



Characterization of Maize Germplasm Grown in Eastern and Southern Africa

**Results of the 2009
Regional Trials
Coordinated by
CIMMYT**

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CIMMYT

The International Maize and Wheat Improvement Center, known by its Spanish acronym, CIMMYT® (www.cimmyt.org), is an international, not-for-profit research and training organization. With partners in over 100 countries, the center works to sustainably increase the productivity of maize and wheat systems to ensure global food security and reduce poverty. The center's outputs and services include improved maize and wheat varieties and cropping systems, the conservation of maize and wheat genetic resources, and capacity building. CIMMYT belongs to and is funded by the Consultative Group on International Agricultural Research (CGIAR) (www.cgiar.org) and also receives support from national governments, foundations, development banks, and other public and private agencies. CIMMYT is particularly grateful for the generous, unrestricted funding that has kept the center strong and effective over many years.

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Contents

1.	Introduction	2
	Maize germplasm.....	2
	Trial Management.....	2
	Data Analysis.....	3
	Summary Tables.....	3
	Individual Site Results.....	4
	How can the results be used.....	5
2.	Description of Traits Recorded	6
3.	Sites and Local Checks	8
4.	Collaborators	12
5.	Summary Results	14
	Early and Intermediate Maturing Hybrids (EIHYP09).....	14
	Intermediate and Late Maturing Hybrids (ILHYB09).....	16
	Early Maturing Populations (EPOP09).....	18
	Intermediate and Late Maturing Populations (ILPOP09).....	20
6.	Individual Site Results	22
	EIHYP09	22
	ILHYB09.....	30
	EPOP09.....	35
	ILPOP09.....	39
8.	Inbred and Single Cross Parent Trials	44
	IPT09.....	44
	SXPT09.....	45

1. Introduction

Maize germplasm

The trials evaluated elite pre-release and released maize germplasm supplied by CIMMYT, National Agricultural Research Programs, and private seed companies from southern and eastern Africa. CIMMYT received the germplasm, grouped it according to vigor and maturity, and formed six replicated trials:

EIHYB09 : early to intermediate maturing hybrids

ILHYB09 : intermediate to late maturing hybrids

EPOP09 : early maturing open-pollinated varieties (OPVs)

ILPOP09 : intermediate to late maturing open-pollinated varieties (OPVs)

IPT09 : early, intermediate and late maturing inbred lines

SXPT09 : early, intermediate and late maturing single cross hybrids

Each trial had an alpha (0,1) lattice design with three replicates.

Trial management

The trials were grown by CIMMYT, National Agricultural Research Programs, private seed companies and non-governmental organizations in eastern and southern 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.

Managed low pH stress: trials were grown in fields with high aluminum saturation (desirably = 60%) and/or low amounts of plant-available phosphorus (desirably 3-4 ppm P; i.e. 20-25% of the recommended levels). The objective was to achieve maize yields that were 50-65% below the optimal maize yield at the same site.

Artificial inoculation/infestation of biotic stress factors: trials were grown under artificial inoculation/infestation of leaf diseases, stem borers, and maize grain weevils.

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

Data analysis

In each Table (except for IPT09, SXPT09), 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 some or all of the following nine environments:

Mid Altitude Humid Warm (Zone A), Mid Altitude Humid Hot (Zone B), Mid Altitude Dry (Zone C), Lowland Tropical Humid (Zone D), Lowland Tropical Dry (Zone E), Highlands (Zone F), Mid altitudes in eastern Africa, Managed N stress, Low pH stress. This grouping was done based on the location (for making the division among rainfed/well fertilized sites, (see Fig.1) and the management of the sites (rainfed/well fertilized, managed drought stress, managed N stress, low pH), maximum temperatures and seasonal precipitation. Please refer to Tables 1 and 2 for a detailed explanation of the characteristics of each zone.

Each trial for EPOP09, ILPOP09, EIHYB09 and ILHYB09 is presented with two Summary Tables and Individual site results. IPT09 and SXPT09 are presented with one table each.

Summary Tables

The Summary Tables present grain yields averaged across sites with significant differences between entries, for each of the environments. 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 weevil and stem borer damage, 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 EPOP09, ILPOP09, EIHYB09 and ILHYB09, within each maturity group, **grain yields, root and stem lodging, husk cover, ear rot, leaf diseases, weevil and borer damage 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 for individual sites, grouped by environment. A description of the sites can be found in Section 3.

Fig 1. Classification of locations based on SADC Maize Mega-Environments.

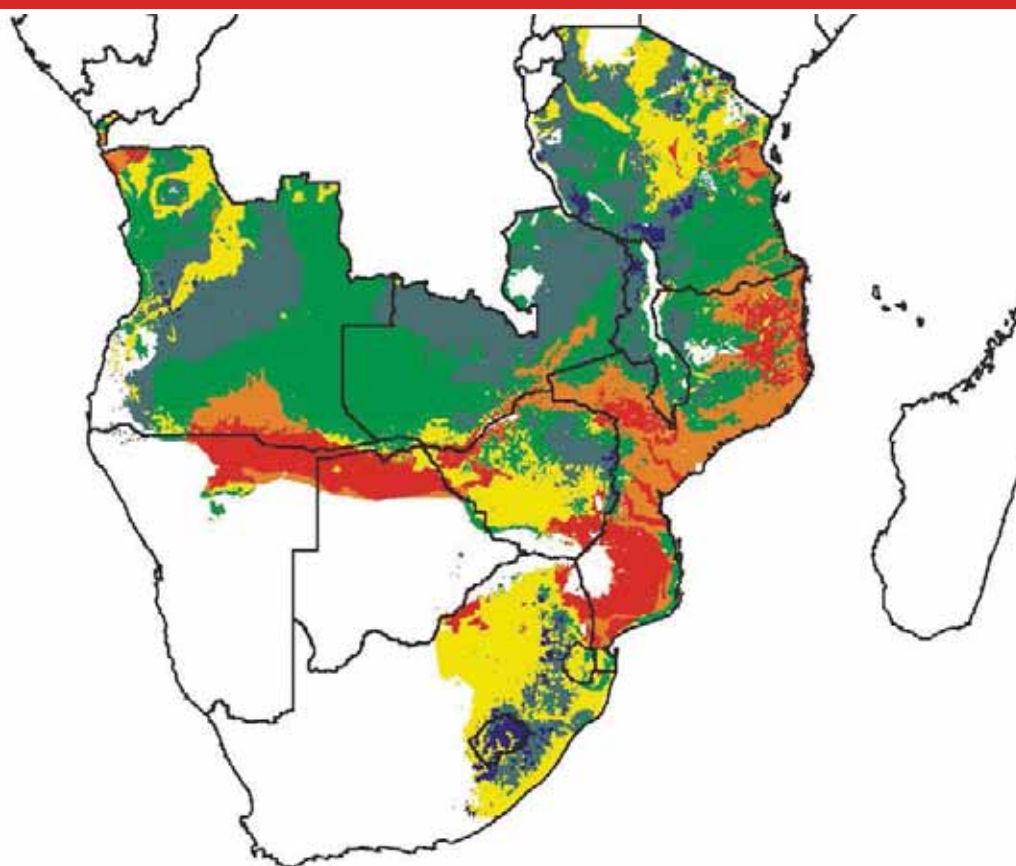


Table 1: Description of SADC Maize Mega-Environments.

Zone	Typical Environment [®]	Average Maximum Temperature °C	Risk of Drought	Season Precipitation mm	Area in SADC ha	Percentage
A	Mid Altitude Humid Warm	24-27	Low	> 700	75,107,482	29.6%
B	Mid Altitude Humid Hot	27-30	Low	> 700	66,755,372	26.4%
C	Mid Altitude Dry	24-30	High	< 700	48,291,340	19.0%
D	Lowland Tropical Humid	>30	Low	> 700	17,145,789	6.8%
E	Lowland Tropical Dry	>30	High	< 700	38,403,454	15.1%
F	Highlands	<24			7,897,394	3.1%

[®] Typical representative environment for zones A to F. However, zones A to F are best described by considering the average maximum temperature, risk of drought and seasonal precipitation given in Table 1 and illustrated in Figure 1.

Table 2: Proportion of area in each SADC country for each mega-environment.

Zone	Proportion of area in each SADC country											
	SADC	Ang	Bot	Les	Mal	Moz	Nam	RSA	Swa	Tan	Zam	Zim
A	29%	30%	0%	11%	49%	7%	0%	19%	14%	32%	47%	17%
B	27%	48%	5%	0%	31%	25%	14%	3%	20%	36%	45%	22%
C	19%	12%	10%	22%	2%	2%	7%	64%	66%	21%	2%	39%
D	7%	6%	13%	0%	8%	39%	13%	1%	0%	5%	4%	8%
E	15%	3%	71%	0%	0%	26%	65%	5%	0%	1%	1%	12%
F	3%	1%	0%	67%	9%	1%	0%	8%	0%	4%	0%	1%

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, other National Programs, and private seed companies, 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-Zimbabwe) 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

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

<i>Busseola</i> larvae	Count of the number of <i>Busseola</i> larvae. Higher the number indicates susceptibility.
<i>Chilo</i>	Score for the severity of <i>Chilo partellus</i> leaf damage rated on a scale from 1 (= no infestation) to 9 (= severely infested).
Leaf toughness	Force required to puncture leaves between veins as measured by the penetrometer. Genotypes with lower numbers tend to be susceptible to borers.
Grain weevil (Total F1)	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.
Grain weevil (Wt loss)	Loss of weight of the grain samples caused by weevil feeding during a given period of incubation. Large values indicate susceptibility to weevils.
Grain texture	Rated on a scale from 1 (= flint) to 5 (=dent).
Grain moisture	Percent water content of grain as measured at harvest.
ASI	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.
EPP	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.
Leaf rolling	Leaf rolling score measured under drought stress on a scale from 1 (unrolled, turgid leaves, desirable) to 5 (severely rolled leaves, undesirable).
Senescence	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
QPM Modification	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 Local Checks

(Sorted by environment then by country then by location)

TrialName	Location	Country	Env	PlantingDate	PlotArea(GY(t/ha)	LocalCheck1	LocalCheck2	LocalCheck3
EIHYB0976	Chianga	Angola	A	4-Nov-08	6.4	3.7		
EPOP0974	Chianga	Angola	A	3-Nov-08	6.4	5.0		
EIHYB0926	Kasapa	Democratic Republic of Congo	A	28-Nov-08	7.9	3.9		
EPOP0928	Kasapa	Democratic Republic of Congo	A	26-Nov-08	7.9	3.7	BABUNGO	
ILPOP0920	Kasapa	Democratic Republic of Congo	A	26-Nov-08	7.9	3.3	BABUNGO	
EIHYB0928	Kasinga	Democratic Republic of Congo	A	26-Nov-08	6.4	5.0	BABUNGO	BABUNGO
EPOP0927	Kasinga	Democratic Republic of Congo	A	26-Nov-08	6.4	4.3		
ILPOP0922	Kasinga	Democratic Republic of Congo	A	26-Nov-08	6.4	5.9		
EIHYB0921	Baka	Malawi	A	8-Jan-09	8.1	4.9	DK8053	MH18
EIHYB0924	Chitedze	Malawi	A	28-Nov-08	9.7	5.8	DK8073	MH18
ILHYB0919	Chitedze	Malawi	A	27-Nov-08	9.7	6.7	MASIKA	
EPOP0925	Chitedze	Malawi	A	27-Nov-08	8.1	6.1	ZM621	MASIKA
ILPOP0919	Chitedze	Malawi	A	27-Nov-08	9.7	5.8	MASIKA	
EIHYB0918	Greytown	South Africa	A	26-Nov-08	8.6	6.5	PAN 7M-97	PAN 4M-19
ILHYB0915	Greytown	South Africa	A	26-Nov-08	8.6	6.1	PAN 7M-89	
EIHYB0932	Mount Makulu	Zambia	A	12-Dec-08	7.9	5.4	ZMS510	ZMS528
EPOP0933	Mount Makulu	Zambia	A	12-Dec-08	7.9	5.7	MMV400	ZM421
ILHYB0947	Mpongwe	Zambia	A	5-Jun-08	7.8	11.2	SC637	
EPOP0957	Mpongwe	Zambia	A	5-Dec-08	6.4	12.1	SC 411	SC 527
ILPOP0946	Mpongwe	Zambia	A	5-Dec-08	7.8	9.7	POP10	
EIHYB0914	Africa University	Zimbabwe	A	19-Nov-08	6.4	3.4	VH08221	CZH0610
ILHYB0911	Africa University	Zimbabwe	A	19-Nov-08	6.4	2.5		
EPOP0915	Africa University	Zimbabwe	A	19-Nov-08	6.4	2.4		
ILPOP0914	Africa University	Zimbabwe	A	19-Nov-08	6.4	2.7		
EIHYB0939	Agriseeds Farm	Zimbabwe	A	23-Dec-08	1.9	7.7	ZAP41	ZAP51
ILHYB0934	Agriseeds Farm	Zimbabwe	A	23-Dec-08	1.9	10.5		ZMS606
EPOP0940	Agriseeds Farm	Zimbabwe	A	23-Dec-08	1.9	7.4		
ILPOP0933	Agriseeds Farm	Zimbabwe	A	23-Dec-08	1.9	7.8		
EIHYB0945	ART Farm Harare	Zimbabwe	A	18-Nov-08	6.4	10.2	ZM523	CZH0610
ILHYB0949	ART Farm Harare	Zimbabwe	A	18-Nov-08	6.4	10.1		
EPOP0949	ART Farm Harare	Zimbabwe	A	18-Nov-08	6.4	8.3		
ILPOP0938	ART Farm Harare	Zimbabwe	A	18-Nov-08	6.4	8.5		
EIHYB0935	Gwebi	Zimbabwe	A	15-Dec-08	6.4	4.7	ZS257	ZS259
ILHYB0928	Gwebi	Zimbabwe	A	15-Dec-08	6.4	9.2	ZS261	ZS255
EPOP0934	Gwebi	Zimbabwe	A	15-Dec-08	6.4	7.2		
ILPOP0930	Gwebi	Zimbabwe	A	15-Dec-08	6.4	8.0	ZM521	
EIHYB0943	Harare	Zimbabwe	A	10-Nov-08	6.4	8.7	VH08221	CZH0610
ILHYB0929	Harare	Zimbabwe	A	27-Nov-08	5.6	3.1	ZS261	CZH0726
ILHYB0937	Harare	Zimbabwe	A	10-Nov-08	6.4	9.7	[CML444/CML395//DTPWC8F31-1-1-1-2-2-BB]4-2-2-1-1-B*	
EPOP0947	Harare	Zimbabwe	A	10-Nov-08	6.4	8.0	SC403	VP084
ILPOP0936	Harare	Zimbabwe	A	10-Nov-08	6.4	8.2		
ILHYB0918	Byumbwe	Malawi	B	12/2008	9.7	5.4	ZM421	
EIHYB0922	Chitala	Malawi	B	16-Dec-08	9.5	5.9	DK8053	DK8073
EPOP0922	Chitala	Malawi	B	15-Dec-08	4.7	6.6		

