertilized/rainfed	S. Meseka
42	Wad Medani	Sudan	Unclassified	Managed Drought Stress	S. Meseka
43	Yei	Sudan	Unclassified	Well-fertilized/rainfed	A. Luka
44	Hyderabad	India	Unclassified	Well-fertilized/rainfed	P.H. Zaidi
45	Patancheru	India	Unclassified	Well-fertilized/rainfed	P.H. Zaidi

# 4. Summary Results

ECA-ILHT08

Grain yield and other agronomic traits of 46 intermediate to late maturing three way cross hybrids across 24 sites in Eastern and Central Africa, 2008.

MDR= Managed Drought Stress; OPT= Optimum (well-fertilized/rainfed) management; LN= Managed Low Nitrogen Stress

TABLE 1A

Entry	Pedigree	Across		Across		Across		Across		Across		Anth	ASI	Plant	Ear	Ear	Lodging		Ears/	Husk	Ear	GLS	P.sorg	E.turc	Grain	MSV	Ear	Plant										
		RelGY	Rank	GY	GY	GY	GY	GY	GY	GY	GY						Date	Height											Height	Position	Root	Stem	Plant	Cover	Rot	Text	Aspect	Aspect
		%	Avg	StdDev	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha						d	d											cm	cm	0-1	%	%	#	%	%	1-5	1-5
<b>Entries with anthesis date between 73 - 75 days</b>																																						
10	INTA/INTB-B-11-B-8-1-B//CML202/CML395	119	15	10	3.1	5.0	3.9	2.1	3.2	5.7	74	3	195	105	0.5	31	10	0.8	32	14	1.8	2.1	2.4	1.6	1.5	2.3	2.7											
47	WH403	118	18	14	1.3	5.2	3.6	2.5	5.1	5.4	75	3	210	108	0.5	37	15	0.8	54	12	1.8	1.8	2.3	1.6	1.9	2.1	2.7											
9	INTA/INTB-B-102-B-6-1-B//CML202/CML395	107	23	14	3.0	4.5	3.4	1.5	2.7	5.2	75	2	198	105	0.5	31	11	0.8	36	12	1.8	2.1	2.5	1.9	2.0	2.5	2.8											
34	INTA/INTB-B-11-B-8-1-B//CML442/CML444	103	26	14	3.3	3.6	4.0	2.1	3.6	4.9	73	2	185	93	0.5	17	5	0.9	29	12	1.8	2.6	2.8	1.9	1.8	2.5	2.6											
15	INTA/INTB-B-194-B-2-1-B//CML202/CML395	99	27	13	2.1	4.3	2.8	1.5	4.2	5.3	75	4	203	107	0.5	38	18	0.9	38	14	1.7	2.1	2.7	1.5	1.6	2.5	3.0											
52	LOCAL CHECK	104	27	19	2.6	3.7	2.5	2.0	5.6	5.5	75	3	195	97	0.4	33	31	0.8	42	23	1.8	2.0	2.5	1.5	1.8	2.6	2.8											
3	CKL05005-B-B//CML202/CML395	95	29	11	2.0	4.1	2.8	1.5	2.9	5.4	75	3	189	103	0.5	28	10	0.8	36	8	1.9	1.7	2.4	1.5	1.5	2.3	2.6											
20	INTA/INTB-B-9-B-1-1-B//CML202/CML395	91	33	13	2.9	3.7	3.1	0.6	2.9	5.3	74	4	188	97	0.5	39	8	0.8	33	12	1.8	2.1	2.9	1.6	1.4	2.6	2.7											
49	H513	90	33	12	2.0	4.1	2.4	1.2	3.5	4.6	75	4	195	107	0.5	36	19	0.9	38	29	2.0	2.3	2.9	1.6	2.4	2.7	2.9											
37	INTA/INTB-B-154-B-3-1-B//CML442/CML444	78	36	15	1.8	2.8	2.1	1.4	3.9	5.6	75	4	198	104	0.5	34	12	0.8	39	10	1.8	2.3	3.1	1.8	2.0	2.7	2.7											
46	INTA/INTB-B-9-B-1-1-B//CML442/CML444	83	38	14	2.8	3.4	2.9	1.2	2.3	4.0	75	2	184	96	0.4	26	3	0.8	32	12	1.7	2.2	3.3	1.8	1.3	2.7	2.6											
12	INTA/INTB-B-154-B-3-1-B//CML202/CML395	71	42	13	1.0	2.9	1.7	1.1	2.5	5.6	75	6	188	99	0.5	38	9	0.7	37	24	1.8	2.3	2.8	1.6	1.7	2.6	2.8											
Maturity group average					2.3	3.9	2.9	1.6	3.5	5.2	75	3	194	102	0.5	32	13	0.8	37	15	1.8	2.2	2.7	1.7	1.7	2.5	2.7											
<b>Entries with anthesis date between 76 - 78 days</b>																																						
42	INTA/INTB-B-45-B-2-1-B//CML442/CML444	131	9	6	3.6	5.4	4.1	2.2	4.9	6.1	76	1	203	105	0.4	36	21	0.9	33	10	2.1	2.3	3.0	2.4	2.2	2.4	2.9											
29	CKL05017-B-B//CML442/CML444	137	11	14	3.2	5.8	4.7	2.0	6.3	5.0	78	1	199	110	0.5	17	14	0.9	42	15	1.4	1.7	1.8	1.9	2.3	2.3	2.8											
7	CKL05019-B-B//CML202/CML395	123	12	10	2.3	5.3	3.8	2.7	4.0	5.5	77	3	201	116	0.6	36	26	0.9	37	8	1.6	2.1	2.3	1.5	1.1	2.1	2.8											
16	INTA/INTB-B-41-B-1-1-B//CML202/CML395	119	15	12	1.5	5.0	4.0	1.9	6.8	5.5	76	3	199	109	0.5	37	14	0.9	43	14	1.6	2.0	2.4	1.7	1.0	2.4	2.8											
33	INTA/INTB-B-116-B-12-1-B//CML442/CML444	113	17	13	1.2	5.1	4.0	2.1	4.2	5.4	77	2	209	116	0.5	36	4	0.8	38	13	1.8	2.4	2.7	2.1	1.6	2.7	3.2											
13	INTA/INTB-B-160-B-2-1-B//CML202/CML395	115	18	11	2.8	4.7	3.5	2.4	3.8	5.9	77	4	199	112	0.5	42	15	0.8	36	8	1.9	2.1	2.8	1.5	1.8	2.4	2.7											
11	INTA/INTB-B-132-B-7-1-B//CML202/CML395	113	19	13	1.9	5.1	3.7	1.6	6.0	4.6	76	3	201	108	0.5	33	20	0.8	46	12	1.8	2.1	2.4	1.5	1.6	2.4	2.9											
28	CKL05015-B-B//CML442/CML444	117	20	16	3.9	4.7	3.6	1.4	3.9	5.3	78	2	207	112	0.5	24	34	0.7	37	2	1.7	2.0	2.1	2.1	1.8	2.5	2.9											
19	INTA/INTB-B-86-B-6-1-B//CML202/CML395	103	23	14	1.3	4.6	4.6	1.6	2.7	5.4	78	3	209	113	0.5	33	18	0.9	40	15	2.1	2.1	2.6	1.5	2.0	2.2	2.9											
25	CKL05006-B-B//CML442/CML444	106	24	13	2.0	4.2	3.5	1.4	5.5	5.6	76	3	189	100	0.5	33	15	0.9	37	15	1.7	2.0	2.6	2.0	2.1	2.3	2.7											
36	INTA/INTB-B-132-B-10-1-B//CML442/CML444	102	24	13	1.9	4.3	4.0	1.6	3.3	5.2	78	2	200	112	0.5	31	6	0.8	34	11	1.9	2.4	2.9	2.3	1.5	2.5	3.1											
32	INTA/INTB-B-110-B-6-1-B//CML442/CML444	103	25	15	2.6	4.1	3.7	1.4	5.4	5.1	77	2	203	110	0.5	35	13	0.9	42	11	1.8	2.4	3.0	1.8	1.6	2.6	2.9											
30	CKL05018-B-B//CML442/CML444	105	25	15	2.7	4.0	3.3	1.9	4.8	5.3	78	2	206	112	0.5	25	22	0.9	41	10	1.6	1.9	2.0	2.1	1.9	2.4	2.9											
40	INTA/INTB-B-215-B-5-1-B//CML442/CML444	100	26	15	2.7	3.7	3.0	2.2	4.5	5.4	76	3	198	103	0.5	37	29	0.8	36	15	1.9	2.1	3.0	2.5	1.8	2.7	2.8											
24	CKL05005-B-B//CML442/CML444	98	26	10	1.4	4.4	3.7	1.4	4.0	4.9	77	3	189	104	0.5	23	10	0.8	34	8	1.9	1.9	2.4	1.9	2.0	2.5	2.7											
27	CKL05010-B-B//CML442/CML444	98	27	12	1.9	4.3	3.9	1.1	3.4	5.0	78	3	199	114	0.5	14	21	0.9	39	15	1.4	1.8	2.2	1.9	1.7	2.4	2.9											
41	INTA/INTB-B-33-B-11-1-B//CML442/CML444	100	27	17	1.4	3.8	2.9	2.4	5.7	6.0	77	2	194	101	0.5	27	6	0.8	38	31	1.8	2.3	2.6	2.1	2.4	2.9	2.7											
38	INTA/INTB-B-160-B-4-1-B//CML442/CML444	99	28	13	3.4	4.1	3.4	1.5	2.4	5.1	78	2	197	113	0.5	39	9	0.9	38	14	1.8	2.4	3.1	1.8	2.4	2.5	2.9											
4	CKL05006-B-B//CML202/CML395	97	28	12	1.6	4.0	3.3	1.4	3.1	6.1	77	3	199	107	0.5	25	30	0.9	41	13	1.8	1.9	2.4	1.6	2.2	2.3	2.6											
14	INTA/INTB-B-161-B-8-1-B//CML202/CML395	96	29	10	2.5	4.0	3.4	1.3	2.5	5.0	76	4	197	107	0.5	33	23	0.9	32	7	1.7	2.0	2.4	1.9	2.1	2.5	2.7											
18	INTA/INTB-B-52-B-1-1-B//CML202/CML395	92	29	13	2.1	4.2	3.2	0.6	3.3	5.1	77	3	196	113	0.5	25	9	0.8	41	6	2.0	2.2	2.7	1.6	2.1	2.5	2.8											
44	INTA/INTB-B-55-B-2-1-B//CML442/CML444	97	29	11	2.9	4.1	3.1	1.2	3.8	4.8	76	1	176	100	0.5	16	3	0.9	35	18	1.9	2.3	2.9	2.5	1.5	2.7	2.7											

MDR= Managed Drought Stress; OPT= Optimum (well-fertilized/rainfed) management; LN= Managed Low Nitrogen Stress

TABLE 1A

Entry	Pedigree	DRY MID-ALTITUDE MDR			WET UPPER MID-ALTITUDE OPT		WET LOWER MID-ALTITUDE OPT		WET LOWER MID-ALTITUDE LN		WET UPPER MID-ALTITUDE LN		UNCLASSIFIED OPT		Anth	ASI	Plant	Ear	Ear	Lodging		Ears/	Husk	Ear	GLS	P.sorg	E.turc	Grain	MSV	Ear	Plant
		RelGY	Rank	GY	GY	GY	GY	GY	GY	GY	GY	Date	Height	Height						Position	Root										
		%	Avg	StdDev	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	d	d	cm	cm	0-1	%	%	#	%	%	1-5	1-5	1-5	1-5	1-5	1-5	1-5	
17	INTA/INTB-B-235-B-4-1-B//CML202/CML395	91	30	12	1.0	3.8	3.3	1.2	3.6	5.7	76	6	200	111	0.5	20	39	0.7	50	10	1.6	2.2	2.9	1.7	2.2	2.7	3.1				
43	INTA/INTB-B-52-B-1-1-B//CML442/CML444	93	31	14	2.3	3.9	3.4	1.0	5.2	4.1	77	2	202	114	0.5	29	3	0.9	33	11	2.0	2.3	2.8	1.9	2.1	2.8	2.8				
50	KSH516	90	32	14	1.2	3.8	2.8	1.2	4.6	4.9	76	5	205	121	0.5	29	35	0.8	42	18	1.8	2.3	2.5	1.5	3.7	2.7	3.1				
39	INTA/INTB-B-194-B-2-1-B//CML442/CML444	84	35	10	1.3	3.4	3.6	1.4	3.1	4.6	77	3	201	110	0.5	26	11	0.8	32	6	1.7	2.2	3.0	2.1	2.6	2.6	2.9				
5	CKL05009-B-B//CML202/CML395	74	42	7	0.9	2.8	2.6	1.2	3.7	4.8	78	5	189	97	0.5	38	35	0.8	38	14	1.6	1.5	2.4	1.5	1.5	2.6	2.3				
Maturity group average					2.1	4.3	3.6	1.6	4.2	5.2	77	3	199	109	0.5	30	18	0.8	38	12	1.8	2.1	2.6	1.9	2.0	2.5	2.8				
Entries with anthesis date between 80 - 83 days																															
31	CKL05022-B-B//CML442/CML444	132	12	8	2.4	5.6	4.6	1.6	5.8	5.7	80	1	208	121	0.5	26	18	0.9	40	13	1.4	1.7	2.0	1.6	1.8	2.0	2.9				
22	CKL05003-B-B//CML442/CML444	124	14	8	2.4	5.5	4.3	1.8	4.6	5.1	80	2	206	114	0.5	30	23	0.8	39	10	1.7	2.0	2.0	1.8	1.9	2.1	2.9				
23	CKL05004-B-B//CML442/CML444	113	17	11	1.6	4.5	4.1	1.6	6.1	6.3	80	3	206	114	0.5	28	36	0.9	40	11	1.9	1.8	2.5	2.0	1.6	2.2	2.9				
48	WH505	111	21	14	1.3	4.2	4.8	1.9	6.0	5.3	79	3	206	115	0.5	31	15	1.0	38	16	1.6	2.2	2.6	1.6	2.4	2.6	3.0				
6	CKL05014-B-B//CML202/CML395	102	25	14	0.9	4.6	3.7	2.3	4.0	4.4	80	4	202	109	0.5	36	55	0.8	40	9	1.5	2.4	2.6	1.5	2.0	2.4	2.8				
35	INTA/INTB-B-128-B-18-1-B//CML442/CML444	91	30	12	1.5	3.9	3.4	1.0	4.3	5.1	79	2	201	115	0.5	34	10	0.9	33	10	1.7	1.7	2.8	1.7	2.1	2.6	3.3				
8	CKL05023-B-B//CML202/CML395	95	30	15	1.1	4.5	3.0	1.2	5.7	5.9	79	5	198	105	0.5	28	18	0.9	36	13	1.6	1.8	2.1	1.5	1.8	2.4	2.8				
45	INTA/INTB-B-86-B-6-1-B//CML442/CML444	97	31	18	3.9	3.6	3.8	1.6	3.4	4.4	80	2	208	112	0.5	33	14	0.9	39	9	2.0	2.2	2.9	2.0	2.4	2.7	2.8				
51	KSH520	93	32	14	0.4	4.2	3.6	1.3	3.8	4.5	79	4	210	123	0.5	29	37	0.8	42	16	1.6	2.3	2.3	1.5	2.8	2.5	3.1				
26	CKL05014-B-B//CML442/CML444	89	32	14	0.7	3.6	3.4	1.7	4.9	4.3	80	1	199	109	0.6	34	28	0.8	37	14	1.6	2.3	2.8	1.6	2.2	2.5	2.7				
21	CKL05002-B-B//CML442/CML444	91	32	12	2.0	4.0	3.5	1.1	3.4	4.4	80	2	200	120	0.6	23	37	0.9	36	22	1.5	1.8	2.8	1.6	2.0	2.5	3.0				
1	CKL05003-B-B//CML202/CML395	61	46	7	0.4	3.4	1.6	0.3	2.3	3.6	83	4	181	103	0.5	29	30	0.7	34	7	1.7	1.9	2.4	1.6	1.9	2.9	2.6				
2	CKL05010-B-B//CML202/CML395	47	51	2	0.3	2.4	1.2	0.6	1.9	2.9	81	5	177	100	0.5	37	16	0.7	37	10	1.5	1.9	2.5	1.8	1.4	3.1	2.8				
Maturity group average					1.5	4.1	3.5	1.4	4.3	4.6	80	3	200	112	0.5	31	26	0.8	38	12	1.6	2.0	2.5	1.7	2.0	2.5	2.9				
Mean		100	26	12	2.00	4.19	3.39	1.54	4.09	5.07	77.2	3.0	198.0	108.2	0.51	30.4	18.7	0.84	37.9	12.9	1.7	2.1	2.6	1.8	1.9	2.5	2.8				
LSD (0.05)		17	9	3	1.44	0.70	1.09	0.74	2.08	1.16	0.7	1.3	7.9	6.2	0.04	11.0	19.0	0.10	5.6	9.9	0.3	0.3	0.2	0.4	0.7	0.2	0.2				
Min		47	9	2	0.26	2.40	1.19	0.33	1.85	2.91	73.4	1.1	176.4	93.2	0.44	14.4	2.9	0.68	29.1	2.3	1.4	1.5	1.8	1.5	1.0	2.0	2.3				
Max		137	51	19	3.93	5.75	4.78	2.75	6.82	6.33	82.5	6.4	210.2	123.1	0.57	41.9	55.1	0.95	53.9	30.6	2.1	2.6	3.3	2.5	3.7	3.1	3.3				
NumSignificantSites		12	12	12	1	5	2	1	1	2	15	5	7	8	3	4	2	6	6	1	5	3	9	2	2	13	9				

MDR= Managed Drought Stress; OPT= Optimum (well-fertilized/rainfed) management; LN= Managed Low Nitrogen Stress

TABLE 1B

Entry	Pedigree	DRY MID-ALTITUDE MDR			WET UPPER MID-ALTITUDE OPT						WET LOWER MID-ALTITUDE OPT			WET LOWER MID-ALTITUDE LN		WET UPPER MID-ALTITUDE LN		UNCLASSIFIED OPT			Anth Date		
		Across	Across	Kiboko Ken	Across	Kakamega Ken	Kimaeti Ken	Kakamega Ken	Mparambu Bur	Kakamega Ken	Across	Selian Tan	Kibos Ken	Across	Afsf-Arusha Tan	Across	Bako Eth	Across	Patanche ru Ind	Wad Medani Sud			
		RelGY	Rank	GY	GY	GY	GY	GY	GY	GY	GY	GY	GY	GY	GY	GY	GY	GY	GY	GY	GY		
		%	Avg	StdDev	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	d	
<b>Entries with anthesis date between 73 - 75 days</b>																							
10	INTA/INTB-B-11-B-8-1-B//CML202/CML395	119	15	10	3.1	3.1	5.0	5.2	5.6	2.5	6.3	5.6	3.9	4.9	3.0	2.1	2.1	3.2	3.2	5.7	7.0	4.3	74
47	WH403	118	18	14	1.3	1.3	5.2	6.4	3.1	4.1	6.9	5.4	3.6	4.1	3.2	2.5	2.5	5.1	5.1	5.4	6.1	4.7	75
9	INTA/INTB-B-102-B-6-1-B//CML202/CML395	107	23	14	3.0	3.0	4.5	5.7	3.7	3.1	4.9	5.1	3.4	3.7	3.1	1.5	1.5	2.7	2.7	5.2	6.0	4.4	75
34	INTA/INTB-B-11-B-8-1-B//CML442/CML444	103	26	14	3.3	3.3	3.6	3.9	2.6	1.8	4.9	4.9	4.0	5.2	2.8	2.1	2.1	3.6	3.6	4.9	6.1	3.6	73
15	INTA/INTB-B-194-B-2-1-B//CML202/CML395	99	27	13	2.1	2.1	4.3	3.9	4.4	2.0	5.8	5.2	2.8	4.0	1.7	1.5	1.5	4.2	4.2	5.3	5.4	5.2	75
52	LOCAL CHECK	104	27	19	2.6	2.6	3.7	2.6	4.8	3.1	3.5	4.6	2.5	3.6	1.5	2.0	2.0	5.6	5.6	5.5	5.3	5.6	75
3	CKL05005-B-B//CML202/CML395	95	29	11	2.0	2.0	4.1	4.9	2.9	2.7	5.5	4.7	2.8	3.2	2.3	1.5	1.5	2.9	2.9	5.4	6.8	4.0	75
20	INTA/INTB-B-9-B-1-1-B//CML202/CML395	91	33	13	2.9	2.9	3.7	3.6	2.8	2.7	3.9	5.2	3.1	4.1	2.2	0.6	0.6	2.9	2.9	5.3	6.4	4.2	74
49	H513	90	33	12	2.0	2.0	4.1	4.7	4.6	1.8	4.0	5.2	2.4	2.6	2.2	1.2	1.2	3.5	3.5	4.6	5.3	3.9	75
37	INTA/INTB-B-154-B-3-1-B//CML442/CML444	78	36	15	1.8	1.8	2.8	1.8	1.8	1.1	3.6	5.7	2.1	2.9	1.4	1.4	1.4	3.9	3.9	5.6	6.9	4.3	75
46	INTA/INTB-B-9-B-1-1-B//CML442/CML444	83	38	14	2.8	2.8	3.4	3.5	3.1	1.5	2.8	6.3	2.9	4.0	1.9	1.2	1.2	2.3	2.3	4.0	5.9	2.1	75
12	INTA/INTB-B-154-B-3-1-B//CML202/CML395	71	42	13	1.0	1.0	2.9	1.9	2.5	1.6	4.0	4.6	1.7	2.3	1.2	1.1	1.1	2.5	2.5	5.6	6.2	5.0	75
<b>Maturity group average</b>					2.3	2.3	3.9	4.0	3.5	2.3	4.7	5.2	2.9	3.7	2.2	1.6	1.6	3.5	3.5	5.2	6.1	4.3	75
<b>Entries with anthesis date between 76 - 78 days</b>																							
42	INTA/INTB-B-45-B-2-1-B//CML442/CML444	131	9	6	3.6	3.6	5.4	5.3	5.1	3.0	5.6	8.0	4.1	5.1	3.2	2.2	2.2	4.9	4.9	6.1	7.6	4.6	76
29	CKL05017-B-B//CML442/CML444	137	11	14	3.2	3.2	5.8	7.8	5.6	4.2	6.7	4.5	4.7	5.6	3.9	2.0	2.0	6.3	6.3	5.0	5.8	4.2	78
7	CKL05019-B-B//CML202/CML395	123	12	10	2.3	2.3	5.3	5.7	4.4	3.6	7.0	5.8	3.8	5.1	2.6	2.7	2.7	4.0	4.0	5.5	6.1	5.0	77
16	INTA/INTB-B-41-B-1-1-B//CML202/CML395	119	15	12	1.5	1.5	5.0	3.9	5.4	4.0	6.3	5.5	4.0	4.9	3.0	1.9	1.9	6.8	6.8	5.5	7.3	3.7	76
33	INTA/INTB-B-116-B-12-1-B//CML442/CML444	113	17	13	1.2	1.2	5.1	5.0	4.6	3.5	4.8	7.7	4.0	5.2	2.8	2.1	2.1	4.2	4.2	5.4	7.3	3.5	77
13	INTA/INTB-B-160-B-2-1-B//CML202/CML395	115	18	11	2.8	2.8	4.7	6.9	3.1	2.4	5.7	5.3	3.5	4.6	2.4	2.4	2.4	3.8	3.8	5.9	7.8	4.0	77
11	INTA/INTB-B-132-B-7-1-B//CML202/CML395	113	19	13	1.9	1.9	5.1	5.3	3.6	4.3	6.7	5.7	3.7	5.0	2.3	1.6	1.6	6.0	6.0	4.6	6.3	2.9	76
28	CKL05015-B-B//CML442/CML444	117	20	16	3.9	3.9	4.7	5.2	3.8	3.6	6.9	4.1	3.6	3.9	3.2	1.4	1.4	3.9	3.9	5.3	5.7	4.9	78
19	INTA/INTB-B-86-B-6-1-B//CML202/CML395	103	23	14	1.3	1.3	4.6	5.7	3.8	1.8	5.1	6.6	4.6	6.9	2.4	1.6	1.6	2.7	2.7	5.4	6.6	4.2	78
25	CKL05006-B-B//CML442/CML444	106	24	13	2.0	2.0	4.2	3.8	4.7	2.5	5.3	4.5	3.5	4.3	2.8	1.4	1.4	5.5	5.5	5.6	5.4	5.7	76
36	INTA/INTB-B-132-B-10-1-B//CML442/CML444	102	24	13	1.9	1.9	4.3	5.0	2.5	2.3	4.9	6.8	4.0	4.5	3.6	1.6	1.6	3.3	3.3	5.2	6.8	3.7	78
32	INTA/INTB-B-110-B-6-1-B//CML442/CML444	103	25	15	2.6	2.6	4.1	6.4	2.8	1.7	3.7	5.8	3.7	5.0	2.3	1.4	1.4	5.4	5.4	5.1	6.4	3.8	77
30	CKL05018-B-B//CML442/CML444	105	25	15	2.7	2.7	4.0	3.6	2.7	3.1	6.6	4.1	3.3	4.0	2.6	1.9	1.9	4.8	4.8	5.3	7.3	3.4	78
40	INTA/INTB-B-215-B-5-1-B//CML442/CML444	100	26	15	2.7	2.7	3.7	2.0	3.3	2.2	5.4	5.4	3.0	3.6	2.4	2.2	2.2	4.5	4.5	5.4	7.6	3.2	76
24	CKL05005-B-B//CML442/CML444	98	26	10	1.4	1.4	4.4	4.6	3.9	1.8	5.9	5.6	3.7	4.4	3.0	1.4	1.4	4.0	4.0	4.9	5.7	4.0	77
27	CKL05010-B-B//CML442/CML444	98	27	12	1.9	1.9	4.3	4.0	4.3	2.3	6.0	4.8	3.9	5.4	2.4	1.1	1.1	3.4	3.4	5.0	5.9	4.1	78

MDR= Managed Drought Stress; OPT= Optimum (well-fertilized/rainfed) management; LN= Managed Low Nitrogen Stress

TABLE 1B

Entry	Pedigree	Across			DRY MID-ALTITUDE MDR			WET UPPER MID-ALTITUDE OPT					WET LOWER MID-ALTITUDE OPT			WET LOWER MID-ALTITUDE LN		WET UPPER MID-ALTITUDE LN		UNCLASSIFIED OPT		Anth Date	
		RelGY	Rank	StdDev	Across	Kiboko Ken	Across	Kakamega Ken	Kimaeti Ken	Kakamega Ken	Mparambu Bur	Kakamega Ken	Across	Selian Tan	Kibos Ken	Across	Afs-Arushu Tan	Across	Bako Eth	Across	Patanche ru Ind		Wad Medani Sud
		%	Avg	StdDev	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	d
41	INTA/INTB-B-33-B-11-1-B//CML442/CML444	100	27	17	1.4	1.4	3.8	3.5	2.9	1.4	5.0	6.2	2.9	3.8	1.9	2.4	2.4	5.7	5.7	6.0	7.1	4.9	77
38	INTA/INTB-B-160-B-4-1-B//CML442/CML444	99	28	13	3.4	3.4	4.1	4.7	3.7	1.8	4.7	5.5	3.4	4.5	2.3	1.5	1.5	2.4	2.4	5.1	7.0	3.2	78
4	CKL05006-B-B//CML202/CML395	97	28	12	1.6	1.6	4.0	2.7	3.4	2.6	5.8	5.3	3.3	4.3	2.3	1.4	1.4	3.1	3.1	6.1	6.1	6.0	77
14	INTA/INTB-B-161-B-8-1-B//CML202/CML395	96	29	10	2.5	2.5	4.0	4.6	4.0	2.5	5.1	4.1	3.4	4.4	2.4	1.3	1.3	2.5	2.5	5.0	6.3	3.6	76
18	INTA/INTB-B-52-B-1-1-B//CML202/CML395	92	29	13	2.1	2.1	4.2	4.5	4.3	2.2	4.9	5.3	3.2	4.7	1.7	0.6	0.6	3.3	3.3	5.1	7.3	3.0	77
44	INTA/INTB-B-55-B-2-1-B//CML442/CML444	97	29	11	2.9	2.9	4.1	4.6	3.2	2.0	4.6	6.2	3.1	3.9	2.2	1.2	1.2	3.8	3.8	4.8	6.4	3.2	76
17	INTA/INTB-B-235-B-4-1-B//CML202/CML395	91	30	12	1.0	1.0	3.8	3.7	3.7	2.8	5.3	3.5	3.3	4.2	2.5	1.2	1.2	3.6	3.6	5.7	7.1	4.3	76
43	INTA/INTB-B-52-B-1-1-B//CML442/CML444	93	31	14	2.3	2.3	3.9	3.6	3.2	2.0	4.3	6.5	3.4	4.3	2.5	1.0	1.0	5.2	5.2	4.1	6.1	2.1	77
50	KSH516	90	32	14	1.2	1.2	3.8	5.1	4.1	3.0	3.8	3.3	2.8	4.1	1.5	1.2	1.2	4.6	4.6	4.9	6.4	3.4	76
39	INTA/INTB-B-194-B-2-1-B//CML442/CML444	84	35	10	1.3	1.3	3.4	3.6	3.0	1.0	4.0	5.4	3.6	4.6	2.6	1.4	1.4	3.1	3.1	4.6	6.2	3.0	77
5	CKL05009-B-B//CML202/CML395	74	42	7	0.9	0.9	2.8	2.7	2.8	1.6	3.0	4.2	2.6	3.6	1.7	1.2	1.2	3.7	3.7	4.8	6.1	3.4	78
<b>Maturity group average</b>					2.1	2.1	4.3	4.6	3.8	2.6	5.3	5.4	3.6	4.6	2.5	1.6	1.6	4.2	4.2	5.2	6.6	3.9	77
<b>Entries with anthesis date between 80 - 83 days</b>																							
31	CKL05022-B-B//CML442/CML444	132	12	8	2.4	2.4	5.6	4.4	4.8	5.5	7.7	5.6	4.6	4.7	4.5	1.6	1.6	5.8	5.8	5.7	6.8	4.5	80
22	CKL05003-B-B//CML442/CML444	124	14	8	2.4	2.4	5.5	5.2	4.1	4.5	6.0	7.7	4.3	4.7	4.0	1.8	1.8	4.6	4.6	5.1	6.3	3.8	80
23	CKL05004-B-B//CML442/CML444	113	17	11	1.6	1.6	4.5	4.0	3.9	2.4	5.6	6.5	4.1	4.3	3.8	1.6	1.6	6.1	6.1	6.3	7.8	4.9	80
48	WH505	111	21	14	1.3	1.3	4.2	3.7	4.2	2.7	4.9	5.3	4.8	5.0	4.6	1.9	1.9	6.0	6.0	5.3	7.5	3.2	79
6	CKL05014-B-B//CML202/CML395	102	25	14	0.9	0.9	4.6	5.5	3.0	3.1	6.1	5.1	3.7	4.6	2.7	2.3	2.3	4.0	4.0	4.4	5.6	3.3	80
35	INTA/INTB-B-128-B-18-1-B//CML442/CML444	91	30	12	1.5	1.5	3.9	4.1	3.3	2.1	5.1	5.1	3.4	4.1	2.7	1.0	1.0	4.3	4.3	5.1	7.6	2.6	79
8	CKL05023-B-B//CML202/CML395	95	30	15	1.1	1.1	4.5	4.3	3.6	3.0	5.6	5.8	3.0	3.5	2.6	1.2	1.2	5.7	5.7	3.9	4.8	2.9	79
45	INTA/INTB-B-86-B-6-1-B//CML442/CML444	97	31	18	3.9	3.9	3.6	3.8	2.9	1.0	4.6	5.7	3.8	6.2	1.4	1.6	1.6	3.4	3.4	4.4	6.0	2.9	80
51	KSH520	93	32	14	0.4	0.4	4.2	3.8	3.7	4.3	4.7	4.4	3.6	5.0	2.3	1.3	1.3	3.8	3.8	4.5	5.5	3.5	79
26	CKL05014-B-B//CML442/CML444	89	32	14	0.7	0.7	3.6	4.1	3.4	1.7	4.7	4.3	3.4	4.7	2.2	1.7	1.7	4.9	4.9	4.3	4.1	4.4	80
21	CKL05002-B-B//CML442/CML444	91	32	12	2.0	2.0	4.0	4.7	3.1	1.5	6.4	4.4	3.5	4.5	2.4	1.1	1.1	3.4	3.4	4.4	5.4	3.4	80
1	CKL05003-B-B//CML202/CML395	61	46	7	0.4	0.4	3.4	4.0	2.9	2.0	4.3	3.6	1.6	2.5	0.8	0.3	0.3	2.3	2.3	3.6	5.0	2.2	83
2	CKL05010-B-B//CML202/CML395	47	51	2	0.3	0.3	2.4	2.2	2.4	1.5	3.3	2.6	1.2	1.4	1.0	0.6	0.6	1.9	1.9	2.9	4.3	1.5	81
<b>Maturity group average</b>					1.5	1.5	4.1	4.1	3.5	2.7	5.3	5.1	3.5	4.2	2.7	1.4	1.4	4.3	4.3	4.6	5.9	3.3	80
Mean		100	26	12	2.00	2.00	4.19	4.33	3.65	2.54	5.15	5.27	3.39	4.28	2.50	1.54	1.54	4.09	4.09	5.07	6.30	3.83	77.2
LSD (0.05)		17	9	3	1.44	1.44	0.70	2.50	1.11	1.26	1.63	1.10	1.09	1.90	1.08	0.74	0.74	2.08	2.08	1.16	1.58	1.74	0.7
Min		47	9	2	0.26	0.26	2.40	1.82	1.79	1.04	2.76	2.57	1.19	1.40	0.78	0.33	0.33	1.85	1.85	2.91	4.09	1.53	73.4
Max		137	51	19	3.93	3.93	5.75	7.80	5.61	5.51	7.74	8.00	4.78	6.85	4.60	2.75	2.75	6.82	6.82	6.33	7.81	5.98	82.5
NumSignificantSites		12	12	12	1	1	5	1	1	1	1	1	2	1	1	1	1	1	1	2	1	1	15



OPT= Optimum (well-fertilized/rainfed) management

Entry	Name	Across			Across			Across			Anth	ASI	Plant	Ear	Ear	Lodging		Ears/	Husk	P.sorg	E.turc	Grain	MSV	Ear	Plant			
		RelGY	Rank	GY	GY	GY	GY	GY	GY	Stem						Plant	Cover									Text	Aspect	Aspect
		%	Avg	StdDev	t/ha	t/ha	t/ha	t/ha	t/ha	d						d	cm									cm	0-1	%
Entries with anthesis date between 72 - 76 days																												
10	Pool15QPMFS461-B-7-B/Pool15QPMFS309-B-1-B//CML511	100	23	11	2.8	4.2	2.6	3.7	2.7	76	1	149	69	0.4	6	1.0	28	3.1	2.8	1.8	1.0	2.0	2.6					
3	Pool15QPMFS440-B-5-B/Pool15QPMFS761-B-2-B//CML511	95	27	12	1.4	4.2	2.8	3.5	2.7	76	2	158	74	0.5	15	1.0	8	2.9	2.5	1.9	3.1	2.3	2.5					
31	Pool15QPMFS309-B-1-B/Pool15QPMFS324-B-3-B//CML511	80	32	9	1.6	6.0	1.7	3.3	1.0	72	1	160	74	0.5	23	1.0	7	2.8	2.2	2.3	1.0	1.9	2.9					
27	Pool15QPMFS462-B-4-B/Pool15QPMFS478-B-3-B//CML511	71	35	7	1.4	3.6	1.5	3.3	1.2	76	2	152	65	0.4	23	1.0	12	2.5	1.9	1.6	1.0	2.2	3.2					
Maturity group average					1.8	4.5	2.1	3.5	1.9	75	2	155	70	0.4	17	1.0	14	2.8	2.3	1.9	1.5	2.1	2.8					
Entries with anthesis date between 77 - 79 days																												
45	H513	142	8	10	2.2	6.3	1.7	6.5	3.8	79	3	165	90	0.6	0	1.1	9	1.7	3.5	2.6	4.1	1.9	2.4					
19	Pool15QPMFS538-B-3-B/Pool15QPMFS462-B-4-B//CML511	130	9	8	2.3	6.2	1.8	5.4	2.9	78	1	168	75	0.4	25	1.2	9	3.2	2.1	1.6	1.0	1.9	2.6					
37	Pool15QPMFS80-B-2-B/CML159//CML511	111	14	11	2.2	5.2	1.3	5.2	2.5	78	2	139	64	0.4	7	1.0	14	2.9	1.8	1.9	2.9	2.1	2.9					
21	Pool15QPMFS538-B-3-B/Pool15QPMFS593-B-1-B//CML511	112	15	11	1.8	4.9	1.7	5.7	2.9	78	2	160	60	0.4	17	1.0	35	3.4	2.8	1.6	1.0	2.1	2.9					
30	Pool15QPMFS462-B-4-B/CML144//CML511	111	16	11	2.0	4.5	3.2	4.8	2.6	79	1	154	71	0.4	4	1.0	21	2.7	1.8	1.8	1.0	2.0	2.4					
16	Pool15QPMFS51-B-8-B/Pool15QPMFS538-B-3-B//CML511	116	16	9	3.4	4.8	1.9	4.9	2.6	78	3	138	65	0.4	8	1.1	14	3.4	2.0	1.4	1.0	2.2	2.7					
1	Pool15QPMFS440-B-5-B/Pool15QPMFS461-B-7-B//CML511	119	17	10	2.1	4.9	3.2	4.7	2.6	79	2	147	73	0.4	8	1.1	13	2.9	2.8	1.6	1.6	1.9	2.7					
2	Pool15QPMFS440-B-5-B/Pool15QPMFS538-B-3-B//CML511	120	17	12	1.6	5.1	2.2	5.0	3.5	79	2	150	70	0.4	16	1.0	10	3.4	1.4	2.0	1.0	2.2	2.6					
14	Pool15QPMFS461-B-7-B/CML144//CML511	108	20	11	1.0	5.1	2.4	4.7	2.5	79	1	155	69	0.4	7	1.1	13	2.9	1.8	1.9	1.8	2.1	2.6					
34	Pool15QPMFS788-B-3-B/Pool15QPMFS593-B-1-B//CML511	97	21	13	1.7	4.5	1.9	4.3	2.8	78	3	165	70	0.4	7	1.1	35	3.2	2.5	1.4	1.0	1.8	2.5					
22	Pool15QPMFS538-B-3-B/Pool15QPMFS324-B-3-B//CML511	100	21	11	2.3	4.5	2.4	3.7	2.7	78	2	154	63	0.4	32	1.0	15	3.0	2.0	1.9	1.0	2.0	2.6					
18	Pool15QPMFS538-B-3-B/Pool15QPMFS761-B-2-B//CML511	99	22	9	1.7	4.5	2.5	3.8	2.7	78	2	158	70	0.4	6	1.0	17	3.2	3.0	1.6	1.4	1.9	2.6					
33	Pool15QPMFS309-B-1-B/CML159//CML511	94	23	11	1.5	4.9	1.7	4.3	1.7	79	2	168	68	0.4	24	1.0	22	3.0	2.1	2.3	1.0	2.0	2.7					
9	Pool15QPMFS461-B-7-B/Pool15QPMFS462-B-4-B//CML511	96	24	13	1.6	4.2	2.8	4.4	1.8	77	1	137	66	0.4	24	1.2	29	2.8	2.2	1.3	1.0	2.0	2.5					
17	Pool15QPMFS51-B-8-B/Pool15QPMFS80-B-2-B//CML511	96	24	11	1.3	4.2	2.3	4.1	3.1	78	2	147	81	0.4	19	1.1	19	3.1	2.0	2.0	1.0	2.2	2.7					
11	Pool15QPMFS461-B-7-B/Pool15QPMFS594-B-1-B//CML511	97	24	10	1.7	4.4	2.6	3.9	2.1	77	2	129	74	0.5	10	1.0	20	2.9	2.1	1.3	1.0	2.0	2.6					
20	Pool15QPMFS538-B-3-B/Pool15QPMFS80-B-2-B//CML511	97	25	10	1.7	3.6	1.8	4.7	2.7	79	2	154	72	0.4	21	1.0	21	3.2	1.9	1.9	1.0	2.0	2.6					
15	Pool15QPMFS461-B-7-B/CML159//CML511	89	26	14	1.1	4.4	1.1	4.3	2.7	79	2	137	60	0.4	15	1.0	18	2.6	1.6	1.8	1.0	1.8	2.9					
38	Pool15QPMFS319-B-2-B/Pool15QPMFS593-B-1-B//CML511	95	27	13	1.4	4.2	3.9	3.7	2.1	78	2	154	61	0.5	7	1.0	51	3.0	2.8	1.8	1.0	1.9	2.6					
40	Pool15QPMFS593-B-1-B/CML159//CML511	82	27	13	1.4	4.7	1.3	3.9	1.9	78	3	156	64	0.4	10	1.0	66	3.0	2.4	2.0	1.0	1.7	3.0					
25	Pool15QPMFS761-B-2-B/Pool15QPMFS80-B-2-B//CML511	85	28	11	1.9	3.5	1.2	4.1	2.3	77	1	159	74	0.5	16	1.0	29	2.9	2.2	1.8	1.3	2.1	2.9					
28	Pool15QPMFS462-B-4-B/Pool15QPMFS593-B-1-B//CML511	80	29	10	1.9	4.6	0.0	3.7	1.9	79	2	138	62	0.4	15	1.1	19	3.2	2.4	1.4	1.0	1.9	2.9					
5	Pool15QPMFS440-B-5-B/Pool15QPMFS309-B-1-B//CML511	83	29	12	0.9	4.7	1.0	3.8	.	77	1	174	75	0.5	36	1.0	12	2.7	2.5	2.4	1.6	2.2	2.9					
6	Pool15QPMFS440-B-5-B/Pool15QPMFS319-B-2-B//CML511	84	30	12	1.1	3.9	2.2	3.7	2.2	79	2	156	64	0.4	22	1.0	47	3.2	2.0	2.3	1.5	2.3	2.6					
4	Pool15QPMFS440-B-5-B/Pool15QPMFS462-B-4-B//CML511	80	30	12	2.2	4.1	0.5	3.4	2.4	79	2	160	71	0.4	25	1.0	40	2.6	2.1	1.6	1.7	2.1	3.0					
26	Pool15QPMFS761-B-2-B/CML159//CML511	80	30	11	1.6	3.9	0.8	4.1	1.9	79	2	171	71	0.4	9	1.1	21	2.9	2.3	1.8	1.0	2.2	2.8					
12	Pool15QPMFS461-B-7-B/Pool15QPMFS80-B-2-B//CML511	81	31	11	2.1	3.5	1.0	4.1	1.8	78	1	152	72	0.4	21	1.0	52	3.1	2.0	1.6	1.0	1.9	2.6					
43	CML144/CML159//CML176	78	33	18	0.1	5.2	2.0	2.1	0.7	79	2	114	71	0.4	67	1.0	13	2.4	2.0	1.6	1.0	2.8	2.5					
13	Pool15QPMFS461-B-7-B/Pool15QPMFS324-B-3-B//CML511	76	34	8	1.6	3.9	2.1	3.3	1.3	77	2	162	68	0.4	22	1.0	25	2.9	2.5	1.5	1.0	2.2	2.6					
29	Pool15QPMFS462-B-4-B/Pool15QPMFS324-B-3-B//CML511	70	35	10	1.9	3.8	0.9	3.2	0.5	77	2	161	70	0.4	5	1.0	11	2.8	2.5	1.8	1.1	2.2	2.8					

OPT= Optimum (well-fertilized/rainfed) management

TABLE 2A

Entry	Name	Across			WET LOWER MID-ALTITUDE RANDOM DROUGHT		WET LOWER MID-ALTITUDE OPT		WET UPPER MID-ALTITUDE RANDOM DROUGHT		WET UPPER MID-ALTITUDE OPT		UNCLASSIFIED OPT		Anth	ASI	Plant	Ear	Ear	Lodging		Ears/	Husk	P.sorg	E.turc	Grain	MSV	Ear	Plant
		RelGY	Rank	StdDev	GY	GY	GY	GY	GY	GY	GY	Date	Height	Height						Position	Stem								
8	Pool15QPMFS461-B-7-B/Pool15QPMFS51-B-8-B/CML511	74	35	8	1.3	3.4	1.4	3.7	1.5	78	2	133	63	0.4	27	1.0	33	3.2	2.4	1.3	1.0	2.1	3.0						
Maturity group average					1.7	4.5	1.8	4.2	2.3	78	2	152	69	0.4	17	1.0	24	2.9	2.2	1.8	1.3	2.0	2.7						
Entries with anthesis date between 80 - 82 days																													
42	CML144/CML159/CML182	157	9	8	2.1	6.7	2.0	6.2	3.7	82	2	150	77	0.5	16	1.1	9	2.0	1.8	3.0	2.5	2.2	3.0						
44	WH403	159	9	13	1.2	6.9	2.0	8.2	3.7	82	3	173	79	0.5	12	1.0	11	1.6	2.0	2.0	1.0	1.7	2.9						
23	Pool15QPMFS538-B-3-B/CML144/CML511	129	11	8	3.1	5.0	2.4	5.6	3.1	82	2	136	77	0.4	19	1.0	10	3.2	1.9	2.3	1.0	2.1	2.6						
24	Pool15QPMFS538-B-3-B/CML159/CML511	121	14	9	2.2	5.5	1.5	5.3	2.5	80	2	152	69	0.4	18	1.0	9	2.8	2.0	2.0	1.0	2.0	3.0						
7	Pool15QPMFS440-B-5-B/CML159/CML511	107	15	9	1.9	5.1	2.7	4.4	2.4	80	2	164	63	0.3	3	1.0	19	2.7	1.9	2.1	1.5	2.1	2.7						
41	CML144/CML159/CML511	116	16	10	1.5	5.3	2.3	5.5	2.3	81	2	168	71	0.5	13	1.0	15	2.6	1.8	2.3	1.7	1.9	2.6						
36	Pool15QPMFS788-B-3-B/CML159/CML511	99	20	8	2.0	4.3	2.2	4.3	2.8	80	2	152	64	0.4	8	1.0	30	3.3	2.3	1.9	1.0	2.0	2.7						
39	Pool15QPMFS593-B-1-B/CML144/CML511	94	25	9	1.5	4.9	1.8	3.8	2.4	81	2	160	65	0.4	26	1.1	16	2.9	2.2	1.4	1.3	2.0	2.9						
35	Pool15QPMFS788-B-3-B/CML144/CML511	96	26	16	0.8	5.2	3.9	3.3	2.2	82	2	155	61	0.4	21	1.1	19	2.9	2.6	1.6	1.0	1.8	2.5						
32	Pool15QPMFS309-B-1-B/CML144/CML511	88	27	15	1.2	4.3	2.6	3.9	2.7	80	1	167	78	0.5	15	1.0	79	3.3	2.3	2.3	1.0	1.9	2.1						
Maturity group average					1.7	5.3	2.3	5.0	2.8	81	2	158	70	0.4	15	1.0	22	2.7	2.1	2.1	1.3	2.0	2.7						
Mean		100	23	11	1.71	4.69	1.98	4.34	2.36	78.5	1.9	153.5	69.6	0.42	16.4	1.03	22.9	2.9	2.2	1.8	1.2	2.0	2.7						
LSD (0.05)		21	8	2	1.05	0.83	1.36	1.34	0.70	2.4	0.9	23.2	10.5	0.07	17.5	0.09	27.5	0.4	0.7	0.6	0.9	0.2	0.3						
Min		70	8	7	0.09	3.43	0.02	2.14	0.52	72.2	0.9	114.0	59.5	0.34	0.0	0.96	7.3	1.6	1.4	1.3	1.0	1.7	2.1						
Max		159	35	18	3.37	6.85	3.92	8.23	3.79	82.2	3.0	174.3	89.5	0.55	67.0	1.17	78.9	3.4	3.5	3.0	4.1	2.8	3.2						
NumSignificantSites		9	9	9	1	3	1	3	1	10	5	1	2	1	1	1	2	4	2	2	2	5	1						

OPT= Optimum (well-fertilized/rainfed) management

TABLE 2B

Entry	Name	WET LOWER MID-ALTITUDE RANDOM DROUGHT			WET LOWER MID-ALTITUDE OPT			WET UPPER MID-ALTITUDE RANDOM DROUGHT			WET UPPER MID-ALTITUDE OPT			UNCLASSIFIED OPT		Anth			
		Across	Across	Kagio Ken	Across	Weruweru Tan	Afsf-Arusha Tan	Embu Ken	Across	Maseno Ken	Across	Elgon Downs Ken	Kakamega Ken	Kimaeti Ken	Across		Hyderabad Ind		
		RelGY	Rank	StdDev	GY	GY	GY	GY	GY	GY	GY	GY	GY	GY	GY	GY	GY	GY	Date
		%	Avg	StdDev	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	d
<b>Entries with anthesis date between 72 - 76 days</b>																			
10	Pool15QPMFS461-B-7-B/Pool15QPMFS309-B-1-B//CML511	100	23	11	2.8	2.8	4.2	5.0	1.0	6.5	2.6	2.6	3.7	6.0	3.0	2.2	2.7	2.7	76
3	Pool15QPMFS440-B-5-B/Pool15QPMFS761-B-2-B//CML511	95	27	12	1.4	1.4	4.2	4.8	2.0	5.9	2.8	2.8	3.5	5.2	2.8	2.4	2.7	2.7	76
31	Pool15QPMFS309-B-1-B/Pool15QPMFS324-B-3-B//CML511	80	32	9	1.6	1.6	6.0	4.7	.	7.3	1.7	1.7	3.3	5.7	2.0	2.4	1.0	1.0	72
27	Pool15QPMFS462-B-4-B/Pool15QPMFS478-B-3-B//CML511	71	35	7	1.4	1.4	3.6	4.4	1.2	5.2	1.5	1.5	3.3	5.9	3.4	0.7	1.2	1.2	76
<b>Maturity group average</b>					1.8	1.8	4.5	4.7	1.4	6.2	2.1	2.1	3.5	5.7	2.8	1.9	1.9	1.9	75
<b>Entries with anthesis date between 77 - 79 days</b>																			
45	H513	142	8	10	2.2	2.2	6.3	6.0	4.0	8.9	1.7	1.7	6.5	9.2	4.1	6.2	3.8	3.8	79
19	Pool15QPMFS538-B-3-B/Pool15QPMFS462-B-4-B//CML511	130	9	8	2.3	2.3	6.2	5.8	3.5	9.3	1.8	1.8	5.4	6.9	3.7	5.6	2.9	2.9	78
37	Pool15QPMFS80-B-2-B/CML159//CML511	111	14	11	2.2	2.2	5.2	5.8	2.4	7.5	1.3	1.3	5.2	7.8	5.0	2.9	2.5	2.5	78
21	Pool15QPMFS538-B-3-B/Pool15QPMFS593-B-1-B//CML511	112	15	11	1.8	1.8	4.9	5.1	1.0	8.7	1.7	1.7	5.7	7.1	4.2	5.9	2.9	2.9	78
30	Pool15QPMFS462-B-4-B/CML159//CML511	111	16	11	2.0	2.0	4.5	3.9	1.6	7.8	3.2	3.2	4.8	6.4	3.8	4.2	2.6	2.6	79
16	Pool15QPMFS51-B-8-B/Pool15QPMFS538-B-3-B//CML511	116	16	9	3.4	3.4	4.8	5.6	1.6	7.2	1.9	1.9	4.9	5.6	5.0	4.0	2.6	2.6	78
1	Pool15QPMFS440-B-5-B/Pool15QPMFS461-B-7-B//CML511	119	17	10	2.1	2.1	4.9	5.4	2.5	6.9	3.2	3.2	4.7	5.3	3.3	5.3	2.6	2.6	79
2	Pool15QPMFS440-B-5-B/Pool15QPMFS538-B-3-B//CML511	120	17	12	1.6	1.6	5.1	5.7	3.3	6.3	2.2	2.2	5.0	6.7	3.0	5.4	3.5	3.5	79
14	Pool15QPMFS461-B-7-B/CML144//CML511	108	20	11	1.0	1.0	5.1	5.1	3.3	6.9	2.4	2.4	4.7	6.2	5.1	2.8	2.5	2.5	79
34	Pool15QPMFS788-B-3-B/Pool15QPMFS593-B-1-B//CML511	97	21	13	1.7	1.7	4.5	6.4	0.7	6.4	1.9	1.9	4.3	5.2	4.4	3.3	2.8	2.8	78
22	Pool15QPMFS538-B-3-B/Pool15QPMFS324-B-3-B//CML511	100	21	11	2.3	2.3	4.5	5.2	1.6	6.6	2.4	2.4	3.7	5.0	3.0	3.0	2.7	2.7	78
18	Pool15QPMFS538-B-3-B/Pool15QPMFS761-B-2-B//CML511	99	22	9	1.7	1.7	4.5	4.9	2.1	6.7	2.5	2.5	3.8	6.2	3.0	2.2	2.7	2.7	78
33	Pool15QPMFS309-B-1-B/CML159//CML511	94	23	11	1.5	1.5	4.9	6.3	1.7	6.6	1.7	1.7	4.3	6.2	4.3	2.4	1.7	1.7	79
9	Pool15QPMFS461-B-7-B/Pool15QPMFS462-B-4-B//CML511	96	24	13	1.6	1.6	4.2	5.6	1.4	5.7	2.8	2.8	4.4	7.3	2.8	3.0	1.8	1.8	77

OPT= Optimum (well-fertilized/rainfed) management

TABLE 2B

Entry	Name	WET LOWER MID-ALTITUDE RANDOM DROUGHT			WET LOWER MID-ALTITUDE OPT			WET UPPER MID-ALTITUDE RANDOM DROUGHT			WET UPPER MID-ALTITUDE OPT			UNCLASSIFIED OPT		Anth			
		Across	Across	Kagio Ken	Across	Weruweru Tan	Afsf-Arusha Tan	Embu Ken	Across	Maseno Ken	Across	Elgon Downs Ken	Kakamega Ken	Kimaeti Ken	Across		Hyderabad Ind		
		RelGY	Rank	GY	GY	GY	GY	GY	GY	GY	GY	GY	GY	GY	GY	GY	GY	GY	Date
		%	Avg	StdDev	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	d
17	Pool15QPMFS51-B-8-B/Pool15QPMFS80-B-2-B//CML511	96	24	11	1.3	1.3	4.2	4.6	1.6	6.4	2.3	2.3	4.1	6.2	2.9	3.2	3.1	3.1	78
11	Pool15QPMFS461-B-7-B/Pool15QPMFS594-B-1-B//CML511	97	24	10	1.7	1.7	4.4	3.7	2.3	7.1	2.6	2.6	3.9	5.8	3.2	2.6	2.1	2.1	77
20	Pool15QPMFS538-B-3-B/Pool15QPMFS80-B-2-B//CML511	97	25	10	1.7	1.7	3.6	4.9	1.2	4.8	1.8	1.8	4.7	5.5	3.4	5.2	2.7	2.7	79
15	Pool15QPMFS461-B-7-B/CML159//CML511	89	26	14	1.1	1.1	4.4	4.2	2.1	7.0	1.1	1.1	4.3	7.2	3.6	2.1	2.7	2.7	79
38	Pool15QPMFS319-B-2-B/Pool15QPMFS593-B-1-B//CML511	95	27	13	1.4	1.4	4.2	4.8	0.5	7.3	3.9	3.9	3.7	4.7	3.1	3.2	2.1	2.1	78
40	Pool15QPMFS593-B-1-B/CML159//CML511	82	27	13	1.4	1.4	4.7	5.9	0.6	7.7	1.3	1.3	3.9	6.5	3.0	2.1	1.9	1.9	78
25	Pool15QPMFS761-B-2-B/Pool15QPMFS80-B-2-B//CML511	85	28	11	1.9	1.9	3.5	5.1	0.7	4.6	1.2	1.2	4.1	5.6	3.8	3.0	2.3	2.3	77
28	Pool15QPMFS462-B-4-B/Pool15QPMFS593-B-1-B//CML511	80	29	10	1.9	1.9	4.6	4.9	1.5	7.3	0.0	0.0	3.7	6.1	2.2	2.9	1.9	1.9	79
5	Pool15QPMFS440-B-5-B/Pool15QPMFS309-B-1-B//CML511	83	29	12	0.9	0.9	4.7	5.0	1.8	7.4	1.0	1.0	3.8	5.5	2.7	3.1	.	.	77
6	Pool15QPMFS440-B-5-B/Pool15QPMFS319-B-2-B//CML511	84	30	12	1.1	1.1	3.9	5.3	0.5	5.8	2.2	2.2	3.7	4.5	3.4	3.3	2.2	2.2	79
4	Pool15QPMFS440-B-5-B/Pool15QPMFS462-B-4-B//CML511	80	30	12	2.2	2.2	4.1	5.1	0.7	6.6	0.5	0.5	3.4	5.3	2.5	2.5	2.4	2.4	79
26	Pool15QPMFS761-B-2-B/CML159//CML511	80	30	11	1.6	1.6	3.9	4.9	1.2	5.7	0.8	0.8	4.1	6.8	3.5	2.0	1.9	1.9	79
12	Pool15QPMFS461-B-7-B/Pool15QPMFS80-B-2-B//CML511	81	31	11	2.1	2.1	3.5	4.6	0.7	5.0	1.0	1.0	4.1	6.1	3.0	3.3	1.8	1.8	78
43	CML144/CML159//CML176	78	33	18	0.1	0.1	5.2	2.1	5.6	7.8	2.0	2.0	2.1	4.4	1.9	0.2	0.7	0.7	79
13	Pool15QPMFS461-B-7-B/Pool15QPMFS324-B-3-B//CML511	76	34	8	1.6	1.6	3.9	4.5	0.8	6.3	2.1	2.1	3.3	5.7	2.8	1.3	1.3	1.3	77
29	Pool15QPMFS462-B-4-B/Pool15QPMFS324-B-3-B//CML511	70	35	10	1.9	1.9	3.8	4.8	1.7	4.8	0.9	0.9	3.2	5.0	3.0	1.5	0.5	0.5	77
8	Pool15QPMFS461-B-7-B/Pool15QPMFS51-B-8-B//CML511	74	35	8	1.3	1.3	3.4	3.6	0.7	6.0	1.4	1.4	3.7	5.0	4.0	2.2	1.5	1.5	78
Maturity group average					1.7	1.7	4.5	5.0	1.8	6.7	1.8	1.8	4.2	6.0	3.4	3.2	2.3	2.3	78
Entries with anthesis date between 80 - 82 days																			
42	CML144/CML159//CML182	157	9	8	2.1	2.1	6.7	6.1	6.8	7.2	2.0	2.0	6.2	6.5	5.6	6.5	3.7	3.7	82
44	WH403	159	9	13	1.2	1.2	6.9	5.7	5.4	9.4	2.0	2.0	8.2	10.9	7.2	6.7	3.7	3.7	82
23	Pool15QPMFS538-B-3-B/CML144//CML511	129	11	8	3.1	3.1	5.0	5.0	2.9	7.0	2.4	2.4	5.6	7.6	4.9	4.2	3.1	3.1	82

OPT= Optimum (well-fertilized/rainfed) management

TABLE 2B

Entry	Name	Across			WET LOWER MID-ALTITUDE RANDOM DROUGHT			WET LOWER MID-ALTITUDE OPT			WET UPPER MID-ALTITUDE RANDOM DROUGHT		WET UPPER MID-ALTITUDE OPT			UNCLASSIFIED OPT		Anth	
		RelGY	Rank	StdDev	Across	Kagio Ken	Across	Weruweru Tan	Afsf-Arusha Tan	Embu Ken	Across	Maseno Ken	Across	Elgon Downs Ken	Kakamega Ken	Kimaeti Ken	Across		Hyderabad Ind
		%	Avg	StdDev	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	d
24	Pool15QPMFS538-B-3-B/CML159//CML511	121	14	9	2.2	2.2	5.5	5.5	3.7	7.4	1.5	1.5	5.3	6.6	4.8	4.3	2.5	2.5	80
7	Pool15QPMFS440-B-5-B/CML159//CML511	107	15	9	1.9	1.9	5.1	6.0	2.0	7.4	2.7	2.7	4.4	6.7	4.2	2.3	2.4	2.4	80
41	CML144/CML159//CML511	116	16	10	1.5	1.5	5.3	5.6	2.9	7.4	2.3	2.3	5.5	8.2	5.6	2.8	2.3	2.3	81
36	Pool15QPMFS788-B-3-B/CML159//CML511	99	20	8	2.0	2.0	4.3	5.4	1.1	6.3	2.2	2.2	4.3	6.4	3.4	2.9	2.8	2.8	80
39	Pool15QPMFS593-B-1-B/CML144//CML511	94	25	9	1.5	1.5	4.9	4.8	2.0	7.8	1.8	1.8	3.8	5.3	3.6	2.4	2.4	2.4	81
35	Pool15QPMFS788-B-3-B/CML144//CML511	96	26	16	0.8	0.8	5.2	5.6	1.5	8.6	3.9	3.9	3.3	5.0	2.8	2.1	2.2	2.2	82
32	Pool15QPMFS309-B-1-B/CML144//CML511	88	27	15	1.2	1.2	4.3	4.5	0.4	7.8	2.6	2.6	3.9	6.6	2.7	2.3	2.7	2.7	80
Maturity group average					1.7	1.7	5.3	5.4	2.9	7.6	2.3	2.3	5.0	7.0	4.5	3.6	2.8	2.8	81
Mean		100	23	11	1.71	1.71	4.69	5.07	2.01	6.90	1.98	1.98	4.34	6.19	3.61	3.20	2.36	2.36	78.5
LSD (0.05)		21	8	2	1.05	1.05	0.83	1.15	1.21	1.83	1.36	1.36	1.34	2.03	1.88	2.90	0.70	0.70	2.4
Min		70	8	7	0.09	0.09	3.43	2.11	0.41	4.58	0.02	0.02	2.14	4.35	1.90	0.17	0.52	0.52	72.2
Max		159	35	18	3.37	3.37	6.85	6.40	6.85	9.40	3.92	3.92	8.23	10.85	7.18	6.66	3.79	3.79	82.2
NumSignificantSites		9	9	9	1	1	3	1	1	1	1	1	3	1	1	1	1	1	10

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OPT= Optimum (well-fertilized/rainfed) management

TABLE 3A

Entry	Pedigree	Across		DRY	WET UPPER	WET LOWER	UNCLASSIFIED	Anth	ASI	Plant	Ear	Ear	Lodging		Ears/	Husk	Ear	GLS	P.sorg	E.turc	Grain	Ear	Plant						
		RelGY	Rank	MID-ALTITUDE	MID-ALTITUDE	MID-ALTITUDE	OPT						Root	Stem										Plant	Cover	Rot	Text	Aspect	Aspect
		%	Avg	StdDev	t/ha	t/ha	t/ha																						
Entries with anthesis date between 63 - 64 days																													
14	ECA-EE-69/CML440/CML445	91	28	11	9.0	4.7	4.9	3.1	64	4	201	68	0.4	31	28	1.1	33	15	2.1	1.9	2.5	1.5	2.7	2.2					
30	ECA-EE-21-#/CML440/CML445	88	32	7	8.9	4.5	4.6	3.3	64	3	198	69	0.5	21	30	1.1	23	22	1.9	1.9	2.5	1.5	2.9	2.2					
40	DH02	62	38	10	8.2	2.8	2.9	2.4	63	4	186	54	0.4	35	40	1.1	24	25	1.7	2.2	2.9	1.5	3.3	2.1					
Maturity group average					8.7	4.0	4.1	2.9	64	4	195	64	0.4	29	33	1.1	27	20	1.9	2.0	2.6	1.5	2.9	2.2					
Entries with anthesis date between 65 - 68 days																													
27	ZEWAc2F2-#/CML440/CML445	106	13	10	10.3	5.6	5.7	4.0	68	3	193	63	0.4	22	20	1.1	26	15	1.6	2.0	2.4	1.3	2.6	2.2					
5	ECA-EE-60/CML440/CML445	108	14	7	10.8	5.1	5.7	4.0	68	3	211	70	0.4	12	26	1.2	32	23	1.7	1.9	2.5	1.3	2.7	2.3					
28	ZEWBc2F2-#/CML440/CML445	106	15	9	10.2	5.5	5.4	3.7	68	4	197	68	0.4	16	19	1.2	22	16	1.7	1.7	2.3	1.4	2.5	2.3					
31	LLSYNTH1-##-#/CML440/CML444	106	16	9	9.3	5.4	5.8	3.7	68	3	192	60	0.4	17	18	1.1	35	14	2.4	1.7	2.3	1.5	2.6	2.2					
2	ECA-EE-57/CML440/CML445	101	19	10	9.8	5.2	5.5	3.0	68	3	195	64	0.4	24	20	1.1	39	22	2.0	1.8	2.6	2.0	2.7	2.3					
7	ECA-EE-62/CML440/CML445	100	19	6	9.5	5.3	5.3	3.7	68	4	190	61	0.5	18	29	1.2	27	20	1.5	1.7	2.6	1.5	2.7	2.2					
9	ECA-EE-64/CML440/CML445	100	21	13	8.8	4.7	5.6	3.9	68	4	195	70	0.5	19	18	1.1	29	15	2.1	1.7	2.4	1.5	2.8	2.3					
17	ECA-EE-72/CML440/CML445	98	21	8	9.4	5.0	5.2	3.1	68	3	201	62	0.4	22	29	1.1	25	17	1.8	2.0	2.5	1.4	2.8	2.2					
8	ECA-EE-63/CML440/CML445	97	22	10	9.4	5.1	5.3	3.5	68	4	205	67	0.5	16	24	1.1	30	19	2.0	2.0	2.7	1.5	2.7	2.3					
18	ECA-EE-73/CML440/CML445	98	23	9	8.7	5.0	5.4	3.5	67	3	192	61	0.4	21	26	1.1	33	21	1.9	1.8	2.5	1.7	2.6	2.3					
21	ECA-EE-76/CML440/CML445	96	23	11	9.0	4.8	5.0	4.1	67	4	200	64	0.4	16	26	1.2	31	24	2.1	2.0	2.6	1.5	2.7	2.2					
3	ECA-EE-58/CML440/CML445	97	23	11	8.7	4.6	5.4	4.0	68	3	195	65	0.4	23	27	1.1	36	23	1.9	1.9	2.4	1.7	2.8	2.4					
16	ECA-EE-71/CML440/CML445	98	23	12	9.6	4.9	4.8	3.6	67	4	199	68	0.4	16	23	1.0	29	24	1.9	1.8	2.4	1.5	2.8	2.1					
29	ECA-EE-55-#/CML440/CML445	94	24	11	9.4	4.7	5.1	3.0	66	2	196	65	0.4	22	26	1.2	29	16	2.1	2.0	2.5	1.7	2.7	2.2					
10	ECA-EE-65/CML440/CML445	96	24	8	8.9	5.3	5.2	2.6	67	4	191	63	0.4	24	24	1.2	30	19	1.9	2.0	2.6	1.5	2.7	2.2					
11	ECA-EE-66/CML440/CML445	96	25	11	8.8	4.8	5.2	3.9	67	4	184	58	0.4	26	23	1.3	27	23	2.0	1.9	2.5	1.5	2.8	2.1					
12	ECA-EE-67/CML440/CML445	94	25	10	9.3	4.5	5.1	4.0	67	3	204	70	0.4	22	27	1.0	33	28	1.9	1.9	2.5	1.5	2.8	2.1					
15	ECA-EE-70/CML440/CML445	94	25	8	9.5	4.9	4.8	3.4	67	3	202	69	0.4	12	25	1.1	37	30	1.6	1.9	2.5	1.8	2.8	2.2					
13	ECA-EE-68/CML440/CML445	91	27	10	9.1	4.6	4.9	3.9	66	4	201	68	0.4	29	28	1.1	31	22	1.8	1.9	2.6	1.5	2.8	2.2					
22	ECA-EE-77/CML440/CML445	94	27	11	9.0	4.5	5.0	3.3	67	3	197	65	0.4	22	23	1.1	28	18	2.1	1.9	2.6	1.5	2.8	2.2					
6	ECA-EE-61/CML440/CML445	90	27	10	9.0	4.4	4.8	3.7	67	3	203	68	0.4	11	27	1.0	44	29	2.0	2.1	2.7	1.7	2.9	2.3					
26	ECA-EE-81/CML440/CML445	89	27	11	9.4	4.5	5.0	3.8	67	2	193	68	0.4	24	26	1.1	25	22	2.0	2.1	2.8	2.0	2.6	2.3					

OPT= Optimum (well-fertilized/rainfed) management

TABLE 3A

Entry	Pedigree	Across			Across			Across			Anth	ASI	Plant	Ear	Ear	Lodging		Ears/	Husk	Ear	GLS	P.sorg	E.turc	Grain	Ear	Plant							
		RelGY	Rank	GrainYield	GrainYield	GrainYield	GrainYield	Date	Height	Height						Position	Root										Stem	Plant	Cover	Rot	Text	Aspect	Aspect
		%	Avg	StdDev	t/ha	t/ha	t/ha	t/ha	d	d						cm	cm										0-1	%	%	#	%	%	1-5
1	ECA-EE-56/CML440/CML445	92	27	10	9.1	4.8	4.5	4.0	66	3	197	62	0.4	17	22	1.1	27	19	1.8	1.9	2.5	1.5	2.8	2.0									
25	ECA-EE-80/CML440/CML445	92	28	10	8.5	5.0	4.6	3.8	67	2	193	62	0.4	18	24	1.2	32	24	1.5	1.9	2.6	1.5	3.0	2.2									
19	ECA-EE-74/CML440/CML445	93	28	8	8.3	4.8	5.0	3.4	66	4	193	59	0.4	25	25	1.1	29	17	1.9	2.0	2.5	1.2	2.9	2.0									
20	ECA-EE-75/CML440/CML445	90	29	9	9.2	4.3	5.1	2.7	67	4	193	62	0.4	16	22	1.1	26	18	1.6	1.8	2.5	1.5	2.7	2.2									
24	ECA-EE-79/CML440/CML445	92	29	6	8.8	4.7	4.9	3.3	67	4	205	67	0.4	16	25	1.3	36	24	2.0	2.1	2.5	1.2	2.8	2.4									
Maturity group average					9.3	4.9	5.2	3.6	67	3	197	65	0.4	19	24	1.1	31	21	1.9	1.9	2.5	1.5	2.7	2.2									
Entries with anthesis date between 69 - 70 days																																	
4	ECA-EE-59/CML440/CML445	110	12	8	9.5	5.1	6.6	4.4	69	3	190	65	0.4	14	24	1.1	30	16	1.7	2.0	2.4	1.5	2.5	2.2									
39	DUMA43	109	16	13	11.1	5.5	6.3	3.7	70	6	223	74	0.5	12	17	1.1	32	16	1.6	2.2	2.0	1.7	2.5	2.4									
23	ECA-EE-78/CML440/CML445	96	24	9	9.1	4.7	5.0	3.7	69	3	205	68	0.4	11	22	1.2	46	20	1.8	1.9	2.6	1.5	2.7	2.3									
Maturity group average					9.9	5.1	6.0	3.9	69	4	206	69	0.4	13	21	1.1	36	17	1.7	2.0	2.3	1.6	2.6	2.3									
Entries with anthesis date between 73 - 76 days																																	
34	MTPEH-2008-03	119	12	13	12.9	6.8	6.3	3.3	76	2	224	80	0.5	18	5	1.1	44	28	1.4	1.8	2.1	1.5	2.1	2.7									
33	MTPEH-2008-05	125	12	13	11.9	6.3	7.6	3.5	76	3	215	72	0.5	15	5	1.0	38	20	1.3	1.8	2.0	1.7	2.1	2.7									
37	KATEH-2008-01	118	13	16	12.6	6.5	6.8	2.8	76	3	226	81	0.5	24	10	1.1	36	11	1.3	1.8	2.1	2.0	2.1	2.6									
35	MTPEH-2008-04	111	13	13	12.0	6.4	5.2	3.7	76	3	227	83	0.5	19	12	1.2	26	10	1.9	2.0	2.3	1.5	2.1	2.7									
38	MTPEH-2008-01	116	13	16	12.1	6.9	6.4	2.8	76	4	215	69	0.5	28	5	1.0	41	24	1.1	1.6	2.1	1.5	2.3	2.5									
36	MTPEH-2008-02	107	15	15	12.4	6.1	4.9	3.7	76	4	227	85	0.5	20	10	1.1	25	11	1.4	1.9	2.1	1.5	2.1	2.8									
32	KATCH-2008-04	118	15	15	12.5	6.0	6.6	3.6	75	3	224	77	0.5	25	10	0.9	46	19	1.8	1.9	2.2	1.5	2.1	2.5									
41	H513	108	16	12	9.9	5.5	6.1	4.1	73	5	220	82	0.5	25	26	1.2	25	13	1.8	1.9	2.5	1.7	2.5	3.0									
42	DH04	111	20	14	8.9	5.9	5.6	3.6	73	5	220	83	0.5	19	19	1.0	20	10	1.3	2.0	2.1	1.5	2.5	3.0									
Maturity group average					11.7	6.3	6.2	3.5	75	4	222	79	0.5	21	11	1.1	33	16	1.5	1.8	2.2	1.6	2.2	2.7									
Mean		100	21	11	9.78	5.13	5.36	3.53	68.8	3.5	202.8	68.0	0.45	20.1	21.8	1.11	31.3	19.6	1.8	1.9	2.5	1.6	2.6	2.3									
LSD (0.05)		11	6	3	1.01	0.76	0.99	0.77	1.0	1.3	9.3	6.6	0.05	12.8	6.8	0.17	6.5	8.5	0.4	0.3	0.2	0.4	0.2	0.2									
Min		62	12	6	8.22	2.81	2.90	2.36	63.2	2.2	184.2	53.9	0.38	10.7	4.8	0.91	19.5	9.9	1.1	1.6	2.0	1.2	2.1	2.0									
Max		125	38	16	12.92	6.90	7.60	4.38	76.1	5.8	227.0	85.4	0.53	35.3	40.3	1.27	45.9	30.0	2.4	2.2	2.9	2.0	3.3	3.0									
NumSignificantSites		12	12	12	2	4	5	1	15	5	6	6	2	3	7	3	8	4	2	5	8	1	9	5									