TrialName	Location	Country	Env	PlantingDate	PlotArea(GY(t/ha)	LocalCheck1	LocalCheck2	LocalCheck3
EIHYB099	Sussundenga	Mozambique	B	14-Nov-08	8.4	7.7	PAN67	PAN63
ILHYB095	Sussundenga	Mozambique	B	14-Nov-08	8.4	6.6	PAN67	
EPOP0910	Sussundenga	Mozambique	B	14-Nov-08	8.4	5.1	TSANGANO	SUSSUMA
ILPO097	Sussundenga	Mozambique	B	14-Nov-08	8.4	6.2	SUSSUMA	
ILHYB0927	Msekera	Zambia	B	10-Dec-08	9.9	5.5		
ILPO0926	Msekera	Zambia	B	10-Dec-08	9.9	4.8	Pop10	
EIHYB0942	Rattray-Arnold	Zimbabwe	B	30-Dec-08	7.5	6.1	SC403	SC415
EIHYB0948	Rattray-Arnold	Zimbabwe	B	15-Dec-08	6.4	8.9	ZM523	CZH0610
ILHYB0943	Rattray-Arnold	Zimbabwe	B	15-Dec-08	6.4	7.6		
EPOP0943	Rattray-Arnold	Zimbabwe	B	30-Dec-08	6.0	6.0	SC 403	SC 415
EPOP0953	Rattray-Arnold	Zimbabwe	B	15-Dec-08	6.4	6.2		
ILPO0942	Rattray-Arnold	Zimbabwe	B	15-Dec-08	6.4	6.9		
EIHYB0940	Shamva	Zimbabwe	B	7-Jan-09	6.8	2.7	ZAP41	ZAP51
ILHYB0935	Shamva	Zimbabwe	B	5-Jan-09	6.8	4.9		ZMS606
EPOP0941	Shamva	Zimbabwe	B	2-Jan-09	6.8	3.5		
ILPO0934	Shamva	Zimbabwe	B	7-Jan-09	6.8	2.5		
EPOP0923	Baka	Malawi	C	9-Jan-09	5.7	5.3		
ILHYB0916	Chokwe	Mozambique	C	25-Dec-08	6.4	2.3	SC627	
ILPO0915	Chokwe	Mozambique	C	25-Dec-08	6.4	2.1	Tsangano	
EIHYB0913	Ntengo-Nwodzi	Mozambique	C	1-Dec-08	8.4	4.9	MATUBA	TSANGANO
EIHYB0936	Kadoma	Zimbabwe	C	5-Dec-08	6.8	6.6	ZS257	ZS255
EIHYB0949	Kadoma	Zimbabwe	C	11-Dec-08	6.4	6.1	ZM523	CZH0610
ILHYB0932	Kadoma	Zimbabwe	C	5-Dec-08	6.8	6.9		
ILHYB0942	Kadoma	Zimbabwe	C	11-Dec-08	6.4	6.8		
EPOP0936	Kadoma	Zimbabwe	C	5-Dec-08	6.8	5.9	ZIMBULK E	NYABADZA
EPOP0952	Kadoma	Zimbabwe	C	11-Dec-08	6.4	4.6		
ILPO0928	Kadoma	Zimbabwe	C	5-Dec-08	6.8	5.3		
ILPO0941	Kadoma	Zimbabwe	C	5-Dec-08	6.4	4.2		
EPOP0938	Makoholi	Zimbabwe	C	18-Dec-08	7.7	0.6	ZIMBULK E	NYABADZA
EIHYB0933	Makoholi	Zimbabwe	C	18-Dec-08	7.7	1.1	ZS257	ZS255
ILHYB0931	Makoholi	Zimbabwe	C	18-Dec-08	7.7	0.4		
ILPO0931	Makoholi	Zimbabwe	C	18-Dec-08	7.7	1.0		
EIHYB0934	Matopos	Zimbabwe	C	12-Jan-09	7.7	2.4	ZS257	ZS255
ILHYB0930	Matopos	Zimbabwe	C	7-Jan-09	7.7	3.0	ZS261	
EPOP0935	Matopos	Zimbabwe	C	7-Jan-09	7.7	2.3		
ILPO0929	Matopos	Zimbabwe	C	8-Nov-08	7.7	2.6	ZM521	
EIHYB0955	Ikenne	Nigeria	D	18-Dec-08	6.4	3.7	TZE Comp4 C3	Oba Super II
EIHYB0956	Ikenne	Nigeria	D	17-Dec-08	6.4	4.9	TZE Comp4 C3	Oba Super II
ILHYB0950	Ikenne	Nigeria	D	18-Dec-08	6.4	5.6	Oba Super II	
ILHYB0951	Ikenne	Nigeria	D	18-Dec-08	6.4	4.1	Oba Super II	
EPOP0960	Ikenne	Nigeria	D	18-Dec-08	6.4	4.7	TZE Comp3 DT C2	EV DT 97 STR C1
EPOP0961	Ikenne	Nigeria	D	18-Dec-08	6.4	3.5	TZE Comp3 DT C2	EV DT 97 STR C1
ILPO0949	Ikenne	Nigeria	D	18-Dec-08	6.4	5.1	DT SYN-1-W	
ILPO0950	Ikenne	Nigeria	D	18-Dec-08	6.4	3.5	DT SYN-1-W	
ILHYB0972	Kiboko	Kenya		12-Jun-09	6.3	2.5		
EPOP0975	Kiboko	Kenya		12-Jun-09	6.3	2.6		

TrialName	Location	Country	Env	PlantingDate	PlotArea(GYt/ha)	LocalCheck1	LocalCheck2	LocalCheck3
EIHYB0950	Chiredzi	Zimbabwe	Managed Drought	14-May-09	6.4 1.8	ZM523	CZH0610	CZH0726
ILHYB0944	Chiredzi	Zimbabwe	Managed Drought	7-May-09	6.4 1.7			
EPOP0954	Chiredzi	Zimbabwe	Managed Drought	22-May-09	6.4 2.9			
EPOP0955	Chiredzi	Zimbabwe	Managed Drought	24-Dec-08	6.4 6.0			
ILPO0943	Chiredzi	Zimbabwe	Managed Drought	7-May-09	6.4 1.0			
EIHYB0938	Chisumbanje	Zimbabwe	Managed Drought	14-Jul-09	7.4 1.9	ZS257	ZS259	ZS255
ILHYB0933	Chisumbanje	Zimbabwe	Managed Drought	16-Jul-09	7.4 1.8	ZS261		
EPOP0939	Chisumbanje	Zimbabwe	Managed Drought	13-Jul-09	7.4 1.5	ZS257	ZS259	
ILPO0932	Chisumbanje	Zimbabwe	Managed Drought	14-Jul-09	7.4 1.6	ZM521		
EIHYB0971	Francistown	Botswana	E	13-Jan-09	8.3 1.1	KEP	KEP	KEP
ILHYB0965	Francistown	Botswana	E	13-Jan-09	8.3 1.3			
EPOP0966	Francistown	Botswana	E	4-Jan-09	8.3 0.7	KEP	KEP	
ILPO0952	Francistown	Botswana	E	12-Jan-09	8.3 1.0	KEP		
EIHYB0970	Goodhope	Botswana	E	15-Jan-09	8.3 3.0	KEP	KEP	KEP
ILHYB0964	Goodhope	Botswana	E	14-Jan-09	8.3 3.0	KEP		
EPOP0965	Goodhope	Botswana	E	14-Jan-09	8.3 1.9	KEP	ZM303	
EIHYB0972	Pandamatenga	Botswana	E	26-Jan-09	8.3 0.6	KEP	KEP	KEP
ILHYB0966	Pandamatenga	Botswana	E	2-Feb-09	8.3 1.3			
EPOP0967	Pandamatenga	Botswana	E	2-Feb-09	8.3 1.3	KEP	ZM303	
ILPO0953	Pandamatenga	Botswana	E	2-Feb-09	8.3 1.4	KEP		
EPOP0968	Sebele	Botswana	E	8-Jan-09	8.3 0.4	KEP	ZM303	
ILPO098	Ntengo-Nwodzi	Mozambique	E	1-Dec-08	8.4 3.0			
EIHYB0951	Chiredzi	Zimbabwe	E	24-Dec-08	6.4 5.5	ZM523	CZH0610	CZH0726
ILHYB0945	Chiredzi	Zimbabwe	E	24-Dec-08	6.4 6.3			
ILPO0944	Chiredzi	Zimbabwe	E	24-Dec-08	6.4 5.2			
EIHYB0923	Chitedze	Malawi	Low N	11-Dec-08	8.1 1.9	DK853	DK8073	MH18
EPOP0924	Chitedze	Malawi	Low N	11-Dec-08	8.1 2.1	ZM621	MASIKA	
EIHYB0920	Chokwe	Mozambique	Low N	15-Jan-09	6.4 3.6	SC415	SC627	PAN67
EPOP0921	Chokwe	Mozambique	Low N	25-Dec-08	6.4 1.5	TSANGANO	SUSSUMA	
EIHYB0929	Golden Valley	Zambia	Low N	12-Dec-08	8.3 0.9	ZMS510	ZMS528	
ILHYB0924	Golden Valley	Zambia	Low N	12-Dec-08	8.3 0.9			
EPOP0930	Golden Valley	Zambia	Low N	12-Dec-08	8.3 0.7			
ILPO0923	Golden Valley	Zambia	Low N	12-Dec-08	8.3 0.7	Pop10		
EIHYB0937	Harare	Zimbabwe	Low N	1-Dec-08	5.6 2.2	ZS257	ZS259	ZS255
EIHYB0947	Harare	Zimbabwe	Low N	13-Dec-08	6.4 3.7	ZM523	CZH0610	CZH0726
ILHYB0941	Harare	Zimbabwe	Low N	13-Dec-08	6.4 2.8	[CML444/CML395//DTPWC8F31-1-1-2-2-BB]-4-2-1-1-B*5/		
EPOP0937	Harare	Zimbabwe	Low N	27-Nov-08	5.5 2.9	ZIMBULK E	NYABADZA	
EPOP0951	Harare	Zimbabwe	Low N	13-Dec-08	6.4 2.6			
ILPO0927	Harare	Zimbabwe	Low N	27-Nov-08	6.5 2.3	ZM521		
ILPO0940	Harare	Zimbabwe	Low N	21-Nov-08	6.4 1.6			
EIHYB0925	Tsangano	Malawi	Low pH	9-Dec-08	8.1 1.9	DK8053	DK8073	MH18
EPOP0926	Tsangano	Malawi	Low pH	9-Dec-08	5.6 0.4			
EIHYB0930	Kasama	Zambia	Low pH	8-Dec-08	4.9 4.1	ZMS510	ZMS528	MRI594
ILPO0924	Kasama	Zambia	Low pH	9-Dec-08	4.9 1.5	Pop10		
ILHYB0968	Bako	Ethiopia	MAEA	5-Jun-09	3.8 9.2			
ILPO0961	Bako	Ethiopia	MAEA	22-Jun-09	3.8 8.4			