OPT= Optimum (well-fertilized/rainfed) management

TABLE 3B

Entry	Pedigree	DRY MID-ALTITUDE OPT					WET UPPER MID-ALTITUDE OPT					WET LOWER MID-ALTITUDE OPT					UNCLASSIFIED OPT			Anth Date	
		Across		Melkasa Eth	Kiboko Ken	Across	Elgon Downs Ken	Mosso Bur	Mparambo Bur	Kakamega Ken	Across	Selian Tan	Selian Tan	Ngetta Uga	Embu Ken	Kibos Ken	Across	Wad Medani Sud			
		RelGY	Rank	GY	GY	GY	GY	GY	GY	GY	GY	GY	GY	GY	GY	GY	GY	GY	GY		
%	Avg	StdDev	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	d		
Entries with anthesis date between 63 - 64 days																					
14	ECA-EE-69/CML440/CML445	91	28	11	9.0	10.3	7.7	4.7	5.2	6.5	4.7	2.3	4.9	3.76	2.1	8.2	7.8	2.4	3.1	3.1	64
30	ECA-EE-21-#/CML440/CML445	88	32	7	8.9	9.9	7.8	4.5	5.3	5.1	5.3	2.2	4.6	3.59	2.3	8.8	6.2	2.0	3.3	3.3	64
40	DH02	62	38	10	8.2	6.6	9.8	2.8	4.2	3.0	3.4	0.8	2.9	2.70	2.3	4.8	3.1	1.6	2.4	2.4	63
Maturity group average					8.7	9.0	8.5	4.0	4.9	4.8	4.4	1.8	4.1	3.35	2.2	7.3	5.7	2.0	2.9	2.9	64
Entries with anthesis date between 65 - 68 days																					
27	ZEWAc2F2-#/CML440/CML445	106	13	10	10.3	11.6	8.9	5.6	7.3	7.0	6.7	1.3	5.7	5.66	2.7	8.3	9.2	2.9	4.0	4.0	68
5	ECA-EE-60/CML440/CML445	108	14	7	10.8	12.0	9.6	5.1	6.5	5.5	6.0	2.6	5.7	5.12	2.6	9.3	8.5	3.0	4.0	4.0	68
28	ZEWBc2F2-#/CML440/CML445	106	15	9	10.2	11.4	9.0	5.5	7.2	5.5	6.7	2.6	5.4	4.84	2.7	8.0	8.8	2.9	3.7	3.7	68
31	LLSYNTH1-##-#/CML440/CML445	106	16	9	9.3	9.7	8.8	5.4	6.7	6.5	6.2	2.2	5.8	5.13	2.4	9.8	7.8	3.7	3.7	3.7	68
2	ECA-EE-57/CML440/CML445	101	19	10	9.8	11.0	8.5	5.2	7.2	5.6	5.8	2.3	5.5	4.24	2.9	10.3	8.1	2.2	3.0	3.0	68
7	ECA-EE-62/CML440/CML445	100	19	6	9.5	11.0	7.9	5.3	7.0	6.4	5.7	2.3	5.3	4.40	2.6	9.7	7.4	2.3	3.7	3.7	68
9	ECA-EE-64/CML440/CML445	100	21	13	8.8	9.8	7.8	4.7	6.3	4.6	6.0	1.9	5.6	5.39	3.2	7.3	9.4	2.6	3.9	3.9	68
17	ECA-EE-72/CML440/CML445	98	21	8	9.4	10.1	8.7	5.0	6.6	5.9	5.6	1.9	5.2	4.72	3.0	9.5	6.2	2.7	3.1	3.1	68
8	ECA-EE-63/CML440/CML445	97	22	10	9.4	10.4	8.4	5.1	7.5	6.1	5.6	1.3	5.3	5.23	2.6	7.2	8.7	2.6	3.5	3.5	68
18	ECA-EE-73/CML440/CML445	98	23	9	8.7	9.8	7.6	5.0	6.5	5.7	5.7	2.2	5.4	4.10	3.0	9.3	8.0	2.3	3.5	3.5	67
21	ECA-EE-76/CML440/CML445	96	23	11	9.0	10.5	7.6	4.8	5.7	6.2	5.7	1.7	5.0	4.33	2.8	7.5	8.1	2.5	4.1	4.1	67
3	ECA-EE-58/CML440/CML445	97	23	11	8.7	9.1	8.3	4.6	5.9	6.0	4.3	2.1	5.4	5.34	2.6	8.9	7.5	2.4	4.0	4.0	68
16	ECA-EE-71/CML440/CML445	98	23	12	9.6	10.3	8.8	4.9	6.5	5.5	5.2	2.5	4.8	4.37	3.4	7.1	7.2	2.1	3.6	3.6	67
29	ECA-EE-55-#/CML440/CML445	94	24	11	9.4	10.7	8.2	4.7	5.2	5.5	6.2	1.7	5.1	3.83	3.1	8.0	7.9	2.7	3.0	3.0	66
10	ECA-EE-65/CML440/CML445	96	24	8	8.9	10.0	7.8	5.3	6.6	6.4	6.2	2.1	5.2	4.42	2.6	9.2	7.3	2.3	2.6	2.6	67
11	ECA-EE-66/CML440/CML445	96	25	11	8.8	9.7	7.9	4.8	5.7	6.0	5.2	2.3	5.2	4.73	2.5	9.9	6.4	2.2	3.9	3.9	67
12	ECA-EE-67/CML440/CML445	94	25	10	9.3	10.3	8.4	4.5	6.0	5.1	5.0	1.8	5.1	4.38	3.1	8.4	7.7	1.8	4.0	4.0	67
15	ECA-EE-70/CML440/CML445	94	25	8	9.5	10.5	8.6	4.9	6.8	5.2	5.3	2.1	4.8	4.49	2.6	8.3	7.0	1.8	3.4	3.4	67
13	ECA-EE-68/CML440/CML445	91	27	10	9.1	9.6	8.6	4.6	5.9	5.5	5.6	1.2	4.9	3.82	2.8	7.8	8.3	2.0	3.9	3.9	66
22	ECA-EE-77/CML440/CML445	94	27	11	9.0	10.1	7.8	4.5	5.5	4.7	5.6	2.4	5.0	3.76	3.0	8.8	6.8	2.6	3.3	3.3	67
6	ECA-EE-61/CML440/CML445	90	27	10	9.0	10.0	7.9	4.4	4.5	5.6	5.8	1.8	4.8	4.39	3.2	8.8	6.2	1.3	3.7	3.7	67
26	ECA-EE-81/CML440/CML445	89	27	11	9.4	10.4	8.5	4.5	5.9	5.2	5.3	1.5	5.0	3.13	1.6	9.8	8.4	2.3	3.8	3.8	67



OPT= Optimum (well-fertilized/rainfed) management

TABLE 3B

Entry	Pedigree	DRY MID-ALTITUDE OPT					WET UPPER MID-ALTITUDE OPT					WET LOWER MID-ALTITUDE OPT					UNCLASSIFIED OPT		Anth Date		
		Across		Melkasa Eth	Kiboko Ken	Across	Elgon Downs Ken	Mosso Bur	Mparambo Bur	Kakamega Ken	Across	Selian Tan	Selian Tan	Ngetta Uga	Embu Ken	Kibos Ken	Across	Wad Medani Sud			
		RelGY	Rank	GY	GY	GY	GY	GY	GY	GY	GY	GY	GY	GY	GY	GY	GY	GY		GY	
		%	Avg	StdDev	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	d	
1	ECA-EE-56/CML440/CML445	92	27	10	9.1	10.3	7.9	4.8	5.8	5.6	5.5	2.1	4.5	3.69	2.8	7.2	7.3	1.6	4.0	4.0	66
25	ECA-EE-80/CML440/CML445	92	28	10	8.5	10.0	7.0	5.0	6.1	6.1	5.5	2.3	4.6	4.01	2.4	7.9	7.1	1.5	3.8	3.8	67
19	ECA-EE-74/CML440/CML445	93	28	8	8.3	9.5	7.1	4.8	6.3	5.7	5.6	1.6	5.0	4.58	3.0	7.8	7.4	2.3	3.4	3.4	66
20	ECA-EE-75/CML440/CML445	90	29	9	9.2	10.3	8.1	4.3	4.7	4.9	5.4	2.1	5.1	4.63	2.0	9.7	6.7	2.4	2.7	2.7	67
24	ECA-EE-79/CML440/CML445	92	29	6	8.8	9.9	7.8	4.7	5.7	6.0	5.6	1.7	4.9	4.36	2.5	8.6	6.3	2.6	3.3	3.3	67
Maturity group average					9.3	10.3	8.2	4.9	6.2	5.7	5.7	2.0	5.2	4.48	2.7	8.6	7.6	2.4	3.6	3.6	67
Entries with anthesis date between 69 - 70 days																					
4	ECA-EE-59/CML440/CML445	110	12	8	9.5	10.5	8.4	5.1	6.7	5.8	5.8	2.0	6.6	5.37	3.3	11.2	10.2	2.8	4.4	4.4	69
39	DUMA43	109	16	13	11.1	12.5	9.7	5.5	7.6	6.5	5.0	2.8	6.3	3.80	2.7	13.3	9.5	2.1	3.7	3.7	70
23	ECA-EE-78/CML440/CML445	96	24	9	9.1	10.5	7.6	4.7	6.4	4.9	5.6	1.9	5.0	4.67	3.1	7.6	7.5	2.4	3.7	3.7	69
Maturity group average					9.9	11.2	8.6	5.1	6.9	5.7	5.5	2.2	6.0	4.61	3.0	10.7	9.0	2.4	3.9	3.9	69
Entries with anthesis date between 73 - 76 days																					
34	MTPEH-2008-03	119	12	13	12.9	14.9	11.0	6.8	7.2	9.1	9.4	1.6	6.3	6.61	1.8	10.5	8.9	3.6	3.3	3.3	76
33	MTPEH-2008-05	125	12	13	11.9	13.0	10.7	6.3	6.2	8.1	9.3	1.5	7.6	6.73	2.2	13.3	10.7	4.9	3.5	3.5	76
37	KATEH-2008-01	118	13	16	12.6	14.8	10.5	6.5	8.0	8.8	8.1	1.0	6.8	7.41	1.9	12.1	9.0	3.8	2.8	2.8	76
35	MTPEH-2008-04	111	13	13	12.0	13.6	10.4	6.4	6.9	9.2	8.4	1.2	5.2	6.56	2.8	11.4	1.5	3.6	3.7	3.7	76
38	MTPEH-2008-01	116	13	16	12.1	13.1	11.0	6.9	7.5	8.9	10.3	0.8	6.4	5.78	1.7	11.0	9.7	3.9	2.8	2.8	76
36	MTPEH-2008-02	107	15	15	12.4	13.9	11.0	6.1	7.9	7.1	8.0	1.5	4.9	6.46	1.7	11.4	1.3	3.5	3.7	3.7	76
32	KATCH-2008-04	118	15	15	12.5	13.4	11.6	6.0	6.4	7.9	8.2	1.5	6.6	7.07	2.1	13.7	5.6	4.5	3.6	3.6	75
41	H513	108	16	12	9.9	9.5	10.3	5.5	8.5	5.6	5.8	2.1	6.1	5.32	3.0	13.5	6.4	2.5	4.1	4.1	73
42	DH04	111	20	14	8.9	10.5	7.3	5.9	5.9	6.6	6.7	4.5	5.6	3.14	3.0	8.7	11.2	2.2	3.6	3.6	73
Maturity group average					11.7	13.0	10.4	6.3	7.2	7.9	8.2	1.7	6.2	6.12	2.2	11.8	7.1	3.6	3.5	3.5	75
Mean		100	21	11	9.78	10.84	8.72	5.13	6.35	6.10	6.12	1.94	5.36	4.76	2.61	9.34	7.48	2.60	3.53	3.53	68.8
LSD (0.05)		11	6	3	1.01	1.41	1.46	0.76	2.04	1.75	1.10	0.93	0.99	1.16	0.91	3.09	3.57	0.93	0.77	0.77	1.0
Min		62	12	6	8.22	6.62	7.00	2.81	4.15	2.95	3.36	0.77	2.90	2.70	1.57	4.82	1.29	1.30	2.36	2.36	63.2
Max		125	38	16	12.92	14.87	11.56	6.90	8.50	9.15	10.34	4.46	7.60	7.41	3.39	13.73	11.21	4.91	4.38	4.38	76.1
NumSignificantSites		12	12	12	2	1	1	4	1	1	1	1	5	1	1	1	1	1	1	1	15

MDR= Managed Drought Stress; OPT= Optimum (well-fertilized/rainfed) management; LN=Managed Low Nitrogen Stress

Entry	Pedigree	Across		MID-ALTITUDE HUMID MDR	WET LOWER MID-ALTITUDE OPT	WET UPPER MID-ALTITUDE OPT	WET UPPER MID-ALTITUDE LN	DRY MID-ALTITUDE OPT	HIGHLAND OPT	Anth	ASI	Plant	Ear	Ear	Lodging		Ears/	Husk	Ear	GLS	P.sorg	E.turc	Leaf	Grain	MSV	Ear	Plant		
		RelGY	Rank	GY	GY	GY	GY	GY	GY	GY	Date	Height	Height	Positor	Root	Stem	Plant	Cover	Rot		1-5	1-5	1-5	1-10	1-5	1-5	1-5	1-5	Aspect
		%	Avg	StdDev	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	d	d	cm	cm	0-1	%	%	#	%	%		1-5	1-5	1-5	1-10	1-5	1-5	1-5	1-5
Entries with anthesis date between 73 - 75 days																													
10	ECAVL2/ECAVL18	124	5	4	2.0	7.0	7.9	8.7	9.7	4.2	75	2	206	96	0.5	20	30	0.9	14	6	1.7	1.8	2.4	4.1	2.0	2.6	2.0	3.0	
9	ECAVL2/ECAVL17	115	9	8	1.8	6.9	7.4	7.9	9.4	3.5	75	3	201	95	0.5	23	28	1.0	17	7	1.9	1.9	2.6	4.7	2.3	2.3	2.3	3.0	
8	ECAVL2/ECAVL16-STR	111	10	7	0.9	6.3	7.7	6.5	9.6	3.5	75	3	197	95	0.5	20	17	0.9	18	8	1.8	2.2	2.5	4.7	2.1	3.7	2.2	3.1	
5	ECAVL1/ECAVL18	111	10	5	2.0	6.5	7.1	5.9	9.1	3.9	74	2	199	94	0.5	26	31	1.0	16	6	2.0	1.8	2.8	4.8	2.5	2.5	2.3	3.1	
21	ECAVL18/NIP25	111	10	7	1.9	6.4	7.0	7.1	9.3	3.9	75	2	191	82	0.5	23	28	1.0	14	4	2.0	1.9	2.5	5.5	1.7	2.6	2.0	3.0	
19	ECAVL17/ECAVL18	108	10	5	1.2	6.5	7.1	8.4	9.1	3.6	75	3	199	90	0.5	19	21	0.9	18	7	1.7	1.8	2.7	4.2	2.5	3.2	2.4	3.1	
16	ECAVL16-STR/ECAVL17	108	12	7	1.5	6.5	7.1	7.8	9.4	3.2	75	3	197	91	0.5	18	17	0.9	27	6	1.8	2.3	2.5	4.1	2.5	3.3	2.4	3.1	
20	ECAVL17/NIP25	107	12	6	1.3	6.2	6.9	7.0	8.8	3.8	74	3	193	84	0.5	23	14	0.9	17	9	2.0	2.2	2.5	5.1	1.9	2.7	2.3	3.0	
1	ECAVL1/ECAVL2	103	14	8	1.7	6.2	6.7	6.8	7.9	2.3	75	3	197	89	0.5	24	24	0.9	18	12	1.8	1.9	2.4	4.3	2.2	2.7	2.2	3.2	
6	ECAVL17/NIP25	101	14	7	1.4	6.3	6.6	5.7	8.9	2.7	74	3	189	80	0.5	32	26	0.9	16	8	2.2	2.2	2.8	4.0	1.8	2.0	2.2	2.9	
11	ECAVL2/NIP25	104	14	8	1.9	6.0	6.6	4.9	8.7	3.3	74	3	190	87	0.5	26	27	0.9	12	6	2.1	2.0	2.5	4.5	1.5	2.1	1.9	3.0	
4	ECAVL1/ECAVL17	101	15	7	1.6	6.4	6.1	7.7	9.3	2.1	75	3	198	88	0.5	16	28	0.9	19	14	1.8	2.2	2.8	3.7	3.0	3.3	2.6	3.1	
14	ECAVL16/ECAVL18	100	15	7	1.0	6.0	6.5	6.0	9.2	3.2	74	3	205	99	0.5	19	21	0.8	13	5	2.0	1.8	3.1	5.2	1.6	1.6	2.1	3.1	
3	ECAVL1/ECAVL16-STR	101	16	6	1.9	5.7	6.5	6.9	9.1	2.7	74	3	198	88	0.5	15	26	0.9	20	7	1.9	2.3	2.7	3.6	2.3	2.7	2.3	3.2	
18	ECAVL16-STR/NIP25	98	16	7	0.9	5.8	6.8	4.9	9.9	3.0	74	3	192	84	0.5	9	23	0.9	15	6	2.0	2.4	2.9	4.7	1.8	3.1	2.1	2.9	
30	Local Check	97	16	10	1.5	5.9	5.9	9.5	10.3	3.7	74	2	202	93	0.5	25	30	0.8	17	8	1.9	2.0	2.8	7.5	2.5	2.9	2.3	3.1	
13	ECAVL16/ECAVL17	95	17	8	1.5	6.1	6.4	6.6	8.3	2.5	74	4	198	91	0.5	22	27	0.8	18	6	2.1	1.9	3.0	5.6	1.8	1.7	2.3	3.2	
7	ECAVL2/ECAVL16	99	17	6	1.1	5.8	6.8	5.7	8.2	2.7	75	3	201	99	0.5	20	28	0.9	17	7	2.0	2.2	2.8	4.9	1.3	1.6	2.0	3.1	
12	ECAVL16/ECAVL16-STR	96	19	6	1.1	6.2	5.7	5.6	7.8	2.5	75	3	195	90	0.5	14	28	0.9	18	9	2.0	2.4	3.1	4.4	1.6	1.8	2.3	3.2	
2	ECAVL1/ECAVL16	92	19	8	1.3	5.6	6.1	6.1	8.7	1.9	74	3	198	94	0.5	25	29	0.9	15	7	2.0	2.3	2.9	5.3	1.7	2.0	2.4	3.2	
15	ECAVL16/NIP25	89	21	6	1.5	5.8	5.3	4.9	8.1	1.9	73	3	190	85	0.5	23	30	0.8	14	5	2.2	2.5	3.1	4.4	1.3	1.8	2.2	3.3	
28	NIP25-#	81	24	7	0.7	5.1	5.2	4.5	7.1	2.4	74	3	178	71	0.4	19	14	0.9	16	7	2.0	2.0	2.8	4.6	1.4	2.0	2.6	2.9	
24	ECAVL16-#	69	28	4	0.9	4.7	4.4	2.8	5.8	1.5	73	5	192	91	0.5	24	19	0.9	23	6	2.2	2.4	3.3	5.2	1.2	1.4	2.6	3.2	
Maturity group average					1.4	6.1	6.5	6.4	8.8	3.0	74	3	196	89	0.5	21	25	0.9	17	7	2.0	2.1	2.8	4.7	1.9	2.4	2.2	3.1	
Entries with anthesis date between 76 - 77 days																													
29	CML202/CML395/CML312-RE	122	7	6	1.8	6.8	8.2	9.2	8.4	5.2	77	3	214	101	0.5	20	25	0.9	23	7	1.8	1.6	2.2	3.6	2.2	3.6	2.1	3.2	
17	ECAVL16-STR/ECAVL18	111	10	7	1.2	6.6	7.7	6.5	8.1	4.1	77	2	201	99	0.5	21	17	1.0	19	4	1.7	1.8	2.7	5.0	2.2	2.9	2.3	3.3	
23	ECAVL2-#	106	12	7	1.8	6.2	6.3	6.1	9.3	3.0	76	3	202	95	0.5	31	32	1.1	18	7	1.7	2.1	2.4	5.1	1.6	2.5	2.3	3.1	
27	ECAVL18-#	93	19	6	1.6	5.6	6.0	5.9	9.4	3.1	76	3	201	95	0.5	23	32	1.0	14	6	2.0	1.8	2.7	5.3	2.3	2.9	2.4	3.1	
22	ECAVL1-#	85	23	6	1.1	5.5	5.2	8.2	7.3	1.7	76	3	193	87	0.5	19	21	0.9	15	16	1.9	2.2	2.7	3.6	2.1	2.9	2.6	2.9	
25	ECAVL16-STR-#	86	23	5	0.8	5.1	5.9	6.9	8.5	1.7	76	2	189	91	0.5	9	23	0.9	19	5	1.8	2.8	2.7	4.5	1.8	3.3	2.4	3.3	
26	ECAVL17-#	72	27	4	0.2	4.8	4.9	6.2	7.1	2.1	76	4	183	77	0.4	11	17	0.9	22	12	1.7	2.2	3.0	4.9	3.0	3.1	3.0	3.0	
Maturity group average					1.2	5.8	6.3	7.0	8.3	3.0	76	3	198	92	0.5	19	24	0.9	19	8	1.8	2.0	2.6	4.6	2.2	3.0	2.4	3.1	
Mean		100	15	7	1.36	6.02	6.46	6.56	8.66	2.97	74.8	2.9	196.3	90.0	0.49	20.6	24.4	0.91	17.5	7.4	1.9	2.1	2.7	4.7	2.0	2.6	2.3	3.1	
LSD (0.05)		13	6	1	1.17	0.44	0.72	2.20	1.23	1.06	0.6	0.6	5.2	4.5	0.02	7.0	8.1	0.09	3.6	3.4	0.2	0.2	1.3	0.3	0.8	0.2	0.2		
Min		69	5	4	0.16	4.67	4.42	2.80	5.79	1.53	73.3	2.0	178.0	71.0	0.45	9.3	13.5	0.80	11.6	4.1	1.7	1.6	2.2	3.6	1.2	1.4	1.9	2.9	
Max		124	28	10	2.02	7.04	8.21	9.50	10.34	5.23	76.7	4.8	213.6	100.6	0.53	32.5	32.4	1.06	27.0	15.5	2.2	2.6	3.3	7.5	3.0	3.7	3.0	3.3	
NumSignificantSites		19	19	19	1	9	6	1	1	1	16	7	10	10	6	5	4	5	11	3	4	7	8	1	4	5	7	8	



MDR= Managed Drought Stress; OPT= Optimum (well-fertilized/rainfed) management

Table 5A

Entry	Pedigree	Across			Across			Across			Across			Across			Anth	ASI	Plant	Ear	Ear	Lodging		Ears/	GLS	P.sorg	E.turc	Grain	Ear	Plant
		RelGY	Rank	StdDev	GY	GY	GY	GY	GY	GY	GY	GY	GY	GY	GY	Date						Height	Height							
		%	Avg		t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	d	cm	cm	0-1	%	%	#	1-5	1-5	1-5	1-5	1-5	1-5	1-5	1-5		
Entries with anthesis date between 55 - 59 days																														
1	ZIMLINE/KAT BCI - 8/SYNTH2006	118	6	5	1.4	7.4	3.3	3.1	3.7	4.2	59	2	194	75	0.4	22	29	0.9	1.3	2.6	2.7	2.7	2.3	2.7	2.7	2.3	2.7			
2	ZIMLINE/KAT BCI - 10/SYNTH2006	112	8	6	1.6	7.0	3.8	2.8	3.5	3.2	59	4	190	82	0.5	25	32	0.8	1.3	2.6	2.9	3.0	2.5	2.8	2.5	2.8				
7	ZIMLINE/MORO BCI - 24/SYNTH2006	107	9	5	1.4	8.0	3.7	2.6	2.7	3.6	59	4	194	80	0.4	31	29	0.8	1.3	2.4	3.1	3.0	2.5	2.9	2.5	2.9				
5	ZIMLINE/KAT BCI - 25/SYNTH2006	108	9	3	1.3	7.2	3.2	2.9	3.1	4.0	59	3	198	80	0.5	26	38	0.8	1.3	2.4	2.8	4.0	2.5	2.9	3.0	2.4	2.8			
6	ZIMLINE/MORO BCI - 1/SYNTH2006	108	10	5	1.4	7.6	3.9	2.7	2.8	3.6	59	3	188	77	0.4	26	30	0.8	1.4	2.6	3.0	3.0	2.4	2.8	3.0	2.4	2.8			
9	M37/MORO BCI - 5/SYNTH2006	100	13	7	1.4	7.3	3.2	2.8	2.9	2.9	59	4	194	78	0.4	31	32	0.8	1.4	2.0	2.7	3.0	2.6	2.8	2.6	2.8				
10	AMSECA/KAT BCI - 2/SYNTH2006	94	14	7	1.3	7.0	2.8	2.5	3.1	2.9	59	4	192	78	0.4	35	32	0.9	1.3	2.4	2.8	2.0	2.6	3.0	2.6	3.0				
17	M37/MORO BCI - 5-#	92	15	7	1.1	5.6	3.4	2.7	2.4	2.5	59	5	185	66	0.4	35	24	0.8	1.3	2.3	3.0	3.0	2.8	2.8	3.0	2.8	2.8			
21	SYNTH2006	93	16	6	1.3	6.0	2.7	2.6	2.7	2.7	58	4	193	78	0.5	27	33	0.8	1.3	2.2	3.0	3.0	2.5	2.9	3.0	2.5	2.9			
18	AMSECA/KAT BCI - 2-#	86	18	6	0.9	5.8	2.6	2.3	2.9	3.1	59	4	197	86	0.5	42	37	0.8	1.4	2.4	3.0	3.0	2.8	3.0	3.0	2.8	3.0			
23	LOCAL	56	24	1	0.9	4.3	2.4	1.5	1.8	1.2	55	3	181	68	0.4	40	33	0.8	1.3	2.4	3.2	2.0	3.2	3.2	3.2	3.2	3.2			
maturity group average					1.3	6.7	3.2	2.6	2.9	3.1	59	4	191	77	0.4	31	32	0.8	1.3	2.4	2.9	2.9	2.6	2.9	2.6	2.9	2.6	2.9		
Entries with anthesis date between 60 - 63 days																														
3	ZIMLINE/KAT BCI - 13/SYNTH2006	103	11	6	1.2	7.1	2.9	2.9	2.8	3.4	61	4	192	83	0.5	30	39	0.7	1.3	2.5	2.6	3.0	2.4	2.9	2.6	3.0	2.4	2.9		
19	ZIMLINE/MORO BCI - 1-#	101	11	5	1.3	7.2	3.0	2.6	3.1	3.6	60	3	188	76	0.4	25	25	0.9	1.3	2.4	3.1	4.0	2.8	2.7	2.7	2.7	2.7			
11	ZIMLINE/KAT BCI - 8-#	98	12	8	1.4	7.1	2.5	2.9	3.1	3.2	60	3	175	70	0.4	16	30	0.8	1.3	2.3	2.7	3.0	2.7	2.9	2.7	2.9	2.9			
15	ZIMLINE/KAT BCI - 25-#	100	13	6	1.0	6.2	3.2	2.6	3.0	3.3	61	4	186	77	0.4	24	28	0.8	1.7	2.3	2.9	3.0	2.7	2.7	2.7	2.7	2.7			
8	M37/MORO BCI - 1/SYNTH2006	98	14	7	1.9	6.4	3.0	2.4	2.4	3.2	60	3	187	71	0.4	19	33	0.9	1.3	2.4	2.9	3.0	2.5	3.0	2.5	3.0				
13	ZIMLINE/KAT BCI - 13-#	93	14	6	0.6	6.3	3.2	2.6	2.7	3.1	63	5	187	83	0.4	24	35	0.7	1.2	2.2	2.8	3.0	2.6	2.8	2.6	2.8				
12	ZIMLINE/KAT BCI - 10-#	95	14	6	1.2	6.3	3.2	2.6	2.7	3.0	60	4	190	77	0.5	20	31	0.9	1.3	2.6	2.9	3.0	2.8	2.9	2.8	2.9				
4	ZIMLINE/KAT BCI - 15/SYNTH2006	96	15	6	1.2	6.9	3.0	2.5	2.5	3.7	60	4	195	80	0.4	29	31	0.8	1.3	2.7	2.9	3.0	2.8	2.8	2.8	2.8				
14	ZIMLINE/KAT BCI - 15-#	93	16	6	1.2	6.6	3.4	2.3	2.1	3.0	60	4	190	79	0.5	29	25	0.8	1.3	2.5	2.7	2.0	2.9	2.9	2.0	2.9				
16	M37/MORO BCI - 1-#	92	16	5	1.1	6.5	3.0	2.6	2.4	2.7	60	3	176	68	0.4	30	25	0.8	1.4	2.3	3.1	3.0	2.7	2.8	3.0	2.7	2.8			
22	ECA-EE-55	88	17	7	1.5	6.4	2.3	2.4	2.3	3.1	60	2	181	67	0.4	20	22	0.9	1.3	2.5	3.1	4.0	2.7	2.8	4.0	2.7	2.8			
20	ZIMLINE/MORO BCI - 24-#	83	19	6	1.0	7.1	2.8	2.1	2.2	2.8	60	4	185	78	0.4	30	26	0.8	1.3	2.6	3.3	2.0	2.8	2.9	2.0	2.8	2.9			
maturity group average					1.2	6.7	3.0	2.5	2.6	3.2	60	4	186	76	0.4	25	29	0.8	1.3	2.4	2.9	3.0	2.7	2.8	2.7	2.8	2.7	2.8		
Entries with anthesis date between 64 - 65 days																														
24	DUMA43	147	4	6	1.0	9.0	5.2	3.5	4.8	4.9	64	6	202	75	0.4	23	21	0.8	1.0	2.5	2.1	4.0	2.3	2.6	4.0	2.3	2.6			
25	LOCAL	139	8	9	1.0	6.2	5.0	4.1	5.6	4.4	65	3	206	89	0.4	31	12	0.8	1.3	2.2	2.3	4.0	2.3	2.6	4.0	2.3	2.6			
maturity group average					1.0	7.6	5.1	3.8	5.2	4.6	65	4	204	82	0.4	27	16	0.8	1.1	2.3	2.2	4.0	2.3	2.6	4.0	2.3	2.6			
Mean		100	13	6	1.22	6.74	3.24	2.67	2.92	3.26	59.9	3.6	189.8	76.8	0.44	27.6	29.3	0.81	1.3	2.4	2.9	3.0	2.6	2.8	2.6	2.8	2.8			
LSD (0.05)		17	4	1	0.48	0.81	0.89	0.42	0.78	0.70	0.8	1.1	6.6	6.5	0.05	10.0	7.8	0.07	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2			
Min		56	4	1	0.63	4.33	2.33	1.53	1.76	1.19	55.1	2.4	175.5	65.9	0.37	15.9	11.7	0.75	1.0	2.0	2.1	2.0	2.3	2.6	2.3	2.6	2.6			
Max		147	24	9	1.90	8.98	5.22	4.06	5.59	4.87	64.8	5.8	205.9	89.2	0.52	41.8	38.7	0.87	1.7	2.7	3.3	4.0	3.2	3.2	3.2	3.2	3.2			
NumSignificantSites		15	15	15	1	1	3	5	1	4	12	7	8	6	2	6	5	3	2	4	6	1	9	6	6	6	6			

MDR= Managed Drought Stress; OPT= Optimum (well-fertilized/rainfed) management

Table 5B

Entry	Pedigree	DRY MID-ALTITUDE MDR			DRY MID-ALTITUDE OPT			WET LOWER MID-ALTITUDE OPT			WET UPPER MID-ALTITUDE OPT					HIGHLAND OPT			UNCLASSIFIED OPT				Anth			
		Across		Kiboko Ken	Across		Kiboko Ken	Across	Selian Tan	Weruweru Tan	Maseno Ken	Across	Kimaeti Ken	Kakamega Ken	Kakamega Ken	Mosso Bur	Mparambo Bur	Across	Kitale Ken	Across	Patancheru Ind	Rahad Res Sud		Yei Sud	Wad Medani Sud	
		RelGY	Rank	GY	GY	GY	GY	GY	GY	GY	GY	GY	GY	GY	GY	GY	GY	GY	GY	GY	GY	GY		GY	GY	GY
	%	Avg	StdDev	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	d	
Entries with anthesis date between 55 - 59 days																										
1	ZIMLINE/KAT BCI - 8/SYNTH2006	118	6	5	1.4	1.4	7.4	7.4	3.3	3.7	4.4	1.9	3.1	3.0	1.5	2.6	4.6	3.7	3.7	3.7	4.2	7.0	1.6	2.0	6.4	59
2	ZIMLINE/KAT BCI - 10/SYNTH2006	112	8	6	1.6	1.6	7.0	7.0	3.8	4.0	4.5	3.1	2.8	2.1	1.4	2.4	4.7	3.5	3.5	3.5	3.2	3.9	1.8	1.7	5.5	59
7	ZIMLINE/MORO BCI - 24/SYNTH2006	107	9	5	1.4	1.4	8.0	8.0	3.7	3.7	4.3	3.0	2.6	2.5	0.9	2.1	3.5	4.0	2.7	2.7	3.6	4.3	1.9	1.6	6.7	59
5	ZIMLINE/KAT BCI - 25/SYNTH2006	108	9	3	1.3	1.3	7.2	7.2	3.2	3.3	4.1	2.1	2.9	2.9	1.0	2.4	4.6	3.4	3.1	3.1	4.0	7.1	1.8	1.3	5.6	59
6	ZIMLINE/MORO BCI - 1/SYNTH2006	108	10	5	1.4	1.4	7.6	7.6	3.9	3.6	4.1	4.0	2.7	2.6	1.1	2.2	3.9	3.5	2.8	2.8	3.6	3.9	1.5	1.1	7.8	59
9	M37/MORO BCI - 5/SYNTH2006	100	13	7	1.4	1.4	7.3	7.3	3.2	2.7	3.7	3.2	2.8	2.3	1.0	2.3	5.3	3.0	2.9	2.9	2.9	3.4	1.2	1.6	5.2	59
10	AMSECA/KAT BCI - 2/SYNTH2006	94	14	7	1.3	1.3	7.0	7.0	2.8	3.8	3.1	1.7	2.5	2.7	0.7	2.1	3.7	3.2	3.1	3.1	2.9	3.2	2.1	1.0	5.2	59
17	M37/MORO BCI - 5-#	92	15	7	1.1	1.1	5.6	5.6	3.4	3.3	3.6	3.1	2.7	3.0	0.8	1.8	4.3	3.8	2.4	2.4	2.5	3.6	0.7	1.5	4.2	59
21	SYNTH2006	93	16	6	1.3	1.3	6.0	6.0	2.7	2.9	3.3	1.9	2.6	2.8	1.3	2.1	3.5	3.6	2.7	2.7	2.7	2.7	1.4	1.3	5.5	58
18	AMSECA/KAT BCI - 2-#	86	18	6	0.9	0.9	5.8	5.8	2.6	2.9	4.1	0.9	2.3	2.5	0.6	1.9	4.0	2.8	2.9	2.9	3.1	4.2	1.8	1.2	5.2	59
23	LOCAL	56	24	1	0.9	0.9	4.3	4.3	2.4	2.6	3.4	1.2	1.5	1.9	0.3	1.6	1.9	1.9	1.8	1.8	1.2	0.7	0.4	0.7	3.0	55
maturity group average					1.3	1.3	6.7	6.7	3.2	3.3	3.9	2.4	2.6	2.6	1.0	2.1	4.0	3.3	2.9	2.9	3.1	4.0	1.5	1.4	5.5	59
Entries with anthesis date between 60 - 63 days																										
3	ZIMLINE/KAT BCI - 13/SYNTH2006	103	11	6	1.2	1.2	7.1	7.1	2.9	2.8	4.1	1.9	2.9	2.4	1.2	2.5	4.1	4.2	2.8	2.8	3.4	3.4	2.1	1.6	6.5	61
19	ZIMLINE/MORO BCI - 1-#	101	11	5	1.3	1.3	7.2	7.2	3.0	3.1	3.8	2.3	2.6	2.7	0.7	2.1	4.4	3.2	3.1	3.1	3.6	4.4	2.5	1.2	6.3	60
11	ZIMLINE/KAT BCI - 8-#	98	12	8	1.4	1.4	7.1	7.1	2.5	3.0	3.1	1.5	2.9	3.1	1.2	2.3	4.9	3.1	3.1	3.1	3.2	3.3	1.3	1.2	7.1	60
15	ZIMLINE/KAT BCI - 25-#	100	13	6	1.0	1.0	6.2	6.2	3.2	3.6	3.7	2.3	2.6	2.9	1.0	1.9	4.1	3.2	3.0	3.0	3.3	4.8	1.6	1.7	5.1	61
8	M37/MORO BCI - 1/SYNTH2006	98	14	7	1.9	1.9	6.4	6.4	3.0	3.3	3.8	1.9	2.4	1.4	1.3	2.0	4.7	2.8	2.4	2.4	3.2	4.1	1.5	1.4	5.9	60
13	ZIMLINE/KAT BCI - 13-#	93	14	6	0.6	0.6	6.3	6.3	3.2	3.3	4.1	2.0	2.6	1.7	1.0	1.9	4.6	3.8	2.7	2.7	3.1	3.4	1.9	1.2	5.9	63
12	ZIMLINE/KAT BCI - 10-#	95	14	6	1.2	1.2	6.3	6.3	3.2	3.1	3.5	3.0	2.6	2.7	1.2	2.3	3.2	3.6	2.7	2.7	3.0	4.1	1.3	0.9	5.7	60
4	ZIMLINE/KAT BCI - 15/SYNTH2006	96	15	6	1.2	1.2	6.9	6.9	3.0	3.5	3.5	1.9	2.5	2.3	0.8	1.9	4.5	3.1	2.5	2.5	3.7	7.2	1.2	1.2	5.4	60
14	ZIMLINE/KAT BCI - 15-#	93	16	6	1.2	1.2	6.6	6.6	3.4	2.9	3.9	3.5	2.3	2.5	0.7	1.9	3.3	3.1	2.1	2.1	3.0	3.5	1.3	1.7	5.6	60
16	M37/MORO BCI - 1-#	92	16	5	1.1	1.1	6.5	6.5	3.0	3.1	3.8	2.2	2.6	3.0	0.6	2.0	4.4	3.2	2.4	2.4	2.7	3.1	1.5	1.4	4.9	60
22	ECA-EE-55	88	17	7	1.5	1.5	6.4	6.4	2.3	2.4	3.6	1.0	2.4	2.0	0.7	2.1	3.5	3.7	2.3	2.3	3.1	3.1	1.7	1.1	6.4	60
20	ZIMLINE/MORO BCI - 24-#	83	19	6	1.0	1.0	7.1	7.1	2.8	2.8	3.5	2.2	2.1	1.5	0.5	1.8	4.1	2.4	2.2	2.2	2.8	3.3	2.0	1.0	5.1	60
maturity group average					1.2	1.2	6.7	6.7	3.0	3.1	3.7	2.1	2.5	2.3	0.9	2.1	4.1	3.3	2.6	2.6	3.2	4.0	1.7	1.3	5.8	60
Entries with anthesis date between 64 - 65 days																										
24	DUMA43	147	4	6	1.0	1.0	9.0	9.0	5.2	4.1	5.8	5.7	3.5	4.2	1.9	3.7	4.2	3.7	4.8	4.8	4.9	6.6	2.1	2.0	8.8	64
25	LOCAL	139	8	9	1.0	1.0	6.2	6.2	5.0	3.3	6.3	5.5	4.1	2.3	1.6	4.5	6.9	5.1	5.6	5.6	4.4	6.9	1.9	0.9	7.9	65
maturity group average					1.0	1.0	7.6	7.6	5.1	3.7	6.0	5.6	3.8	3.2	1.8	4.1	5.5	4.4	5.2	5.2	4.6	6.8	2.0	1.5	8.3	65
Mean		100	13	6	1.22	1.22	6.74	6.74	3.24	3.22	3.96	2.52	2.67	2.51	1.00	2.26	4.19	3.38	2.92	2.92	3.26	4.20	1.60	1.34	5.87	59.9
LSD (0.05)		17	4	1	0.48	0.48	0.81	0.81	0.89	0.94	1.43	2.11	0.42	0.97	0.49	0.51	1.38	1.07	0.78	0.78	0.70	1.82	0.87	0.49	1.92	0.8
Min		56	4	1	0.63	0.63	4.33	4.33	2.33	2.39	3.06	0.86	1.53	1.40	0.32	1.62	1.87	1.93	1.76	1.76	1.19	0.70	0.40	0.68	2.96	55.1
Max		147	24	9	1.90	1.90	8.98	8.98	5.22	4.13	6.28	5.72	4.06	4.21	1.94	4.46	6.87	5.14	5.59	5.59	4.87	7.16	2.50	2.03	8.76	64.8
NumSignificantSites		15	15	15	1	1	1	1	3	1	1	1	5	1	1	1	1	1	1	1	4	1	1	1	1	12



MDR= Managed Drought Stress; OPT= Optimum (well-ferterlized/rainfed) management

TABLE 6B

Entry	Pedigree	DRY MID-ALTITUDE MDR			DRY MID-ALTITUDE OPT		WET LOWER MID-ALTITUDE OPT		WET UPPER MID-ALTITUDE OPT			HIGHLAND OPT		UNCLASSIFIED OPT		Anth				
		Across	Kiboko Ken	Across	Across	Melkasa Eth	Across	Kagio Ken	Across	Kimaeti Ken	Mosso Bur	Mparambo Bur	Kakamega Ken	Across	Kitale Ken		Across	Wad Medani Sud		
		RelGY	Rank	StdDev	GY	GY	GY	GY	GY	GY	GY	GY	GY	GY	GY	GY	GY	GY	Date	
		%	Avg		t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	d	
Entries with anthesis date between 55 - 62 days																				
19	EEQPMOPV-1-EA-###	113	11	5	2.7	2.7	3.5	3.5	1.7	1.7	2.9	2.8	3.7	4.2	1.0	2.2	2.2	2.3	2.3	61
6	EEQPMOPV--13EA-B-B-###	107	13	8	2.5	2.5	3.5	3.5	1.2	1.2	2.8	2.8	3.6	3.8	1.1	1.9	1.9	2.5	2.5	61
23	EEQPM-8-EA-###	110	17	12	2.4	2.4	3.5	3.5	1.9	1.9	2.5	2.1	3.5	3.0	1.3	2.9	2.9	1.7	1.7	62
1	EEQPMOPV-1-EA-B-B-###	101	18	11	2.4	2.4	3.4	3.4	0.9	0.9	2.5	1.9	3.4	3.6	1.0	2.4	2.4	2.4	2.4	61
24	EEQPM-13-EA-###	99	19	10	2.1	2.1	3.1	3.1	1.7	1.7	2.4	2.4	3.6	2.9	0.8	1.9	1.9	2.5	2.5	61
32	EEQPM-49-EA-###	101	20	11	2.8	2.8	3.4	3.4	1.6	1.6	2.6	3.4	3.3	3.1	0.6	1.5	1.5	2.0	2.0	63
34	EEQPM-33-EA-###	92	23	9	1.4	1.4	3.6	3.6	1.6	1.6	2.5	2.3	3.5	3.5	0.6	2.2	2.2	1.7	1.7	63
30	EEQPM-38-EA-###	89	25	10	2.2	2.2	3.0	3.0	0.9	0.9	2.4	1.8	3.5	3.2	1.0	1.3	1.3	2.3	2.3	62
20	EEQPM-HT-###	87	27	11	2.5	2.5	2.7	2.7	1.1	1.1	2.1	1.7	2.4	3.5	0.8	1.4	1.4	2.4	2.4	63
38	KATUMANI	74	29	10	2.1	2.1	1.2	1.2	1.2	1.2	2.0	2.1	2.5	2.2	1.1	1.5	1.5	0.7	0.7	55
Maturity group average					2.3	2.3	3.1	3.1	1.4	1.4	2.5	2.3	3.3	3.3	0.9	1.9	1.9	2.1	2.1	61
Entries with anthesis date between 63 - 65 days																				
18	EEQPMOPV--GEASP-1-B-B-###	106	14	10	1.9	1.9	3.9	3.9	2.1	2.1	2.9	2.5	4.1	3.8	1.0	1.2	1.2	2.4	2.4	64
8	EEQPMOPV--18-EA-B-B-###	107	14	10	1.4	1.4	4.1	4.1	2.0	2.0	2.9	2.2	4.2	3.8	1.2	2.0	2.0	2.0	2.0	65
25	EEQPM-16-EA-###	108	14	11	1.8	1.8	2.9	2.9	1.7	1.7	3.0	2.4	4.4	4.3	0.9	2.6	2.6	2.3	2.3	63
14	EEQPMOPV--49-EA-B-B-###	108	15	9	1.7	1.7	4.3	4.3	2.1	2.1	2.7	2.3	3.5	4.1	1.0	2.2	2.2	2.0	2.0	64
33	EEQPM-21-EA-###	107	16	12	1.8	1.8	4.6	4.6	1.4	1.4	3.1	2.5	4.2	4.1	1.4	1.4	1.4	1.8	1.8	63
15	EEQPMOPV--21-EA-B-B-###	102	16	12	2.7	2.7	4.2	4.2	0.8	0.8	2.9	2.7	4.1	3.7	1.0	1.3	1.3	2.3	2.3	64
16	EEQPMOPV--33-EA-B-B-###	108	17	12	2.3	2.3	3.4	3.4	2.1	2.1	2.5	3.0	3.3	2.9	0.9	2.4	2.4	2.2	2.2	63
11	EEQPMOPV--36-EA-B-B-###	105	17	12	1.9	1.9	2.9	2.9	1.0	1.0	3.3	3.5	4.0	4.5	1.2	1.7	1.7	2.1	2.1	65
26	EEQPM-18-EA-###	105	17	11	2.5	2.5	3.7	3.7	1.6	1.6	2.4	2.9	3.4	2.3	1.1	2.3	2.3	1.9	1.9	64
13	EEQPMOPV--45-EA-B-B-###	106	18	13	1.3	1.3	3.0	3.0	1.3	1.3	3.1	2.3	3.9	4.6	1.5	2.4	2.4	2.0	2.0	64
31	EEQPM-45-EA-###	103	18	9	2.5	2.5	3.3	3.3	1.8	1.8	2.7	1.9	4.4	3.6	0.9	1.6	1.6	2.2	2.2	63
22	EEQPM-9-EA-###	106	19	11	2.7	2.7	3.4	3.4	1.7	1.7	2.4	1.8	3.4	2.9	1.3	2.3	2.3	2.0	2.0	63

MDR= Managed Drought Stress; OPT= Optimum (well-ferterlized/rainfed) management

TABLE 6B

Entry	Pedigree	Across			DRY MID-ALTITUDE MDR		DRY MID-ALTITUDE OPT		WET LOWER MID-ALTITUDE OPT		WET UPPER MID-ALTITUDE OPT			HIGHLAND OPT		UNCLASSIFIED OPT		Anth		
		RelGY	Rank	StdDev	GY	GY	GY	GY	GY	GY	GY	GY	GY	GY	GY	GY	GY	GY	Date	
		%	Avg	StdDev	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	d	
7	EEQPMOPV--16-EA-B-B-###	100	20	9	1.8	1.8	4.0	4.0	1.7	1.7	2.3	2.5	3.0	3.0	0.8	2.2	2.2	2.2	2.2	63
2	EEQPMOPV--HT-B-B-###	93	20	12	1.3	1.3	3.2	3.2	0.6	0.6	2.7	2.7	3.7	3.7	0.8	2.3	2.3	2.4	2.4	63
5	EEQPMOPV-8-EA-B-B-###	102	21	13	2.9	2.9	2.3	2.3	1.6	1.6	2.4	2.2	3.3	2.8	1.1	2.4	2.4	1.9	1.9	63
4	EEQPMOPV--9-EA-B-B-###	102	21	12	3.0	3.0	2.7	2.7	1.2	1.2	2.4	2.0	3.4	3.2	0.8	1.7	1.7	3.5	3.5	64
29	EEQPM-36-EA-###	99	22	11	2.0	2.0	3.2	3.2	1.4	1.4	2.7	2.4	3.0	3.8	1.5	1.4	1.4	1.8	1.8	64
17	EEQPMOPV--42-EA-B-B-###	96	22	12	1.8	1.8	4.3	4.3	1.1	1.1	2.7	1.8	4.5	3.6	0.9	1.7	1.7	1.8	1.8	64
28	EEQPM-34-EA-###	93	22	8	1.8	1.8	4.1	4.1	1.5	1.5	2.5	2.3	3.5	3.4	0.6	1.5	1.5	1.9	1.9	63
10	EEQPMOPV--34-EA-B-B-###	100	22	13	3.3	3.3	2.9	2.9	1.3	1.3	2.3	2.2	2.9	3.0	1.0	1.4	1.4	2.7	2.7	63
21	EEQPM-6-EA-###	90	23	9	1.7	1.7	3.9	3.9	1.4	1.4	2.4	2.1	3.4	3.6	0.4	1.4	1.4	2.4	2.4	64
27	EEQPM-29-EA-###	92	23	12	1.2	1.2	4.6	4.6	1.6	1.6	2.4	2.6	3.3	3.1	0.8	1.7	1.7	1.5	1.5	65
35	EEQPM-42-EA-###	92	24	9	1.9	1.9	4.0	4.0	1.5	1.5	2.3	2.1	3.5	2.7	0.8	1.2	1.2	2.2	2.2	63
3	EEQPMOPV--6-EA-B-B-###	89	26	9	1.6	1.6	3.3	3.3	2.0	2.0	2.4	2.0	3.3	3.6	0.7	1.4	1.4	1.4	1.4	64
12	EEQPMOPV--38-EA-B-B-###	85	26	12	1.7	1.7	4.4	4.4	1.4	1.4	2.1	2.0	2.7	3.0	0.5	0.9	0.9	2.4	2.4	65
36	EEQPM2-#-GEASP - 1-###	88	27	10	2.1	2.1	2.9	2.9	1.8	1.8	2.1	1.5	3.1	3.2	0.7	1.3	1.3	2.2	2.2	63
Maturity group average					2.0	2.0	3.6	3.6	1.5	1.5	2.6	2.3	3.6	3.5	1.0	1.8	1.8	2.1	2.1	64
Entries with anthesis date between 66 - 68 days																				
39	DH01	170	9	15	1.4	1.4	5.3	5.3	2.0	2.0	4.4	1.8	6.6	6.2	2.9	5.6	5.6	3.0	3.0	68
37	POOL15QC7-SRC1-F2-###	87	25	10	1.0	1.0	3.7	3.7	1.3	1.3	2.5	2.2	3.2	3.9	0.6	1.9	1.9	1.9	1.9	66
9	EEQPMOPV--29-EA-B-B-###	80	27	13	0.8	0.8	3.9	3.9	2.0	2.0	2.0	2.2	2.1	3.3	0.3	1.2	1.2	2.0	2.0	66
Maturity group average					1.1	1.1	4.3	4.3	1.7	1.7	2.9	2.1	4.0	4.5	1.3	2.9	2.9	2.3	2.3	67
Mean		100	20	11	2.02	2.02	3.52	3.52	1.48	1.48	2.59	2.32	3.56	3.50	0.98	1.89	1.89	2.13	2.13	63.3
LSD (0.05)		15	5	2	0.98	0.98	1.01	1.01	0.79	0.79	0.48	0.77	1.24	1.14	0.64	0.79	0.79	0.71	0.71	0.8
Min		74	9	5	0.84	0.84	1.25	1.25	0.60	0.60	1.97	1.46	2.14	2.17	0.33	0.90	0.90	0.73	0.73	55.4
Max		170	29	15	3.33	3.33	5.34	5.34	2.05	2.05	4.39	3.47	6.56	6.24	2.93	5.57	5.57	3.50	3.50	68.4
NumSignificantSites		9	9	9	1	1	1	1	1	1	4	1	1	1	1	1	1	1	1	10



OPT= Optimum (well-fertilized/rainfed) management; STRIGA = artificial striga infestation

TABLE 7A

Entry	Pedigree	Across			WET LOWER MID-ALTIMITUDE RANDOM DROUGHT	WET LOWER MID-ALTIMITUDE OPT	WET LOWER MID-ALTIMITUDE STRIGA	WET UPPER MID-ALTIMITUDE OPT	DRY MID-ALTIMITUDE OPT	DRY LOWLAND OPT	DRY LOWLAND STRIGA	Pawe Eth	Anth Date	ASI	Plant Height	Ear Height	Ear Position	Lodging Root	Husk Cover	E.turc 1-5	Ear Aspect 1-5	Plant Aspect 1-5
		RelGY %	Rank Avg	StdDev	GY t/ha	GY t/ha	GY t/ha	GY t/ha	GY t/ha	GY t/ha	GY t/ha	GY t/ha										
Entries with anthesis date between 69 - 72 days																						
4	CML390-IR/CML373-IR/CML445-IR	117	9	6	1.1	2.4	4.2	5.9	6.2	4.9	4.3	4.3	71	1	225	93	0.6	25	28	2.2	2.4	2.5
8	INTA/INTB-B-121-B-19-1/CML395-IR/CML202-IR	115	10	7	0.6	1.9	3.9	5.8	6.2	5.7	6.7	6.7	70	6	224	85	0.5	13	0	2.7	2.4	2.7
12	INTA/INTB-B-161-B-3-1/CML390-IR/CML373-IR	130	10	6	0.9	4.6	4.9	3.8	5.5	5.9	5.1	5.1	70	1	237	86	0.5	2	3	2.9	2.2	1.8
25	LOCAL	78	16	9	0.5	1.2	4.1	1.6	7.6	4.2	3.8	3.8	72	4	237	93	0.5	8	33	2.1	2.3	2.8
Maturity group average					0.8	2.5	4.3	4.3	6.4	5.2	5.0	5.0	71	3	231	89	0.5	12	16	2.5	2.3	2.4
Entries with anthesis date between 73 - 75 days																						
7	INTA/INTB-B-132-B-5-1/CML395-IR/CML202-IR	140	4	3	1.5	2.4	5.9	5.4	7.3	5.6	6.3	6.3	75	4	233	99	0.5	4	15	1.9	2.1	2.1
17	INTA/INTB-B-116-B-2-1/CML395-IR/CML202-IR	129	5	3	1.7	1.6	5.7	5.1	6.6	6.0	4.7	4.7	74	2	242	120	0.5	4	11	2.5	2.3	2.2
9	INTA/INTB-B-110-B-6-1/CML395-IR/CML202-IR	117	8	6	0.7	2.1	4.3	5.7	6.4	6.6	5.2	5.2	74	3	217	86	0.5	4	3	3.1	2.3	2.0
1	INTA/INTB-B-41-B-1-1/CML395-IR/CML202-IR	106	10	8	0.8	1.2	5.0	5.8	6.7	4.2	5.5	5.5	75	-1	237	104	0.5	4	0	2.4	2.2	2.5
18	CML390-IR/CML373-IR/CML445-IR	110	11	5	1.7	1.5	4.4	4.8	5.6	5.2	2.9	2.9	74	3	242	94	0.5	4	10	2.7	2.5	1.8
22	WH502 (Striga Tolerant)	100	12	9	0.9	0.8	5.4	4.2	1.7	8.6	3.6	3.6	75	5	240	110	0.6	11	29	2.4	2.6	2.1
16	CML390-IR/CML373-IR/CML444-IR/CML445-IR	108	12	5	0.7	3.1	4.0	5.6	6.1	5.0	3.0	3.0	73	3	229	92	0.5	13	22	2.6	2.4	1.8
2	CML312-IR/CML390-IR/CML373-IR	110	13	9	1.3	3.7	3.9	5.3	4.5	5.0	2.3	2.3	74	3	230	104	0.5	4	3	2.5	2.1	2.1
6	INTA/INTB-B-215-B-5-1/CML395-IR/CML202-IR	99	13	6	1.2	1.0	3.8	4.3	6.1	6.1	3.3	3.3	74	4	238	100	0.5	14	0	2.4	2.5	1.6
13	CML390-IR/CML373-IR/CML444-IR	97	13	8	1.2	1.1	5.4	4.1	6.1	2.4	2.4	2.4	75	2	235	88	0.5	24	5	2.8	3.0	2.3
10	CML390-IR/CML373-IR/CML395-IR	90	14	5	0.8	1.5	4.7	3.2	6.3	3.5	2.9	2.9	75	2	219	96	0.5	13	11	2.5	2.8	2.2
15	CML390-IR/CML373-IR/CML395-IR/CML445-IR	92	15	3	0.8	1.1	4.3	4.6	6.1	4.7	2.8	2.8	73	3	226	91	0.5	15	5	2.6	2.3	1.9
14	CML312-IR/CML390-IR/CML395-IR/CML445-IR	94	15	5	0.6	1.5	4.3	4.1	5.6	4.4	3.6	3.6	74	2	241	88	0.6	17	20	2.4	2.3	2.8
23	WH403	80	16	7	0.6	1.4	4.1	2.7	1.6	6.4	3.0	3.0	74	2	228	105	0.5	4	6	2.5	2.3	2.6
24	UA KAYONGO	64	21	5	0.6	0.9	2.5	3.4	2.0	2.5	4.1	4.1	75	3	237	94	0.5	2	5	2.5	3.0	2.0
Maturity group average					1.0	1.7	4.5	4.6	5.2	5.1	3.7	3.7	74	3	233	98	0.5	9	10	2.5	2.4	2.1
Entries with anthesis date between 76 - 78 days																						
5	INTA/INTB-B-52-B-8-1/CML395-IR/CML202-IR	115	10	6	1.0	2.4	4.2	4.4	4.6	6.0	6.0	6.0	76	2	231	101	0.6	6	7	2.9	2.3	2.0
19	CML312-IR/CML395-IR/CML202-IR/CML204-IR	93	14	5	0.8	1.0	4.9	4.4	5.7	5.3	2.6	2.6	76	4	224	94	0.6	7	3	2.7	2.8	2.0
11	CML395-IR/CML202-IR/CML444-IR	84	17	5	0.5	1.4	4.1	4.4	5.9	5.0	1.2	1.2	77	1	232	113	0.5	21	5	2.7	3.0	2.4
3	CML202-IR/CML204-IR/CML444-IR	81	18	7	0.7	1.0	3.5	3.4	7.1	4.6	1.8	1.8	78	4	226	112	0.5	19	0	2.7	2.8	2.1
20	CML373-IR/CML445-IR/CML202-IR/CML204-IR	78	19	5	0.8	0.6	3.5	4.3	5.9	3.9	2.3	2.3	76	5	231	98	0.4	5	5	1.9	2.9	1.7
Maturity group average					0.8	1.3	4.1	4.2	5.8	4.9	2.8	2.8	77	3	229	104	0.5	12	4	2.5	2.8	2.0
Entries with anthesis date between 79 - 80 days																						
21	SYNTH2006-IR-#-#/CML202-IR/CML204-IR	72	21	6	0.5	2.0	2.6	3.2	5.6	3.0	1.9	1.9	80	3	238	102	0.6	10	6	2.5	3.0	2.8
Maturity group average					0.5	2.0	2.6	3.2	5.6	3.0	1.9	1.9	80	3	238	102	0.6	10	6	2.5	3.0	2.8
Mean		100	13	6	0.90	1.74	4.29	4.38	5.53	4.98	3.64	3.64	74.4	2.9	231.8	97.9	0.52	10.1	9.3	2.5	2.5	2.2
LSD (0.05)		19	4	2	0.52	1.29	1.46	1.84	2.46	1.71	1.55	1.55	1.7	2.0	0.7	15.9	0.03	9.9	15.3	0.4	0.4	0.6
Min		64	4	3	0.50	0.62	2.48	1.64	1.55	2.35	1.24	1.24	69.9	-0.6	217.0	84.5	0.44	1.9	0.0	1.9	2.1	1.6
Max		140	21	9	1.69	4.58	5.94	5.91	7.55	8.61	6.70	6.70	79.6	5.6	242.0	120.3	0.58	25.0	32.5	3.1	3.0	2.8
NumSignificantSites		8	8	8	1	1	2	1	1	1	1	1	4	1	2	1	2	1	1	2	5	2

OPT= Optimum (well-fertilized/rainfed) management; STRIGA = artificial striga infestation

TABLE 7B

Entry	Pedigree	Across			WET LOWER MID-ALTITUDE RANDOM DROUGHT		WET LOWER MID-ALTITUDE OPT		WET LOWER MID-ALTITUDE STRIGA			WET UPPER MID-ALTITUDE OPT		DRY MID-ALTITUDE OPT		DRY LOWLAND OPT		DRY LOWLAND STRIGA		Anth Date
		RelGY	Rank	StdDev	Across	Kagio Ken	Across	Busia Ken	Across	Busia Uga	Bugiri Uga	Across	Bumula Ken	Across	Nebo Sou	Across	Pawe Eth	Across	Pawe Eth	
					%	Avg	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	t/ha	
Entries with anthesis date between 69 - 72 days																				
4	CML390-IR/CML373-IR/CML445-IR	117	9	6	1.1	1.1	2.4	2.4	4.2	2.9	5.5	5.9	5.9	6.2	6.2	4.9	4.9	4.3	4.3	71
8	INTA/INTB-B-121-B-19-1/CML395-IR/CML202-IR	115	10	7	0.6	0.6	1.9	1.9	3.9	2.5	5.4	5.8	5.8	6.2	6.2	5.7	5.7	6.7	6.7	70
12	INTA/INTB-B-161-B-3-1/CML390-IR/CML373-IR	130	10	6	0.9	0.9	4.6	4.6	4.9	2.6	7.2	3.8	3.8	5.5	5.5	5.9	5.9	5.1	5.1	70
25	LOCAL	78	16	9	0.5	0.5	1.2	1.2	4.1	0.3	7.8	1.6	1.6	7.6	7.6	4.2	4.2	3.8	3.8	72
Maturity group average					0.8	0.8	2.5	2.5	4.3	2.1	6.5	4.3	4.3	6.4	6.4	5.2	5.2	5.0	5.0	71
Entries with anthesis date between 73 - 75 days																				
7	INTA/INTB-B-132-B-5-1/CML395-IR/CML202-IR	140	4	3	1.5	1.5	2.4	2.4	5.9	2.9	9.0	5.4	5.4	7.3	7.3	5.6	5.6	6.3	6.3	75
17	INTA/INTB-B-116-B-2-1/CML395-IR/CML202-IR	129	5	3	1.7	1.7	1.6	1.6	5.7	3.0	8.3	5.1	5.1	6.6	6.6	6.0	6.0	4.7	4.7	74
9	INTA/INTB-B-110-B-6-1/CML395-IR/CML202-IR	117	8	6	0.7	0.7	2.1	2.1	4.3	2.7	5.9	5.7	5.7	6.4	6.4	6.6	6.6	5.2	5.2	74
1	INTA/INTB-B-41-B-1-1/CML395-IR/CML202-IR	106	10	8	0.8	0.8	1.2	1.2	5.0	1.5	8.5	5.8	5.8	6.7	6.7	4.2	4.2	5.5	5.5	75
18	CML390-IR/CML373-IR/CML445-IR	110	11	5	1.7	1.7	1.5	1.5	4.4	2.4	6.4	4.8	4.8	5.6	5.6	5.2	5.2	2.9	2.9	74
22	WH502 (Striga Tolerant)	100	12	9	0.9	0.9	0.8	0.8	5.4	3.2	7.7	4.2	4.2	1.7	1.7	8.6	8.6	3.6	3.6	75
16	CML390-IR/CML373-IR/CML444-IR/CML445-IR	108	12	5	0.7	0.7	3.1	3.1	4.0	2.0	5.9	5.6	5.6	6.1	6.1	5.0	5.0	3.0	3.0	73
2	CML312-IR/CML390-IR/CML373-IR	110	13	9	1.3	1.3	3.7	3.7	3.9	1.2	6.6	5.3	5.3	4.5	4.5	5.0	5.0	2.3	2.3	74
6	INTA/INTB-B-215-B-5-1/CML395-IR/CML202-IR	99	13	6	1.2	1.2	1.0	1.0	3.8	2.2	5.3	4.3	4.3	6.1	6.1	6.1	6.1	3.3	3.3	74
13	CML390-IR/CML373-IR/CML444-IR	97	13	8	1.2	1.2	1.1	1.1	5.4	3.1	7.7	4.1	4.1	6.1	6.1	2.4	2.4	2.4	2.4	75
10	CML390-IR/CML373-IR/CML395-IR	90	14	5	0.8	0.8	1.5	1.5	4.7	2.2	7.2	3.2	3.2	6.3	6.3	3.5	3.5	2.9	2.9	75
15	CML390-IR/CML373-IR/CML395-IR/CML445-IR	92	15	3	0.8	0.8	1.1	1.1	4.3	2.2	6.4	4.6	4.6	6.1	6.1	4.7	4.7	2.8	2.8	73
14	CML312-IR/CML390-IR/CML395-IR/CML445-IR	94	15	5	0.6	0.6	1.5	1.5	4.3	2.7	5.9	4.1	4.1	5.6	5.6	4.4	4.4	3.6	3.6	74
23	WH403	80	16	7	0.6	0.6	1.4	1.4	4.1	2.1	6.0	2.7	2.7	1.6	1.6	6.4	6.4	3.0	3.0	74
24	UA KAYONGO	64	21	5	0.6	0.6	0.9	0.9	2.5	1.5	3.4	3.4	3.4	2.0	2.0	2.5	2.5	4.1	4.1	75
Maturity group average					1.0	1.0	1.7	1.7	4.5	2.3	6.7	4.6	4.6	5.2	5.2	5.1	5.1	3.7	3.7	74
Entries with anthesis date between 76 - 78 days																				
5	INTA/INTB-B-52-B-8-1/CML395-IR/CML202-IR	115	10	6	1.0	1.0	2.4	2.4	4.2	2.3	6.2	4.4	4.4	4.6	4.6	6.0	6.0	6.0	6.0	76
19	CML312-IR/CML395-IR/CML202-IR/CML204-IR	93	14	5	0.8	0.8	1.0	1.0	4.9	2.2	7.7	4.4	4.4	5.7	5.7	5.3	5.3	2.6	2.6	76
11	CML395-IR/CML202-IR/CML444-IR	84	17	5	0.5	0.5	1.4	1.4	4.1	2.2	6.0	4.4	4.4	5.9	5.9	5.0	5.0	1.2	1.2	77
3	CML202-IR/CML204-IR/CML444-IR	81	18	7	0.7	0.7	1.0	1.0	3.5	1.9	5.1	3.4	3.4	7.1	7.1	4.6	4.6	1.8	1.8	78
20	CML373-IR/CML445-IR/CML202-IR/CML204-IR	78	19	5	0.8	0.8	0.6	0.6	3.5	1.5	5.6	4.3	4.3	5.9	5.9	3.9	3.9	2.3	2.3	76
Maturity group average					0.8	0.8	1.3	1.3	4.1	2.0	6.1	4.2	4.2	5.8	5.8	4.9	4.9	2.8	2.8	77
Entries with anthesis date between 79 - 80 days																				
21	SYNTH2006-IR-#/CML202-IR/CML204-IR	72	21	6	0.5	0.5	2.0	2.0	2.6	1.4	3.9	3.2	3.2	5.6	5.6	3.0	3.0	1.9	1.9	80
Maturity group average					0.5	0.5	2.0	2.0	2.6	1.4	3.9	3.2	3.2	5.6	5.6	3.0	3.0	1.9	1.9	80
Mean		100	13	6	0.90	0.90	1.74	1.74	4.29	2.18	6.41	4.38	4.38	5.53	5.53	4.98	4.98	3.64	3.64	74.4
LSD (0.05)		19	4	2	0.52	0.52	1.29	1.34	1.46	1.16	2.69	1.84	1.84	2.46	2.46	1.71	1.71	1.55	1.55	1.7
Min		64	4	3	0.50	0.50	0.62	0.62	2.48	0.32	3.41	1.64	1.64	1.55	1.55	2.35	2.35	1.24	1.24	69.9
Max		140	21	9	1.69	1.69	4.58	4.58	5.94	3.16	8.96	5.91	5.91	7.55	7.55	8.61	8.61	6.70	6.70	79.6
NumSignificantSites		8	8	8	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	4

## 5. Individual Site Results (Agronomic traits)

ECA-ILHT08

Agronomic traits of 46 intermediate to late maturing three way cross hybrids tested at 24 sites in Eastern and Central Africa, 2008.

TABLE 1C

Entry	Pedigree	Across			Afsf-Arusha, Tanzania LN					Bako, Ethiopia LN			Elgon Downs, Kenya		Embu, Kenya		
		RelGY	Rank	StdDev	Anth Date	Anth Date	E.turc	Ear Aspect	GLS	Husk Cover	Anth Date	E.turc	Ear Aspect	Anth Date	Anth Date	ASI	Ear Aspect
		%	Avg		d	d	1-5	1-5	1-5	%	d	1-5	1-5	d	d	d	1-5
<b>Entries with anthesis date between 73 - 75 days</b>																	
10	INTA/INTB-B-11-B-8-1-B//CML202/CML395	119	14	8	74	87	2.5	2.0	1.0	8	82	2.8	2.3	84	79	2	2.5
47	WH403	128	17	15	75	86	2.3	2.0	1.0	16	85	1.8	2.3	85	81	2	2.8
9	INTA/INTB-B-102-B-6-1-B//CML202/CML395	107	23	13	75	91	2.4	2.0	1.0	12	84	2.5	2.3	84	80	1	2.5
34	INTA/INTB-B-11-B-8-1-B//CML442/CML444	102	27	15	73	85	3.3	2.0	1.0	10	81	2.5	2.8	84	78	1	3.0
15	INTA/INTB-B-194-B-2-1-B//CML202/CML395	99	27	13	75	88	3.5	2.0	1.3	15	85	2.5	2.6	85	79	4	2.3
52	LOCAL CHECK	103	27	19	75	84	2.1	2.0	1.0	14	88	2.0	2.8	85	80	1	2.3
3	CKL05005-B-B//CML202/CML395	95	29	11	75	84	2.7	1.8	1.5	9	87	2.0	2.9	84	81	3	2.8
20	INTA/INTB-B-9-B-1-1-B//CML202/CML395	91	33	13	74	87	3.1	2.3	1.5	10	86	2.8	2.5	84	80	3	2.5
49	H513	90	33	12	75	93	3.0	2.0	1.3	10	85	2.5	2.3	85	80	3	3.0
37	INTA/INTB-B-154-B-3-1-B//CML442/CML444	78	36	15	75	87	3.4	2.0	1.0	11	85	2.3	3.0	85	80	2	3.0
46	INTA/INTB-B-9-B-1-1-B//CML442/CML444	83	37	14	75	91	3.6	2.3	1.0	23	87	3.0	2.5	85	83	1	2.8
12	INTA/INTB-B-154-B-3-1-B//CML202/CML395	71	42	13	75	91	3.4	2.0	1.0	17	86	2.3	2.6	86	79	6	2.8
<b>Maturity group average</b>					<b>75</b>	<b>87.6</b>	<b>2.9</b>	<b>2.0</b>	<b>1.1</b>	<b>12.8</b>	<b>85.1</b>	<b>2.4</b>	<b>2.6</b>	<b>84.4</b>	<b>79.9</b>	<b>2.1</b>	<b>2.7</b>
<b>Entries with anthesis date between 76 - 78 days</b>																	
42	INTA/INTB-B-45-B-2-1-B//CML442/CML444	130	9	6	76	90	3.4	2.0	1.3	8	87	2.5	2.8	85	82	-1	2.5
29	CKL05017-B-B//CML442/CML444	137	11	14	78	88	2.1	2.0	1.3	11	88	1.8	2.6	87	84	1	2.3
7	CKL05019-B-B//CML202/CML395	123	13	10	77	91	2.1	2.3	1.0	13	90	2.0	2.4	87	83	1	2.3
16	INTA/INTB-B-41-B-1-1-B//CML202/CML395	119	16	11	76	91	2.4	2.0	1.3	9	81	2.3	2.8	85	84	1	2.3
33	INTA/INTB-B-116-B-12-1-B//CML442/CML444	113	17	13	77	85	2.3	2.0	1.3	9	90	2.5	3.0	87	84	1	2.8
13	INTA/INTB-B-160-B-2-1-B//CML202/CML395	114	19	12	77	91	2.5	2.3	1.5	8	89	2.8	2.4	86	84	7	2.5
11	INTA/INTB-B-132-B-7-1-B//CML202/CML395	113	19	13	76	91	2.7	2.0	1.3	13	82	2.5	2.6	84	79	5	2.5
28	CKL05015-B-B//CML442/CML444	116	21	16	78	88	2.1	2.0	1.5	9	90	2.3	2.6	90	85	3	2.5
19	INTA/INTB-B-86-B-6-1-B//CML202/CML395	102	23	14	78	83	2.3	2.0	1.3	12	91	2.5	2.6	88	85	2	2.0
25	CKL05006-B-B//CML442/CML444	105	24	13	76	87	2.6	2.0	1.0	9	86	2.3	2.9	85	80	1	2.5
36	INTA/INTB-B-132-B-10-1-B//CML442/CML444	102	25	13	78	91	2.7	2.3	1.0	10	87	2.8	2.6	87	86	1	2.5
32	INTA/INTB-B-110-B-6-1-B//CML442/CML444	103	25	15	77	90	3.3	2.3	1.0	9	86	2.3	2.9	86	83	1	2.3
30	CKL05018-B-B//CML442/CML444	105	25	15	78	87	2.0	2.0	1.0	10	89	2.3	3.2	88	85	1	2.0
40	INTA/INTB-B-215-B-5-1-B//CML442/CML444	99	26	15	76	87	2.9	2.3	1.0	13	85	2.8	2.4	87	83	3	2.5
24	CKL05005-B-B//CML442/CML444	98	26	10	77	88	2.7	2.5	1.3	11	85	2.3	2.3	86	82	2	3.8

TABLE 1C

Entry	Pedigree	Across			Afsf-Arushu, Tanzania LN					Bako, Ethiopia LN			Elgon Downs, Kenya		Embu, Kenya		
		RelGY	Rank	StdDev	Anth	Anth	E.turc	Ear	GLS	Husk	Anth	E.turc	Ear	Anth	Anth	ASI	Ear
					Date	Date	Aspect	Cover	Date	Aspect	Date	Date	Aspect				
		%	Avg		d	d	1-5	1-5	1-5	%	d	1-5	1-5	d	d	d	1-5
27	CKL05010-B-B//CML442/CML444	97	27	12	78	90	2.7	2.0	1.0	15	89	2.0	2.5	86	86	1	2.5
41	INTA/INTB-B-33-B-11-1-B//CML442/CML444	99	27	17	77	85	2.3	2.0	1.0	8	86	2.3	2.9	88	85	0	2.8
38	INTA/INTB-B-160-B-4-1-B//CML442/CML444	99	28	13	78	87	2.8	2.0	1.0	8	90	3.0	2.1	87	85	2	2.8
4	CKL05006-B-B//CML202/CML395	97	28	11	77	86	2.9	2.0	1.5	8	87	2.5	2.8	85	84	3	2.8
18	INTA/INTB-B-52-B-1-1-B//CML202/CML395	93	28	12	77	91	3.5	2.5	1.0	18	89	2.0	2.2	86	83	1	2.5
14	INTA/INTB-B-161-B-8-1-B//CML202/CML395	95	29	10	76	87	2.3	2.0	1.5	9	87	2.3	2.9	85	82	4	2.5
44	INTA/INTB-B-55-B-2-1-B//CML442/CML444	97	29	11	76	85	2.3	2.5	1.3	10	84	2.5	3.1	86	82	-1	3.3
17	INTA/INTB-B-235-B-4-1-B//CML202/CML395	91	30	13	76	90	2.3	2.3	1.0	10	85	2.8	3.2	86	82	5	2.3
43	INTA/INTB-B-52-B-1-1-B//CML442/CML444	92	31	13	77	96	2.7	2.3	1.3	8	87	2.8	2.8	86	84	0	2.8
50	KSH516	90	32	14	76	91	1.8	2.0	1.0	16	84	2.0	2.9	85	84	2	2.3
39	INTA/INTB-B-194-B-2-1-B//CML442/CML444	83	35	11	77	87	3.3	2.8	1.5	11	88	2.5	2.6	86	83	2	2.5
5	CKL05009-B-B//CML202/CML395	80	40	13	78	93	2.6	2.0	1.0	13	86	2.5	2.5	91	82	5	2.8
Maturity group average					77	88.4	2.6	2.1	1.2	10.6	87.0	2.4	2.7	86.2	83.3	1.8	2.5
Entries with anthesis date between 79 - 83 days																	
31	CKL05022-B-B//CML442/CML444	132	12	8	80	94	2.3	1.8	1.0	12	89	2.3	2.8	88	87	-1	1.8
22	CKL05003-B-B//CML442/CML444	124	14	8	80	87	1.7	2.0	1.5	10	92	1.8	3.0	92	86	3	2.5
23	CKL05004-B-B//CML442/CML444	113	17	11	80	95	2.7	2.0	1.0	11	91	2.3	2.8	89	88	2	2.0
48	WH505	111	21	14	79	90	2.9	2.0	1.0	12	86	2.5	4.1	88	85	1	2.8
6	CKL05014-B-B//CML202/CML395	102	25	14	80	95	2.6	2.0	1.0	14	92	2.5	2.4	91	89	3	2.0
35	INTA/INTB-B-128-B-18-1-B//CML442/CML444	90	30	12	79	90	2.3	2.3	1.0	12	89	2.5	2.7	88	85	1	2.0
8	CKL05023-B-B//CML202/CML395	94	30	15	79	89	2.0	2.0	1.0	12	89	2.0	2.5	89	87	5	2.5
45	INTA/INTB-B-86-B-6-1-B//CML442/CML444	97	31	18	80	96	3.0	2.0	1.0	9	92	2.3	3.2	87	84	2	2.5
26	CKL05014-B-B//CML442/CML444	89	32	14	80	90	2.4	2.0	1.0	8	90	2.5	2.9	91	88	1	2.3
51	KSH520	93	32	14	79	91	1.9	2.0	1.3	14	90	1.8	3.2	89	84	2	1.0
21	CKL05002-B-B//CML442/CML444	90	32	12	80	89	2.9	1.8	1.3	20	91	2.3	2.2	91	90	2	2.8
1	CKL05003-B-B//CML202/CML395	60	46	7	83	95	2.5	2.0	1.0	15	91	2.5	2.9	92	94	2	3.3
2	CKL05010-B-B//CML202/CML395	47	51	2	81	94	2.6	2.3	1.0	31	92	2.5	2.4	94	91	5	3.8
Maturity group average					80	91.7	2.4	2.0	1.1	13.8	90.3	2.3	2.8	89.5	87.6	1.9	2.4
Mean		100.0	26.5	12.5	77.2	89.1	2.6	2.1	1.1	11.9	87.3	2.4	2.7	86.6	83.6	1.9	2.5
LSD (0.05)		17	9	3	4.4	2.3	0.9	0.4	0.4	8.9	3.9	0.6	0.6	3.1	2.7	2.9	0.8
Min		47	9	2	73.4	83.0	1.7	1.8	1.0	7.5	80.6	1.8	2.1	83.5	77.9	-1.0	1.0
Max		137	50.8	19.3	82.5	95.5	3.6	2.8	1.5	30.7	92.1	3.0	4.1	93.5	94.0	7.0	3.8
NumSignificantSites		12	12	12		1	1	1	1	1	1	1	1	1	1	1	1