TrialName	Location	Country	Env	PlantingDate	PlotArea(GY(t/ha)	LocalCheck1	LocalCheck2	LocalCheck3
EIHYB0974	Melkasa	Ethiopia	MAEA	23-Jun-09	7.9	3.3	BH4	
EPOP0969	Melkasa	Ethiopia	MAEA	23-Jun-09	7.9	4.9	M2	BHQP542
EIHYB0965	Bumula	Kenya	MAEA	15-Apr-09	8.3	2.5	DH09	
ILHYB0960	Bungoma	Kenya	MAEA	9-Apr-09	8.3	2.1	H624	DH11
EIHYB0963	Elgon Downs	Kenya	MAEA	22-Apr-09	8.3	2.6	DH09	DH11
EIHYB0977	Embu	Kenya	MAEA	8-May-09	6.3	7.4	DUMA 4	Pioneer 3253
ILHYB0971	Embu	Kenya	MAEA	8-May-09	6.3	8.3	PIONEER 3253	Katumani
EPOP0976	Embu	Kenya	MAEA	8-May-09	6.3	6.6	DUMA41	
ILPOP0958	Embu	Kenya	MAEA	8-May-09	6.3	7.7	DUMA41	PIONEER3253
ILHYB0958	EPDOWNS	Kenya	MAEA	22-Apr-09	8.3	3.1	H624	
ILPOP0959	Kakamega	Kenya	MAEA	16-May-09	7.9	2.4	H624	
ILHYB0963	Kenya	Kenya	MAEA	15-Apr-09	8.3	2.7	H624	
ILHYB0961	Nai	Kenya	MAEA	9-Apr-09	8.3	3.1	H624	
EIHYB0944	Harare	Zimbabwe	MSV	4-Dec-08	6.4	8.8	VH08221	CZH0610
ILHYB0938	Harare	Zimbabwe	MSV	4-Dec-08	6.4	10.6		
EPOP0948	Harare	Zimbabwe	MSV	4-Dec-08	6.4	6.9		
ILPOP0937	Harare	Zimbabwe	MSV	4-Dec-08	6.4	8.2		CZH0726

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5. SUMMARY RESULTS

EIHYB09

EIHYB09: Results of evaluation of early to intermediate maturing hybrids from CIMMYT, Pannar, Seedco, Pioneer, AFGRI and DR&S-Zimbabwe across 37 sites in eastern and southern Africa, 2008/09. Color Legend on page 3.

TABLE 3A

Entry Name	Pedigree	Origin	Comments	Across		GRAIN YIELDS										Anth Date		
						Rel/GY	Rank	Mid-Alt	Mid-Alt. Humid		Mid-Alt	Tropical Lowland		Managed Stress			Other Stresses	
								E. Africa	Warm	Hot	Dry	Humid	Dry	Drought	Low N		Low pH	MSV
Entries with anthesis dates between 58 and 60 days																		
33	CZH0736	CZL04008/CZL0719/CZL0718	CIMMYT	Non-QPM Hybrid	86	44	17	3.44	4.83	5.27	3.97	3.40	1.98	2.37	2.07	2.71	7.68	60.3
38	CZH0743	CZL0723/CZL0724/CZL0722	CIMMYT	Non-QPM Hybrid	86	44	14	3.68	4.72	5.09	3.89	3.85	2.10	1.97	2.22	2.76	5.29	60.1
47	CZH088	CML505/CML509/CZL085	CIMMYT	Non-QPM Hybrid	84	47	14	2.73	5.18	5.04	3.74	3.52	2.33	2.09	2.23	2.61	7.61	60.3
35	CZH0739	CZL0723/CZL0719/CZL0722	CIMMYT	Non-QPM Hybrid	82	47	16	3.24	5.05	4.50	3.60	3.53	1.60	1.84	2.10	2.23	7.57	60.2
26	CZH071	CZL04008/CZL04000/VP05188	CIMMYT	Non-QPM Hybrid	82	48	16	2.90	4.92	4.49	3.11	2.89	1.89	1.95	2.29	2.46	6.56	58.1
36	CZH0741	CZL0721/CZL0723/CZL0722	CIMMYT	Non-QPM Hybrid	78	49	18	3.44	4.63	4.28	3.13	3.05	1.91	2.12	2.24	2.18	5.19	58.7
37	CZH0742	CZL0721/CZL0724/CZL0722	CIMMYT	Non-QPM Hybrid	75	53	12	3.14	4.34	4.72	3.18	3.61	1.86	1.91	1.50	2.17	6.88	59.7
Maturity group average					82	47	15	3.22	4.81	4.77	3.52	3.40	1.95	2.03	2.09	2.45	6.66	59.6
Entries with anthesis dates between 61 and 63 days																		
34	CZH0737	CZL0717/CZL0718/CZL0523/CZL0720	CIMMYT	Non-QPM Hybrid	96	34	18	3.82	5.67	6.22	4.20	3.79	2.50	2.36	2.03	2.48	7.55	61.3
50	CZH0811	CML444/CML395/CZL086	CIMMYT	Non-QPM Hybrid	96	36	14	3.90	5.56	5.89	3.77	4.14	1.98	2.04	2.36	2.61	10.29	63.5
32	CZH0735	CZL0717/CZL0718/CML505/CML509	CIMMYT	Non-QPM Hybrid	93	37	18	3.59	5.53	5.41	4.15	3.97	2.53	2.16	2.12	3.15	9.70	62.5
49	CZH0810	CZL03014/CZL03021/CZL04002	CIMMYT	Non-QPM Hybrid	94	38	17	3.75	5.47	5.09	3.64	3.60	2.21	1.84	2.76	3.19	9.77	63.5
42	CZH083	CML508/CML507/CZL0723	CIMMYT	Non-QPM Hybrid	85	47	12	3.62	5.26	4.65	3.57	3.42	1.82	2.24	2.41	2.48	8.21	60.8
Maturity group average					93	38	16	3.74	5.50	5.45	3.87	3.78	2.21	2.13	2.34	2.78	8.70	62.3
Entries with anthesis dates between 64 and 66 days																		
2	PAN 53	PAN 53	PANNAR	Non-QPM Hybrid	115	19	16	3.85	8.11	6.81	5.41	5.07	2.28	1.79	3.07	3.18	9.82	66.3
39	CZH0746	CZL0713/CZL0771/CZL03014	CIMMYT	Non-QPM Hybrid	110	24	17	4.57	6.22	6.71	4.40	4.19	2.40	2.25	2.67	2.60	12.17	66.2
51	CZH0830	CZL0814/CZL00003/CML488	CIMMYT	Non-QPM Hybrid	108	26	16	3.54	6.70	5.86	4.25	4.87	2.21	2.33	2.88	3.60	11.00	66.0
52	CZH0831	CZL0819/CZL00003/CML488	CIMMYT	Non-QPM Hybrid	108	26	15	4.13	7.13	6.08	4.53	4.77	2.07	1.84	2.62	3.30	10.38	65.7
24	CZH0815	CZL00003/CML488/CZL03014	CIMMYT	Non-QPM Hybrid	105	27	16	4.37	6.40	6.54	4.32	4.89	2.18	1.93	3.00	3.64	11.99	66.3
20	CZH0526	CML312/CML395/CZL0521	CIMMYT	Non-QPM Hybrid	107	28	17	4.11	7.18	6.44	4.28	4.93	2.12	1.28	2.45	3.63	9.22	65.8
41	CZH082	CML202/CML504/CZL081	CIMMYT	Non-QPM Hybrid	101	32	14	3.60	6.51	6.43	4.24	4.03	2.15	1.78	2.85	2.51	5.41	66.4
46	CZH087	CZL0613/CZL0834/CZL084	CIMMYT	Non-QPM Hybrid	100	33	14	3.76	6.13	6.37	4.09	3.94	1.90	1.51	2.66	2.85	9.06	65.4
40	CZH081	CML445/CML504/CML505	CIMMYT	Non-QPM Hybrid	97	35	16	4.37	5.88	5.75	4.02	5.11	2.21	2.08	2.27	2.47	8.15	65.2
48	CZH089	CZL03014/CML442/CZL04003	CIMMYT	Non-QPM Hybrid	96	36	15	3.57	5.85	5.64	4.29	3.22	2.41	1.88	2.74	2.96	7.60	64.0
31	CZH0734	CZL03014/CML442/CZL04002	CIMMYT	Non-QPM Hybrid	94	36	14	3.95	5.88	5.42	4.15	3.75	1.92	1.81	2.11	3.22	10.75	64.1
61	Local Check 1	Local Check 1	Various	Various	92	41	18	3.37	5.80	6.05	3.34	5.05	1.54	2.33	2.40	2.62	8.58	65.9
Maturity group average					103	30	16	3.93	6.48	6.18	4.28	4.49	2.12	1.90	2.64	3.05	9.52	65.6
Entries with anthesis dates between 67 and 69 days																		
1	PAN 5M-35	PAN 5M-35	PANNAR	Non-QPM Hybrid	119	18	15	4.86	7.54	7.81	4.69	4.91	2.21	1.74	3.22	3.41	10.36	68.4
57	CZH0836	CZL0814/CML489/CML444	CIMMYT	Non-QPM Hybrid	117	18	16	5.25	7.94	6.72	4.71	5.00	2.60	1.44	2.57	3.43	13.00	68.1
58	CZH0837	CZL0814/CML444/CZL00003	CIMMYT	Non-QPM Hybrid	113	21	15	4.04	7.54	6.77	4.64	5.83	2.22	1.52	2.48	4.14	10.80	67.7
19	CZH0524	CML395/CZL0520/CZL00009	CIMMYT	Non-QPM Hybrid	112	21	11	4.18	7.24	6.32	4.72	4.25	2.43	1.74	2.46	4.24	11.05	67.3
11	04C336	04C336	SEEDCO	Non-QPM Hybrid	111	22	20	4.83	7.64	7.32	4.53	5.12	2.47	0.88	2.49	3.69	13.18	67.7
60	CZH0839	CZL0817/CML441/CML442	CIMMYT	Non-QPM Hybrid	109	22	15	4.74	7.07	6.65	4.60	5.05	2.38	2.11	2.77	3.35	7.74	66.7
25	CZH0816	CML312/CML443/CZL0610	CIMMYT	Non-QPM Hybrid	110	23	14	4.38	6.92	6.94	4.84	4.56	2.51	1.42	2.67	2.55	9.27	67.8
30	CZH0728	CML312/CML443/CZL0713	CIMMYT	Non-QPM Hybrid	110	24	16	5.12	6.80	6.84	4.03	5.26	2.16	1.97	3.06	3.13	9.17	68.5
12	X6C461W	X6C461W	PIONEER	Non-QPM Hybrid	107	24	17	3.49	7.15	7.09	4.87	4.82	2.54	1.42	2.39	2.77	8.02	67.7
4	ZMS 554	ZMS 554	ZAMSEED	Non-QPM Hybrid	106	25	18	3.76	7.34	7.27	4.40	4.93	2.53	1.29	2.03	3.42	10.26	67.7
21	CZH0530	CML312/CML504/CML488	CIMMYT	Non-QPM Hybrid	108	26	14	3.46	6.83	6.75	4.36	5.15	2.12	1.86	2.98	2.77	9.10	67.0
17	CZH04032	CML181/CZL01005/CML511	CIMMYT	QPM Hybrid	109	26	17	4.60	7.35	7.15	4.58	4.71	2.10	1.19	2.69	3.43	5.79	68.2
10	SC533	SC533	SEEDCO	Non-QPM Hybrid	106	28	18	4.17	7.31	7.34	4.63	3.95	2.14	1.94	2.52	3.11	8.31	67.0
28	CZH0720	CZL0710/CZL0711/CZL02012	CIMMYT	Non-QPM Hybrid	109	28	17	3.56	6.47	6.55	4.61	4.44	2.02	1.78	2.74	4.15	10.54	67.7
13	CZH01008	CML443/CML444/CZL00003	CIMMYT	Non-QPM Hybrid	102	30	19	3.62	7.13	7.50	4.52	4.53	1.91	1.06	2.29	3.01	9.29	68.1
44	CZH085	CZL0613/CML511/CML181	CIMMYT	QPM Hybrid	102	31	15	3.72	6.41	6.08	4.37	4.47	2.04	1.41	2.48	3.41	7.39	67.7
22	CZH0536	CZL0517/CZL04021/CML181	CIMMYT	QPM Hybrid	101	31	13	3.71	6.72	6.56	4.35	4.59	2.00	1.60	2.31	3.03	7.75	67.9
3	PAN 63	PAN 63	PANNAR	Non-QPM Hybrid	98	31	20	5.07	6.98	6.92	4.39	4.54	2.18	0.85	1.43	3.24	9.21	67.6
54	CZH0833	CZL0816/CML444/CZL00003	CIMMYT	Non-QPM Hybrid	100	32	18	4.30	6.35	7.49	3.99	5.37	2.16	1.73	2.17	2.81	8.96	67.7
43	CZH084	CZL082/CML511/CML181	CIMMYT	QPM Hybrid	101	32	12	3.81	6.70	6.36	4.14	4.25	2.20	1.56	2.37	2.79	6.22	67.7
53	CZH0832	CZL0815/CML312/CZL00001	CIMMYT	Non-QPM Hybrid	101	33	16	3.71	6.31	6.30	4.12	3.69	1.81	1.59	2.55	2.88	11.41	68.5
63	Local Check 3	Local Check 3	Various	Non-QPM Hybrid	95	34	20	2.94	6.66	6.87	4.14	3.60	1.79	1.56	2.57	2.74	11.70	67.6
8	013WH30	013WH30	DR&S-Zim	Non-QPM Hybrid	94	35	16	3.90	6.23	7.11	4.38	3.67	2.17	1.14	1.75	2.80	5.01	67.8
16	CZH04005	CML395/CML444/CML509/CML505	CIMMYT	Non-QPM Hybrid	97	35	11	4.48	6.43	6.16	3.82	4.04	2.17	1.74	2.32	2.71	9.33	68.9
15	CZH04002	CML312/CML442/CZL04002	CIMMYT	Non-QPM Hybrid	95	36	17	3.79	5.23	5.62	4.62	3.94	2.40	1.89	2.38	2.42	10.34	66.8
7	013WH11	013WH11	DR&S-Zim	Non-QPM Hybrid	94	36	19	3.77	6.19	6.63	4.68	2.64	2.19	1.85	1.79	3.31	4.40	67.9
27	CZH0718	CZL09013/CZL079/CML507	CIMMYT	Non-QPM Hybrid	90	40	18	3.66	6.68	5.85	4.49	2.26	1.55	0.98	1.60	2.81	12.72	66.7
62	Local Check 2	Local Check 2	Various	Various	87	40	19	4.47	6.18	7.00	3.39	3.98	1.52	2.16	1.46	2.60	7.49	67.1
14	CZH04012	CZL04008/CZL04009/CZL0722	CIMMYT	Non-QPM Hybrid	85	44	19	2.99	4.31	4.76	3.60	3.25	2.24	2.56	2.20	2.71	5.82	67.7
9	SC513	SC513	SEEDCO	Non-QPM Hybrid	86	45	15	3.88	6.01	5.67	3.95	3.41	2.07	1.02	1.50	2.99	8.03	68.5
Maturity group average					102	30	16	4.08	6.72	6.68	4.37	4.34	2.16	1.57	2.34	3.13	8.92	67.7
Entries with anthesis dates between 70																		

EIHVB09: Results of evaluation of early to intermediate maturing hybrids from CIMMYT, Pannar, Seedco, Pioneer, AFGRI and DR&SS-Zimbabwe across 37 sites in eastern and southern Africa, 2008/09. Color Legend on page 3.

TABLE 3B

AGRONOMIC AND ADAPTIVE TRAITS																					
Entry	Name	Origin	Across			Anth Date	Plant Height	Ear Height	Ear Position	Lodging		Husk Cover	Ear Rot	GLS	P.sorg	E.turc	Grain Text	MSV	Ear Aspect	Plant Aspect	PLS
			RelGY	Rank	StdDev					Root	Stem										
			%	Avg				%	%	%	%	1-5	1-5	1-5	1-5	1-5	1-5	1-5	1-5	1-5	
Entries with anthesis dates between 58 and 60 days																					
33	CZH0736	CIMMYT	86	44	17	60.3	177.5	77.0	0.42	11.0	11.4	3.6	3.8	1.6	1.5	2.0	2.8	1.2	3.1	4.0	1.4
38	CZH0743	CIMMYT	86	44	14	60.1	174.4	78.6	0.44	7.8	11.6	3.8	5.0	1.8	1.1	2.0	2.5	1.8	3.4	3.0	1.3
47	CZH088	CIMMYT	84	47	14	60.3	166.6	76.2	0.44	5.7	10.4	2.9	6.0	1.4	1.3	2.2	2.1	1.2	3.2	3.8	2.3
35	CZH0739	CIMMYT	82	47	16	60.2	171.3	76.6	0.43	10.2	10.0	6.0	5.3	1.7	1.1	2.1	2.5	1.7	3.3	3.5	1.7
26	CZH071	CIMMYT	82	48	16	58.1	171.1	72.9	0.41	12.0	9.0	2.6	5.2	2.2	1.2	1.9	2.6	1.6	3.5	3.9	1.3
36	CZH0741	CIMMYT	78	49	18	58.7	167.5	71.8	0.42	12.2	16.9	4.3	4.2	1.8	1.3	1.9	2.4	1.6	3.3	3.8	1.3
37	CZH0742	CIMMYT	75	53	12	59.7	177.5	75.4	0.42	10.0	15.0	4.7	5.8	1.9	1.0	2.1	2.4	1.7	3.4	3.8	1.3
Maturity group average			82	47	15	59.6	172.3	75.5	0.43	9.8	12.0	4.0	5.0	1.8	1.2	2.0	2.5	1.5	3.3	3.7	1.5
Entries with anthesis dates between 61 and 63 days																					
34	CZH0737	CIMMYT	96	34	18	61.3	179.0	80.8	0.44	7.3	10.7	3.5	5.0	1.9	1.4	2.1	2.5	1.5	3.1	3.7	1.6
50	CZH0811	CIMMYT	96	36	14	63.5	192.0	93.0	0.48	10.7	10.0	3.8	6.4	1.5	1.3	2.1	3.1	1.3	3.0	3.9	1.4
32	CZH0735	CIMMYT	93	37	18	62.5	183.5	85.2	0.46	6.7	10.7	4.7	6.4	1.9	1.3	2.2	2.9	1.6	3.1	4.1	1.9
49	CZH0810	CIMMYT	94	38	17	63.5	179.4	83.8	0.45	5.8	9.3	3.1	5.2	1.8	1.1	1.9	1.8	1.2	3.0	3.3	1.3
42	CZH083	CIMMYT	85	47	12	60.8	172.8	78.7	0.45	7.2	12.3	6.2	4.5	1.9	1.3	1.8	2.6	1.8	3.2	3.5	1.9
Maturity group average			93	38	16	62.3	181.4	84.3	0.45	7.5	10.6	4.2	5.5	1.8	1.3	2.0	2.6	1.5	3.1	3.7	1.6
Entries with anthesis dates between 64 and 66 days																					
2	PAN 53	PANNAR	115	19	16	66.3	207.1	101.7	0.49	10.3	12.4	5.0	4.7	1.8	1.0	1.6	3.1	1.8	2.7	3.3	1.3
39	CZH0746	CIMMYT	110	24	17	66.2	186.7	88.1	0.46	9.4	11.3	6.5	4.9	1.7	1.7	1.9	2.5	1.3	2.9	3.3	1.3
51	CZH0830	CIMMYT	108	26	16	66.0	200.5	93.2	0.46	4.9	8.0	5.6	7.4	1.6	1.4	1.6	3.0	1.7	3.1	2.3	1.6
52	CZH0831	CIMMYT	108	26	15	65.7	192.6	93.7	0.49	3.8	11.3	5.6	6.8	1.7	1.1	1.9	3.3	1.8	3.1	2.4	1.4
24	CZH0615	CIMMYT	105	27	16	66.3	192.5	89.0	0.45	6.9	10.8	4.4	6.1	1.4	1.3	1.9	2.9	1.2	2.9	2.8	1.3
20	CZH0526	CIMMYT	107	28	17	65.8	208.3	105.0	0.51	9.4	12.2	4.5	3.3	1.8	1.2	1.6	1.9	1.7	2.9	3.8	1.3
41	CZH082	CIMMYT	101	32	14	66.4	190.6	87.7	0.45	9.5	7.2	6.5	4.7	1.9	1.2	1.4	3.3	2.0	3.0	3.7	1.8
46	CZH087	CIMMYT	100	33	14	65.4	187.7	85.0	0.45	5.8	8.4	3.5	5.3	1.6	1.2	1.6	2.2	1.3	2.8	3.0	1.4
40	CZH081	CIMMYT	97	35	16	65.2	181.2	86.7	0.47	4.2	10.2	5.2	2.8	1.8	1.1	2.1	2.6	1.6	3.0	3.2	1.8
48	CZH089	CIMMYT	96	36	15	64.0	172.9	75.0	0.42	6.0	9.2	2.7	5.6	1.7	1.7	1.8	3.7	1.7	3.1	3.7	1.5
31	CZH0734	CIMMYT	94	36	14	64.1	177.9	78.3	0.43	7.0	9.2	3.3	3.8	1.8	1.1	1.9	2.2	1.3	2.9	3.3	1.3
61	Local Check 1	Various	92	41	18	65.9	189.0	87.5	0.45	10.4	12.1	3.7	5.8	1.8	1.2	1.4	2.9	1.7	3.1	2.6	1.3
Maturity group average			103	30	16	65.6	190.6	89.2	0.46	7.3	10.2	5.1	5.1	1.7	1.3	1.7	2.8	1.6	3.0	3.1	1.4
Entries with anthesis dates between 67 and 69 days																					
1	PAN SM-35	PANNAR	119	18	15	68.4	199.0	95.8	0.47	5.4	7.9	3.9	4.6	1.9	1.1	1.5	2.5	1.5	2.8	3.1	1.3
57	CZH0836	CIMMYT	117	18	16	68.1	202.5	99.1	0.48	4.2	10.8	5.8	4.9	1.5	1.0	1.8	3.4	1.8	3.0	2.9	1.3
58	CZH0837	CIMMYT	113	21	15	67.7	206.2	100.8	0.48	3.7	12.1	4.5	7.8	1.5	1.2	1.8	3.4	1.9	2.9	2.2	1.3
19	CZH0524	CIMMYT	112	21	11	67.3	204.3	91.1	0.44	4.1	9.9	9.1	6.3	1.6	1.3	1.7	3.3	1.5	3.0	3.7	1.4
11	04C336	SEEDCO	111	22	20	67.7	193.1	90.0	0.45	9.6	7.6	10.0	9.3	1.5	1.4	1.5	3.8	1.4	3.0	3.5	2.0
60	CZH0839	CIMMYT	109	22	15	66.7	197.2	91.7	0.45	7.2	11.8	4.0	5.1	1.9	1.4	2.4	3.9	1.5	2.9	3.8	1.3
25	CZH0616	CIMMYT	110	23	14	67.8	190.7	91.8	0.47	8.0	8.2	3.5	5.2	1.8	1.1	1.6	3.2	2.0	3.0	2.7	1.7
30	CZH0728	CIMMYT	110	24	16	68.5	198.1	100.7	0.50	10.9	8.0	3.2	3.7	1.6	1.2	1.9	2.9	2.1	2.9	3.6	1.3
12	X6C461W	PIONEER	107	24	17	67.7	195.6	85.0	0.43	6.2	8.6	7.7	6.3	1.7	1.0	1.8	3.6	2.0	3.0	2.3	1.3
4	ZMS 554	ZAMSEED	106	25	18	67.7	211.0	101.8	0.47	13.6	9.4	2.9	3.8	1.5	1.7	1.9	3.2	1.8	2.9	3.6	1.6
21	CZH0530	CIMMYT	108	26	14	67.0	194.5	90.5	0.45	8.7	10.5	4.4	4.1	1.7	1.2	1.6	2.6	1.7	2.8	2.3	1.2
17	CZH04032	CIMMYT	109	26	17	68.2	197.9	96.3	0.48	5.3	19.9	5.4	4.3	1.9	1.4	1.6	3.1	2.4	3.1	2.3	1.3
10	SC533	SEEDCO	106	28	18	67.0	192.8	89.4	0.46	6.4	12.1	3.1	4.7	1.8	1.2	1.9	2.5	2.3	3.0	4.3	1.3
28	CZH0720	CIMMYT	109	28	17	67.2	196.2	91.4	0.45	6.2	13.1	7.8	4.5	1.7	1.0	1.6	3.0	1.7	2.9	3.3	1.1
13	CZH01008	CIMMYT	102	30	19	68.1	211.8	111.6	0.52	7.6	11.8	3.5	5.2	1.5	1.1	2.3	3.4	2.0	3.0	2.8	1.1
44	CZH085	CIMMYT	102	31	15	67.7	188.6	91.8	0.47	6.0	6.6	7.5	6.3	1.7	1.4	1.4	2.8	2.2	3.0	2.5	1.3
22	CZH0536	CIMMYT	101	31	13	67.9	200.3	95.9	0.47	5.5	11.0	6.5	6.3	1.6	1.1	1.7	3.2	2.3	3.0	2.8	1.3
3	PAN 63	PANNAR	98	31	20	67.6	199.6	98.6	0.49	9.5	10.4	5.8	4.7	1.9	1.3	2.0	2.9	1.9	3.0	3.1	1.3
54	CZH0833	CIMMYT	100	32	18	67.7	203.3	103.2	0.50	7.6	10.1	5.4	5.9	1.5	1.1	2.9	3.6	1.9	3.0	3.1	1.2
43	CZH084	CIMMYT	101	32	12	67.7	193.2	90.4	0.45	5.9	10.1	7.8	5.2	1.8	1.2	1.6	2.9	2.2	3.1	2.6	1.2
53	CZH0832	CIMMYT	101	33	16	68.5	196.7	93.7	0.47	6.5	8.5	7.2	6.9	1.7	1.7	1.5	3.2	1.3	3.0	3.6	1.8
63	Local Check 3	Various	95	34	20	67.6	202.1	98.2	0.48	12.6	10.8	3.6	6.0	2.0	1.1	1.7	3.0	1.9	3.0	3.5	1.3
8	013WH30	DR&SS-Zim	94	35	16	67.8	196.4	106.9	0.54	15.8	10.5	5.2	5.9	2.2	1.7	1.8	3.8	2.5	3.2	4.3	1.3
16	CZH04005	CIMMYT	97	35	11	68.9	196.2	98.6	0.50	7.5	10.6	3.2	4.4	1.7	1.1	2.2	3.0	1.7	2.9	3.8	1.5
15	CZH04002	CIMMYT	95	36	17	66.8	184.6	82.9	0.44	5.6	8.6	6.1	4.1	2.0	1.5	2.0	2.0	1.2	2.8	3.1	1.3
7	013WH11	DR&SS-Zim	94	36	19	67.9	197.5	104.2	0.52	14.9	7.0	4.5	5.5	2.2	1.8	1.6	3.7	2.3	3.3	4.8	1.3
27	CZH0718	CIMMYT	90	40	18	66.7	195.2	92.1	0.47	6.8	9.1	4.7	4.8	1.3	1.5	1.7	3.2	1.3	3.2	4.3	2.6
62	Local Check 2	Various	87	40	19	67.1	197.1	93.8	0.46	13.3	10.2	3.8	7.8</								