TABLE 1C

Entry	Pedigree	Kagio, Kenya			Kakamega, Kenya		Kakamega, Kenya			Kakamega, Kenya			Kakamega, Kenya		Kiboko, Kenya MDR			
		Across		E.turc	Ear	Ear	Anth	GLS	Husk	E.turc	Anth	ASI	E.turc	Ear	E.turc	Anth	ASI	
		RelGY	Rank	StdDev	Aspect	Aspect	Date	Aspect	Cover	Aspect	Date	Aspect	Aspect	Date	Aspect	Date	Date	
	%	Avg		1-5	1-5	1-5	d	1-5	%	1-5	d	d	1-5	1-5	1-5	d	d	
<b>Entries with anthesis date between 73 - 75 days</b>																		
10	INTA/INTB-B-11-B-8-1-B//CML202/CML395	119	14	8	1.8	1.7	2.5	80	2.0	15	2.7	76	1	3.0	2.5	2.5	69	5
47	WH403	128	17	15	2.1	2.9	2.0	80	1.8	60	2.8	77	1	2.8	2.0	2.5	72	9
9	INTA/INTB-B-102-B-6-1-B//CML202/CML395	107	23	13	2.2	3.0	2.3	78	2.0	13	3.4	76	1	3.0	2.5	2.3	70	0
34	INTA/INTB-B-11-B-8-1-B//CML442/CML444	102	27	15	1.4	1.4	2.5	78	1.5	13	3.9	75	-1	2.5	2.8	2.8	68	5
15	INTA/INTB-B-194-B-2-1-B//CML202/CML395	99	27	13	2.2	3.1	2.5	80	1.5	22	3.8	77	2	3.0	2.5	2.3	71	6
52	LOCAL CHECK	103	27	19	2.8	2.5	2.8	78	2.3	32	3.1	76	3	2.8	2.8	1.5	73	7
3	CKL05005-B-B//CML202/CML395	95	29	11	2.6	1.8	2.8	80	1.8	25	3.0	77	1	3.0	2.3	2.3	70	5
20	INTA/INTB-B-9-B-1-1-B//CML202/CML395	91	33	13	2.2	2.6	3.3	78	1.5	16	3.4	73	3	3.0	2.5	2.8	69	5
49	H513	90	33	12	3.1	3.9	2.8	78	1.8	26	3.7	76	2	2.8	2.5	2.8	71	5
37	INTA/INTB-B-154-B-3-1-B//CML442/CML444	78	36	15	2.4	2.6	3.0	80	1.5	.	4.8	76	1	2.5	2.3	3.0	71	9
46	INTA/INTB-B-9-B-1-1-B//CML442/CML444	83	37	14	2.5	3.1	3.0	80	1.5	7	4.1	74	1	2.5	2.3	3.0	70	3
12	INTA/INTB-B-154-B-3-1-B//CML202/CML395	71	42	13	2.7	3.0	3.0	78	2.0	24	3.3	75	2	3.5	2.5	2.5	72	11
<b>Maturity group average</b>					<b>2.3</b>	<b>2.6</b>	<b>2.7</b>	<b>78.8</b>	<b>1.8</b>	<b>23.0</b>	<b>3.5</b>	<b>75.6</b>	<b>1.3</b>	<b>2.9</b>	<b>2.4</b>	<b>2.5</b>	<b>70.7</b>	<b>5.7</b>
<b>Entries with anthesis date between 76 - 78 days</b>																		
42	INTA/INTB-B-45-B-2-1-B//CML442/CML444	130	9	6	2.5	2.5	2.8	80	2.0	8	4.0	77	-2	2.5	1.5	2.5	70	3
29	CKL05017-B-B//CML442/CML444	137	11	14	1.1	1.8	2.5	81	1.5	32	2.3	79	-2	2.3	2.3	1.5	73	1
7	CKL05019-B-B//CML202/CML395	123	13	10	2.2	2.9	2.3	80	1.0	29	3.0	77	1	2.8	1.3	2.5	72	6
16	INTA/INTB-B-41-B-1-1-B//CML202/CML395	119	16	11	2.6	2.7	2.5	80	1.3	50	3.1	77	1	3.0	2.3	2.3	71	8
33	INTA/INTB-B-116-B-12-1-B//CML442/CML444	113	17	13	2.3	3.3	2.3	81	2.0	21	3.9	78	-1	2.0	2.5	2.3	73	7
13	INTA/INTB-B-160-B-2-1-B//CML202/CML395	114	19	12	2.5	3.1	2.3	81	1.8	20	3.7	78	2	3.0	2.5	2.5	72	5
11	INTA/INTB-B-132-B-7-1-B//CML202/CML395	113	19	13	3.4	3.3	2.3	78	1.8	72	2.3	76	0	2.8	2.0	1.8	72	7
28	CKL05015-B-B//CML442/CML444	116	21	16	1.8	3.4	2.5	83	1.5	21	2.8	79	0	2.0	2.5	2.0	74	4
19	INTA/INTB-B-86-B-6-1-B//CML202/CML395	102	23	14	2.1	1.5	2.8	81	2.3	32	3.6	79	2	2.8	1.8	2.8	75	7
25	CKL05006-B-B//CML442/CML444	105	24	13	2.3	2.5	2.5	78	1.5	41	3.5	78	1	2.3	2.8	2.5	72	10
36	INTA/INTB-B-132-B-10-1-B//CML442/CML444	102	25	13	2.4	2.4	2.5	81	1.8	18	4.3	78	-1	2.8	1.8	2.3	73	5
32	INTA/INTB-B-110-B-6-1-B//CML442/CML444	103	25	15	2.4	1.8	2.0	81	1.8	26	4.3	77	-1	2.5	2.5	2.8	73	4
30	CKL05018-B-B//CML442/CML444	105	25	15	1.7	2.2	2.3	83	1.5	29	2.0	80	-1	2.8	2.8	1.5	75	3
40	INTA/INTB-B-215-B-5-1-B//CML442/CML444	99	26	15	2.5	2.8	2.8	80	1.5	20	4.3	77	2	2.5	2.0	2.8	72	3
24	CKL05005-B-B//CML442/CML444	98	26	10	2.5	2.8	2.3	81	1.8	34	3.2	77	-2	2.5	2.5	2.5	71	9

TABLE 1C

Entry	Pedigree	Kagio, Kenya			Kakamega, Kenya			Kakamega, Kenya			Kakamega, Kenya			Kakamega, Kenya			Kiboko, Kenya MDR		
		Across		E.turc	Ear	Ear	Anth	GLS	Husk	E.turc	Anth	ASI	E.turc	Ear	E.turc	Anth	ASI		
		RelGY	Rank		Aspect	Aspect	Date		Cover		Date		Aspect		Date				
		%	Avg	StdDev	1-5	1-5	1-5	d	1-5	%	1-5	d	d	1-5	1-5	1-5	d	d	
27	CKL05010-B-B//CML442/CML444	97	27	12	1.0	1.6	2.5	83	1.5	31	3.2	79	0	2.8	2.5	2.0	74	7	
41	INTA/INTB-B-33-B-11-1-B//CML442/CML444	99	27	17	2.2	3.4	3.0	81	1.5	38	3.7	80	0	2.0	2.8	2.8	74	7	
38	INTA/INTB-B-160-B-4-1-B//CML442/CML444	99	28	13	2.2	2.1	2.5	86	1.8	.	4.4	79	0	3.0	1.8	3.0	73	5	
4	CKL05006-B-B//CML202/CML395	97	28	11	1.6	1.4	2.5	80	1.5	41	3.2	77	1	2.8	2.3	2.3	71	7	
18	INTA/INTB-B-52-B-1-1-B//CML202/CML395	93	28	12	2.2	2.5	2.5	80	2.3	43	3.0	78	1	2.8	2.3	2.5	73	6	
14	INTA/INTB-B-161-B-8-1-B//CML202/CML395	95	29	10	1.6	2.2	3.0	80	1.8	6	3.1	77	0	3.0	2.8	2.3	72	8	
44	INTA/INTB-B-55-B-2-1-B//CML442/CML444	97	29	11	1.9	1.4	3.3	80	2.0	34	3.7	75	1	2.3	2.5	2.8	72	2	
17	INTA/INTB-B-235-B-4-1-B//CML202/CML395	91	30	13	3.4	3.3	3.0	80	2.0	75	3.4	76	3	3.0	2.8	2.8	71	12	
43	INTA/INTB-B-52-B-1-1-B//CML442/CML444	92	31	13	1.5	3.1	2.8	81	2.0	7	3.8	78	-1	2.5	2.3	2.8	74	4	
50	KSH516	90	32	14	3.7	3.6	2.5	80	1.8	26	3.3	78	1	2.5	3.0	2.0	72	9	
39	INTA/INTB-B-194-B-2-1-B//CML442/CML444	83	35	11	1.8	1.9	3.0	80	1.5	18	4.2	79	1	2.5	2.5	3.0	74	8	
5	CKL05009-B-B//CML202/CML395	80	40	13	3.0	3.9	2.5	81	1.8	19	3.1	78	1	2.0	2.3	2.5	75	12	
Maturity group average					<b>2.2</b>	<b>2.6</b>	<b>2.6</b>	<b>80.5</b>	<b>1.7</b>	<b>30.3</b>	<b>3.4</b>	<b>77.8</b>	<b>0.2</b>	<b>2.6</b>	<b>2.3</b>	<b>2.4</b>	<b>72.6</b>	<b>6.3</b>	
Entries with anthesis date between 79 - 83 days																			
31	CKL05022-B-B//CML442/CML444	132	12	8	1.6	1.3	2.3	81	1.5	37	2.5	80	-2	2.5	1.8	1.5	76	5	
22	CKL05003-B-B//CML442/CML444	124	14	8	1.9	2.1	2.0	83	1.5	28	3.1	81	1	2.0	1.3	1.5	76	3	
23	CKL05004-B-B//CML442/CML444	113	17	11	2.7	2.4	2.8	84	1.8	29	3.6	80	1	2.3	1.3	2.0	76	7	
48	WH505	111	21	14	2.4	2.7	2.8	80	1.5	30	3.1	80	1	2.5	2.3	2.5	75	11	
6	CKL05014-B-B//CML202/CML395	102	25	14	2.6	3.6	2.3	81	1.5	26	3.2	79	0	2.5	2.3	2.8	74	10	
35	INTA/INTB-B-128-B-18-1-B//CML442/CML444	90	30	12	2.0	3.4	2.5	81	1.8	15	3.9	79	-1	2.5	2.8	2.5	74	6	
8	CKL05023-B-B//CML202/CML395	94	30	15	1.9	3.2	2.5	83	2.0	26	2.9	80	0	2.5	2.5	1.8	76	12	
45	INTA/INTB-B-86-B-6-1-B//CML442/CML444	97	31	18	2.1	2.6	3.0	93	1.8	.	4.2	82	1	2.3	1.8	2.5	75	3	
26	CKL05014-B-B//CML442/CML444	89	32	14	3.1	3.7	2.8	81	1.5	24	3.9	80	-1	2.5	2.5	2.3	82	.	
51	KSH520	93	32	14	2.4	3.8	2.5	80	1.5	23	2.8	80	2	2.5	2.8	2.0	76	12	
21	CKL05002-B-B//CML442/CML444	90	32	12	2.4	2.2	2.3	81	1.5	9	4.1	79	1	2.8	2.8	2.8	75	4	
1	CKL05003-B-B//CML202/CML395	60	46	7	3.4	4.4	2.8	84	1.8	30	2.7	81	2	2.5	3.0	2.0	80	10	
2	CKL05010-B-B//CML202/CML395	47	51	2	3.1	4.5	2.8	86	1.5	22	2.8	81	1	2.8	3.8	2.5	77	13	
Maturity group average					<b>2.4</b>	<b>3.1</b>	<b>2.5</b>	<b>82.7</b>	<b>1.6</b>	<b>24.9</b>	<b>3.3</b>	<b>80.1</b>	<b>0.3</b>	<b>2.5</b>	<b>2.3</b>	<b>2.2</b>	<b>76.2</b>	<b>7.9</b>	
Mean		<b>100.0</b>	<b>26.5</b>	<b>12.5</b>	<b>2.3</b>	<b>2.7</b>	<b>2.6</b>	<b>80.7</b>	<b>1.7</b>	<b>27.3</b>	<b>3.4</b>	<b>77.9</b>	<b>0.5</b>	<b>2.6</b>	<b>2.3</b>	<b>2.4</b>	<b>73.1</b>	<b>6.5</b>	
LSD (0.05)		17	9	3	<b>0.9</b>	<b>1.3</b>	<b>0.7</b>	<b>3.9</b>	<b>0.4</b>	<b>25.8</b>	<b>0.3</b>	<b>1.4</b>	<b>1.6</b>	<b>0.5</b>	<b>0.8</b>	<b>0.6</b>	<b>2.5</b>	<b>4.7</b>	
Min		47	9	2	<b>1.0</b>	<b>1.3</b>	<b>2.0</b>	<b>78.0</b>	<b>1.0</b>	<b>5.8</b>	<b>2.0</b>	<b>73.4</b>	<b>-1.5</b>	<b>2.0</b>	<b>1.3</b>	<b>1.5</b>	<b>68.2</b>	<b>0.0</b>	
Max		137	<b>50.8</b>	<b>19.3</b>	<b>3.7</b>	<b>4.5</b>	<b>3.3</b>	<b>92.5</b>	<b>2.3</b>	<b>74.7</b>	<b>4.8</b>	<b>81.7</b>	<b>3.0</b>	<b>3.5</b>	<b>3.8</b>	<b>3.0</b>	<b>81.6</b>	<b>13.3</b>	
NumSignificantSites		12	12	12	1	1	1	1	1	1	1	1	1	1	1	1	1	1	

Entry	Pedigree	Kibos, Kenya									Kimaeti, Kenya		Maseno, Kenya	Mosso, Burundi			Husk Cover
		Across			Anth	ASI	E.turc	Ear	GLS	Anth	Ear	Anth	Anth	E.turc	Ear	GLS	
		RelGY	Rank	StdDev	Date	d	d	1-5	1-5	1-5	d	1-5	d	d	1-5	1-5	
<b>Entries with anthesis date between 73 - 75 days</b>																	
10	INTA/INTB-B-11-B-8-1-B//CML202/CML395	119	14	8	70	4	2.2	2.6	1.8	67	1.3	73	68	1.9	2.5	2.3	1
47	WH403	128	17	15	72	4	2.0	2.6	2.2	71	1.1	73	70	1.8	2.5	2.0	17
9	INTA/INTB-B-102-B-6-1-B//CML202/CML395	107	23	13	69	3	2.1	3.2	2.3	69	1.5	77	68	2.9	2.8	2.8	19
34	INTA/INTB-B-11-B-8-1-B//CML442/CML444	102	27	15	68	2	3.0	3.2	1.7	69	1.3	73	67	2.6	3.3	2.3	14
15	INTA/INTB-B-194-B-2-1-B//CML202/CML395	99	27	13	71	5	2.2	3.5	1.7	68	1.9	75	71	2.4	2.0	2.0	11
52	LOCAL CHECK	103	27	19	74	4	3.0	3.9	1.7	70	1.5	77	68	2.3	3.3	2.0	24
3	CKL05005-B-B//CML202/CML395	95	29	11	71	4	2.0	3.3	2.0	70	1.4	77	69	2.2	2.5	2.0	18
20	INTA/INTB-B-9-B-1-1-B//CML202/CML395	91	33	13	70	4	2.5	3.9	2.0	68	2.2	74	67	3.2	2.3	2.0	6
49	H513	90	33	12	72	4	2.5	3.9	2.0	69	1.7	73	68	2.8	3.0	2.8	24
37	INTA/INTB-B-154-B-3-1-B//CML442/CML444	78	36	15	71	5	3.3	4.0	2.0	68	2.2	73	67	3.0	3.0	2.3	6
46	INTA/INTB-B-9-B-1-1-B//CML442/CML444	83	37	14	72	3	3.0	3.7	1.8	70	2.0	73	68	4.2	2.8	1.5	8
12	INTA/INTB-B-154-B-3-1-B//CML202/CML395	71	42	13	71	6	2.3	4.2	1.5	70	2.0	76	68	2.4	3.3	2.0	21
<b>Maturity group average</b>					<b>71.0</b>	<b>3.9</b>	<b>2.5</b>	<b>3.5</b>	<b>1.9</b>	<b>69.1</b>	<b>1.7</b>	<b>74.3</b>	<b>68.1</b>	<b>2.6</b>	<b>2.8</b>	<b>2.1</b>	<b>14.2</b>
<b>Entries with anthesis date between 76 - 78 days</b>																	
42	INTA/INTB-B-45-B-2-1-B//CML442/CML444	130	9	6	71	2	3.0	2.9	1.7	70	1.5	73	68	2.9	3.0	3.0	10
29	CKL05017-B-B//CML442/CML444	137	11	14	73	2	1.8	2.6	1.0	71	1.7	78	71	1.8	2.5	1.0	18
7	CKL05019-B-B//CML202/CML395	123	13	10	72	4	2.0	3.1	1.5	69	1.6	75	68	2.1	2.0	2.3	3
16	INTA/INTB-B-41-B-1-1-B//CML202/CML395	119	16	11	72	2	2.0	2.7	2.0	69	1.1	74	69	2.0	2.0	2.0	15
33	INTA/INTB-B-116-B-12-1-B//CML442/CML444	113	17	13	74	1	2.5	3.3	1.7	71	2.0	75	71	2.6	3.3	2.0	12
13	INTA/INTB-B-160-B-2-1-B//CML202/CML395	114	19	12	75	3	2.0	3.2	1.5	69	1.6	77	72	3.1	2.3	2.0	13
11	INTA/INTB-B-132-B-7-1-B//CML202/CML395	113	19	13	72	3	2.0	3.3	1.7	69	1.7	74	70	1.9	2.3	2.0	16
28	CKL05015-B-B//CML442/CML444	116	21	16	74	1	2.0	2.8	1.5	70	1.6	75	72	1.9	2.8	2.0	3
19	INTA/INTB-B-86-B-6-1-B//CML202/CML395	102	23	14	74	3	2.5	3.3	2.0	72	1.4	77	71	2.5	2.8	2.5	6
25	CKL05006-B-B//CML442/CML444	105	24	13	75	2	2.3	2.7	1.5	70	1.8	74	68	2.6	2.5	2.3	8
36	INTA/INTB-B-132-B-10-1-B//CML442/CML444	102	25	13	72	0	2.5	2.6	1.8	70	2.0	74	70	2.9	3.0	2.8	7
32	INTA/INTB-B-110-B-6-1-B//CML442/CML444	103	25	15	72	2	2.5	3.4	2.2	69	2.0	77	72	3.4	3.5	2.3	12
30	CKL05018-B-B//CML442/CML444	105	25	15	74	3	2.0	3.1	1.5	70	1.8	77	71	1.4	1.8	2.0	25
40	INTA/INTB-B-215-B-5-1-B//CML442/CML444	99	26	15	71	2	2.8	3.2	2.0	69	2.2	75	69	3.3	3.0	2.0	11
24	CKL05005-B-B//CML442/CML444	98	26	10	72	2	2.0	3.0	2.0	71	1.4	76	68	2.1	2.5	2.3	10

TABLE 1C

Entry	Pedigree	Kibos, Kenya								Kimaeti, Kenya		Maseno, Kenya	Mosso, Burundi				
		Across			Anth	ASI	E.turc	Ear	GLS	Anth	Ear	Anth	Anth	E.turc	Ear	GLS	Husk
		RelGY	Rank	StdDev	Date	d	d	1-5	1-5	1-5	d	1-5	d	d	1-5	1-5	1-5
27	CKL05010-B-B//CML442/CML444	97	27	12	73	3	2.5	3.1	1.5	72	1.5	76	72	1.9	2.8	1.0	16
41	INTA/INTB-B-33-B-11-1-B//CML442/CML444	99	27	17	76	1	2.5	3.1	1.5	71	2.1	77	72	3.0	4.0	2.8	27
38	INTA/INTB-B-160-B-4-1-B//CML442/CML444	99	28	13	75	2	2.8	3.6	2.0	70	2.1	78	71	3.1	3.3	2.0	17
4	CKL05006-B-B//CML202/CML395	97	28	11	74	3	2.0	3.5	1.8	70	1.6	76	68	2.1	2.0	2.0	17
18	INTA/INTB-B-52-B-1-1-B//CML202/CML395	93	28	12	74	6	2.3	3.5	1.5	70	2.1	76	71	2.4	2.8	2.8	7
14	INTA/INTB-B-161-B-8-1-B//CML202/CML395	95	29	10	72	3	2.5	3.3	1.7	69	1.7	75	69	2.0	2.5	1.5	3
44	INTA/INTB-B-55-B-2-1-B//CML442/CML444	97	29	11	71	2	2.8	3.9	1.8	68	2.0	74	69	3.9	2.8	2.3	12
17	INTA/INTB-B-235-B-4-1-B//CML202/CML395	91	30	13	69	6	2.0	3.8	1.5	69	2.0	76	69	3.1	2.8	1.5	35
43	INTA/INTB-B-52-B-1-1-B//CML442/CML444	92	31	13	73	2	2.7	3.0	1.8	69	2.0	75	70	2.6	2.5	2.3	5
50	KSH516	90	32	14	75	6	2.0	4.1	1.5	70	1.7	75	70	1.8	3.0	2.3	23
39	INTA/INTB-B-194-B-2-1-B//CML442/CML444	83	35	11	73	3	3.0	3.2	2.0	68	2.0	77	70	3.9	3.0	1.0	2
5	CKL05009-B-B//CML202/CML395	80	40	13	72	2	2.0	3.8	1.5	69	1.7	80	70	1.9	2.3	2.3	17
Maturity group average					<b>72.9</b>	<b>2.6</b>	<b>2.3</b>	<b>3.2</b>	<b>1.7</b>	<b>69.8</b>	<b>1.8</b>	<b>75.7</b>	<b>69.8</b>	<b>2.5</b>	<b>2.7</b>	<b>2.1</b>	<b>13.1</b>
Entries with anthesis date between 79 - 83 days																	
31	CKL05022-B-B//CML442/CML444	132	12	8	74	1	2.0	2.2	1.5	71	1.6	79	73	1.6	2.3	1.5	26
22	CKL05003-B-B//CML442/CML444	124	14	8	74	1	2.0	2.6	1.5	69	1.1	79	72	1.8	2.0	2.0	8
23	CKL05004-B-B//CML442/CML444	113	17	11	74	1	2.3	2.6	1.8	70	1.8	80	72	2.3	2.3	2.5	7
48	WH505	111	21	14	75	1	2.3	1.7	1.5	72	1.8	77	71	2.1	2.3	2.0	7
6	CKL05014-B-B//CML202/CML395	102	25	14	74	2	2.0	3.3	1.3	73	1.1	77	73	1.9	2.3	1.0	11
35	INTA/INTB-B-128-B-18-1-B//CML442/CML444	90	30	12	76	2	2.7	3.1	1.5	71	2.1	77	73	3.6	2.8	1.5	4
8	CKL05023-B-B//CML202/CML395	94	30	15	76	3	2.0	3.1	1.0	71	1.6	78	74	1.7	2.3	2.0	13
45	INTA/INTB-B-86-B-6-1-B//CML442/CML444	97	31	18	79	2	2.5	4.2	1.8	70	1.4	77	70	4.0	3.5	2.8	5
26	CKL05014-B-B//CML442/CML444	89	32	14	75	2	2.2	3.2	1.5	71	1.6	76	73	2.8	2.5	1.5	16
51	KSH520	93	32	14	78	3	2.3	2.9	1.5	71	1.7	80	70	2.1	2.8	1.5	18
21	CKL05002-B-B//CML442/CML444	90	32	12	74	3	2.7	3.3	1.8	71	1.9	77	71	2.6	3.3	1.0	16
1	CKL05003-B-B//CML202/CML395	60	46	7	78	5	1.7	4.6	1.5	74	1.7	81	74	1.9	2.0	2.3	11
2	CKL05010-B-B//CML202/CML395	47	51	2	76	5	1.7	3.9	1.5	72	2.0	79	74	1.8	2.8	1.5	22
Maturity group average					<b>75.7</b>	<b>2.6</b>	<b>2.2</b>	<b>3.1</b>	<b>1.5</b>	<b>71.2</b>	<b>1.6</b>	<b>78.0</b>	<b>72.0</b>	<b>2.3</b>	<b>2.5</b>	<b>1.8</b>	<b>12.6</b>
Mean		<b>100.0</b>	<b>26.5</b>	<b>12.5</b>	<b>73.2</b>	<b>2.9</b>	<b>2.3</b>	<b>3.3</b>	<b>1.7</b>	<b>70.0</b>	<b>1.7</b>	<b>75.9</b>	<b>70.0</b>	<b>2.5</b>	<b>2.7</b>	<b>2.0</b>	<b>13.2</b>
LSD (0.05)		17	9	3	2.7	2.6	0.4	0.7	0.4	2.2	0.5	3.3	2.7	0.7	1.0	0.9	11.7
Min		47	9	2	68.2	0.4	1.7	1.7	1.0	67.5	1.1	72.5	67.0	1.4	1.8	1.0	1.3
Max		137	50.8	19.3	79.5	6.2	3.3	4.6	2.3	73.9	2.2	81.0	73.5	4.2	4.0	3.0	35.3
NumSignificantSites		12	12	12	1	1	1	1	1	1	1	1	1	1	1	1	1



TABLE 1C

Entry	Pedigree	Mparambu, Burundi			Patancheru, India			Selian, Tanzania			Siaya, Kenya		Wad Medani, Sudan			
		Across	Anth	ASI	E.turc	Ear	GLS	Anth	Anth	Ear	Husk	Ear	Anth	Ear		
		RelGY	Rank	Date	Aspect	Aspect	1-5	1-5	1-5	1-5	1-5	1-5	1-5	1-5		
		%	Avg	StdDev	d	d	1-5	1-5	1-5	d	d	1-5	%	1-5	d	1-5
<b>Entries with anthesis date between 73 - 75 days</b>																
10	INTA/INTB-B-11-B-8-1-B//CML202/CML395	119	14	8	58	2	2.3	3.0	2.0	66	94	1.9	11	2.6	59	2.5
47	WH403	128	17	15	59	2	2.3	2.8	2.0	69	95	1.5	17	1.9	59	1.5
9	INTA/INTB-B-102-B-6-1-B//CML202/CML395	107	23	13	58	4	2.0	3.3	2.3	69	95	2.0	11	2.7	58	2.3
34	INTA/INTB-B-11-B-8-1-B//CML442/CML444	102	27	15	57	4	3.3	3.8	2.5	67	96	2.0	9	2.0	59	2.8
15	INTA/INTB-B-194-B-2-1-B//CML202/CML395	99	27	13	57	5	2.5	3.0	2.3	72	92	1.7	12	1.9	60	3.0
52	LOCAL CHECK	103	27	19	58	3	2.8	3.3	2.0	65	100	1.9	11	2.1	58	2.8
3	CKL05005-B-B//CML202/CML395	95	29	11	59	4	2.0	2.5	2.0	70	94	1.6	12	2.0	59	2.3
20	INTA/INTB-B-9-B-1-1-B//CML202/CML395	91	33	13	57	5	3.3	3.0	2.3	66	94	1.7	13	2.1	59	2.8
49	H513	90	33	12	59	4	3.0	3.5	2.3	69	91	2.0	15	2.5	61	2.3
37	INTA/INTB-B-154-B-3-1-B//CML442/CML444	78	36	15	60	3	3.5	4.3	2.3	70	95	2.3	16	1.8	62	2.0
46	INTA/INTB-B-9-B-1-1-B//CML442/CML444	83	37	14	58	4	3.5	3.3	2.5	69	93	2.2	11	2.1	60	3.3
12	INTA/INTB-B-154-B-3-1-B//CML202/CML395	71	42	13	57	5	3.3	3.0	2.5	68	94	2.3	14	2.0	59	1.8
<b>Maturity group average</b>					<b>57.8</b>	<b>3.5</b>	<b>2.8</b>	<b>3.2</b>	<b>2.2</b>	<b>68.1</b>	<b>94.3</b>	<b>1.9</b>	<b>12.5</b>	<b>2.1</b>	<b>59.1</b>	<b>2.4</b>
<b>Entries with anthesis date between 76 - 78 days</b>																
42	INTA/INTB-B-45-B-2-1-B//CML442/CML444	130	9	6	57	4	3.5	3.8	2.5	70	97	2.1	8	2.0	61	1.8
29	CKL05017-B-B//CML442/CML444	137	11	14	61	4	2.0	3.0	2.0	72	97	1.4	18	2.1	61	2.5
7	CKL05019-B-B//CML202/CML395	123	13	10	59	4	2.0	2.3	2.0	69	105	1.3	15	1.9	61	2.0
16	INTA/INTB-B-41-B-1-1-B//CML202/CML395	119	16	11	59	3	2.0	3.0	1.5	70	103	1.4	10	3.0	61	3.5
33	INTA/INTB-B-116-B-12-1-B//CML442/CML444	113	17	13	60	3	3.5	4.0	2.3	72	93	2.1	12	2.0	63	3.0
13	INTA/INTB-B-160-B-2-1-B//CML202/CML395	114	19	12	62	3	2.8	2.8	2.5	70	96	1.6	12	2.0	62	2.3
11	INTA/INTB-B-132-B-7-1-B//CML202/CML395	113	19	13	61	3	2.5	3.0	2.3	70	97	1.7	13	2.0	61	2.8
28	CKL05015-B-B//CML442/CML444	116	21	16	59	4	2.0	3.8	2.0	71	96	2.2	16	2.1	61	1.8
19	INTA/INTB-B-86-B-6-1-B//CML202/CML395	102	23	14	62	3	2.8	3.0	2.5	71	105	1.6	9	1.6	64	2.5
25	CKL05006-B-B//CML442/CML444	105	24	13	59	3	2.8	3.0	2.0	68	98	1.9	12	1.9	63	1.8
36	INTA/INTB-B-132-B-10-1-B//CML442/CML444	102	25	13	60	2	3.5	4.0	2.3	71	105	2.1	11	2.4	62	3.0
32	INTA/INTB-B-110-B-6-1-B//CML442/CML444	103	25	15	60	3	3.5	3.5	2.0	69	94	2.2	12	2.9	62	3.3
30	CKL05018-B-B//CML442/CML444	105	25	15	62	3	2.0	3.3	2.0	72	109	2.2	13	1.7	60	2.5
40	INTA/INTB-B-215-B-5-1-B//CML442/CML444	99	26	15	59	3	3.3	4.0	3.0	71	96	2.5	11	2.0	61	3.5
24	CKL05005-B-B//CML442/CML444	98	26	10	60	3	2.0	3.0	2.0	71	103	1.8	9	2.5	61	2.8

TABLE 1C

Entry	Pedigree	Mparambu, Burundi							Patancheru, India			Selian, Tanzania		Siaya, Kenya	Wad Medani, Sudan	
		Across			Anth	ASI	E.turc	Ear	GLS	Anth	Anth	Ear	Husk	Ear	Anth	Ear
		RelGY	Rank	StdDev	Date	d	d	1-5	1-5	1-5	d	d	1-5	%	1-5	d
27	CKL05010-B-B//CML442/CML444	97	27	12	63	3	2.0	3.3	2.0	74	94	2.1	10	1.7	62	3.0
41	INTA/INTB-B-33-B-11-1-B//CML442/CML444	99	27	17	60	4	3.0	3.8	2.0	71	93	2.1	13	2.4	63	3.0
38	INTA/INTB-B-160-B-4-1-B//CML442/CML444	99	28	13	63	3	3.5	4.0	2.0	74	97	1.9	11	1.7	64	2.8
4	CKL05006-B-B//CML202/CML395	97	28	11	61	1	2.3	2.8	2.0	68	108	2.2	13	2.0	59	1.8
18	INTA/INTB-B-52-B-1-1-B//CML202/CML395	93	28	12	62	3	3.5	3.0	2.3	70	96	1.9	14	2.0	62	3.0
14	INTA/INTB-B-161-B-8-1-B//CML202/CML395	95	29	10	59	4	2.8	3.0	2.0	70	100	2.0	8	1.4	61	2.8
44	INTA/INTB-B-55-B-2-1-B//CML442/CML444	97	29	11	60	2	3.8	3.8	2.3	70	106	2.4	13	1.8	62	2.8
17	INTA/INTB-B-235-B-4-1-B//CML202/CML395	91	30	13	57	6	3.5	3.3	2.3	69	105	1.8	15	2.5	61	2.5
43	INTA/INTB-B-52-B-1-1-B//CML442/CML444	92	31	13	62	4	3.5	4.0	2.5	71	93	2.8	11	2.5	62	3.5
50	KSH516	90	32	14	58	6	3.5	3.3	2.8	71	94	2.1	16	1.8	62	3.3
39	INTA/INTB-B-194-B-2-1-B//CML442/CML444	83	35	11	60	4	3.3	3.3	2.8	68	100	1.7	12	1.8	63	3.0
5	CKL05009-B-B//CML202/CML395	80	40	13	61	4	2.0	2.8	1.5	71	104	1.6	21	2.5	61	2.8
Maturity group average					<b>59.9</b>	<b>3.1</b>	<b>2.8</b>	<b>3.3</b>	<b>2.2</b>	<b>70.3</b>	<b>99.2</b>	<b>1.9</b>	<b>12.6</b>	<b>2.1</b>	<b>61.5</b>	<b>2.7</b>
Entries with anthesis date between 79 - 83 days																
31	CKL05022-B-B//CML442/CML444	132	12	8	62	3	1.5	3.0	1.5	72	109	1.7	10	2.2	61	1.5
22	CKL05003-B-B//CML442/CML444	124	14	8	62	3	2.0	2.5	2.0	73	107	1.8	15	2.5	62	2.5
23	CKL05004-B-B//CML442/CML444	113	17	11	60	5	2.8	3.5	2.3	71	107	2.1	15	2.0	63	1.5
48	WH505	111	21	14	62	3	3.0	3.0	2.3	73	104	1.4	16	3.2	64	3.3
6	CKL05014-B-B//CML202/CML395	102	25	14	62	3	3.0	3.0	2.5	71	105	2.0	10	2.0	63	3.0
35	INTA/INTB-B-128-B-18-1-B//CML442/CML444	90	30	12	62	3	3.5	3.0	2.5	72	105	1.8	9	2.5	63	3.3
8	CKL05023-B-B//CML202/CML395	94	30	15	63	3	2.0	2.5	2.3	70	105	1.8	11	2.0	63	3.3
45	INTA/INTB-B-86-B-6-1-B//CML442/CML444	97	31	18	63	3	3.0	3.5	2.5	74	99	2.0	8	3.1	64	2.8
26	CKL05014-B-B//CML442/CML444	89	32	14	63	2	3.8	3.3	2.8	74	108	2.1	9	2.0	64	1.8
51	KSH520	93	32	14	62	4	2.8	3.0	2.5	71	100	1.6	12	2.1	66	2.8
21	CKL05002-B-B//CML442/CML444	90	32	12	63	2	2.3	3.0	2.0	74	108	2.5	13	2.0	62	3.3
1	CKL05003-B-B//CML202/CML395	60	46	7	65	3	2.0	3.0	2.0	75	109	2.5	13	2.7	66	3.3
2	CKL05010-B-B//CML202/CML395	47	51	2	65	3	2.5	3.5	2.0	72	111	2.9	21	2.6	61	3.8
Maturity group average					<b>62.3</b>	<b>3.0</b>	<b>2.6</b>	<b>3.1</b>	<b>2.2</b>	<b>72.2</b>	<b>105.6</b>	<b>2.0</b>	<b>12.5</b>	<b>2.4</b>	<b>62.9</b>	<b>2.8</b>
Mean		<b>100.0</b>	<b>26.5</b>	<b>12.5</b>	<b>60.0</b>	<b>3.1</b>	<b>2.8</b>	<b>3.2</b>	<b>2.2</b>	<b>70.2</b>	<b>99.7</b>	<b>2.0</b>	<b>12.5</b>	<b>2.2</b>	<b>61.3</b>	<b>2.6</b>
LSD (0.05)		17	9	3	3.1	2.1	0.6	0.7	0.7	2.7	3.2	0.5	6.1	0.7	3.2	0.9
Min		47	9	2	56.5	1.0	1.5	2.3	1.5	65.0	91.0	1.3	7.8	1.4	58.0	1.5
Max		137	50.8	19.3	64.5	6.0	3.8	4.3	3.0	74.5	110.5	2.9	21.2	3.2	66.0	3.8
NumSignificantSites		12	12	12	1	1	1	1	1	1	1	1	1	1	1	1