ILHYB09: Results of evaluation of intermediate to late maturing hybrids from CIMMYT, Pannar, Seedco, and Zamseed across 29 sites in eastern and southern Africa, 2008/09. Color Legend on page 3. TABLE 4B

Entry	Name	Pedigree	Origin	Comments	ReSY		Across Rank	Anth Date	Plant Height	Ear Height	Ear Position	Ear 0-1	Lodging	Stem	Cover	Husk	Ear Rot	GLS	P-seg	Etluc	Grain Text	MSV	Ear Aspect	Plant Aspect
					%	StdDev																		
Entries with anthesis dates between 65 and 66 days																								
23	CZH0815	CZL0713/CML440/CML443	CIMMYT	Non-QPM Hybrid	100	12	22	65.3	202.2	106.1	0.51	16.1	10.6	7.0	6.0	1.7	1.3	1.3	2.8	3.1	2.9	3.1	3.1	
29	CZH0821	CZL076/CML440/CML443	CIMMYT	Non-QPM Hybrid	96	24	11	66.0	223.6	106.5	0.48	16.4	14.4	4.3	6.4	1.2	1.2	2.2	3.2	2.8	2.8	3.1	3.1	
28	CZH0820	CZL076/CML312/CML440	CIMMYT	Non-QPM Hybrid	89	27	9	66.4	215.4	100.9	0.47	12.4	7.4	4.0	8.7	1.7	1.3	2.5	3.1	3.3	3.3	3.1	3.1	
Maturity group average																								
					95	24	11	65.9	215.8	104.5	0.49	15.0	10.8	7.1	7.0	1.6	1.3	2.5	3.1	3.0	3.0	3.1	3.1	
Entries with anthesis dates between 67 and 68 days																								
37	CZH0829	CZL0811/CZL0812/CZL0813	CIMMYT	Non-QPM Hybrid	112	8	8	67.3	222.2	105.2	0.48	10.6	12.8	9.5	5.5	1.3	1.2	1.9	3.0	2.0	2.0	2.8	2.0	
27	CZH0819	CZL03014/CML444/CZL00003	CIMMYT	Non-QPM Hybrid	108	16	9	67.6	227.4	110.0	0.51	12.5	8.4	3.4	4.3	1.3	1.0	2.2	3.3	1.5	2.9	2.9	3.2	
25	CZH0817	CZL0713/CML312/CML440	CIMMYT	Non-QPM Hybrid	105	18	11	67.1	216.2	109.3	0.51	11.6	10.7	4.9	5.6	1.5	1.8	2.2	3.0	2.8	2.9	2.9	3.4	
11	CZH054	CML312/CML443/CZL052	CIMMYT	Non-QPM Hybrid	103	18	12	67.2	212.8	102.0	0.50	24.5	14.6	4.0	6.3	1.2	1.2	1.9	2.9	2.5	2.9	3.9	3.9	
38	CZH0840	CZL0818/CZL00003/CML488	CIMMYT	Non-QPM Hybrid	105	19	11	68.1	204.9	103.1	0.51	11.4	6.9	6.6	4.5	1.7	1.5	1.4	2.0	2.5	2.5	2.5	2.5	
10	CZH052	CML312/CML444/CZL03001	CIMMYT	Non-QPM Hybrid	101	19	9	68.2	224.2	106.4	0.49	13.8	19.1	6.0	4.8	1.3	1.2	1.9	2.6	2.2	2.7	3.8	3.8	
35	CZH0827	CZL0713/CML312/CZL00001	CIMMYT	Non-QPM Hybrid	102	20	11	68.1	217.8	106.6	0.49	19.3	11.1	4.8	5.6	1.5	1.7	2.0	2.9	2.3	3.0	3.0	4.4	
30	CZH0822	CZL0810/CZL00003/CML488	CIMMYT	Non-QPM Hybrid	101	20	9	67.0	220.7	112.2	0.53	17.6	11.7	8.5	7.5	1.3	1.0	2.5	2.8	2.0	3.1	3.0	3.0	
17	CZH0831	CML444/CML385/CZL0819	CIMMYT	Non-QPM Hybrid	99	20	10	67.8	221.2	109.1	0.51	14.4	11.3	5.8	4.9	1.3	1.2	2.3	3.3	2.0	3.0	2.9	2.9	
22	CZH0813	CZL088/CML312/CZL00001	CIMMYT	Non-QPM Hybrid	99	21	9	68.4	221.1	106.1	0.49	13.5	8.6	13.8	3.5	1.3	1.2	1.8	3.4	2.5	3.1	3.1	3.5	
32	CZH0824	CZL089/CML312/CML440	CIMMYT	Non-QPM Hybrid	102	21	10	68.2	216.4	102.6	0.47	9.8	6.3	8.8	4.9	1.3	1.2	2.1	2.4	3.0	3.0	3.0	3.3	
15	CZH0823	CML444/CZL00003/CZL00114	CIMMYT	Non-QPM Hybrid	98	21	11	67.7	225.2	106.3	0.50	9.0	13.3	4.2	6.4	1.2	1.5	2.5	3.1	2.5	2.9	3.0	3.0	
1	PAN 7M197		PANNAR	Non-QPM Hybrid	96	22	12	67.3	216.3	104.9	0.49	14.4	11.3	7.3	5.3	1.3	1.0	2.0	3.7	4.2	3.1	4.1	4.1	
21	CZH0812	CZL087/CZL00003/CML488	CIMMYT	Non-QPM Hybrid	98	23	10	68.7	216.3	106.1	0.50	17.8	10.0	9.9	4.5	1.7	1.5	2.1	2.8	1.4	2.9	2.9	2.9	
24	CZH0816	CZL089/CML440/CML443	CIMMYT	Non-QPM Hybrid	97	24	12	67.1	208.4	108.0	0.53	11.8	13.9	4.6	4.5	1.2	1.0	2.1	2.8	2.2	2.7	3.3	3.3	
26	CZH0818	CZL089/CML312/CZL00001	CIMMYT	Non-QPM Hybrid	97	24	10	68.4	219.5	101.5	0.49	12.9	12.9	9.8	4.6	1.3	1.3	2.2	2.4	2.8	2.8	2.8	3.3	
34	CZH0826	CZL089/CML442/CML445	CIMMYT	Non-QPM Hybrid	89	28	9	68.2	212.3	106.1	0.52	11.1	11.4	6.6	4.1	1.3	1.0	1.9	2.8	2.5	2.8	2.8	3.0	
39	Local Check		Various	Various	100	29	10	68.1	213.2	102.1	0.49	10.5	12.8	3.7	5.8	1.3	1.3	2.4	3.1	2.8	3.1	2.8	3.1	
Maturity group average																								
					100	21	10	67.7	217.5	106.0	0.50	13.7	11.3	6.8	5.2	1.4	1.3	2.1	2.9	2.4	2.9	2.4	2.9	
Entries with anthesis dates between 69 and 70 days																								
4	ZMS 623	ZMS 623	ZAMSEED	Non-QPM Hybrid	106	13	12	69.7	240.2	124.0	0.53	8.8	6.2	3.8	5.9	1.2	1.0	2.4	3.3	2.0	2.9	2.7	2.7	
20	CZH0713	CML489/CML444/CZL0817	CIMMYT	Non-QPM Hybrid	110	13	9	69.8	223.3	103.7	0.47	5.9	14.7	3.0	3.3	1.6	1.5	2.0	3.4	2.5	2.5	2.7	2.5	
9	CZH0408	CML444/CML385/CZL04007	CIMMYT	Non-QPM Hybrid	109	13	8	69.3	225.5	111.3	0.51	12.4	8.8	6.0	4.3	1.2	1.3	1.9	3.1	2.5	2.7	3.0	3.0	
31	CZH0825	CZL076/CZL00003/CML488	CIMMYT	Non-QPM Hybrid	109	13	10	69.8	225.9	106.2	0.48	11.5	12.6	2.7	3.8	1.2	1.0	2.0	2.5	2.3	3.0	2.6	2.6	
14	CZH0511	CML444/CML445/CZL054	CIMMYT	Non-QPM Hybrid	106	14	10	68.9	216.7	104.3	0.49	9.7	9.0	7.6	5.2	1.4	1.0	1.7	3.4	2.0	2.9	2.5	2.5	
16	CZH0825	CML385/CML444/CZL0817	CIMMYT	Non-QPM Hybrid	106	15	11	70.2	228.1	110.7	0.50	13.6	8.8	6.1	5.1	1.4	1.0	2.0	3.3	2.0	2.8	2.8	2.5	
19	CZH079	CML488/CML385/CZL076	CIMMYT	Non-QPM Hybrid	108	16	10	70.4	224.4	108.1	0.51	13.8	13.8	5.0	5.1	1.2	1.0	1.8	2.6	2.0	2.7	3.1	3.1	
5	SC841		SEEDCO	Non-QPM Hybrid	104	16	8	68.0	218.2	104.9	0.48	11.5	8.2	6.1	4.1	1.3	1.2	2.1	3.2	1.9	2.7	2.7	3.1	
12	CZH055	CML312/CML444/CZL04006	CIMMYT	Non-QPM Hybrid	103	17	10	68.7	220.5	105.3	0.49	12.3	6.1	5.1	4.9	1.3	1.0	2.4	3.2	3.0	2.8	2.8	2.7	
2	ZMS 652	ZMS 652	ZAMSEED	Non-QPM Hybrid	95	21	12	68.6	238.0	116.3	0.51	11.5	5.5	10.9	5.0	1.3	1.0	2.2	2.9	3.1	2.9	2.9	2.7	
8	CZH0407	CML489/CML444/CZL04006	CIMMYT	Non-QPM Hybrid	96	22	11	68.8	217.9	105.4	0.49	16.5	7.5	4.0	6.4	1.2	1.0	2.2	3.4	2.6	2.9	2.9	2.5	
3	ZMS 602	ZMS 602	ZAMSEED	Non-QPM Hybrid	92	22	12	70.0	234.5	118.7	0.52	21.2	10.1	5.0	5.1	1.2	1.2	2.4	3.8	2.0	3.2	3.6	3.6	
33	CZH0825	CZL089/CML441/CML442	CIMMYT	Non-QPM Hybrid	90	26	8	68.9	204.3	101.6	0.50	10.1	9.5	7.3	4.4	1.3	1.0	2.7	2.9	1.8	3.0	3.8	3.8	
13	CZH056	CML312/CML444/CML489	CIMMYT	Non-QPM Hybrid	88	28	8	70.2	218.4	106.9	0.51	13.3	11.5	4.5	3.7	1.2	1.3	1.9	3.2	2.2	2.9	3.1	3.1	
18	CZH073	CZL071/CZL072/CZL073	CIMMYT	Non-QPM Hybrid	88	28	8	68.8	211.0	99.5	0.48	11.6	6.9	21.4	7.7	1.3	1.2	2.2	3.0	2.6	3.3	3.6	3.6	
Maturity group average																								
					101	19	10	69.5	223.1	108.5	0.50	12.2	9.3	6.6	4.9	1.3	1.1	2.1	3.1	2.3	2.9	2.9	2.9	
Entries with anthesis dates greater than 70 days																								
6	02C35	02C35	SEEDCO	Non-QPM Hybrid	116	12	15	73.0	242.2	122.6	0.52	11.6	10.6	9.3	5.2	1.2	1.0	2.5	3.7	3.1	2.7	3.0	3.0	
36	SC721	SC721	SEEDCO	Non-QPM Hybrid	95	21	13	70.6	235.5	116.5	0.51	12.4	6.4	8.0	5.0	1.3	1.0	2.6	3.2	3.1	2.9	3.2	3.2	
7	SC719	SC719	SEEDCO	Non-QPM Hybrid	99	21	13	72.1	245.4	125.8	0.53	12.1	8.5	1.5	9.2	1.3	1.2	2.3	3.4	1.8	2.6	3.4	3.4	
Maturity group average																								
					103	18	13	71.9	241.0	121.6	0.52	12.0	8.5	6.3	6.5	1.3	1.1	2.5	3.4	2.6	2.7	2.9	2.9	
Mean					100	20	10	68.6	221.3	106.0	0.50	13.1	10.3	6.7	5.3	1.3	1.2	2.2	3.1	2.4	2.9	3.1	3.1	
LSD (0.05)					7	5	2	0.5	4.2	3.2	0.02	4.2	3.0	0.2	0.4	0.3	0.4	0.3	0.2	0.6	0.2	0.6	0.6	
Min					83	12	8	65.3	204.3	99.5	0.47	5.9	5.5	1.5	3.3	1.2	1.0	1.4	2.0	1.4	2.5	2.0	2.0	
Max					116	29	15	73.0	245.4	125.8	0.53	24.5	19.1	21.4	9.2	1.7	1.8	2.8	3.8	4.2	3.3	4.4	4.4	
NonSignificantSites																								
					29	29	29	69.8	216.2	102.1	0.49	10.5	12.8	3.7	5.8	1.3	1.3	2.4	3.1	2.8	3.1	2.8	3.1	
Heritability																								
					29	29	29	0.98	0.92	0.92	0.22	0.58	0.93	0.75	0.54	0.46	0.24	0.74	0.91	0.85	0.55	0.63	0.63	

EPOPO9: Results of evaluation of early maturing OPVs from CIMMYT and ZAMEED across 30 sites in eastern and southern Africa, 2008/09. Color Legend on page 3.

TABLE 5A

Entry Name	Pedigree	Origin	Comments	RelCY %	Across Rank	GRAIN YIELDS										Anth. Date
						Mid-Afr. E. Africa		Mid-Afr. Humid		Tropical Lowland		Managed Stress				
						u/ha	t/ha	A	B	C	D	E	Drought	Low N		
Entries with anthesis dates between 59 and 60 days																
16 VP0711	(VP047DTPWC9)F2	CIMMYT	Non-OPM OPV	100	21	10	4.74	6.16	5.02	3.89	4.37	2.06	2.57	2.19	60.0	
25 VP0735	VHTC06AsSyn	CIMMYT	Non-OPM OPV	98	21	10	5.29	6.34	5.38	3.55	4.00	2.22	2.00	2.00	60.2	
32 VP082	(ZEWB2F2ZEWAc2)F2	CIMMYT	Non-OPM OPV	98	22	10	4.86	6.43	4.91	4.88	3.67	2.07	2.10	2.12	59.6	
31 VP077	(VP047G18NSeqC)F2	CIMMYT	Non-OPM OPV	96	24	11	4.03	6.52	4.67	3.72	3.47	2.17	2.52	1.96	59.0	
12 VP041	(P401P402ZEWAc1F2)ZEWAc1F2	CIMMYT	Non-OPM OPV	97	24	11	5.72	6.40	4.83	3.27	3.64	2.14	2.38	2.11	59.7	
11 VP06120	(P401P402ZEWAc1F2)ZEWAc1F2	CIMMYT	Non-OPM OPV	94	25	9	5.83	6.20	4.92	3.29	3.64	2.15	2.12	1.63	59.8	
13 VP06181	(ZEWB1F2)9SADVEA-F2	CIMMYT	Non-OPM OPV	91	26	8	5.46	6.33	4.98	3.42	3.81	1.87	1.91	1.72	59.6	
24 VP0734	VHTC06LNSyn	CIMMYT	Non-OPM OPV	89	28	10	4.42	5.58	5.08	3.84	3.40	2.37	2.05	1.69	59.9	
35 08IROE01	(EECA-EE-POP1)BULK (AMSECA46S1)ZEW(A-SRF2-B)ECA-	CIMMYT	Non-OPM OPV	84	29	12	4.32	5.27	4.48	3.80	3.16	1.62	2.57	1.53	58.8	
33 ZM309	VP047	CIMMYT	Non-OPM OPV	88	30	7	4.04	5.87	4.79	3.25	3.53	1.88	1.87	1.52	59.6	
Maturity group average																
				93	25	10	4.87	6.11	4.91	3.61	3.67	2.05	2.24	1.85	59.6	
Entries with anthesis dates between 61 and 62 days																
18 VP0717	(Syn01E2)VP047F2	CIMMYT	Non-OPM OPV	105	16	9	6.12	6.73	5.62	3.77	3.50	2.12	2.49	2.00	60.8	
20 VP0720	(VP047DSSADV)F2	CIMMYT	Non-OPM OPV	106	17	9	5.69	7.24	5.54	4.15	4.35	2.14	1.97	2.11	61.7	
21 VP0728	VHTB06AsSyn	CIMMYT	Non-OPM OPV	103	17	7	5.44	6.64	6.02	3.77	4.27	1.91	2.84	1.99	61.5	
17 VP0715	(VP047LpP04aSeqC3)F2	CIMMYT	Non-OPM OPV	105	18	10	5.75	6.32	5.36	4.18	5.04	2.14	2.21	2.08	62.4	
34 ZM401	Syn01E2	CIMMYT	Non-OPM OPV	102	19	10	6.16	6.73	5.51	3.84	4.30	2.22	2.12	2.00	62.3	
23 VP0730	VHTA06D1Syn	CIMMYT	Non-OPM OPV	102	20	10	5.57	6.46	5.31	3.62	5.03	2.38	2.58	2.17	62.0	
30 VP076	(VP046G18NSeqC)F2	CIMMYT	Non-OPM OPV	101	21	10	5.17	5.93	5.75	3.64	4.17	1.91	2.59	2.01	61.3	
Maturity group average																
				103	18	9	5.70	6.58	5.59	3.83	4.38	2.12	2.37	2.05	61.7	
Entries with anthesis dates between 63 and 64 days																
6 07SADVE	(07SADV)A07SADV)F2	CIMMYT	Non-OPM OPV	116	11	9	7.04	8.14	5.81	4.19	4.69	1.88	2.24	2.50	64.3	
2 ZM423	ZM423-#	CIMMYT	Non-OPM OPV	112	14	8	5.89	7.08	5.74	3.95	4.58	2.18	2.17	2.41	62.8	
5 ZM525-FLINT	(ZM525-FLINT)	CIMMYT	Non-OPM OPV	108	14	11	6.77	7.43	5.75	4.26	4.31	1.96	1.60	2.25	63.7	
14 VP06191	Syn051	CIMMYT	Non-OPM OPV	110	15	10	6.52	7.41	6.30	3.65	4.14	2.06	2.12	2.56	63.8	
1 ZM421-#	ZM421-#	CIMMYT	Non-OPM OPV	101	20	9	6.18	6.47	5.59	4.13	3.92	2.08	2.13	1.85	63.5	
3 ZM521	ZM521	CIMMYT	Non-OPM OPV	94	24	8	5.86	6.16	5.02	3.55	4.12	1.88	1.88	1.71	63.0	
39 Local Check 2	Local Check 2	Various	Various	92	25	13	5.52	6.68	4.35	3.27	3.34	2.03	2.49	1.46	63.0	
22 VP0729	VHTA06AsSyn	CIMMYT	Non-OPM OPV	92	26	10	5.01	6.22	5.76	3.01	4.04	1.89	1.95	1.68	62.6	
38 Local Check 1	Local Check 1	Various	Various	84	27	12	6.16	6.50	5.32	3.28	3.45	2.02	2.24	1.58	63.3	
Maturity group average																
				101	19	10	6.09	6.90	5.51	3.70	4.06	2.00	2.09	2.00	63.3	
Entries with anthesis dates between 65 and 66 days																
9 08SADVE1	(ElaeA07)BaBuk#ElaeB07(BaBuk)#	CIMMYT	Non-OPM OPV	118	9	9	7.26	7.87	6.81	4.22	4.91	2.52	1.66	2.36	66.1	
8 07SADVE3	(07SADV)A07SADV)EB-#	CIMMYT	Non-OPM OPV	119	10	9	6.97	8.13	6.32	4.86	4.84	2.30	2.05	2.54	65.6	
7 07SADVE2	(07SADV)EA07SADV)B-#	CIMMYT	Non-OPM OPV	114	10	8	7.10	7.50	5.97	3.86	4.88	2.28	2.63	2.27	65.1	
15 VP0710	(VP046DTPWC9)F2	CIMMYT	Non-OPM OPV	109	14	9	6.39	7.10	6.06	4.29	4.95	2.01	2.14	2.10	64.5	
4 ZM523	ZM523-#	CIMMYT	Non-OPM OPV	106	14	9	6.32	7.24	6.00	3.47	4.52	2.20	2.45	1.98	65.1	
19 VP0719	(VP046DSSADV)F2	CIMMYT	Non-OPM OPV	102	17	10	6.04	7.38	5.89	4.08	4.66	2.35	2.35	1.75	66.4	
10 08SADVE2	AdvancedA07(BaBuk)#AdvancedB(BaBuk)#	CIMMYT	Non-OPM OPV	103	18	10	5.93	7.17	5.47	4.06	4.13	2.00	2.01	1.09	65.2	
28 VP0743	M02ZW06AsSyn	CIMMYT	Non-OPM OPV	103	19	9	6.58	6.73	5.61	3.82	4.01	2.03	2.08	2.15	65.5	
27 VP0741	([Obatanga]WD2CSYNF2)MDC2SYNF2)IS99TLWOB)F2	CIMMYT	OPM OPV	102	19	13	6.59	7.23	5.81	3.88	5.21	2.68	2.08	1.64	65.8	
37 SC513	SC513	SEEDCO	Hybrid Check	97	20	14	6.28	7.47	6.17	3.35	3.90	2.10	1.96	1.77	66.0	
36 07 ZAM Pop. 1	07 ZAM Pop. 1	ZAMSEED	Non-OPM OPV	88	27	10	5.26	6.70	5.41	3.22	3.30	2.18	1.76	1.46	65.3	
Maturity group average																
				106	16	10	6.39	7.32	5.94	3.85	4.49	2.23	2.07	2.01	65.5	
Entries with anthesis dates greater than 66 days																
26 VP0739	([Obatanga]TZLCOMP1SYNM-1)TZLCOMP1SYNM-	CIMMYT	OPM OPV	97	21	10	5.51	7.01	6.17	3.96	4.09	1.99	1.98	1.77	66.6	
29 VP0745	VHTD06D1Syn	CIMMYT	Non-OPM OPV	77	31	8	5.46	6.59	5.42	3.61	3.32	1.90	1.63	1.20	67.0	
Maturity group average																
				100	20	10	5.76	7.40	5.59	2.94	4.10	1.92	2.04	1.95	62.9	
Mean				10	6	1	1.04	0.88	0.78	0.77	0.48	0.47	0.61	0.50	0.5	
Min				77	9	7	4.03	5.43	4.47	1.58	2.49	1.27	1.10	1.15	58.8	
Max				119	31	14	7.26	8.97	6.91	3.64	5.26	2.44	2.72	2.54	67.4	
NonSignificant Sites				2	8	4	3	2	1	2	1	2	5	30		
Heritability				0.67	0.77	0.75	0.42	0.80	0.00	0.37	0.69	0.88	0.98	0.98		

EPOP09: Results of evaluation of early maturing OPVs from CIMMYT and ZAMVED across 30 sites in eastern and southern Africa, 2008/09. Color Legend on page 3.
TABLE 5B