Entry	Name	Across		Bako, Ethiopia LN				Thika, Kenya	Namulonge, Uganda	Weruweru, Tanzania			Selian, Tanzania		Afsf-Arusha, Tanzania					
		RelGY	Rank	Anth Date	Anth Date	Husk Cover	Ear Aspect	Anth Date	E.turc	Anth Date	Husk Cover	Ear Aspect	Anth Date	ASI	Anth Date	ASI	Husk Cover	Ear Aspect		
		%	Avg	StdDev	d	d	%	1-5	d	1-5	d	%	1-5	d	d	d	d	%	1-5	
Entries with anthesis date between 72 - 76 days																			2.2	
10	Pool15QPMFS461-B-7-B/Pool15QPMFS309-B-1-B//CML511	100	23	11	76	79	.	2.8	76	2.3	63	8	2.0	80	3	85	4	48	1.8	
3	Pool15QPMFS440-B-5-B/Pool15QPMFS761-B-2-B//CML511	95	27	12	76	80	.	2.5	80	1.5	63	6	2.0	78	4	81	3	9	2.8	
31	Pool15QPMFS309-B-1-B/Pool15QPMFS324-B-3-B//CML511	80	32	9	72	79	9	2.2	79	1.3	64	7	2.0	80	2	.	.	.	.	
27	Pool15QPMFS462-B-4-B/Pool15QPMFS478-B-3-B//CML511	71	35	7	76	80	13	2.7	80	1.5	63	7	2.0	77	3	82	4	17	2.5	
Maturity group average				75	80	11	2.6	79	1.6	63	7	2.0	79	3	82	3	25	2.4		
Entries with anthesis date between 77 - 79 days																				
45	H513	142	8	10	79	80	16	2.3	83	3.5	64	7	1.5	81	2	88	3	11	2.0	
19	Pool15QPMFS538-B-3-B/Pool15QPMFS462-B-4-B//CML511	130	9	8	78	80	9	2.3	78	1.8	63	8	1.8	85	2	85	4	10	1.8	
37	Pool15QPMFS80-B-2-B/CML159//CML511	111	14	11	78	81	17	2.7	80	1.5	62	7	2.0	84	3	90	4	21	1.7	
21	Pool15QPMFS538-B-3-B/Pool15QPMFS593-B-1-B//CML511	112	15	11	78	79	13	2.8	80	2.3	65	8	2.0	85	3	91	4	63	1.8	
30	Pool15QPMFS462-B-4-B/CML159//CML511	111	16	11	79	85	.	2.6	79	1.8	65	7	2.0	85	0	84	3	35	1.8	
16	Pool15QPMFS51-B-8-B/Pool15QPMFS538-B-3-B//CML511	116	16	9	78	81	18	2.8	79	1.5	63	7	2.0	82	4	86	3	21	2.2	
1	Pool15QPMFS440-B-5-B/Pool15QPMFS461-B-7-B//CML511	119	17	10	79	82	12	2.6	78	1.7	63	7	2.0	82	2	95	3	19	1.5	
2	Pool15QPMFS440-B-5-B/Pool15QPMFS538-B-3-B//CML511	120	17	12	79	82	3	2.8	81	1.5	66	7	2.0	85	4	86	3	13	2.0	
14	Pool15QPMFS461-B-7-B/CML144//CML511	108	20	11	79	83	.	2.7	80	1.5	64	7	1.8	86	3	88	3	18	1.5	
34	Pool15QPMFS788-B-3-B/Pool15QPMFS593-B-1-B//CML511	97	21	13	78	79	.	2.0	79	2.0	62	7	1.8	81	3	86	3	63	1.8	
22	Pool15QPMFS538-B-3-B/Pool15QPMFS324-B-3-B//CML511	100	21	11	78	79	22	2.4	81	1.5	64	8	1.8	82	3	90	3	23	2.0	
18	Pool15QPMFS538-B-3-B/Pool15QPMFS761-B-2-B//CML511	99	22	9	78	81	12	2.4	78	2.5	64	8	1.8	83	2	89	2	26	1.8	
33	Pool15QPMFS309-B-1-B/CML159//CML511	94	23	11	79	81	19	2.8	79	1.5	64	7	2.0	81	2	99	4	38	1.8	
9	Pool15QPMFS461-B-7-B/Pool15QPMFS462-B-4-B//CML511	96	24	13	77	79	.	2.3	77	1.5	63	8	2.0	81	2	92	3	50	1.4	
17	Pool15QPMFS51-B-8-B/Pool15QPMFS80-B-2-B//CML511	96	24	11	78	81	3	3.0	79	1.5	63	7	1.5	82	1	90	3	31	2.2	
11	Pool15QPMFS461-B-7-B/Pool15QPMFS594-B-1-B//CML511	97	24	10	77	82	17	2.9	79	1.5	63	10	2.0	84	3	80	3	29	1.5	
20	Pool15QPMFS538-B-3-B/Pool15QPMFS80-B-2-B//CML511	97	25	10	79	80	.	2.5	80	1.5	63	8	2.0	83	5	95	4	34	1.7	
15	Pool15QPMFS461-B-7-B/CML159//CML511	89	26	14	79	82	11	2.5	78	1.6	65	8	2.0	83	2	97	3	28	1.5	
38	Pool15QPMFS319-B-2-B/Pool15QPMFS593-B-1-B//CML511	95	27	13	78	81	.	2.8	76	2.0	63	9	2.0	83	3	96	3	94	1.5	
40	Pool15QPMFS593-B-1-B/CML159//CML511	82	27	13	78	80	16	2.3	78	1.5	64	7	1.5	82	4	89	4	125	1.8	
25	Pool15QPMFS761-B-2-B/Pool15QPMFS80-B-2-B//CML511	85	28	11	77	80	11	2.7	81	1.5	62	8	2.0	81	2	83	3	50	1.8	
28	Pool15QPMFS462-B-4-B/Pool15QPMFS593-B-1-B//CML511	80	29	10	79	82	13	2.5	77	1.8	62	8	2.0	85	4	95	1	30	1.5	

TABLE 2C

Entry	Name	Across		Bako, Ethiopia LN				Thika, Kenya	Namulonge, Uganda	Weruweru, Tanzania			Selian, Tanzania		Afsf-Arusha, Tanzania				
		RelGY	Rank	Anth Date	Anth Date	Husk Cover	Ear Aspect	Anth Date	E.turc	Anth Date	Husk Cover	Ear Aspect	Anth Date	ASI	Anth Date	ASI	Husk Cover	Ear Aspect	
		%	Avg	StdDev	d	d	%	1-5	d	1-5	d	%	1-5	d	d	d	d	%	1-5
5	Pool15QPMFS440-B-5-B/Pool15QPMFS309-B-1-B//CML511	83	29	12	77	78	12	2.3	77	1.5	63	8	2.0	78	3	86	3	16	2.7
6	Pool15QPMFS440-B-5-B/Pool15QPMFS319-B-2-B//CML511	84	30	12	79	79	.	2.5	77	1.5	63	7	2.0	86	1	96	3	88	2.0
4	Pool15QPMFS440-B-5-B/Pool15QPMFS462-B-4-B//CML511	80	30	12	79	83	0	2.8	81	1.5	64	9	1.8	84	3	88	3	71	1.8
26	Pool15QPMFS761-B-2-B/CML159//CML511	80	30	11	79	79	11	2.5	78	1.7	63	9	2.0	81	3	93	3	34	2.0
12	Pool15QPMFS461-B-7-B/Pool15QPMFS80-B-2-B//CML511	81	31	11	78	79	7	2.0	79	1.5	63	10	2.0	82	1	90	3	94	1.5
43	CML144/CML159//CML176	78	33	18	79	90	.	3.5	82	1.4	69	16	2.5	84	3	93	3	10	2.0
13	Pool15QPMFS461-B-7-B/Pool15QPMFS324-B-3-B//CML511	76	34	8	77	81	15	2.6	80	2.0	64	7	2.0	80	2	83	3	44	2.5
29	Pool15QPMFS462-B-4-B/Pool15QPMFS324-B-3-B//CML511	70	35	10	77	81	23	2.6	78	1.5	63	8	1.5	78	4	84	4	15	2.5
8	Pool15QPMFS461-B-7-B/Pool15QPMFS51-B-8-B//CML511	74	35	8	78	83	24	2.7	77	1.5	64	9	2.0	85	3	85	3	58	1.8
Maturity group average				78	81	13	2.6	79	1.7	64	8	1.9	83	3	89	3	41	1.8	
Entries with anthesis date between 80 - 82 days																			
42	CML144/CML159//CML182	157	9	8	82	83	.	3.0	84	1.8	64	9	2.0	86	3	97	3	9	2.0
44	WH403	159	9	13	82	87	16	2.0	83	2.3	67	9	2.0	87	3	98	4	13	2.0
23	Pool15QPMFS538-B-3-B/CML144//CML511	129	11	8	82	85	9	2.8	84	1.5	67	7	2.0	82	3	94	4	13	1.7
24	Pool15QPMFS538-B-3-B/CML159//CML511	121	14	9	80	82	24	2.5	80	1.5	66	7	2.0	83	3	94	4	12	1.7
7	Pool15QPMFS440-B-5-B/CML159//CML511	107	15	9	80	82	10	2.8	81	1.7	65	8	2.0	82	2	96	3	29	2.0
41	CML144/CML159//CML511	116	16	10	81	84	14	2.4	80	1.5	65	8	1.5	87	3	98	4	23	1.8
36	Pool15QPMFS788-B-3-B/CML159//CML511	99	20	8	80	81	22	2.8	81	1.8	64	7	1.8	82	3	96	2	53	1.7
39	Pool15QPMFS593-B-1-B/CML144//CML511	94	25	9	81	88	12	2.3	80	1.7	67	8	2.0	84	3	96	3	24	1.5
35	Pool15QPMFS788-B-3-B/CML144//CML511	96	26	16	82	84	11	2.2	82	1.7	64	9	1.5	86	4	97	3	30	1.5
32	Pool15QPMFS309-B-1-B/CML144//CML511	88	27	15	80	86	11	2.6	77	1.5	65	8	2.0	81	2	96	3	150	1.7
Maturity group average				81	84	14	2.5	81	1.7	65	8	1.9	84	3	96	3	36	1.8	
Mean		100	23	11	78.5	81.7	13.4	2.6	79.5	1.7	64.0	7.9	1.9	82.6	2.8	90.3	3.1	38.5	1.9
LSD (0.05)		21	8	2	2.4	4.3	.	0.6	3.9	0.7	2.4	3.1	0.4	4.4	1.8	1.2	0.8	55.1	0.5
Min		70	8	7	72.2	78.1	0.0	2.0	76.1	1.3	61.9	5.8	1.5	77.0	-0.4	80.0	0.9	9.3	1.4
Max		159	35	18	82.2	90.1	24.1	3.5	84.3	3.5	68.8	16.5	2.5	86.9	4.8	98.5	4.0	150.0	2.8
NumSignificantSites		9	9	9	10	1	1	1	1	1	1	1	1	1	1	1	1	1	1

TABLE 2C

Entry	Name	Across			Embu, Kenya			Elgon Downs, Kenya			Kimaeti, Kenya			Bumula, Kenya			Karatu, Tanzania			Hyderabad, India			Maseno, Kenya		
		RelGY	Rank	StdDev	Anth Date	Anth Date	ASI	Anth Date	Ear Aspect	Ear Aspect	E.turc	Anth Date	Anth Date	ASI	Anth Date	Anth Date	ASI	Anth Date	Anth Date	ASI	Anth Date	Anth Date	ASI		
Entries with anthesis date between 72 - 76 days																									
10	Pool15QPMFS461-B-7-B/Pool15QPMFS309-B-1-B//CML511	100	23	11	76	82	-1	79	2.0	1.3	3.3	76	68	0	73	2									
3	Pool15QPMFS440-B-5-B/Pool15QPMFS761-B-2-B//CML511	95	27	12	76	76	0	84	2.5	1.6	3.5	77	69	1	71	1									
31	Pool15QPMFS309-B-1-B/Pool15QPMFS324-B-3-B//CML511	80	32	9	72	83	0	82	2.0	1.6	3.1	77	34	1	71	1									
27	Pool15QPMFS462-B-4-B/Pool15QPMFS478-B-3-B//CML511	71	35	7	76	76	1	82	1.8	1.9	2.2	78	71	1	71	1									
Maturity group average					75	79	0	82	2.1	1.6	3.0	77	60	1	72	1									
Entries with anthesis date between 77 - 79 days																									
45	H513	142	8	10	79	85	4	86	2.3	1.5	3.4	79	69	2	73	4									
19	Pool15QPMFS538-B-3-B/Pool15QPMFS462-B-4-B//CML511	130	9	8	78	81	0	81	2.1	1.5	2.5	81	69	0	74	1									
37	Pool15QPMFS80-B-2-B/CML159//CML511	111	14	11	78	81	-1	81	2.0	1.8	2.2	78	70	1	72	2									
21	Pool15QPMFS538-B-3-B/Pool15QPMFS593-B-1-B//CML511	112	15	11	78	81	1	80	2.3	1.7	3.3	80	70	2	74	2									
30	Pool15QPMFS462-B-4-B/CML159//CML511	111	16	11	79	83	0	84	2.0	1.5	1.9	80	71	2	74	2									
16	Pool15QPMFS51-B-8-B/Pool15QPMFS538-B-3-B//CML511	116	16	9	78	82	1	83	1.9	1.9	2.5	80	70	4	73	3									
1	Pool15QPMFS440-B-5-B/Pool15QPMFS461-B-7-B//CML511	119	17	10	79	86	-1	85	2.0	1.6	3.8	78	69	2	75	3									
2	Pool15QPMFS440-B-5-B/Pool15QPMFS538-B-3-B//CML511	120	17	12	79	83	0	83	2.3	2.0	1.3	80	69	2	74	3									
14	Pool15QPMFS461-B-7-B/CML144//CML511	108	20	11	79	87	-4	83	2.4	2.3	2.2	79	69	2	75	3									
34	Pool15QPMFS788-B-3-B/Pool15QPMFS593-B-1-B//CML511	97	21	13	78	84	2	82	1.8	1.6	3.0	80	69	5	75	3									
22	Pool15QPMFS538-B-3-B/Pool15QPMFS324-B-3-B//CML511	100	21	11	78	82	0	82	2.4	1.4	2.5	76	69	2	73	3									
18	Pool15QPMFS538-B-3-B/Pool15QPMFS761-B-2-B//CML511	99	22	9	78	85	2	84	1.9	1.5	3.5	78	69	2	75	3									
33	Pool15QPMFS309-B-1-B/CML159//CML511	94	23	11	79	82	0	86	1.6	1.6	2.7	79	69	1	75	1									
9	Pool15QPMFS461-B-7-B/Pool15QPMFS462-B-4-B//CML511	96	24	13	77	82	-1	79	2.2	1.8	2.8	78	68	1	75	1									
17	Pool15QPMFS51-B-8-B/Pool15QPMFS80-B-2-B//CML511	96	24	11	78	83	1	80	2.4	1.7	2.5	77	69	3	72	2									
11	Pool15QPMFS461-B-7-B/Pool15QPMFS594-B-1-B//CML511	97	24	10	77	81	0	80	2.0	1.8	2.8	79	69	2	73	2									
20	Pool15QPMFS538-B-3-B/Pool15QPMFS80-B-2-B//CML511	97	25	10	79	81	0	85	1.9	1.7	2.3	78	68	2	72	2									
15	Pool15QPMFS461-B-7-B/CML159//CML511	89	26	14	79	82	1	82	1.5	1.7	1.6	81	70	1	74	4									
38	Pool15QPMFS319-B-2-B/Pool15QPMFS593-B-1-B//CML511	95	27	13	78	78	1	82	1.8	1.6	3.6	77	69	2	73	3									
40	Pool15QPMFS593-B-1-B/CML159//CML511	82	27	13	78	81	1	80	1.8	1.3	3.3	81	69	2	75	3									
25	Pool15QPMFS761-B-2-B/Pool15QPMFS80-B-2-B//CML511	85	28	11	77	83	0	82	2.3	1.5	2.9	78	70	1	72	1									
28	Pool15QPMFS462-B-4-B/Pool15QPMFS593-B-1-B//CML511	80	29	10	79	83	1	80	1.8	1.5	3.1	80	69	1	73	2									

TABLE 2C

Entry	Name	Across			Embu, Kenya			Elgon Downs, Kenya			Kimaeti, Kenya			Bumula, Kenya			Karatu, Tanzania			Hyderabad, India			Maseno, Kenya		
		RelGY	Rank	StdDev	Anth Date	Anth Date	ASI	Anth Date	Ear Aspect	Ear Aspect	E.turc	Anth Date	Anth Date	ASI	Anth Date	Anth Date	ASI	Anth Date	Anth Date	ASI	Anth Date	Anth Date	ASI		
		%	Avg	StdDev	d	d	d	d	1-5	1-5	1-5	d	d	d	d	d	d	d	d	d	d	d	d		
5	Pool15QPMFS440-B-5-B/Pool15QPMFS309-B-1-B//CML511	83	29	12	77	76	0	83	2.1	1.6	3.4	77	.	0	72	2									
6	Pool15QPMFS440-B-5-B/Pool15QPMFS319-B-2-B//CML511	84	30	12	79	83	3	86	2.9	1.8	2.5	80	70	1	74	2									
4	Pool15QPMFS440-B-5-B/Pool15QPMFS462-B-4-B//CML511	80	30	12	79	85	0	85	2.4	1.7	2.7	80	70	2	74	1									
26	Pool15QPMFS761-B-2-B/CML159//CML511	80	30	11	79	83	0	84	2.1	2.2	2.8	80	72	2	72	2									
12	Pool15QPMFS461-B-7-B/Pool15QPMFS80-B-2-B//CML511	81	31	11	78	85	-2	80	1.9	2.0	2.6	79	69	1	73	2									
43	CML144/CML159//CML176	78	33	18	79	86	-1	92	2.0	3.9	2.7	84	39	0	75	3									
13	Pool15QPMFS461-B-7-B/Pool15QPMFS324-B-3-B//CML511	76	34	8	77	82	2	84	2.3	1.7	3.0	79	69	2	74	4									
29	Pool15QPMFS462-B-4-B/Pool15QPMFS324-B-3-B//CML511	70	35	10	77	79	0	86	2.5	1.7	3.4	77	68	0	72	2									
8	Pool15QPMFS461-B-7-B/Pool15QPMFS51-B-8-B//CML511	74	35	8	78	83	0	83	2.5	1.8	3.2	77	68	2	75	1									
Maturity group average					78	83	0	83	2.1	1.8	2.8	79	68	1	74	2									
Entries with anthesis date between 80 - 82 days																									
42	CML144/CML159//CML182	157	9	8	82	88	-1	86	2.6	1.5	1.8	82	70	3	75	3									
44	WH403	159	9	13	82	83	3	85	1.4	1.1	1.7	85	72	3	76	2									
23	Pool15QPMFS538-B-3-B/CML144//CML511	129	11	8	82	90	-1	86	2.1	1.7	2.4	83	72	2	75	2									
24	Pool15QPMFS538-B-3-B/CML159//CML511	121	14	9	80	85	0	85	1.9	1.6	2.5	80	72	1	76	2									
7	Pool15QPMFS440-B-5-B/CML159//CML511	107	15	9	80	84	2	86	2.3	1.2	2.2	78	71	3	75	2									
41	CML144/CML159//CML511	116	16	10	81	85	1	86	1.9	1.7	2.1	81	72	2	75	2									
36	Pool15QPMFS788-B-3-B/CML159//CML511	99	20	8	80	85	1	86	2.3	1.4	2.8	80	70	3	76	2									
39	Pool15QPMFS593-B-1-B/CML144//CML511	94	25	9	81	85	-2	83	2.4	1.6	2.7	81	72	3	73	2									
35	Pool15QPMFS788-B-3-B/CML144//CML511	96	26	16	82	88	-1	87	2.1	1.8	3.4	80	73	2	78	1									
32	Pool15QPMFS309-B-1-B/CML144//CML511	88	27	15	80	85	-2	84	1.7	1.7	3.1	82	69	2	75	0									
Maturity group average					81	86	0	85	2.1	1.5	2.5	81	71	2	76	2									
Mean		100	23	11	78.5	82.9	0.2	83.2	2.1	1.7	2.7	79.1	66.5	1.5	74.0	1.9									
LSD (0.05)		21	8	2	2.4	4.2	2.7	3.7	0.5	0.6	1.1	3.2	22.1	2.1	2.3	1.8									
Min		70	8	7	72.2	76.0	-4.1	78.5	1.4	1.1	1.3	76.0	34.0	0.0	71.0	0.0									
Max		159	35	18	82.2	89.9	4.0	91.5	2.9	3.9	3.8	85.0	73.0	4.5	77.5	4.0									
NumSignificantSites		9	9	9	10	1	1	1	1	1	1	1	1	1	1	1									

Entry	Pedigree	Across		Bungoma, Kenya	Elgon Downs, Kenya				Embu, Kenya				Kakamega, Kenya LN		Kakamega, Kenya				
		RelGY	Rank	Anth	Anth	Anth	ASI	Husk	Anth	Husk	E.turc	Ear	Anth	E.turc	Anth	Husk	E.turc	Ear	
		%	Avg	StdDev	Date	Date	Date	d	%	Cover	Date	Cover	1-5	1-5	Date	1-5	Date	Cover	1-5
<b>Entries with anthesis date between 63 - 64 days</b>																			
14	ECA-EE-69/CML440/CML445	91	28	11	64	62	69	3	26	68	24	1.5	2.8	79	2.7	68	27	3.5	2.9
30	ECA-EE-21-#/CML440/CML445	88	32	7	64	63	70	1	9	53	10	1.7	3.4	74	3.2	69	23	3.5	3.2
40	DH02	62	38	10	63	64	68	2	10	66	8	2.0	4.0	74	3.3	66	30	4.3	4.0
Maturity group average					64	63	69	2	15	63	14	1.7	3.4	76	3.1	67	27	3.8	3.4
<b>Entries with anthesis date between 65 - 68 days</b>																			
27	ZEWAc2F2-#/CML440/CML445	106	13	10	68	67	75	2	15	74	19	1.5	2.5	76	2.5	72	13	3.5	3.2
5	ECA-EE-60/CML440/CML445	108	14	7	68	68	77	0	12	73	17	1.6	2.8	77	2.3	71	39	3.7	3.5
28	ZEWBc2F2-#/CML440/CML445	106	15	9	68	66	75	2	17	73	13	1.5	2.3	76	2.5	71	15	3.5	3.0
31	LLSYNTH1-#-#/CML440/CML445	106	16	9	68	67	77	3	41	75	50	1.5	3.0	76	2.5	73	27	3.2	3.1
2	ECA-EE-57/CML440/CML445	101	19	10	68	65	75	1	47	71	31	1.9	2.5	84	2.7	71	42	3.8	3.6
7	ECA-EE-62/CML440/CML445	100	19	6	68	65	75	2	16	73	18	1.5	3.0	80	2.8	71	33	3.5	2.6
9	ECA-EE-64/CML440/CML445	100	21	13	68	68	76	3	26	74	21	1.5	2.8	80	2.5	71	18	3.5	3.5
17	ECA-EE-72/CML440/CML445	98	21	8	68	67	75	2	36	73	5	1.9	2.9	76	2.7	71	25	3.8	3.4
8	ECA-EE-63/CML440/CML445	97	22	10	68	64	76	2	23	73	21	1.5	2.7	80	3.0	71	25	4.3	3.5
18	ECA-EE-73/CML440/CML445	98	23	9	67	63	74	1	36	73	26	1.5	2.7	76	3.0	71	46	3.5	3.2
21	ECA-EE-76/CML440/CML445	96	23	11	67	65	75	2	27	73	16	1.7	3.2	80	3.1	70	25	4.0	2.9
3	ECA-EE-58/CML440/CML445	97	23	11	68	65	77	2	34	71	24	1.9	2.8	80	2.4	72	37	3.3	3.2
16	ECA-EE-71/CML440/CML445	98	23	12	67	65	72	3	30	71	9	1.8	2.8	76	2.5	71	26	3.7	3.0
29	ECA-EE-55-#/CML440/CML445	94	24	11	66	64	73	1	27	71	33	1.8	3.0	76	2.5	71	39	3.5	3.4
10	ECA-EE-65/CML440/CML445	96	24	8	67	66	74	2	32	70	18	1.8	2.8	76	2.8	71	23	3.5	3.1
11	ECA-EE-66/CML440/CML445	96	25	11	67	64	74	2	17	71	11	2.0	3.2	76	3.0	72	34	3.2	3.5
12	ECA-EE-67/CML440/CML445	94	25	10	67	65	73	2	29	71	22	2.0	2.8	84	2.7	70	43	3.5	3.6
15	ECA-EE-70/CML440/CML445	94	25	8	67	67	73	2	19	73	32	1.8	2.7	76	2.5	72	42	3.7	3.4
13	ECA-EE-68/CML440/CML445	91	27	10	66	63	73	0	27	72	17	1.7	2.8	76	3.0	70	26	4.0	3.9
22	ECA-EE-77/CML440/CML445	94	27	11	67	63	75	2	37	71	13	1.8	3.0	76	3.0	72	20	3.7	2.9

Entry	Pedigree	Across		Bungoma, Kenya	Elgon Downs, Kenya			Embu, Kenya			Kakamega, Kenya LN		Kakamega, Kenya						
		RelGY	Rank	Anth Date	Anth Date	Anth Date	ASI	Husk Cover	Anth Date	Husk Cover	E.turc Aspect	Ear	Anth Date	E.turc	Anth Date	Husk Cover	E.turc	Ear Aspect	
		%	Avg	StdDev	d	d	d	d	%	d	%	1-5	1-5	d	1-5	d	%	1-5	1-5
6	ECA-EE-61/CML440/CML445	90	27	10	67	65	74	2	36	71	42	2.0	3.2	80	2.5	70	50	3.9	3.4
26	ECA-EE-81/CML440/CML445	89	27	11	67	65	75	2	23	71	12	1.8	2.5	75	3.0	72	14	4.0	3.5
1	ECA-EE-56/CML440/CML445	92	27	10	66	63	72	2	32	70	23	1.5	2.9	76	2.5	70	20	4.0	3.1
25	ECA-EE-80/CML440/CML445	92	28	10	67	65	76	0	31	72	19	1.5	2.9	76	3.0	70	25	3.8	3.4
19	ECA-EE-74/CML440/CML445	93	28	8	66	64	74	2	21	71	29	2.0	3.2	76	3.1	71	30	3.3	2.9
20	ECA-EE-75/CML440/CML445	90	29	9	67	63	75	2	18	73	22	2.1	3.0	76	2.7	70	18	3.5	2.7
24	ECA-EE-79/CML440/CML445	92	29	6	67	65	75	3	29	73	17	2.0	3.0	76	2.7	71	35	3.8	3.4
Maturity group average					67	65	75	2	27	72	21	1.7	2.9	77	2.7	71	29	3.7	3.3
Entries with anthesis date between 69 - 70 days																			
4	ECA-EE-59/CML440/CML445	110	12	8	69	67	77	2	21	73	18	1.5	2.3	84	2.8	72	20	3.7	3.4
39	DUMA43	109	16	13	70	68	79	3	11	78	11	1.5	2.0	84	1.8	72	14	3.0	2.4
23	ECA-EE-78/CML440/CML445	96	24	9	69	67	77	0	50	74	47	2.1	2.8	84	2.6	72	28	4.0	3.2
Maturity group average					69	68	77	2	28	75	25	1.7	2.4	84	2.4	72	21	3.6	3.0
Entries with anthesis date between 73 - 76 days																			
32	KATCH-2008-04	118	15	15	75	71	87	2	24	81	61	1.6	2.3	84	2.5	80	72	3.7	3.7
41	H513	108	16	12	73	68	85	3	4	80	10	1.4	1.9	80	2.2	77	19	4.7	3.7
42	DH04	111	20	14	73	68	84	3	6	79	9	1.5	2.0	82	1.5	80	23	3.0	2.5
34	MTPEH-2008-03	119	12	13	76	72	88	2	12	82	43	1.5	2.5	84	2.2	80	97	3.5	3.9
33	MTPEH-2008-05	125	12	13	76	72	87	2	6	81	56	1.5	2.2	85	2.0	80	44	3.2	4.0
37	KATEH-2008-01	118	13	16	76	71	87	2	7	80	43	1.4	2.5	81	2.3	82	70	3.7	4.2
35	MTPEH-2008-04	111	13	13	76	72	86	3	3	83	17	1.4	1.7	84	2.0	80	38	3.8	3.9
38	MTPEH-2008-01	116	13	16	76	71	87	3	14	82	48	1.4	2.5	84	2.2	82	71	3.5	4.4
36	MTPEH-2008-02	107	15	15	76	71	88	3	6	82	18	1.6	1.6	79	2.5	82	36	3.5	3.6
Maturity group average					69	70	86	3	9	81	34	1.5	2.1	83	2.1	80	52	3.6	3.8
Mean		100	21	11	68.8	66.3	77.0	2.0	22.6	73.5	23.8	1.7	2.7	78.9	2.6	72.8	33.4	3.7	3.4
LSD (0.05)		11	6	3	1.0	3.8	2.1	1.7	16.5	6.8	15.8	0.3	0.7	6.2	0.5	2.9	26.0	0.6	0.6
Min		62	12	6	63.2	61.7	67.7	0.0	3.3	52.9	4.9	1.4	1.6	74.0	1.5	65.5	13.2	3.0	2.4
Max		125	38	16	76.1	71.9	88.2	3.5	50.3	82.5	61.2	2.1	4.0	85.0	3.3	82.0	97.2	4.7	4.4
NumSignificantSites		12	12	12	15	1	1	1	1	1	1	1	1	1	1	1	1	1	1



Entry	Pedigree	Across			Kiboko, Kenya MDR			Kiboko, Kenya			Kibos, Kenya			Kimaeti, Kenya		Masaka, Uganda		Melkasa, Ethiopia			
		RelGY	Rank	StdDev	Anth	Anth	ASI	Anth	Husk	Ear	Anth	Husk	E.turc	GLS	Ear	Ear	E.turc	Anth	Husk	Ear	
		%	Avg		Date	Date	d	Date	Cover	Aspect	Date	Cover	%	1-5	1-5	1-5	1-5	1-5	1-5	d	%
<b>Entries with anthesis date between 63 - 64 days</b>																					
14	ECA-EE-69/CML440/CML445	91	28	11	64	62	2	52	19	2.3	58	55	2.5	2.8	3.5	1.3	2.3	64	34	2.2	
30	ECA-EE-21-#/CML440/CML445	88	32	7	64	63	1	53	12	2.3	59	50	2.5	2.3	3.7	2.0	2.2	63	16	2.7	
40	DH02	62	38	10	63	67	4	56	33	2.0	56	15	3.0	2.0	3.9	2.0	2.0	59	24	2.9	
Maturity group average					64	64	2	53	21	2.2	58	40	2.7	2.3	3.7	1.8	2.2	62	25	2.6	
<b>Entries with anthesis date between 65 - 68 days</b>																					
27	ZEWAc2F2-#/CML440/CML445	106	13	10	68	66	1	54	14	2.0	61	30	2.5	1.8	3.2	1.8	2.5	66	18	1.9	
5	ECA-EE-60/CML440/CML445	108	14	7	68	65	2	54	22	1.8	62	49	2.3	1.5	3.2	1.8	2.5	65	21	2.5	
28	ZEWBc2F2-#/CML440/CML445	106	15	9	68	66	3	54	15	2.0	61	16	2.5	2.3	3.2	2.0	2.5	64	18	1.8	
31	LLSYNTH1-#-#/CML440/CML445	106	16	9	68	66	1	54	19	2.0	60	32	2.5	3.0	2.5	1.8	2.5	65	29	2.2	
2	ECA-EE-57/CML440/CML445	101	19	10	68	67	0	54	15	1.8	60	60	2.5	2.5	3.7	1.3	3.0	64	33	2.1	
7	ECA-EE-62/CML440/CML445	100	19	6	68	67	1	55	18	1.8	62	28	2.8	1.8	3.4	1.7	2.5	64	27	2.4	
9	ECA-EE-64/CML440/CML445	100	21	13	68	66	1	54	20	2.3	61	42	2.5	2.8	3.5	1.5	2.0	65	26	2.4	
17	ECA-EE-72/CML440/CML445	98	21	8	68	66	1	54	19	2.3	61	23	2.5	2.2	3.2	2.0	2.2	65	12	2.8	
8	ECA-EE-63/CML440/CML445	97	22	10	68	67	5	55	26	2.0	60	40	3.0	2.3	3.2	2.0	2.8	65	24	2.2	
18	ECA-EE-73/CML440/CML445	98	23	9	67	66	2	52	10	2.3	59	26	2.8	2.3	3.2	1.1	2.2	65	28	2.6	
21	ECA-EE-76/CML440/CML445	96	23	11	67	67	4	54	14	2.0	59	46	2.3	2.7	3.4	2.0	2.0	64	27	2.5	
3	ECA-EE-58/CML440/CML445	97	23	11	68	66	1	54	18	2.0	60	50	2.3	2.2	3.7	1.6	2.7	65	23	2.5	
16	ECA-EE-71/CML440/CML445	98	23	12	67	66	3	53	18	2.0	61	47	2.5	2.3	3.6	1.8	2.2	66	28	2.3	
29	ECA-EE-55-#/CML440/CML445	94	24	11	66	66	2	52	20	2.3	60	23	2.8	2.5	2.9	1.5	2.5	65	17	2.1	
10	ECA-EE-65/CML440/CML445	96	24	8	67	66	2	54	23	2.3	61	42	2.5	2.3	3.4	1.6	2.8	65	22	2.4	
11	ECA-EE-66/CML440/CML445	96	25	11	67	66	6	54	20	2.0	60	35	2.5	2.5	3.7	1.5	2.3	66	28	2.7	
12	ECA-EE-67/CML440/CML445	94	25	10	67	65	3	53	24	2.0	60	33	2.8	2.3	3.7	1.8	2.0	65	24	2.3	
15	ECA-EE-70/CML440/CML445	94	25	8	67	66	2	53	19	2.3	61	59	2.8	1.7	3.5	1.8	2.5	64	22	2.3	
13	ECA-EE-68/CML440/CML445	91	27	10	66	64	2	53	26	2.0	59	48	2.5	2.3	3.7	1.2	2.8	65	21	2.6	
22	ECA-EE-77/CML440/CML445	94	27	11	67	68	2	54	18	2.3	60	29	2.5	2.8	3.2	1.7	2.7	65	20	2.7	

Entry	Pedigree	Across			Kiboko, Kenya MDR			Kiboko, Kenya			Kibos, Kenya			Kimaeti, Kenya		Masaka, Uganda		Melkasa, Ethiopia		
		RelGY	Rank	StdDev	Anth Date	Anth Date	ASI	Anth Date	Husk Cover	Ear Aspect	Anth Date	Husk Cover	E.turc	GLS	Ear Aspect	Ear Aspect	E.turc	Anth Date	Husk Cover	Ear Aspect
		%	Avg	StdDev	d	d	d	d	%	1-5	d	%	1-5	1-5	1-5	1-5	1-5	d	%	1-5
6	ECA-EE-61/CML440/CML445	90	27	10	67	66	1	54	32	2.3	59	76	2.8	2.8	4.4	2.0	2.7	65	25	1.9
26	ECA-EE-81/CML440/CML445	89	27	11	67	66	2	55	10	2.0	61	51	3.0	2.3	3.2	1.7	2.7	65	12	2.0
1	ECA-EE-56/CML440/CML445	92	27	10	66	65	3	54	13	2.3	60	41	2.8	2.3	3.9	1.8	2.3	64	18	2.8
25	ECA-EE-80/CML440/CML445	92	28	10	67	66	0	54	18	2.8	61	29	2.8	1.5	4.0	2.0	2.3	64	43	2.7
19	ECA-EE-74/CML440/CML445	93	28	8	66	65	3	53	17	2.5	60	36	2.5	2.3	3.4	1.8	2.0	65	14	2.5
20	ECA-EE-75/CML440/CML445	90	29	9	67	66	1	54	17	2.0	60	37	2.5	1.8	3.4	1.6	2.3	65	17	2.5
24	ECA-EE-79/CML440/CML445	92	29	6	67	67	3	54	29	2.5	61	49	2.5	2.5	2.9	1.6	2.3	66	30	2.6
Maturity group average					67	66	2	54	19	2.1	60	40	2.6	2.3	3.4	1.7	2.4	65	23	2.4
Entries with anthesis date between 69 - 70 days																				
4	ECA-EE-59/CML440/CML445	110	12	8	69	66	1	54	24	2.3	61	48	2.5	2.0	3.5	1.6	2.5	67	22	2.2
39	DUMA43	109	16	13	70	68	8	56	33	1.8	64	49	2.0	1.8	3.4	2.0	1.8	68	41	2.4
23	ECA-EE-78/CML440/CML445	96	24	9	69	67	1	54	43	2.5	62	59	2.5	2.3	3.4	1.6	2.5	66	37	2.2
Maturity group average					69	67	3	55	33	2.2	63	52	2.3	2.0	3.4	1.7	2.3	67	33	2.3
Entries with anthesis date between 73 - 76 days																				
32	KATCH-2008-04	118	15	15	75	72	4	60	12	1.0	70	52	2.0	1.8	2.4	1.8	2.0	73	25	1.5
41	H513	108	16	12	73	72	6	59	4	1.5	69	22	2.5	2.3	3.2	1.8	2.7	71	11	2.3
42	DH04	111	20	14	73	72	7	58	5	2.3	69	21	2.5	1.7	3.2	1.3	2.2	73	11	2.2
34	MTPEH-2008-03	119	12	13	76	74	2	60	18	1.0	68	50	2.0	1.8	2.5	1.8	2.2	73	37	1.4
33	MTPEH-2008-05	125	12	13	76	76	7	60	13	1.3	68	31	2.0	1.5	2.2	1.5	2.3	73	32	1.6
37	KATEH-2008-01	118	13	16	76	74	5	61	4	1.3	68	43	2.3	1.5	1.9	1.8	2.0	72	17	1.5
35	MTPEH-2008-04	111	13	13	76	74	5	60	6	1.0	69	33	2.3	2.2	2.7	1.3	2.3	72	11	1.5
38	MTPEH-2008-01	116	13	16	76	72	7	59	8	1.3	67	40	2.0	1.5	2.2	2.1	2.2	74	31	1.7
36	MTPEH-2008-02	107	15	15	76	74	7	61	8	1.0	70	15	2.0	1.5	2.4	1.8	2.3	72	8	1.6
Maturity group average					69	73	5	60	9	1.3	69	34	2.2	1.8	2.5	1.7	2.3	73	20	1.7
Mean		100	21	11	68.8	67.5	2.6	55.1	18.0	1.9	62.1	39.5	2.5	2.1	3.3	1.7	2.4	66.4	23.4	2.2
LSD (0.05)		11	6	3	1.0	2.0	4.5	1.4	13.5	0.6	1.9	26.1	0.4	0.6	0.6	0.5	0.6	1.8	14.8	0.5
Min		62	12	6	63.2	62.3	0.0	51.6	3.6	1.0	55.7	14.8	2.0	1.5	1.9	1.1	1.8	59.2	7.8	1.4
Max		125	38	16	76.1	75.8	7.5	61.2	42.9	2.8	69.6	75.5	3.0	3.0	4.4	2.1	3.0	73.9	42.7	2.9
NumSignificantSites		12	12	12	15	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

TABLE 3C

Entry	Pedigree	Across		Mosso, Burundi				Mparambo, Burundi				Ngetta, Uganda			Selian, Tanzania			Selian, Tanzania		Thika, Kenya		Wad Medan, Sudan	
		RelGY	Rank	Anth	Anth	ASI	Ear	Anth	ASI	E.turc	Ear	Husk	E.turc	GLS	Ear	Anth	E.turc	Anth	ASI	Anth	Husk	Anth	
		%	Avg	StdDev	Date	Date	d	1-5	Date	d	1-5	1-5	%	1-5	1-5	1-5	d	1-5	d	d	d	%	d
<b>Entries with anthesis date between 63 - 64 days</b>																							
14	ECA-EE-69/CML440/CML445	91	28	11	64	60	4	3.0	49	6	3.6	3.3	68	1.5	1.5	3.2	70	2.5	74	3	70	10	61
30	ECA-EE-21-#/CML440/CML445	88	32	7	64	59	6	3.3	49	3	3.3	2.5	53	1.5	1.5	3.0	73	2.0	85	3	67	13	59
40	DH02	62	38	10	63	54	9	3.8	48	5	4.4	3.5	66	1.5	1.4	3.3	66	3.0	80	3	63	3	62
Maturity group average					64	58	6	3.3	48	5	3.8	3.1	63	1.5	1.5	3.2	70	2.5	80	3	67	9	61
<b>Entries with anthesis date between 65 - 68 days</b>																							
27	ZEWAc2F2-#/CML440/CML445	106	13	10	68	63	5	2.8	50	6	3.3	2.8	74	1.5	1.5	3.0	75	2.3	83	3	72	23	61
5	ECA-EE-60/CML440/CML445	108	14	7	68	63	6	3.0	50	6	3.3	3.0	73	1.5	1.9	2.8	77	2.7	82	3	71	21	62
28	ZEWBc2F2-#/CML440/CML445	106	15	9	68	62	7	3.0	50	4	2.7	3.0	73	1.3	1.2	2.0	76	2.2	85	3	72	7	62
31	LLSYNTH1-##/CML440/CML445	106	16	9	68	64	4	3.0	50	5	2.7	3.0	75	1.5	1.8	2.8	77	2.0	85	3	73	7	62
2	ECA-EE-57/CML440/CML445	101	19	10	68	63	5	2.8	50	5	3.2	3.0	71	1.5	1.5	3.2	74	2.5	82	3	72	10	62
7	ECA-EE-62/CML440/CML445	100	19	6	68	62	6	2.8	50	6	3.5	3.0	73	1.5	1.2	3.2	75	2.5	90	4	71	1	59
9	ECA-EE-64/CML440/CML445	100	21	13	68	63	4	3.0	50	6	3.2	3.0	74	1.5	1.5	3.2	75	2.3	86	4	72	10	60
17	ECA-EE-72/CML440/CML445	98	21	8	68	62	7	3.0	51	4	3.3	3.0	73	1.5	1.3	3.0	77	2.5	86	4	70	8	62
8	ECA-EE-63/CML440/CML445	97	22	10	68	63	5	3.0	50	5	3.6	3.3	73	1.5	1.8	2.8	77	2.0	83	3	72	6	62
18	ECA-EE-73/CML440/CML445	98	23	9	67	61	5	3.0	50	4	2.9	3.0	73	1.5	1.6	2.3	75	2.5	84	3	70	16	62
21	ECA-EE-76/CML440/CML445	96	23	11	67	62	4	3.0	49	5	3.7	2.5	73	1.5	1.5	3.0	72	2.3	79	3	69	20	62
3	ECA-EE-58/CML440/CML445	97	23	11	68	61	6	3.0	50	5	3.4	3.5	71	1.5	1.5	3.2	75	2.0	85	3	70	29	61
16	ECA-EE-71/CML440/CML445	98	23	12	67	61	7	2.3	51	5	2.9	3.3	71	1.5	1.5	3.8	76	2.3	81	4	73	6	61
29	ECA-EE-55-#/CML440/CML445	94	24	11	66	62	3	2.8	50	2	3.1	3.3	71	1.5	1.6	3.3	75	2.2	80	3	71	2	61
10	ECA-EE-65/CML440/CML445	96	24	8	67	60	7	2.8	49	5	3.2	3.0	70	1.5	1.6	2.8	75	2.5	84	3	71	10	62
11	ECA-EE-66/CML440/CML445	96	25	11	67	60	8	3.0	54	4	3.4	3.0	71	1.5	1.6	2.8	75	2.3	83	3	73	0.7	62
12	ECA-EE-67/CML440/CML445	94	25	10	67	62	5	3.0	50	5	3.3	3.0	71	1.5	1.6	3.0	76	2.5	86	3	68	19	63
15	ECA-EE-70/CML440/CML445	94	25	8	67	63	6	3.0	50	5	3.3	3.0	73	1.5	1.4	3.0	78	2.3	84	3	70	26	60
13	ECA-EE-68/CML440/CML445	91	27	10	66	61	7	2.8	50	5	3.4	2.5	72	1.5	1.4	3.2	73	2.3	83	3	70	13	61
22	ECA-EE-77/CML440/CML445	94	27	11	67	62	4	3.0	50	6	3.4	3.0	71	1.5	1.5	3.5	74	2.5	85	3	71	16	62

TABLE 3C

Entry	Pedigree	Across		Mosso, Burundi				Mparambo, Burundi				Ngetta, Uganda			Selian, Tanzania		Selian, Tanzania		Thika, Kenya		Wad Medan, Sudan		
		RelGY	Rank	Anth	Anth	ASI	Ear	Anth	ASI	E.turc	Ear	Husk	E.turc	GLS	Ear	Anth	E.turc	Anth	ASI	Anth	Husk	Anth	
				Date	Date		Aspect	Date			Aspect	Cover			Aspect	Date		Date		Date	Cover	Date	
		%	Avg	StdDev	d	d	d	1-5	d	d	1-5	1-5	%	1-5	1-5	1-5	d	1-5	d	d	d	%	d
6	ECA-EE-61/CML440/CML445	90	27	10	67	62	2	3.0	50	5	3.2	3.3	71	1.5	1.3	3.0	75	2.5	81	3	69	21	63
26	ECA-EE-81/CML440/CML445	89	27	11	67	66	2	2.3	51	4	3.7	3.3	71	1.8	1.8	3.0	74	2.5	83	3	71	8	61
1	ECA-EE-56/CML440/CML445	92	27	10	66	62	4	2.3	50	4	3.4	3.0	70	1.5	1.3	2.8	75	2.5	83	3	71	1	60
25	ECA-EE-80/CML440/CML445	92	28	10	67	62	4	3.5	50	4	3.6	3.0	72	1.5	1.4	2.8	72	2.3	81	3	72	16	61
19	ECA-EE-74/CML440/CML445	93	28	8	66	60	7	3.0	50	5	3.4	3.3	71	1.5	1.5	3.5	73	2.5	83	3	69	13	61
20	ECA-EE-75/CML440/CML445	90	29	9	67	63	6	3.0	49	6	3.2	3.0	73	1.5	1.3	3.0	73	2.5	81	4	72	11	61
24	ECA-EE-79/CML440/CML445	92	29	6	67	63	5	3.0	50	5	3.3	3.0	73	1.3	1.6	2.7	74	2.0	83	3	71	26	62
Maturity group average					67	62	5	2.9	50	5	3.3	3.0	72	1.5	1.5	3.0	75	2.3	83	3	71	13	62
Entries with anthesis date between 69 - 70 days																							
4	ECA-EE-59/CML440/CML445	110	12	8	69	62	5	2.8	50	5	2.8	3.0	73	1.5	1.3	2.0	77	2.0	83	3	74	16	60
39	DUMA43	109	16	13	70	64	7	2.8	51	7	2.6	3.5	78	1.5	1.5	2.2	79	2.0	84	4	73	20	63
23	ECA-EE-78/CML440/CML445	96	24	9	69	63	6	3.3	51	5	3.6	3.0	74	1.5	1.3	2.5	77	2.0	83	3	71	28	62
Maturity group average					69	63	6	2.9	51	6	3.0	3.2	75	1.5	1.4	2.2	77	2.0	83	3	72	22	62
Entries with anthesis date between 73 - 76 days																							
32	KATCH-2008-04	118	15	15	75	70	3	2.3	56	4	2.2	2.0	81	1.5	1.9	1.8	84	2.0	96	4	84	40	62
41	H513	108	16	12	73	69	3	3.0	54	7	3.1	3.3	80	1.0	1.3	2.2	81	2.0	95	4	78	51	63
42	DH04	111	20	14	73	65	7	2.8	54	6	2.6	3.3	79	1.5	0.8	3.0	85	2.0	88	3	83	3	60
34	MTPEH-2008-03	119	12	13	76	70	3	2.0	58	3	2.5	2.0	82	1.0	1.1	2.0	85	2.0	95	4	83	16	63
33	MTPEH-2008-05	125	12	13	76	71	3	2.3	58	3	2.2	3.0	81	1.0	1.0	1.2	88	2.0	95	4	81	38	63
37	KATEH-2008-01	118	13	16	76	70	3	1.8	60	3	2.1	2.5	80	1.0	1.0	1.5	88	2.3	94	4	81	26	68
35	MTPEH-2008-04	111	13	13	76	71	1	2.5	60	3	2.4	2.0	83	1.5	1.6	2.0	87	2.5	95	3	83	15	67
38	MTPEH-2008-01	116	13	16	76	69	3	1.5	58	4	2.2	2.3	82	1.3	0.7	3.0	87	2.2	94	3	82	36	68
36	MTPEH-2008-02	107	15	15	76	70	3	2.8	58	4	2.1	2.3	82	1.0	1.2	1.8	87	2.0	90	3	85	30	69
Maturity group average					69	69	3	2.3	57	4	2.4	2.5	81	1.2	1.2	2.1	86	2.1	93	4	82	28	65
Mean		100	21	11	68.8	63.1	4.7	2.8	51.6	4.8	3.1	2.9	73.5	1.4	1.4	2.7	77.0	2.3	85.1	3.3	72.9	16.4	62.2
LSD (0.05)		11	6	3	1.0	3.5	3.9	0.9	3.0	2.0	0.7	0.7	6.8	0.2	0.5	1.2	3.5	0.4	1.1	0.7	5.7	20.5	4.1
Min		62	12	6	63.2	54.0	1.0	1.5	47.5	2.4	2.1	2.0	52.9	1.0	0.7	1.2	66.3	2.0	73.5	2.8	63.0	0.6	59.3
Max		125	38	16	76.1	70.5	8.5	3.8	59.7	7.4	4.4	3.5	82.5	1.8	1.9	3.8	88.0	3.0	95.5	4.2	84.5	50.9	68.5
NumSignificantSites		12	12	12	15	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

Entry	Pedigree	Across		Afsf-Arusha, Tanzania							Afsf-Arusha, Tanzania				Bako, Ethiopia LN		
		RelGY	Rank	Anth	Anth	ASI	Husk	GLS	Ear	Anth	ASI	E.turc	Ear	Anth	Husk	E.turc	
				Date	Date		Cover		Aspect	Date			Aspect	Date	Cover		
		%	Avg	StdDev	d	d	d	%	1-5	1-5	d	d	1-5	1-5	d	%	1-5
Entries with anthesis date between 73 - 75 days																	
10	ECAVL2/ECAVL18	124	5	4	75	92	3	5	1.0	1.7	90	3	2.5	2.0	89	8.4	2.5
9	ECAVL2/ECAVL17	115	9	8	75	93	2	6	1.1	2.0	90	3	2.7	2.0	85	5.9	2.3
8	ECAVL2/ECAVL16-STR	111	10	7	75	92	4	4	1.2	1.8	91	4	2.4	2.0	86	8.0	2.5
5	ECAVL1/ECAVL18	111	10	5	74	91	3	5	1.2	1.8	92	4	2.5	2.2	86	1.6	2.2
21	ECAVL18/NIP25	111	10	7	75	93	3	5	1.2	1.7	91	4	2.2	2.0	83	7.8	2.7
19	ECAVL17/ECAVL18	108	10	5	75	93	3	5	1.0	2.0	92	3	2.0	2.0	84	8.4	2.7
16	ECAVL16-STR/ECAVL17	108	12	7	75	88	3	5	1.0	1.7	92	4	2.2	2.0	86	18.2	2.7
20	ECAVL17/NIP25	107	12	6	74	90	2	6	1.2	1.7	93	3	2.4	2.0	86	4.7	2.5
1	ECAVL1/ECAVL2	103	14	8	75	91	4	4	1.2	2.0	93	3	2.5	2.2	85	7.7	2.3
6	ECAVL1/NIP25	101	14	7	74	91	3	5	1.5	1.8	89	4	2.5	2.3	83	6.4	2.7
11	ECAVL2/NIP25	104	14	8	74	87	3	4	1.1	1.5	92	3	2.5	1.8	84	2.3	2.5
4	ECAVL1/ECAVL17	101	15	7	75	91	3	6	1.4	2.3	91	4	2.4	2.2	85	9.5	2.2
14	ECAVL16/ECAVL18	100	15	7	74	90	4	5	1.2	1.5	90	4	2.5	1.8	84	8.0	2.8
3	ECAVL1/ECAVL16-STR	101	16	6	74	86	3	4	1.3	1.8	95	4	2.3	2.2	84	5.8	2.5
18	ECAVL16-STR/NIP25	98	16	7	74	93	3	7	1.1	1.8	91	4	2.3	2.0	83	4.1	2.8
30	Local Check	97	16	10	74	83	3	7	1.4	2.2	90	4	2.7	2.0	88	0.0	2.2
13	ECAVL16/ECAVL17	95	17	8	74	86	3	5	1.5	1.5	88	3	2.6	2.0	86	10.8	2.3
7	ECAVL2/ECAVL16	99	17	6	75	89	3	5	1.0	1.5	88	3	3.0	2.0	86	0.8	2.7
12	ECAVL16/ECAVL16-STR	96	19	6	75	95	3	5	1.5	1.8	93	3	2.8	2.0	83	7.8	2.8
2	ECAVL1/ECAVL16	92	19	8	74	87	3	5	1.3	2.0	92	3	2.8	2.0	84	9.0	2.7
15	ECAVL16/NIP25	89	21	6	73	92	3	6	1.4	1.5	86	4	2.7	1.9	83	1.7	3.5
28	NIP25-#	81	24	7	74	86	3	6	1.0	2.2	92	3	2.5	2.5	84	2.6	2.7

Entry	Pedigree	Across		Afsf-Arusha, Tanzania							Afsf-Arusha, Tanzania				Bako, Ethiopia LN		
		RelGY	Rank	Anth	Anth	ASI	Husk	GLS	Ear	Anth	ASI	E.turc	Ear	Anth	Husk	E.turc	
		%	Avg	StdDev	d	d	d	%	1-5	1-5	d	d	1-5	1-5	d	%	1-5
24 ECAVL16-#		69	28	4	73	86	3	5	1.0	1.7	90	4	2.7	2.0	83	2.1	3.8
Maturity group average				74	90	3	5	1.2	1.8	91	3	2.5	2.0	85	6.2	2.6	
Entries with anthesis date between 76 - 77 days																	
29 CML202/CML395/CML312-RE	122	7	6	77	90	3	10	1.3	1.5	92	3	2.7	2.0	88	10.1	2.2	
17 ECAVL16-STR/ECAVL18	111	10	7	77	91	3	6	1.0	1.8	92	2	2.8	2.0	88	4.7	2.7	
23 ECAVL2-#	106	12	7	76	82	3	6	1.4	2.0	93	3	2.7	2.2	88	-0.8	2.3	
27 ECAVL18-#	93	19	6	76	94	4	6	1.3	1.7	94	3	2.0	2.2	88	6.1	2.7	
22 ECAVL1-#	85	23	6	76	91	5	6	1.1	2.2	96	3	2.5	2.3	86	1.7	2.5	
25 ECAVL16-STR-#	86	23	5	76	92	3	6	0.9	2.2	92	4	2.5	2.0	86	13.5	2.3	
26 ECAVL17-#	72	27	4	76	87	3	5	1.4	2.5	93	3	2.8	2.5	86	8.9	2.7	
Maturity group average				76	90	3	6	1.2	2.0	93	3	2.6	2.2	87	6.3	2.5	
Mean	100	15	7	74.8	89.7	3.2	5.4	1.2	1.8	91.5	3.4	2.5	2.1	85.3	6.2	2.6	
LSD (0.05)	13	6	1	0.6	2.2	1.0	1.9	0.3	0.5	1.1	0.5	0.5	0.3	3.5	7.5	0.7	
Min	69	5	4	73.3	82.0	2.0	4.1	0.9	1.5	86.3	2.0	2.0	1.8	82.8	-0.8	2.2	
Max	124	28	10	76.7	95.0	4.7	10.0	1.5	2.5	95.7	4.0	3.0	2.5	88.5	18.2	3.8	
NumSignificantSites	19	19	19	16	1	1	1	1	1	1	1	1	1	1	1	1	

Entry	Pedigree	Across			Bako, Ethiopia					Elgon Downs, Kenya			Embu, Kenya		Gandajika, DR Congo		Kakamega, Kenya	
		RelGY	Rank	StdDev	Anth Date	Anth Date	Husk Cover	E.turc 1-5	Ear Aspect 1-5	Anth Date	ASI d	Husk Cover %	Husk Cover %	ASI d	Husk Cover %	Anth Date	Ear Aspect 1-5	
Entries with anthesis date between 73 - 75 days																		
10	ECAVL2/ECAVL18	124	5	4	75	77	14	2.4	2.3	87	2	3	6	5	4	59	1.9	
9	ECAVL2/ECAVL17	115	9	8	75	76	10	2.1	2.7	86	2	5	6	6	6	59	2.2	
8	ECAVL2/ECAVL16-STR	111	10	7	75	76	12	2.0	2.5	87	2	5	10	5	9	59	2.0	
5	ECAVL1/ECAVL18	111	10	5	74	76	12	2.3	2.3	86	1	9	15	4	7	59	2.2	
21	ECAVL18/NIP25	111	10	7	75	76	6	2.9	2.7	86	1	8	6	5	9	58	1.8	
19	ECAVL17/ECAVL18	108	10	5	75	76	21	2.3	2.7	86	3	14	14	4	13	58	2.7	
16	ECAVL16-STR/ECAVL17	108	12	7	75	75	13	2.2	3.0	87	2	21	17	6	10	59	2.1	
20	ECAVL17/NIP25	107	12	6	74	76	15	2.2	2.5	84	3	7	4	6	11	58	2.1	
1	ECAVL1/ECAVL2	103	14	8	75	76	9	2.2	2.5	87	3	9	5	6	4	59	1.9	
6	ECAVL1/NIP25	101	14	7	74	74	8	2.5	2.3	83	3	4	7	6	11	57	2.0	
11	ECAVL2/NIP25	104	14	8	74	76	5	2.0	2.5	85	2	3	4	5	4	59	1.5	
4	ECAVL1/ECAVL17	101	15	7	75	77	11	2.0	2.8	86	5	9	4	5	9	59	2.1	
14	ECAVL16/ECAVL18	100	15	7	74	75	24	2.5	2.5	85	3	7	17	4	7	59	1.8	
3	ECAVL1/ECAVL16-STR	101	16	6	74	75	14	2.6	2.7	86	2	8	12	6	9	57	2.1	
18	ECAVL16-STR/NIP25	98	16	7	74	75	14	2.5	2.3	85	2	3	12	5	10	58	2.3	
30	Local Check	97	16	10	74	79	12	1.8	2.0	85	1	3	7	3	8	59	2.1	
13	ECAVL16/ECAVL17	95	17	8	74	77	16	2.6	2.5	85	3	11	11	6	9	58	2.2	
7	ECAVL2/ECAVL16	99	17	6	75	76	10	2.6	2.3	86	3	5	9	4	7	59	1.6	
12	ECAVL16/ECAVL16-STR	96	19	6	75	77	12	2.8	2.5	86	3	21	9	5	9	58	2.0	
2	ECAVL1/ECAVL16	92	19	8	74	76	15	2.2	2.3	84	3	8	5	6	8	58	2.2	
15	ECAVL16/NIP25	89	21	6	73	76	6	2.6	2.3	85	4	13	9	8	8	57	2.1	
28	NIP25-#	81	24	7	74	77	10	2.6	2.7	84	2	5	4	5	8	57	2.1	

Entry	Pedigree	Across			Bako, Ethiopia		Elgon Downs, Kenya		Embu, Kenya	Gandajika, DR Congo		Kakamega, Kenya					
		RelGY	Rank	StdDev	Anth Date	Anth Date	Husk Cover	E.turc 1-5	Ear 1-5	Anth Date	ASI d	Husk %	Husk %	Anth Date	Ear 1-5		
24 ECAVL16-#		69	28	4	73	77	10	2.6	3.0	85	4	12	10	10	10	59	2.1
Maturity group average					74	76	12	2.4	2.5	85	3	8	9	5	8	58	2.1
Entries with anthesis date between 76 - 77 days																	
29 CML202/CML395/CML312-RE		122	7	6	77	79	17	2.1	2.2	89	1	7	14	8	17	61	1.7
17 ECAVL16-STR/ECAVL18		111	10	7	77	77	23	2.7	2.5	88	2	13	21	4	4	59	2.0
23 ECAVL2-#		106	12	7	76	76	13	2.1	2.7	88	3	.	6	4	8	60	1.7
27 ECAVL18-#		93	19	6	76	77	16	2.4	2.8	87	2	5	6	6	4	59	2.2
22 ECAVL1-#		85	23	6	76	77	9	2.0	2.5	88	1	6	4	6	9	59	2.3
25 ECAVL16-STR-#		86	23	5	76	78	10	2.0	2.5	88	2	10	8	4	16	60	1.8
26 ECAVL17-#		72	27	4	76	79	17	2.3	3.0	86	3	9	15	7	14	59	2.7
Maturity group average					76	77	15	2.2	2.6	88	2	8	11	6	10	60	2.1
Mean		100	15	7	74.8	76.4	12.8	2.3	2.5	85.9	2.5	8.3	9.2	5.4	8.8	58.7	2.1
LSD (0.05)		13	6	1	0.6	1.7	8.9	0.5	0.5	1.8	1.6	8.8	6.6	3.0	5.1	1.3	0.5
Min		69	5	4	73.3	74.1	4.8	1.8	2.0	83.5	1.0	2.5	3.6	2.9	3.5	57.0	1.5
Max		124	28	10	76.7	79.2	23.5	2.9	3.0	89.0	5.0	21.2	20.6	9.6	16.7	61.3	2.7
NumSignificantSites		19	19	19	16	1	1	1	1	1	1	1	1	1	1	1	1



Entry	Pedigree	Across			Kakamega, Kenya					Kakamega, Kenya		Kiboko, Kenya			Kibos, Kenya					
		RelGY	Rank		Anth Date	Anth Date	Husk Cover	E.turc 1-5	GLS 1-5	Ear Aspect	Anth Date	Husk Cover	Anth Date	ASI d	Ear Aspect	Anth Date	Husk Cover	E.turc 1-5	GLS 1-5	Ear Aspect
		%	Avg	StdDev	d	d	%	1-5	1-5	1-5	d	%	d	d	1-5	d	%	1-5	1-5	1-5
Entries with anthesis date between 73 - 75 days																				
10	ECAVL2/ECAVL18	124	5	4	75	80	14	3.1	1.6	2.5	78	15	58	1	1.5	70	17	2.5	1.5	2.5
9	ECAVL2/ECAVL17	115	9	8	75	80	19	3.2	2.0	2.6	78	15	57	3	2.0	69	26	2.6	2.0	2.5
8	ECAVL2/ECAVL16-STR	111	10	7	75	81	28	3.3	1.5	2.2	77	19	58	1	2.1	69	24	2.5	1.9	2.5
5	ECAVL1/ECAVL18	111	10	5	74	78	19	3.7	1.7	3.0	76	20	58	1	2.0	68	17	2.9	2.3	2.6
21	ECAVL18/NIP25	111	10	7	75	80	16	3.3	1.7	2.1	76	3	58	1	1.3	68	14	2.7	2.2	2.0
19	ECAVL17/ECAVL18	108	10	5	75	80	15	3.8	1.4	2.9	77	12	58	2	1.5	68	15	2.7	1.6	2.9
16	ECAVL16-STR/ECAVL17	108	12	7	75	80	47	3.7	1.4	3.5	77	28	60	2	1.8	69	36	3.1	1.8	2.9
20	ECAVL17/NIP25	107	12	6	74	79	12	3.8	1.9	2.6	77	21	59	1	1.6	68	24	2.7	2.1	3.3
1	ECAVL1/ECAVL2	103	14	8	75	79	25	3.0	1.8	2.8	77	13	58	2	1.3	69	21	2.5	1.8	2.5
6	ECAVL1/NIP25	101	14	7	74	78	9	3.8	1.7	2.4	76	11	57	2	1.9	67	17	2.7	2.3	2.6
11	ECAVL2/NIP25	104	14	8	74	79	13	3.2	2.0	2.1	76	11	58	1	1.6	68	13	2.6	2.2	2.3
4	ECAVL1/ECAVL17	101	15	7	75	79	39	4.3	1.5	3.4	78	31	59	1	2.2	68	19	3.2	1.6	2.9
14	ECAVL16/ECAVL18	100	15	7	74	81	13	4.0	1.7	2.7	77	7	58	2	1.6	68	9	3.4	2.2	2.6
3	ECAVL1/ECAVL16-STR	101	16	6	74	79	25	3.5	1.6	2.9	77	28	58	2	1.8	68	25	2.9	1.8	2.9
18	ECAVL16-STR/NIP25	98	16	7	74	79	18	4.0	1.8	2.2	75	18	57	2	1.4	67	23	2.8	2.3	2.8
30	Local Check	97	16	10	74	77	34	3.5	2.1	2.3	77	9	56	2	1.4	70	56	3.5	2.0	3.9
13	ECAVL16/ECAVL17	95	17	8	74	78	27	4.0	1.8	2.7	77	17	57	4	2.3	68	24	3.8	2.3	3.1
7	ECAVL2/ECAVL16	99	17	6	75	80	16	3.4	1.9	2.6	77	16	58	2	2.0	68	29	2.9	2.0	2.3
12	ECAVL16/ECAVL16-STR	96	19	6	75	78	20	3.8	2.0	2.6	77	30	57	2	2.4	67	21	3.2	1.9	2.4
2	ECAVL1/ECAVL16	92	19	8	74	79	29	4.1	1.7	3.2	75	12	58	2	2.1	67	17	3.1	2.4	2.8
15	ECAVL16/NIP25	89	21	6	73	78	36	4.0	2.5	3.2	76	11	57	2	1.7	67	21	3.0	2.0	2.4
28	NIP25-#	81	24	7	74	77	19	3.6	2.0	3.3	77	8	58	2	2.3	68	18	3.1	2.1	2.8

Entry	Pedigree	Across		Kakamega, Kenya					Kakamega, Kenya		Kiboko, Kenya			Kibos, Kenya								
		RelGY	Rank	Anth Date	Anth Date	Husk Cover	E.turc 1-5	GLS 1-5	Ear Aspect	Anth Date	Husk Cover	Anth Date	ASI d	Ear Aspect	Anth Date	Husk Cover	E.turc 1-5	GLS 1-5	Ear Aspect			
		%	Avg	StdDev	d	d	%	1-5	1-5	1-5	d	%	d	d	1-5	d	%	1-5	1-5	1-5		
24 ECAVL16-#		69	28	4	73	78	31	4.3	2.2	3.2	76	26	57	3	3.0	67	38	3.7	2.7	3.0		
Maturity group average							74	79	23	3.7	1.8	2.7	77	17	58	2	1.9	68	23	3.0	2.1	2.7
Entries with anthesis date between 76 - 77 days																						
29 CML202/CML395/CML312-RE	122	7	6	77	81	55	2.6	1.5	3.1	78	8	58	3	1.8	69	27	2.3	2.2	2.6			
17 ECAVL16-STR/ECAVL18	111	10	7	77	82	12	3.7	1.7	2.6	79	13	60	2	2.6	72	16	2.7	1.7	2.8			
23 ECAVL2-#	106	12	7	76	82	16	3.3	1.5	2.8	81	13	60	1	2.2	70	18	2.6	1.4	2.3			
27 ECAVL18-#	93	19	6	76	81	9	3.7	1.7	3.2	78	9	59	2	1.6	70	13	2.8	2.1	3.2			
22 ECAVL1-#	85	23	6	76	82	10	3.8	1.7	3.2	77	19	59	2	2.5	71	13	3.2	2.0	3.2			
25 ECAVL16-STR-#	86	23	5	76	79	19	3.3	1.7	3.0	79	21	59	1	2.1	70	13	2.9	1.8	2.9			
26 ECAVL17-#	72	27	4	76	81	23	4.0	1.5	3.9	78	25	60	2	2.8	71	23	3.3	1.7	3.8			
Maturity group average							76	81	21	3.5	1.6	3.1	79	16	59	2	2.3	70	18	2.8	1.8	3.0
Mean	100	15	7	74.8	79.5	22.2	3.6	1.8	2.8	77.1	16.4	58.1	1.7	2.0	68.7	21.6	2.9	2.0	2.8			
LSD (0.05)	13	6	1	0.6	2.6	14.5	0.4	0.4	0.6	2.2	14.9	1.0	1.2	0.6	1.5	13.3	0.4	0.5	0.7			
Min	69	5	4	73.3	77.5	8.7	2.6	1.4	2.1	74.6	2.9	55.9	0.5	1.3	66.7	9.4	2.3	1.4	2.0			
Max	124	28	10	76.7	82.1	55.1	4.3	2.5	3.9	80.6	31.1	60.1	4.0	3.0	71.9	56.1	3.8	2.7	3.9			
NumSignificantSites	19	19	19	16	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			

Entry	Pedigree	Across			Kibos, Kenya	Kimaeti, Kenya	Kitale, Kenya			Maseno, Kenya	Namulonge, Uganda	Palotaka, Sudan	Thika, Kenya		Yei, Sudan				
		RelGY	Rank	StdDev	Anth Date	Anth Date	Anth Date	Anth Date	ASI	E.turc	GLS	ASI	E.turc	Anth Date	Husk Cover	Anth Date	Husk Cover	Anth Date	E.turc 1-5
		%	Avg	StdDev	d	d	d	d	d	1-5	1-5	d	1-5	d	%	d	%	d	1-5
Entries with anthesis date between 73 - 75 days																			
10	ECAVL2/ECAVL18	124	5	4	75	64	67	83	1	2.8	2.6	2	2.0	68	66	85	7	60	1.5
9	ECAVL2/ECAVL17	115	9	8	75	64	66	82	4	3.0	2.5	3	2.7	69	66	84	20	59	2.1
8	ECAVL2/ECAVL16-STR	111	10	7	75	65	67	84	3	3.0	2.6	1	2.3	67	75	85	10	60	2.1
5	ECAVL1/ECAVL18	111	10	5	74	63	65	82	1	3.1	2.8	2	3.2	69	64	83	10	59	1.9
21	ECAVL18/NIP25	111	10	7	75	64	67	82	0	3.0	2.9	1	2.1	74	70	82	8	58	1.4
19	ECAVL17/ECAVL18	108	10	5	75	65	66	80	2	3.5	2.7	3	3.5	71	69	84	11	60	1.5
16	ECAVL16-STR/ECAVL17	108	12	7	75	64	67	85	1	3.3	2.8	3	1.9	71	83	85	18	59	1.4
20	ECAVL17/NIP25	107	12	6	74	64	66	81	2	3.0	2.7	3	2.3	69	70	84	13	59	1.3
1	ECAVL1/ECAVL2	103	14	8	75	65	66	85	3	3.0	2.5	2	2.6	71	82	84	14	58	1.3
6	ECAVL1/NIP25	101	14	7	74	63	66	82	2	3.7	3.2	1	2.8	71	86	82	10	57	1.9
11	ECAVL2/NIP25	104	14	8	74	65	68	83	1	3.1	3.2	3	2.2	68	65	85	3	60	1.9
4	ECAVL1/ECAVL17	101	15	7	75	65	67	85	3	3.5	2.7	2	3.3	72	53	83	18	59	1.3
14	ECAVL16/ECAVL18	100	15	7	74	64	66	82	1	3.5	2.9	2	3.5	69	42	84	9	59	2.3
3	ECAVL1/ECAVL16-STR	101	16	6	74	65	66	84	1	3.2	2.8	3	2.9	66	69	84	16	59	1.4
18	ECAVL16-STR/NIP25	98	16	7	74	63	66	82	2	4.1	2.8	2	2.4	67	54	81	7	58	2.0
30	Local Check	97	16	10	74	65	67	83	2	2.6	2.3	0	2.1	70	51	83	5	56	4.3
13	ECAVL16/ECAVL17	95	17	8	74	65	67	82	3	3.5	2.7	3	3.3	68	63	83	7	59	2.1
7	ECAVL2/ECAVL16	99	17	6	75	65	66	83	2	3.3	3.0	3	3.1	73	84	84	8	59	1.6
12	ECAVL16/ECAVL16-STR	96	19	6	75	63	67	84	1	3.9	2.7	2	3.2	69	60	82	9	58	2.3
2	ECAVL1/ECAVL16	92	19	8	74	64	66	82	4	3.5	2.7	2	3.3	67	47	83	7	58	1.7
15	ECAVL16/NIP25	89	21	6	73	63	66	81	1	3.8	2.8	0	3.3	67	42	80	4	59	2.1
28	NIP25-#	81	24	7	74	64	65	83	2	3.6	3.0	2	2.8	67	90	80	7	58	1.6

Entry	Pedigree	Across			Kibos, Kenya	Kimaeti, Kenya	Kitale, Kenya			Maseno, Kenya	Namulonge, Uganda	Palotaka, Sudan	Thika, Kenya		Yei, Sudan				
		RelGY	Rank	StdDev	Anth Date	Anth Date	Anth Date	Anth Date	ASI	E.turc	GLS	ASI	E.turc	Anth Date	Husk Cover	Anth Date	Husk Cover	Anth Date	E.turc
		%	Avg	StdDev	d	d	d	d	d	1-5	1-5	d	1-5	d	%	d	%	d	1-5
24 ECAVL16-#		69	28	4	73	63	66	82	6	3.8	2.8	3	3.0	66	99	81	9	59	2.3
Maturity group average					74	64	66	83	2	3.3	2.8	2	2.8	69	67	83	10	59	1.9
Entries with anthesis date between 76 - 77 days																			
29 CML202/CML395/CML312-RE		122	7	6	77	65	69	86	2	2.3	2.3	2	1.8	73	68	85	24	62	1.6
17 ECAVL16-STR/ECAVL18		111	10	7	77	67	67	86	0	2.9	2.6	1	2.2	73	83	86	9	60	1.6
23 ECAVL2-#		106	12	7	76	65	67	87	2	2.9	2.4	3	2.4	70	95	85	9	61	1.2
27 ECAVL18-#		93	19	6	76	66	67	85	1	2.9	2.8	2	3.4	69	77	87	6	60	1.8
22 ECAVL1-#		85	23	6	76	65	67	89	2	3.3	2.7	2	3.0	70	70	86	18	61	1.6
25 ECAVL16-STR-#		86	23	5	76	65	68	88	1	3.6	2.8	2	2.4	69	76	87	13	59	2.3
26 ECAVL17-#		72	27	4	76	66	68	83	4	3.6	2.4	2	3.5	67	70	86	29	59	1.7
Maturity group average					76	66	68	86	2	3.1	2.6	2	2.7	70	77	86	15	60	1.7
Mean		100	15	7	74.8	64.4	66.6	83.6	2.0	3.3	2.7	2.1	2.7	69.2	69.7	83.7	11.3	59.0	1.8
LSD (0.05)		13	6	1	0.6	1.5	1.3	2.5	2.1	0.5	0.4	1.5	0.8	4.8	27.9	3.2	10.5	1.5	0.8
Min		69	5	4	73.3	63	65.0	80.4	0.0	2.3	2.3	-0.2	1.8	65.7	41.6	80.4	3.4	55.8	1.2
Max		124	28	10	76.7	67	69.0	88.7	5.9	4.1	3.2	3.3	3.5	74.0	99.0	87.2	28.6	62.4	4.3
NumSignificantSites		19	19	19	16	1	1	1	1	1	1	1	1	1	1	1	1	1	1