Entry	Name	Pedigree	Origin	Comments	Across		Anth. Date	Plant Height	Ear Height	Ear Position	Lodging		Flusk	Ear Rot	GLS	Etluc	Grain Text	MSV	Ear Aspect	Plant Aspect	
					RelQY	Rank					Root %	Stem %									%
Entries with anthesis dates between 59 and 60 days																					
16	VP0711	(VP04)DTPN3C/F2	CIMMYT	Non-QPM OPV	100	21	60.0	179.1	79.0	0.44	15.0	30.0	8.4	9.2	1.9	2.1	2.9	2.3	3.2	2.8	
32	VP0735	VHTC06AcSyn	CIMMYT	Non-QPM OPV	96	21	10	60.2	184.0	78.1	9.0	44.1	10.0	13.0	1.7	2.0	3.2	1.7	3.2	2.9	
35	VP082	(ZEWB2F2ZEWAc2F)F2	CIMMYT	Non-QPM OPV	98	22	10	58.6	184.8	80.0	13.2	29.2	8.8	8.1	1.8	2.8	3.2	2.2	3.1	3.3	
31	VP077	(VP04)G16BNSecC/F2	CIMMYT	Non-QPM OPV	96	24	11	59.0	175.8	77.4	0.43	16.0	22.7	8.8	8.7	2.0	3.2	2.7	3.6	2.6	
12	VP041	VP041#	CIMMYT	Non-QPM OPV	97	24	11	59.7	186.7	81.4	0.43	16.5	14.4	9.2	6.9	1.4	2.3	3.2	2.4	3.2	
11	VP0520	(P04)P03ZEWAc1F2ZEWBc1F2ZEWBc1F2L	CIMMYT	Non-QPM OPV	94	25	9	58.8	185.2	81.4	0.44	13.1	33.9	3.4	12.7	1.7	2.5	3.0	2.5	3.1	
13	VP05161	ZEWAc1F2F#	CIMMYT	Non-QPM OPV	91	26	8	58.6	181.0	77.7	0.44	14.1	7.0	8.4	7.9	1.6	2.2	3.3	3.3	3.1	
24	VP0734	VHTC08LNSyn	CIMMYT	Non-QPM OPV	89	28	10	58.9	180.0	77.6	0.43	16.9	25.2	6.0	8.2	1.6	2.4	3.3	2.1	3.2	
35	08ROEE01	(ECA-EE-POP1)EULK (AMSECA46S/ZEW/A-SRF2-B)ECA	CIMMYT	Non-QPM OPV	84	29	12	58.8	182.6	79.0	0.45	18.8	26.4	5.4	9.2	2.0	3.1	2.8	2.8	3.4	
33	ZM639	VP047	CIMMYT	Non-QPM OPV	86	30	7	59.6	174.5	74.7	0.43	15.6	18.9	7.0	9.1	1.8	1.9	2.8	1.8	3.1	
Maturity group average																					
					93	25	10	59.6	181.4	78.5	0.43	14.8	25.2	7.0	9.3	1.8	2.4	3.1	2.4	3.2	3.1
Entries with anthesis dates between 61 and 62 days																					
18	VP0717	(Syn02)VP047F2	CIMMYT	Non-QPM OPV	105	16	9	60.8	192.3	87.0	0.47	14.6	25.2	5.2	4.9	1.5	2.3	3.0	2.0	2.9	
20	VP0720	(VP04)03SADV1F2	CIMMYT	Non-QPM OPV	106	17	9	61.7	191.2	89.2	0.46	12.4	21.0	13.6	7.0	1.5	2.1	3.1	2.3	3.0	
21	VP0728	VHTB06AcSyn	CIMMYT	Non-QPM OPV	103	17	7	61.5	188.8	84.2	0.46	10.0	5.9	7.0	8.2	1.6	2.1	3.4	2.3	3.2	
17	VP0715	(VP04)7LarBeisSecC/F2	CIMMYT	Non-QPM OPV	105	18	10	62.4	183.7	82.2	0.43	12.5	15.0	14.3	8.2	1.8	2.1	3.4	2.1	3.1	
34	ZM401	(VP04)7LarBeisSecC/F2	CIMMYT	Non-QPM OPV	102	19	10	62.3	196.5	85.7	0.45	13.4	26.6	9.9	5.8	1.3	2.8	2.3	1.9	3.1	
23	VP0730	VHTA06DTSyn	CIMMYT	Non-QPM OPV	102	20	10	62.0	183.4	85.2	0.46	13.0	29.3	5.7	9.1	1.4	2.4	3.0	2.1	3.2	
30	VP0706	(VP04)G16BNSecC/F2	CIMMYT	Non-QPM OPV	101	21	10	61.3	185.6	85.2	0.48	13.3	30.9	8.7	2.4	1.7	2.5	3.3	2.7	3.3	
Maturity group average																					
					103	18	9	61.7	188.8	85.4	0.46	12.7	22.4	6.5	7.6	1.5	2.3	3.2	2.2	3.1	2.9
Entries with anthesis dates between 63 and 64 days																					
6	07SADVE	(07SADVA)07SADVB#	CIMMYT	Non-QPM OPV	116	11	9	64.3	185.9	82.8	0.46	9.4	23.1	8.9	7.6	1.3	1.8	3.1	2.0	2.7	
5	ZM625-FINT	02SADVE#4#	CIMMYT	Non-QPM OPV	108	14	11	63.7	193.4	88.7	0.47	8.9	6.0	13.4	3.1	4.2	2.2	3.1	2.0	2.9	
2	ZM623	ZM623#	CIMMYT	Non-QPM OPV	112	14	8	62.8	195.7	89.2	0.45	15.8	28.6	6.5	5.4	1.4	2.2	3.2	2.5	2.9	
14	VP05191	Syn051	CIMMYT	Non-QPM OPV	110	15	10	63.8	194.1	89.9	0.48	11.3	16.8	4.8	7.8	1.8	2.1	2.7	2.1	2.8	
1	ZM421	ZM421#	CIMMYT	Non-QPM OPV	101	20	9	63.5	195.2	91.8	0.46	11.3	27.1	7.8	6.9	1.4	2.3	2.8	2.3	3.0	
3	ZM621	ZM621	CIMMYT	Non-QPM OPV	94	24	8	63.0	193.5	89.9	0.47	13.1	17.2	10.5	9.3	1.4	2.2	2.8	2.6	3.0	
39	Local Check 2	Local Check 2	Various	Various	92	25	13	63.0	193.4	92.1	0.47	12.2	18.9	5.5	10.1	1.8	2.2	2.9	2.4	3.0	
22	VP0729	VHTA06AcSyn	CIMMYT	Non-QPM OPV	92	26	10	62.6	193.9	86.6	0.48	10.8	16.3	5.8	11.1	1.4	2.4	3.2	1.9	3.3	
38	Local Check 1	Local Check 1	Various	Various	84	27	12	63.3	198.1	90.0	0.47	10.6	16.9	5.9	16.7	1.7	2.1	3.1	2.3	2.9	
Maturity group average																					
					101	19	10	63.3	192.6	89.0	0.47	11.5	18.8	7.7	8.7	1.5	2.2	3.0	2.2	2.9	2.8
Entries with anthesis dates between 65 and 66 days																					
9	06SADVE1	(Ela07)Babuk#-Hed07/Babuk#	CIMMYT	Non-QPM OPV	118	9	9	66.1	208.7	101.1	0.50	11.3	14.3	3.6	9.7	1.1	2.1	3.0	2.0	2.6	
8	07SADVE3	(07SADVA)07SADVB#	CIMMYT	Non-QPM OPV	119	10	9	65.6	196.4	89.4	0.48	10.4	14.1	7.6	10.9	1.2	1.7	3.0	2.2	2.9	
7	07SADVE2	(07SADVA)07SADVB#	CIMMYT	Non-QPM OPV	114	10	8	65.1	195.6	91.9	0.48	10.5	24.0	11.1	13.7	1.2	1.8	2.9	1.9	2.9	
15	VP0710	(VP04)07TFC3F2	CIMMYT	Non-QPM OPV	109	14	9	64.5	197.6	95.4	0.49	11.8	21.4	9.2	5.2	1.8	2.5	2.9	2.7	3.3	
4	ZM623	ZM623#	CIMMYT	Non-QPM OPV	106	14	9	65.1	193.7	89.6	0.48	8.6	15.4	7.1	8.8	1.5	2.2	3.1	1.7	2.9	
19	VP0719	(VP04)03SADV1F2	CIMMYT	Non-QPM OPV	102	17	10	66.4	201.8	100.7	0.49	11.5	13.3	4.7	5.0	1.2	2.4	3.2	2.3	3.0	
10	06SADVE2	Advanced07/Babuk#-AdvancedB/Babuk#	CIMMYT	Non-QPM OPV	103	18	10	65.2	185.4	88.6	0.48	7.3	17.5	4.8	9.3	1.4	2.0	2.9	2.2	2.7	
28	VP0743	MOZ3W0RA-Syn	CIMMYT	Non-QPM OPV	103	19	9	65.5	195.6	87.2	0.45	13.3	18.1	6.5	10.7	1.2	2.1	2.4	3.2	3.3	
27	VP0741	(06e0e0)WDC2SINF2IMDC2SINF2IS99TLW0BF2	CIMMYT	Non-QPM OPV	102	19	13	65.8	180.0	92.2	0.48	15.9	24.7	3.4	8.6	1.6	3.1	2.8	2.8	3.2	
37	SC513	SC513	SEEDCO	Hybrid Check	97	20	14	66.0	201.1	98.0	0.49	15.8	13.8	8.2	21.4	1.2	1.7	3.7	3.8	3.5	
36	07 ZAM Pop. 1	07 ZAM Pop. 1	ZAMSEED	Non-QPM OPV	88	27	10	65.3	195.6	93.9	0.49	17.4	12.3	4.7	16.8	1.5	2.8	3.5	2.1	3.3	
Maturity group average																					
					108	16	10	65.5	192.2	93.4	0.48	12.2	17.2	6.4	10.8	1.3	2.2	3.0	2.5	3.0	2.9
Entries with anthesis dates greater than 66 days																					
29	VP0745	VHTD08DTSyn	CIMMYT	Non-QPM OPV	77	31	8	67.4	191.1	88.1	0.46	10.8	14.7	7.3	6.4	1.8	2.0	2.6	2.0	2.9	
26	VP0739	(06e0e0)TZLCOMP1-SYNW-ITZLCOMP1-SYNW-1/S89TLW0BF2	CIMMYT	Non-QPM OPV	97	21	10	66.6	208.6	98.4	0.46	14.5	17.6	3.2	10.2	1.4	2.3	2.6	3.0	3.2	
Maturity group average																					
					87	26	9	67.0	199.8	92.2	0.46	12.7	16.2	5.3	8.3	1.6	2.4	2.6	2.5	3.0	2.9
Mean					100	20	10	62.9	190.7	87.1	0.46	12.8	20.5	7.3	9.0	1.5	2.3	3.1	2.3	3.1	2.9
LSD (0.05)					10	6	1	0.5	4.4	3.6	0.02	4.0	17.9	5.0	7.4	0.3	0.2	0.2	0.7	0.2	0.5
Min					77	9	7	56.8	174.5	74.7	0.41	7.3	6.0	3.2	2.4	1.1	1.7	2.4	1.7	2.6	2.3
Max					119	31	14	67.4	208.7	101.1	0.50	18.8	44.1	14.3	21.4	2.0	3.1	3.7	3.8	3.6	3.5
Trans-Significance					9	4	2	3.0	20.19	19	3	3	10	3.8	8	8	8	8	8	8	8
Heritability					27	27	27	0.99	0.99	0.99	0.88	0.49	0.49	0.69	0.00	0.58	0.91	0.91	0.49	0.70	0.43

ILPOP09: Results of evaluation of intermediate to late maturing OPVs from CIMMYT, AFGRI, Zamseed and DRI-Malawi across 27 sites in eastern and southern Africa, 2008/09. Color Legend on page 3.