TABLE 5C

Entry	Pedigree	Across		Kagio, Kenya			Kakamega, Kenya			Kakamega, Kenya			Kiboko, Kenya MDR			Kiboko, Kenya			Kimaeti, Kenya		
		RelGY	Rank	Anth Date	Husk Cover	Ear Aspect	Anth Date	ASI	E.turc	Ear Aspect	Anth Date	GLS	Ear Aspect	Anth Date	ASI	Ear Aspect	Anth Date	ASI	Ear Aspect	Anth Date	
		%	Avg	StdDev	d	%	1-5	d	d	1-5	1-5	d	1-5	1-5	d	d	1-5	d	d	1-5	d
Entries with anthesis date between 55 - 59 days																					
1	ZIMLINE/KAT BCI - 8/SYNTH2006	118	6	5	59	.	1.3	65	2	3.0	2.7	62	1.5	2.5	61	3	2.3	51	1	2.2	56
2	ZIMLINE/KAT BCI - 10/SYNTH2006	112	8	6	59	3	1.7	62	6	3.0	3.0	63	1.3	2.7	61	4	2.4	51	1	2.2	58
7	ZIMLINE/MORO BCI - 24/SYNTH2006	107	9	5	59	.	2.0	63	8	3.6	3.2	62	1.5	2.5	62	3	2.1	52	1	2.2	55
5	ZIMLINE/KAT BCI - 25/SYNTH2006	108	9	3	59	3	2.0	65	4	3.2	2.8	62	1.5	2.7	62	3	2.7	51	1	2.3	56
6	ZIMLINE/MORO BCI - 1/SYNTH2006	108	10	5	59	3	1.6	65	3	3.3	2.3	61	1.5	2.7	62	5	2.3	52	2	2.2	57
9	M37/MORO BCI - 5/SYNTH2006	100	13	7	59	3	1.9	65	7	2.8	3.2	61	1.5	2.5	63	4	2.3	52	1	2.2	57
10	AMSECA/KAT BCI - 2/SYNTH2006	94	14	7	59	8	1.8	64	8	3.2	4.0	61	1.5	2.7	61	4	2.2	51	1	2.3	57
17	M37/MORO BCI - 5-#	92	15	7	59	.	1.9	66	6	3.2	3.3	63	1.5	3.0	62	9	2.5	51	1	2.7	57
21	SYNTH2006	93	16	6	58	.	1.5	61	8	3.2	2.7	61	1.3	2.7	61	5	2.1	50	1	2.3	55
18	AMSECA/KAT BCI - 2-#	86	18	6	59	.	2.6	64	7	3.3	3.8	63	1.5	2.7	62	6	2.5	52	1	2.7	58
23	LOCAL	56	24	1	55	3	2.4	65	3	3.5	4.0	64	1.5	3.0	58	1	3.1	47	2	3.2	56
Maturity group average					59	4	1.9	64	6	3.2	3.2	62	1.5	2.7	61	4	2.4	51	1	2.4	57
Entries with anthesis date between 60 - 63 days																					
3	ZIMLINE/KAT BCI - 13/SYNTH2006	103	11	6	61	3	1.4	66	5	3.1	3.0	64	1.5	2.5	64	8	3.0	52	1	2.3	59
19	ZIMLINE/MORO BCI - 1-#	101	11	5	60	5	2.4	67	5	3.5	3.3	62	1.5	2.5	63	5	3.0	52	1	2.8	57
11	ZIMLINE/KAT BCI - 8-#	98	12	8	60	3	1.9	66	3	3.2	2.8	63	1.5	2.5	62	4	2.7	52	1	2.2	58
15	ZIMLINE/KAT BCI - 25-#	100	13	6	61	5	2.2	67	6	3.1	3.5	62	1.7	2.5	64	6	2.8	53	1	2.5	58
8	M37/MORO BCI - 1/SYNTH2006	98	14	7	60	.	1.8	66	4	3.3	2.3	61	1.5	2.7	62	4	1.8	52	1	2.2	56
13	ZIMLINE/KAT BCI - 13-#	93	14	6	63	.	1.9	69	4	2.8	2.8	65	1.3	2.7	65	12	3.6	54	1	2.2	62
12	ZIMLINE/KAT BCI - 10-#	95	14	6	60	3	2.1	66	4	3.3	3.3	62	1.5	2.5	63	6	2.7	52	1	2.7	58
4	ZIMLINE/KAT BCI - 15/SYNTH2006	96	15	6	60	3	2.1	65	5	3.0	4.0	62	1.5	2.7	63	4	2.9	51	2	2.3	58
14	ZIMLINE/KAT BCI - 15-#	93	16	6	60	6	2.3	67	6	3.3	4.5	63	1.5	2.7	63	6	2.7	53	2	2.8	59
16	M37/MORO BCI - 1-#	92	16	5	60	4	2.1	67	3	3.5	3.3	62	1.5	2.5	63	6	2.2	52	1	2.7	58
22	ECA-EE-55	88	17	7	60	8	2.4	65	1	3.6	3.5	63	1.5	2.8	63	3	2.0	52	1	2.3	60
20	ZIMLINE/MORO BCI - 24-#	83	19	6	60	.	1.7	66	7	3.6	3.8	63	1.5	3.0	64	7	2.8	52	2	2.2	58
Maturity group average					60	4	2.0	66	4	3.3	3.4	63	1.5	2.6	63	6	2.7	52	1	2.4	58
Entries with anthesis date between 64 - 65 days																					
24	DUMA43	147	4	6	64	9	2.3	72	4	2.3	2.2	69	1.0	2.0	68	19	2.8	55	3	1.7	61
25	LOCAL	139	8	9	65	12	2.5	79	1	2.8	2.2	70	1.5	1.7	61	5	2.4	50	2	2.5	55
Maturity group average					65	10	2.4	76	3	2.6	2.2	70	1.3	1.8	64	12	2.6	52	2	2.1	58
Mean		100	13	6	59.9	4.8	2.0	66.1	4.9	3.2	3.2	63.0	1.5	2.6	62.5	5.7	2.6	51.6	1.3	2.4	57.5
LSD (0.05)		17	4	1	0.8	.	0.7	2.8	3.8	0.6	0.9	2.6	0.2	0.4	1.4	5.2	0.7	0.9	0.9	0.5	2.5
Min		56	4	1	55.1	2.5	1.3	61.0	1.0	2.3	2.2	61.0	1.0	1.7	57.6	1.4	1.8	47.3	0.7	1.7	54.5
Max		147	24	9	64.8	12.1	2.6	79.0	8.4	3.6	4.5	70.3	1.7	3.0	67.7	18.7	3.6	54.7	3.3	3.2	61.9
NumSignificantSites		15	15	15	12	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

TABLE 5C

Entry	Pedigree	Across		Kitale, Kenya		Kutus, Kenya		Maseno, Kenya		Mosso, Burundi		Mparambo, Burundi		Patancheru, India		Rahad Res, Sudan		Selian, Tanzania		Wad Medani, Sudan		Weruweru, Tanzania				
		RelGY	Rank	Anth Date	Anth Date	ASI	E.turc	E.turc	Anth Date	Ear Aspect	Anth Date	ASI	E.turc	Anth Date	Ear Aspect	Ear Aspect	Anth Date	GLS	Anth Date	Anth Date	E.turc	Ear Aspect				
		%	Avg	StdDev	d	d	d	1-5	1-5	d	1-5	d	d	1-5	d	1-5	1-5	d	1-5	d	d	1-5	1-5			
Entries with anthesis date between 55 - 59 days																										
1	ZIMLINE/KAT BCI - 8/SYNTH2006	118	6	5	59	68	2	2.3	2.3	66	2.9	58	3	2.7	50	3	3.2	2	1.5	2.9	65	1.0	58	53	2.7	2.0
2	ZIMLINE/KAT BCI - 10/SYNTH2006	112	8	6	59	68	1	2.7	2.3	64	2.8	57	6	3.2	48	5	3.6	3	2.4	3.4	65	1.2	54	52	2.3	1.9
7	ZIMLINE/MORO BCI - 24/SYNTH2006	107	9	5	59	69	0	2.8	2.5	65	2.7	57	6	3.3	48	6	3.3	2	2.6	3.5	65	1.2	54	53	2.8	2.2
5	ZIMLINE/KAT BCI - 25/SYNTH2006	108	9	3	59	71	0	2.5	2.3	65	2.8	58	5	2.7	49	4	3.4	4	1.9	2.8	66	1.0	55	54	2.7	2.2
6	ZIMLINE/MORO BCI - 1/SYNTH2006	108	10	5	59	69	1	2.6	2.8	65	2.6	57	6	3.0	49	5	3.6	2	2.4	3.4	66	1.3	56	52	2.5	2.0
9	M37/MORO BCI - 5/SYNTH2006	100	13	7	59	70	2	2.5	2.3	65	2.7	57	6	2.8	49	5	3.1	1	2.6	4.2	66	1.3	55	53	2.5	2.2
10	AMSECA/KAT BCI - 2/SYNTH2006	94	14	7	59	67	0	2.2	2.2	66	2.9	57	6	2.8	48	6	3.9	2	2.5	3.0	65	1.2	55	54	2.7	2.3
17	M37/MORO BCI - 5-#	92	15	7	59	70	0	2.2	3.2	66	2.7	57	6	3.2	48	6	3.2	3	2.7	3.7	66	1.0	53	53	2.8	2.7
21	SYNTH2006	93	16	6	58	66	1	2.7	2.5	66	2.9	57	6	3.3	48	5	3.2	2	2.6	3.6	64	1.2	55	52	3.0	2.3
18	AMSECA/KAT BCI - 2-#	86	18	6	59	67	2	2.2	2.7	68	3.1	56	2	3.5	47	8	3.9	1	3.0	3.1	66	1.3	56	53	2.2	2.0
23	LOCAL	56	24	1	55	60	2	2.4	2.5	63	3.0	50	8	3.5	46	4	4.2	2	2.5	4.5	56	1.0	48	49	3.2	3.2
Maturity group average					59	68	1	2.5	2.5	65	2.8	57	5	3.1	48	5	3.5	2	2.4	3.5	65	1.2	54	52	2.7	2.3
Entries with anthesis date between 60 - 63 days																										
3	ZIMLINE/KAT BCI - 13/SYNTH2006	103	11	6	61	69	2	2.3	1.9	66	2.9	60	5	3.0	50	4	3.2	2	2.5	2.6	68	1.2	56	55	2.3	1.8
19	ZIMLINE/MORO BCI - 1-#	101	11	5	60	71	0	2.4	2.7	65	2.9	58	6	3.5	50	4	3.8	2	2.7	2.9	67	1.2	53	53	2.7	2.5
11	ZIMLINE/KAT BCI - 8-#	98	12	8	60	69	0	2.3	2.3	65	2.9	61	4	3.0	49	5	3.0	3	2.9	3.4	66	1.0	53	53	2.3	2.7
15	ZIMLINE/KAT BCI - 25-#	100	13	6	61	71	0	2.2	2.7	66	2.9	62	5	3.2	50	5	3.5	1	2.3	3.3	66	1.7	55	55	2.7	2.5
8	M37/MORO BCI - 1/SYNTH2006	98	14	7	60	70	2	2.5	2.3	68	2.8	59	5	3.3	50	5	3.5	3	2.8	3.7	64	1.2	54	54	2.3	2.2
13	ZIMLINE/KAT BCI - 13-#	93	14	6	63	74	0	2.3	2.5	69	2.7	59	7	3.3	50	6	3.6	2	2.6	2.6	69	1.0	56	57	2.3	2.5
12	ZIMLINE/KAT BCI - 10-#	95	14	6	60	69	2	2.2	2.7	64	2.7	58	6	3.0	50	5	3.5	2	2.5	3.4	66	1.0	56	53	2.8	3.0
4	ZIMLINE/KAT BCI - 15/SYNTH2006	96	15	6	60	69	2	2.5	2.8	65	3.1	61	5	2.7	49	5	3.6	2	2.1	3.7	66	1.2	53	55	2.5	2.5
14	ZIMLINE/KAT BCI - 15-#	93	16	6	60	70	2	2.3	2.4	65	2.6	59	6	3.2	49	6	3.1	2	2.6	3.6	68	1.0	53	53	2.0	2.2
16	M37/MORO BCI - 1-#	92	16	5	60	68	2	2.5	2.3	67	2.8	58	3	3.7	49	4	3.5	3	2.2	3.8	67	1.3	53	53	2.8	2.5
22	ECA-EE-55	88	17	7	60	69	2	3.2	2.5	67	2.9	57	7	3.2	50	3	3.2	1	2.4	3.1	66	1.0	53	54	2.8	2.8
20	ZIMLINE/MORO BCI - 24-#	83	19	6	60	70	1	2.8	2.3	66	3.1	58	5	3.7	50	6	4.1	2	2.7	3.3	69	1.0	53	54	3.0	2.3
Maturity group average					60	70	1	2.5	2.4	66	2.9	59	5	3.2	50	5	3.5	2	2.5	3.3	67	1.1	54	54	2.6	2.5
Entries with anthesis date between 64 - 65 days																										
24	DUMA43	147	4	6	64	74	3	1.5	1.2	71	2.3	67	1	2.3	51	7	3.4	3	2.6	3.3	73	1.0	58	55	1.8	1.8
25	LOCAL	139	8	9	65	81	0	2.0	2.2	72	2.1	72	1	2.3	53	6	2.5	5	2.1	3.3	76	1.0	51	59	2.0	1.8
Maturity group average					65	78	2	1.7	1.7	72	2.2	69	1	2.3	52	7	3.0	4	2.3	3.3	75	1.0	54	57	1.9	1.8
Mean		100	13	6	59.9	69.4	1.1	2.4	2.4	66.2	2.8	58.9	5.1	3.1	49.2	5.1	3.5	2.3	2.5	3.4	66.5	1.1	54.2	53.5	2.6	2.3
LSD (0.05)		17	4	1	0.8	3.1	2.0	0.4	0.7	2.3	0.4	3.4	3.1	0.7	1.9	2.1	0.8	1.6	0.5	0.6	3.0	0.4	4.0	2.8	0.7	0.7
Min		56	4	1	55.1	59.7	-0.3	1.5	1.2	63.4	2.1	49.5	1.4	2.3	46.0	2.7	2.5	1.0	1.5	2.6	55.6	1.0	48.2	48.6	1.8	1.8
Max		147	24	9	64.8	80.7	3.3	3.2	3.2	72.2	3.1	71.5	7.5	3.7	53.0	7.7	4.2	5.1	3.0	4.5	75.9	1.7	57.6	59.1	3.2	3.2
NumSignificantSites		15	15	15	12	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

TABLE 6C

Entry	Pedigree	Across			Bumula, Kenya		Elgon Downs, Kenya		Kakamega, Kenya			Kiboko, Kenya		Kitale, Kenya		Maseno, Kenya		Melkasa, Ethiopia		
		RelGY	Rank	StdDev	Anth	Husk	Anth	Husk	Anth	ASI	E.turc	Ear	Anth	ASI	Anth	E.turc	E.turc	Anth	ASI	Ear
		%	Avg		Date	Cover	Date	Cover	Date	d	1-5	1-5	Date	d	Date	1-5	1-5	Date	d	d
Entries with anthesis date between 55 - 62 days																				
19	EEQPMOPV-1-EA-###	113	11	5	61	2	71	28	69	4	3.5	3.5	63	1	68	3.2	1.0	67	2	3.1
6	EEQPMOPV--13EA-B-B-###	107	13	8	61	6	71	24	69	5	3.7	3.0	63	4	70	3.2	1.0	67	2	2.9
23	EEQPM-8-EA-###	110	17	12	62	0	71	19	69	0	3.5	2.9	63	4	70	3.3	1.0	68	1	3.1
1	EEQPMOPV-1-EA-B-B-###	101	18	11	61	0	68	12	68	1	3.5	3.0	62	1	69	3.2	1.0	67	1	3.5
24	EEQPM-13-EA-###	99	19	10	61	0	69	22	67	3	4.0	3.2	63	1	69	3.5	1.3	67	2	3.4
32	EEQPM-49-EA-###	101	20	11	63	2	73	27	71	10	4.3	4.2	63	2	69	3.9	1.2	68	2	3.3
34	EEQPM-33-EA-###	92	23	9	63	0	72	20	70	4	4.0	3.8	65	4	69	3.7	1.2	67	1	3.1
30	EEQPM-38-EA-###	89	25	10	62	0	69	18	69	4	4.0	3.2	64	2	69	4.0	1.4	67	1	3.5
20	EEQPM-HT-###	87	27	11	63	0	72	22	69	6	4.0	3.6	64	2	69	3.7	1.0	70	2	3.6
38	KATUMANI	74	29	10	55	0	62	3	58	4	3.7	3.5	56	3	59	2.2	1.0	65	3	3.7
Maturity group average					61	1	69	19	68	4	3.8	3.4	62	2	68	3.4	1.1	67	2	3.3
Entries with anthesis date between 63 - 65 days																				
18	EEQPMOPV--#GEASP-1-B-B-###	106	14	10	64	0	73	38	72	6	4.3	3.3	64	6	70	4.0	1.3	70	1	3.2
8	EEQPMOPV--18-EA-B-B-###	107	14	10	65	2	75	20	73	3	3.5	3.3	66	10	71	3.4	2.4	69	0	3.3
25	EEQPM-16-EA-###	108	14	11	63	2	73	9	71	7	4.0	3.5	65	3	70	2.9	1.3	69	1	3.6
14	EEQPMOPV--49-EA-B-B-###	108	15	9	64	0	73	39	71	4	3.7	3.0	66	3	70	4.1	1.3	69	2	3.2
33	EEQPM-21-EA-###	107	16	12	63	2	72	26	69	4	3.6	3.0	65	7	70	3.3	1.4	69	0	2.9
15	EEQPMOPV--21-EA-B-B-###	102	16	12	64	0	75	39	71	2	3.8	3.3	66	2	72	3.3	1.1	69	1	2.7
16	EEQPMOPV--33-EA-B-B-###	108	17	12	63	0	74	49	71	6	4.5	3.8	64	2	70	3.2	1.0	68	1	3.2
11	EEQPMOPV--36-EA-B-B-###	105	17	12	65	8	74	12	69	7	3.2	3.2	66	8	73	3.6	1.0	70	1	3.6
26	EEQPM-18-EA-###	105	17	11	64	4	73	22	72	5	3.5	3.5	63	6	69	3.2	1.0	69	2	3.7
13	EEQPMOPV--45-EA-B-B-###	106	18	13	64	0	74	47	69	1	3.8	3.2	67	4	71	3.7	1.0	70	0	3.3
31	EEQPM-45-EA-###	103	18	9	63	3	71	38	72	4	3.5	3.5	64	5	69	3.3	1.0	71	1	3.2
22	EEQPM-9-EA-###	106	19	11	63	11	73	31	71	3	3.2	3.2	64	2	70	3.5	1.0	69	1	3.5
7	EEQPMOPV--16-EA-B-B-###	100	20	9	63	0	73	9	71	2	4.0	3.3	64	3	70	3.3	1.1	68	0	3.3
2	EEQPMOPV--HT-B-B-###	93	20	12	63	1	72	36	68	8	4.0	3.7	66	3	69	3.0	1.1	67	1	3.2
5	EEQPMOPV-8-EA-B-B-###	102	21	13	63	0	72	22	69	2	3.7	2.8	64	2	69	3.0	1.3	67	1	3.2

TABLE 6C

Entry	Pedigree	Across			Bumula, Kenya		Elgon Downs, Kenya		Kakamega, Kenya			Kiboko, Kenya		Kitale, Kenya		Maseno, Kenya		Melkasa, Ethiopia		
		RelGY	Rank	StdDev	Anth	Husk	Anth	Husk	Anth	ASI	E.turc	Ear	Anth	ASI	Anth	E.turc	E.turc	Anth	ASI	Ear
		%	Avg		Date	Cover	Date	Cover	Date	d	1-5	1-5	Date	d	Date	1-5	1-5	Date	d	d
4	EEQPMOPV--9-EA-B-B-###	102	21	12	64	4	75	24	73	3	3.8	3.8	65	2	70	4.0	1.2	70	1	3.2
29	EEQPM-36-EA-###	99	22	11	64	0	74	21	71	6	3.7	2.8	65	5	70	3.5	1.0	72	0	3.6
17	EEQPMOPV--42-EA-B-B-###	96	22	12	64	6	74	19	72	6	3.7	3.6	65	2	70	3.7	1.1	71	0	2.8
28	EEQPM-34-EA-###	93	22	8	63	3	74	28	72	4	4.5	4.6	65	2	70	4.1	1.0	68	-1	3.2
10	EEQPMOPV--34-EA-B-B-###	100	22	13	63	10	72	20	70	1	4.3	3.4	64	1	71	4.0	1.0	65	0	3.7
21	EEQPM-6-EA-###	90	23	9	64	0	74	29	71	11	4.2	3.4	66	4	70	3.6	1.5	70	1	3.6
27	EEQPM-29-EA-###	92	23	12	65	0	75	7	72	10	3.7	3.8	67	14	73	3.2	1.0	70	1	3.2
35	EEQPM-42-EA-###	92	24	9	63	0	72	11	69	6	4.0	3.4	64	3	69	4.0	1.0	68	1	3.3
3	EEQPMOPV--6-EA-B-B-###	89	26	9	64	9	73	11	70	8	4.3	3.3	65	4	70	4.0	1.3	71	2	3.3
12	EEQPMOPV--38-EA-B-B-###	85	26	12	65	2	75	12	75	11	4.2	3.6	65	9	73	4.0	1.0	70	0	2.7
36	EEQPM2-#-GEASP - 1-###	88	27	10	63	0	72	23	70	6	4.3	4.0	64	2	70	4.0	1.0	69	2	3.6
Maturity group average				64	3	73	25	71	5	3.9	3.4	65	4	70	3.6	1.2	69	1	3.3	
Entries with anthesis date between 66 - 68 days																				
39	DH01	170	9	15	68	0	67	11	76	4	3.2	1.7	68	6	80	2.3	1.0	68	1	2.2
37	POOL15QC7-SRC1-F2-###	87	25	10	66	0	75	13	73	6	4.5	3.4	66	10	73	3.8	2.0	69	1	3.1
9	EEQPMOPV--29-EA-B-B-###	80	27	13	66	0	76	3	75	15	4.2	4.2	67	17	72	4.2	1.3	73	1	3.1
Maturity group average				67	0	73	9	75	8	4.0	3.1	67	11	75	3.4	1.4	70	1	2.8	
Mean		100	20	11	63.3	2.0	72.1	22.1	70.5	4.9	3.9	3.4	64.4	4.4	70.2	3.5	1.2	68.7	1.0	3.3
LSD (0.05)		15	5	2	0.8	5.9	2.4	17.0	1.7	6.3	0.5	0.8	1.8	5.0	2.8	0.8	0.4	2.9	1.1	0.4
Min		74	9	5	55.4	-0.3	61.5	2.6	58.3	0.0	3.2	1.7	55.9	0.8	59.1	2.2	1.0	64.5	-0.5	2.2
Max		170	29	15	68.4	10.9	76.0	48.8	76.1	15.0	4.5	4.6	67.5	16.7	80.3	4.2	2.4	72.8	2.6	3.7
NumSignificantSites		9	9	9	10	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1



TABLE 6C

Entry	Pedigree	Across			Mosso, Burundi				Mparambo, Burundi		Mtwapa, Kenya		Rahad Res, Sudan		Selian, Tanzania		Wad Medani, Sudan		Weruweru, Tanzania	
		RelGY	Rank	StdDev	Anth Date	Anth Date	E.turc 1-5	GLS 1-5	Anth Date	Ear Aspect	Anth Date	Ear Aspect	ASI	Anth Date	ASI	Ear Aspect	Anth Date	ASI	E.turc 1-5	
		%	Avg	StdDev	d	d	1-5	1-5	d	1-5	d	1-5	d	d	d	1-5	d	d	1-5	
<b>Entries with anthesis date between 55 - 62 days</b>																				
19	EEQPMOPV-1-EA-###	113	11	5	61	57	3.3	2.0	49	3.0	50	3.3	6	66	2	2.8	54	4	3.0	
6	EEQPMOPV-13EA-B-B-###	107	13	8	61	53	3.5	2.0	49	3.0	51	2.8	4	66	3	3.2	56	4	2.2	
23	EEQPM-8-EA-###	110	17	12	62	58	3.3	2.0	51	3.3	51	2.3	4	65	2	3.7	56	5	2.8	
1	EEQPMOPV-1-EA-B-B-###	101	18	11	61	57	3.2	2.1	49	3.0	50	3.3	3	65	2	2.6	56	3	2.8	
24	EEQPM-13-EA-###	99	19	10	61	57	3.3	2.0	50	3.3	51	2.8	2	65	2	2.9	56	4	2.5	
32	EEQPM-49-EA-###	101	20	11	63	58	3.3	2.3	50	3.3	50	2.5	3	65	2	3.7	59	3	2.8	
34	EEQPM-33-EA-###	92	23	9	63	57	3.3	2.3	50	3.3	49	2.3	2	68	3	3.3	58	3	2.5	
30	EEQPM-38-EA-###	89	25	10	62	57	3.5	2.3	50	3.3	51	3.3	4	67	3	2.9	58	2	3.0	
20	EEQPM-HT-###	87	27	11	63	60	4.3	2.0	50	3.0	50	2.8	3	67	2	1.7	55	5	3.0	
38	KATUMANI	74	29	10	55	49	3.5	2.8	47	4.0	50	3.3	4	59	4	3.9	50	3	3.0	
Maturity group average					61	56	3.4	2.2	49	3.2	50	2.8	4	65	3	3.1	56	4	2.8	
<b>Entries with anthesis date between 63 - 65 days</b>																				
18	EEQPMOPV-#GEASP-1-B-B-###	106	14	10	64	62	3.0	2.0	51	3.0	51	3.3	4	69	4	3.4	58	3	2.8	
8	EEQPMOPV-18-EA-B-B-###	107	14	10	65	60	3.8	3.0	51	3.5	52	3.0	4	70	2	3.4	59	2	2.3	
25	EEQPM-16-EA-###	108	14	11	63	58	3.0	1.5	50	3.0	50	2.8	4	66	2	2.9	56	3	2.2	
14	EEQPMOPV-49-EA-B-B-###	108	15	9	64	58	3.5	2.8	54	3.0	52	3.0	2	71	2	3.2	59	3	2.7	
33	EEQPM-21-EA-###	107	16	12	63	58	2.8	2.3	51	2.8	53	2.8	3	69	2	3.6	59	2	2.5	
15	EEQPMOPV-21-EA-B-B-###	102	16	12	64	58	3.3	2.0	51	3.0	51	3.3	3	67	2	2.7	61	3	2.0	
16	EEQPMOPV-33-EA-B-B-###	108	17	12	63	59	4.0	2.8	50	3.8	51	2.3	5	68	2	2.8	58	2	3.0	
11	EEQPMOPV-36-EA-B-B-###	105	17	12	65	63	2.8	2.0	52	3.3	52	3.3	2	70	2	3.4	59	3	2.3	
26	EEQPM-18-EA-###	105	17	11	64	61	3.0	2.3	51	3.3	50	3.0	6	70	2	3.2	61	2	2.5	
13	EEQPMOPV-45-EA-B-B-###	106	18	13	64	60	3.0	2.8	51	3.0	51	3.3	4	69	3	3.4	59	5	2.0	
31	EEQPM-45-EA-###	103	18	9	63	57	3.5	2.0	52	3.3	49	2.8	1	69	2	2.9	56	3	2.0	
22	EEQPM-9-EA-###	106	19	11	63	58	3.0	2.8	50	3.0	50	2.5	0	68	2	3.2	61	3	2.0	
7	EEQPMOPV-16-EA-B-B-###	100	20	9	63	59	4.0	2.5	50	3.5	51	3.0	2	67	2	2.6	56	4	2.5	
2	EEQPMOPV-HT-B-B-###	93	20	12	63	58	4.0	2.5	51	3.5	52	2.3	2	65	2	2.3	58	3	2.7	
5	EEQPMOPV-8-EA-B-B-###	102	21	13	63	59	4.3	2.5	50	3.3	52	3.8	4	67	2	3.3	58	4	3.0	

TABLE 6C

Entry	Pedigree	Across			Mosso, Burundi				Mparambo, Burundi		Mtwapa, Kenya		Rahad Res, Sudan		Selian, Tanzania		Wad Medani, Sudan		Weruweru, Tanzania	
		RelGY	Rank	StdDev	Anth Date	Anth Date	E.turc	GLS	Anth Date	Ear Aspect	Anth Date	Ear Aspect	ASI	Anth Date	ASI	Ear Aspect	Anth Date	ASI	E.turc	
		%	Avg		d	d	1-5	1-5	d	1-5	d	1-5	d	d	d	1-5	d	d	1-5	
4	EEQPMOPV-9-EA-B-B-###	102	21	12	64	59	3.3	1.5	52	3.0	52	2.5	0	68	2	1.9	59	2	2.5	
29	EEQPM-36-EA-###	99	22	11	64	61	3.8	2.3	50	3.0	51	3.3	6	70	2	3.0	59	2	2.7	
17	EEQPMOPV-42-EA-B-B-###	96	22	12	64	62	3.5	2.5	51	3.0	52	2.8	4	68	2	2.8	58	2	2.7	
28	EEQPM-34-EA-###	93	22	8	63	57	4.0	2.3	50	3.3	52	2.8	1	65	2	3.1	58	2	2.2	
10	EEQPMOPV-34-EA-B-B-###	100	22	13	63	58	3.0	2.0	51	3.0	51	3.0	4	65	2	2.1	61	2	2.5	
21	EEQPM-6-EA-###	90	23	9	64	61	3.5	2.3	51	3.0	53	3.3	4	70	2	2.9	58	4	2.5	
27	EEQPM-29-EA-###	92	23	12	65	62	3.5	2.3	52	3.0	51	2.5	4	70	2	3.9	61	2	2.3	
35	EEQPM-42-EA-###	92	24	9	63	58	4.0	2.5	51	3.8	51	2.8	3	67	3	2.9	58	3	3.0	
3	EEQPMOPV-6-EA-B-B-###	89	26	9	64	62	3.8	2.0	50	3.0	51	2.8	2	69	3	2.6	59	2	3.0	
12	EEQPMOPV-38-EA-B-B-###	85	26	12	65	62	4.3	2.8	52	3.3	51	2.5	6	70	3	2.7	60	2	2.5	
36	EEQPM2-#-GEASP - 1-###	88	27	10	63	60	4.3	2.8	50	3.0	51	2.8	4	69	2	2.4	58	3	2.5	
Maturity group average				64	60	3.5	2.4	51	3.2	51	2.9	3	68	3	2.9	59	3	2.5		
Entries with anthesis date between 66 - 68 days																				
39	DH01	170	9	15	68	71	2.0	2.0	60	3.0	51	3.0	6	78	4	2.8	66	3	2.2	
37	POOL15QC7-SRC1-F2-###	87	25	10	66	62	4.0	2.0	52	3.0	54	3.3	4	71	3	3.2	61	3	2.5	
9	EEQPMOPV-29-EA-B-B-###	80	27	13	66	62	4.0	2.5	51	3.5	52	2.3	1	71	2	3.0	60	3	2.2	
Maturity group average				67	65	3.3	2.2	54	3.2	52	2.8	3	73	3	3.0	62	3	2.3		
Mean		100	20	11	63.3	59.2	3.5	2.3	50.6	3.2	51.1	2.9	3.4	67.7	2.6	3.0	58.3	3.0	2.6	
LSD (0.05)		15	5	2	0.8	2.8	0.8	0.8	2.1	0.4	1.9	0.8	2.2	4.0	1.1	0.8	2.5	1.3	0.6	
Min		74	9	5	55.4	49.2	2.0	1.5	46.5	2.8	49.1	2.3	0.1	58.5	2.0	1.7	50.4	1.9	2.0	
Max		170	29	15	68.4	70.9	4.3	3.0	59.5	4.0	53.6	3.8	6.2	77.5	4.5	3.9	66.2	4.9	3.0	
NumSignificantSites		9	9	9	10	1	1	1	1	1	1	1	1	1	1	1	1	1	1	

TABLE 7C

Entry	Pedigree	Across		Bugiri, Uganda	Busia, Uganda	Kagio, Kenya	Kakamega, Kenya		Kiboko, Kenya MDR	Kutus, Kenya	Pawe, Ethiopia	Pawe, Ethiopia STR		Thika, Kenya	Husk		
		RelGY	Rank	Anth	Ear	E.turc	Ear	ASI	E.turc	Anth	Ear	Anth	Anth	Ear	Anth	Cover	
		%	Avg	StdDev	Date	Aspect	Aspect	d	1-5	d	1-5	d	1-5	d	1-5	d	%
<b>Entries with anthesis date between 69 - 72 days</b>																	
4	CML390-IR/CML373-IR/CML445-IR	117	9	6	71	3.0	1.5	2.3	1	3.0	70	2.5	67	63	1.9	82	28
8	INTA/INTB-B-121-B-19-1/CML395-IR/CML202-IR	115	10	7	70	3.0	2.0	2.6	6	3.4	71	1.9	66	60	1.7	82	0
12	INTA/INTB-B-161-B-3-1/CML390-IR/CML373-IR	130	10	6	70	2.8	2.0	2.4	1	3.7	72	2.0	67	61	1.9	82	3
25	LOCAL	78	16	9	72	2.8	1.5	2.7	4	2.7	71	2.0	70	63	2.0	85	33
Maturity group average				71	2.9	1.8	2.5	3	3.2	71	2.1	67	62	1.9	83	16	
<b>Entries with anthesis date between 72 - 75 days</b>																	
7	INTA/INTB-B-132-B-5-1/CML395-IR/CML202-IR	140	4	3	75	2.3	1.5	1.9	4	2.3	76	2.5	70	65	1.0	89	15
17	INTA/INTB-B-116-B-2-1/CML395-IR/CML202-IR	129	5	3	74	2.8	1.5	1.6	2	3.5	78	2.9	70	65	1.6	85	11
9	INTA/INTB-B-110-B-6-1/CML395-IR/CML202-IR	117	8	6	74	3.0	2.8	2.9	3	3.4	77	2.2	67	65	1.1	87	3
1	INTA/INTB-B-41-B-1-1/CML395-IR/CML202-IR	106	10	8	75	2.3	1.5	2.5	-1	3.3	76	2.2	70	65	1.5	89	0
18	CML390-IR/CML373-IR/CML445-IR	110	11	5	74	2.5	1.8	1.9	3	3.7	73	3.5	71	65	2.1	86	10
22	WH502 (Striga Tolerant)	100	12	9	75	2.3	1.5	2.9	5	3.3	72	3.4	69	69	1.7	89	29
16	CML390-IR/CML373-IR/CML444-IR/CML445-IR	108	12	5	73	2.8	1.5	2.1	3	3.7	74	2.6	70	65	2.5	82	22
2	CML312-IR/CML390-IR/CML373-IR	110	13	9	74	2.3	1.5	1.9	3	3.6	74	2.3	69	65	2.0	87	3
6	INTA/INTB-B-215-B-5-1/CML395-IR/CML202-IR	99	13	6	74	3.0	1.8	1.7	4	3.0	74	2.0	69	66	2.4	89	0
13	CML390-IR/CML373-IR/CML444-IR	97	13	8	75	2.3	2.3	2.3	2	3.4	77	3.9	70	68	4.0	87	5
10	CML390-IR/CML373-IR/CML395-IR	90	14	5	75	2.3	1.5	2.6	2	3.5	77	3.4	72	65	2.6	88	11
15	CML390-IR/CML373-IR/CML395-IR/CML445-IR	92	15	3	73	2.8	1.8	2.2	3	3.5	73	2.2	68	65	2.6	85	5
14	CML312-IR/CML390-IR/CML395-IR/CML445-IR	94	15	5	74	2.5	1.5	2.8	2	3.4	73	1.6	71	65	1.5	85	20
23	WH403	80	16	7	74	2.3	1.5	2.2	2	3.6	73	3.2	72	67	1.6	85	6
24	UA KAYONGO	64	21	5	75	2.8	1.5	3.2	3	3.4	76	3.9	72	64	2.4	87	5
Maturity group average				74	2.5	1.7	2.3	3	3.4	75	2.8	70	66	2.0	87	10	
<b>Entries with anthesis date between 75 - 78 days</b>																	
5	INTA/INTB-B-52-B-8-1/CML395-IR/CML202-IR	115	10	6	76	2.8	2.3	1.6	2	3.5	80	3.4	71	66	1.4	89	7
19	CML312-IR/CML395-IR/CML202-IR/CML204-IR	93	14	5	76	2.5	1.8	3.1	4	3.6	76	2.6	72	68	2.9	88	3
11	CML395-IR/CML202-IR/CML444-IR	84	17	5	77	3.0	1.8	3.1	1	3.6	76	2.7	73	70	3.5	91	5
3	CML202-IR/CML204-IR/CML444-IR	81	18	7	78	2.8	1.8	2.6	4	3.6	80	2.8	73	70	3.0	90	0
20	CML373-IR/CML445-IR/CML202-IR/CML204-IR	78	19	5	76	3.3	1.5	2.8	5	2.2	75	2.5	72	69	2.6	87	5
Maturity group average				77	2.9	1.8	2.7	3	3.3	77	2.8	72	69	2.7	89	4	
<b>Entries with anthesis date between 79 - 80 days</b>																	
21	SYNTH2006-IR-#/CML202-IR/CML204-IR	72	21	6	80	3.0	1.5	3.2	3	3.5	81	4.2	77	70	2.5	91	6
Maturity group average				80	3.0	1.5	3.2	3	3.5	81	4.2	77	70	2.5	91	6	
Mean		100	13	6	74.4	2.7	1.7	2.4	2.9	3.3	74.9	2.7	70.1	65.7	2.2	86.7	9.3
LSD (0.05)		19	4	2	1.7	0.6	0.4	0.7	2.0	0.7	3.3	1.1	2.4	2.3	1.3	4.9	15.3
Min		64	4	3	69.9	2.3	1.5	1.6	-0.6	2.2	69.7	1.6	66.0	60.4	1.0	81.8	0.0
Max		140	21	9	79.6	3.3	2.8	3.2	5.6	3.7	80.6	4.2	76.5	70.0	4.0	91.3	32.5
NumSignificantSites		8	8	8	4	1	1	1	1	1	1	1	1	1	1	1	1



CIMMYT<sup>MR</sup>