TABLE 6A

Entry Name	Pedigree	Origin	Comments	RelGY		Across		Rank		GRAIN YIELDS												Anth. Date	
				%	StdDev	Avg	StdDev	Mid-Alt.			Lowland Tropical			Managed Stress		Other Stresses							
								E. Africa	Warm	Mid-Alt. Humid	Humid	Dry	Humid	Dry	Drought	Low N	Low pH	MSV					
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	t/ha		
Entries with anthesis dates between 66 and 67 days																							
20	VP086	VHTDEF07Syn	CIMMYT	Non-QPM OPV	122	6	7	6	6.53	6.84	6.29	4.03	4.88	2.73	2.14	1.90	1.70	1.70	9.47	65.8			
21	05SADVI	05SADVI	CIMMYT	Non-QPM OPV	113	5	8	5	6.90	6.80	6.58	3.77	4.67	1.67	1.74	1.68	1.89	1.89	9.18	67.0			
10	ZM625	ZM625-##	CIMMYT	Non-QPM OPV	109	5	10	5	6.02	6.73	6.57	3.29	4.18	2.09	1.56	1.60	1.79	11.46	66.9				
15	07WEEVIL	(07WEEVIL/07WEEVILB)#	CIMMYT	Weevil Res. OPV	104	6	12	6	6.12	6.55	5.36	2.59	4.34	1.97	1.64	1.61	2.02	8.65	66.6				
19	VP085	VHTBC07QSyn	CIMMYT	QPM OPV	102	12	6	6	6.88	6.34	5.79	3.03	4.58	2.00	1.51	1.43	1.17	6.03	67.2				
24	Local Check	Local Check	Various	Various	96	7	15	7	6.65	6.19	5.54	2.37	4.30	1.93	1.14	1.25	1.48	5.67	66.4				
2	Chilec2e 2	Chilec2e 2	Malawi	Non-QPM OPV	96	15	5	5	6.33	6.15	5.72	2.98	3.67	1.68	1.54	1.36	1.15	5.44	66.2				
Maturity group average																							
					106	6	11	6	6.49	6.51	5.98	3.15	4.37	2.01	1.61	1.55	1.60	7.99	66.6				
Entries with anthesis dates between 68 and 69 days																							
14	07SADVI	(07SADVLA07SADVLB)#	CIMMYT	Non-QPM OPV	115	5	7	5	6.55	7.19	6.19	3.35	4.84	2.52	1.57	1.77	1.18	9.61	67.6				
4	07 ZAM Pop. 2	07 ZAM Pop. 2	ZAMSEED	Non-QPM OPV	109	5	9	5	6.51	6.93	6.81	3.40	4.67	2.40	1.24	1.53	1.43	9.67	67.7				
13	ZM725	04SADVL#-B(Br)#-##	CIMMYT	Non-QPM OPV	109	5	9	5	6.80	7.00	6.61	2.99	4.70	2.27	1.24	1.77	1.64	9.36	67.9				
22	06SADVI	EliteA07(BalBulb)-#AdvancedB(BalBulb)-#	CIMMYT	Non-QPM OPV	108	7	9	7	6.34	6.92	6.65	3.38	4.01	2.35	1.18	1.67	1.88	10.06	67.7				
3	Chilec2e 5	Chilec2e 5	Malawi	Non-QPM OPV	107	11	5	5	6.13	6.80	6.46	3.22	4.54	2.34	1.45	1.46	1.84	5.99	67.6				
9	ZM623	ZM623-#	CIMMYT	Non-QPM OPV	104	11	6	6	6.54	6.25	6.48	2.91	4.72	1.89	1.47	1.35	2.13	9.19	68.5				
12	ZM721	ZM721-##	CIMMYT	Non-QPM OPV	100	12	6	6	6.41	6.34	6.30	3.10	4.86	1.91	1.37	1.67	1.46	8.42	67.7				
7	AFR1C1	AFR1C1	AFGRI	Non-QPM OPV	95	13	8	8	5.61	7.05	6.08	3.10	3.46	2.18	1.26	1.26	0.93	8.72	67.7				
1	UG2	UG2	Malawi	Non-QPM OPV	102	13	6	6	6.66	5.91	5.98	2.99	4.61	2.49	1.11	1.62	1.89	5.73	68.4				
8	ZM621	ZM621F1	CIMMYT	Non-QPM OPV	102	13	6	6	5.85	6.42	6.12	3.56	4.33	2.07	1.34	1.55	1.11	7.65	67.8				
11	ZM627	03SADVI##	CIMMYT	Non-QPM OPV	98	14	5	5	6.13	6.10	5.82	2.86	5.09	1.51	1.27	1.57	1.73	7.32	67.8				
16	VP074	QSyn074	CIMMYT	QPM OPV	89	18	4	4	6.35	5.65	5.78	2.67	3.68	1.59	0.90	1.46	1.07	8.54	68.9				
17	VP072	QSyn072	CIMMYT	QPM OPV	85	19	5	5	5.03	5.52	4.92	1.80	4.05	1.71	1.58	1.08	1.41	8.38	68.1				
Maturity group average																							
					102	6	12	6	6.22	6.47	6.17	2.97	4.43	2.10	1.31	1.52	1.51	8.36	68.0				
Entries with anthesis dates greater than 69 days																							
23	06SADVL	EliteB07(BalBulb)-#AdvancedB(BalBulb)-#	CIMMYT	Non-QPM OPV	110	6	9	6	7.55	6.84	6.13	2.93	4.89	2.17	1.53	1.28	1.88	9.51	69.5				
5	07 ZAM Pop. 3	07 ZAM Pop. 3	ZAMSEED	Non-QPM OPV	96	13	7	7	6.70	7.02	6.17	2.99	4.23	1.63	0.72	1.34	1.04	8.51	72.2				
6	07 ZAM Pop. 4	07 ZAM Pop. 4	ZAMSEED	Non-QPM OPV	86	17	6	6	4.44	6.10	5.64	3.21	3.58	1.67	0.25	1.18	1.19	9.36	71.0				
18	VP071	QSyn071	CIMMYT	QPM OPV	43	24	1	1	3.03	4.03	3.03	1.32	1.63	0.82	-0.09	0.43	0.49	5.91	74.4				
Maturity group average																							
					84	16	5	5	5.43	5.99	5.24	2.61	3.58	1.57	0.60	1.06	1.15	8.32	71.8				
Mean					100	12	6	6	6.17	6.40	5.96	2.97	4.27	1.98	1.28	1.45	1.45	8.24	68.2				
LSD (0.05)					15	4	1	1	0.80	0.68	0.69	0.74	0.63	0.52	0.53	0.32	0.79	2.13	0.5				
Min					43	7	1	1	3.03	4.03	3.03	1.32	1.63	0.82	-0.09	0.43	0.49	5.44	65.8				
Max					122	24	8	8	7.55	7.19	6.81	4.03	5.09	2.73	2.14	1.90	2.13	11.46	74.4				
Heritability																							
					25	25	25	25	0.83	0.83	0.80	0.64	0.87	0.44	0.80	0.66	0.28	0.69	0.98	27			

ILPO09: Results of evaluation of intermediate to late maturing OPVs from CIMMYT, AFGR1, Zamseed and DRI-Malawi across 27 sites in eastern and southern Africa, 2008/09. Color Legend on page 3.

TABLE 6B

AGRONOMIC AND ADAPTIVE TRAITS

Entry Name	Pedigree	Origin	Comments	RelGY		Across Rank		Anth Date	Plant Height	Ear Height	Ear Position	Lodging		Husk Cover	Ear Rot	GLS	E.turc	Grain Text	MSV	Ear Aspect	Plant Aspect
				%	Avg	Rank	StdDev					Root %	Stem %								
Entries with anthesis dates between 66 and 67 days																					
20	VP086	VHTDEF07Syn	CIMMYT	Non-OPM OPV	122	7	6	65.8	195.5	82.9	0.45	12.3	14.2	6.8	2.2	2.2	2.3	3.1	2.0	2.6	3.0
21	06SADVI	05SADVI	CIMMYT	Non-OPM OPV	113	8	5	67.0	192.8	85.4	0.48	7.4	7.1	13.1	5.2	2.1	2.7	3.1	2.2	2.7	2.8
10	ZM625	ZM625-#-##	CIMMYT	Non-OPM OPV	109	10	5	66.9	204.0	93.9	0.51	8.7	12.4	6.9	10.2	1.8	2.1	3.3	1.4	2.9	3.5
15	07WEEVIL	(07WEEVILA07WEEVILB)#	CIMMYT	Weev/Res. OPV	104	12	6	66.6	197.9	81.7	0.44	12.7	10.9	21.2	3.7	1.8	2.2	2.8	2.0	2.8	2.7
19	VP085	VHTBC07QSyn	CIMMYT	OPM OPV	102	12	6	67.2	201.3	82.1	0.45	8.4	11.4	12.3	10.7	2.9	2.2	2.9	2.8	2.9	2.6
24	Local Check	Local Check	Various	Various	96	15	7	66.4	200.1	91.4	0.48	5.7	12.5	6.1	5.0	1.8	2.7	3.7	3.2	2.6	3.0
2	Chilezde 2	Chilezde 2	Malawi	Non-OPM OPV	96	15	5	66.2	186.7	79.6	0.48	8.5	10.4	10.6	6.8	2.0	2.6	3.3	3.2	2.8	3.2
Maturity group average					106	11	6	66.6	196.9	85.3	0.47	9.1	11.3	11.0	6.3	2.1	2.4	3.2	2.4	2.8	3.0
Entries with anthesis dates between 68 and 69 days																					
14	07SADVI	(07SADVLA07SADVLB)#	CIMMYT	Non-OPM OPV	115	7	5	67.6	197.7	85.0	0.47	10.2	9.4	8.3	6.1	1.8	1.7	2.9	2.0	2.6	2.9
4	07 ZAM Pop.2	07 ZAM Pop.2	ZAMSEED	Non-OPM OPV	109	9	5	67.7	216.0	99.5	0.52	5.8	7.1	7.7	4.6	1.8	2.9	3.3	1.8	2.8	3.1
13	ZM725	04SADVL-#-(End)-#-##	CIMMYT	Non-OPM OPV	109	9	5	67.9	204.3	92.9	0.49	8.1	10.7	6.4	3.0	2.0	2.4	3.4	2.4	2.6	3.2
22	08SADVI	ElleA07(BalBulk)#(AdvancedB(BalBulk))#	CIMMYT	Non-OPM OPV	108	9	7	67.7	197.0	84.2	0.47	6.7	11.1	6.9	3.9	2.1	2.0	2.7	2.0	2.7	3.2
3	Chilezde 5	Chilezde 5	Malawi	Non-OPM OPV	107	11	5	67.6	202.3	87.2	0.46	10.3	13.0	12.2	7.4	2.2	2.4	2.4	2.1	2.9	2.8
9	ZM623	ZM623-#	CIMMYT	Non-OPM OPV	104	11	6	68.5	198.3	87.9	0.48	10.4	9.4	6.7	2.8	2.1	1.8	3.4	2.4	2.7	3.2
12	ZM721	ZM721-#-##	CIMMYT	Non-OPM OPV	100	12	6	67.7	196.6	89.9	0.49	8.8	9.1	6.2	6.7	1.9	2.2	3.2	2.0	2.8	2.9
7	AFRIC1	AFRIC1	AFGR1	Non-OPM OPV	95	13	8	67.7	202.4	90.8	0.49	5.0	17.4	8.4	7.8	1.9	2.0	3.8	2.0	3.0	3.2
1	UG2	UG2	Malawi	Non-OPM OPV	102	13	6	68.4	196.0	88.9	0.50	6.4	15.8	14.8	5.3	2.6	2.0	3.2	2.8	2.9	2.9
8	ZM621	ZM621F1	CIMMYT	Non-OPM OPV	102	13	6	67.8	204.3	85.9	0.47	6.6	17.4	7.5	6.7	2.2	2.4	3.5	2.0	2.8	3.3
11	ZM627	03SADVI-##	CIMMYT	Non-OPM OPV	98	14	5	67.8	190.8	85.0	0.47	11.4	8.4	6.7	5.3	2.0	2.3	3.2	2.5	2.7	2.9
16	VP074	QSyn074	CIMMYT	OPM OPV	89	18	4	66.9	199.8	87.9	0.47	6.3	10.1	14.5	10.5	1.6	2.0	2.5	2.5	2.8	3.0
17	VP072	QSyn072	CIMMYT	OPM OPV	85	19	5	68.1	196.4	86.3	0.47	14.4	12.2	8.2	5.1	2.2	1.6	2.0	2.3	2.7	3.3
Maturity group average					102	12	6	68.0	200.1	88.6	0.48	8.5	11.6	8.8	5.8	2.0	2.1	3.1	2.3	2.8	3.1
Entries with anthesis dates greater than 69 days																					
23	08SADVL	ElleB07(BalBulk)#(AdvancedA07(BalBulk))#	CIMMYT	Non-OPM OPV	110	9	6	68.5	209.6	95.2	0.48	9.0	9.1	5.5	4.9	1.8	2.4	3.4	1.9	2.7	3.2
5	07 ZAM Pop.3	07 ZAM Pop.3	ZAMSEED	Non-OPM OPV	96	13	7	72.2	221.0	105.3	0.52	12.6	5.8	5.5	8.2	1.9	2.5	3.1	2.1	2.7	3.2
6	07 ZAM Pop.4	07 ZAM Pop.4	ZAMSEED	Non-OPM OPV	86	17	6	71.0	206.9	95.8	0.51	9.9	7.4	7.9	10.2	2.1	1.9	3.3	2.2	3.1	3.5
18	VP071	QSyn071	CIMMYT	OPM OPV	43	24	1	74.4	187.5	83.5	0.50	28.9	15.9	4.2	17.0	2.4	2.1	2.2	1.4	3.3	3.8
Maturity group average					84	16	5	71.8	206.2	94.9	0.50	15.1	9.6	5.8	10.1	2.0	2.2	3.0	1.9	2.9	3.4
Mean					100	12	6	68.2	200.2	88.7	0.48	9.8	11.2	9.0	6.6	2.1	2.2	3.1	2.3	2.8	3.1
LSD (0.05)					15	4	1	0.5	5.0	4.1	0.02	4.9	5.5	4.0	6.3	0.5	0.5	0.2	0.7	0.2	0.4
Min					43	7	1	65.8	186.7	79.6	0.44	5.0	5.8	4.2	2.2	1.6	1.6	2.0	1.4	2.6	2.6
Max					122	24	8	74.4	221.0	105.3	0.52	28.9	17.4	21.2	17.0	2.9	2.9	3.8	3.2	3.3	3.8
NumSignificanSites					25	25	25	27	18	18	8	5	3	8	3	5	3	7	1	11	4
Heritability					0.98	0.41	0.92	0.83	0.73	0.72	0.72	0.00	0.48	0.88	0.31	0.60	0.69				

6. INDIVIDUAL SITE RESULTS

EIHYB09

EIHYB09: Results of evaluation of early to intermediate maturing hybrids from CIMMYT, Pannar, Seedco, Pioneer, AFGRI and DR&S- Zimbabwe across 37 sites in eastern and southern Africa, 2008/09

TABLE 3C

Entry Name	Pedigree	Origin	Mid-Altitude East Africa Environments													
			Across			Across		Elgon Downs Ken		Bumula Ken		Melkasa Eth		Embu Ken		
			RelGY	Rank	StdDev	GrainYield	RankNo	GrainYield	RankNo	GrainYield	RankNo	GrainYield	RankNo	GrainYield	RankNo	
%	Avg		t/ha	#	t/ha	#	t/ha	#	t/ha	#	t/ha	#				
Entries with anthesis dates between 58 and 60 days																
26	CZH071	CZL04008/CZL04009/VP05188	CIMMYT	82	48	16	2.90	40	2.80	17	2.14	42	2.62	49	4.07	
36	CZH0741	CZL0721/CZL0723/CZL0722	CIMMYT	78	49	18	3.44	33	2.33	42	3.13	10	3.35	31	5.08	59
37	CZH0742	CZL0721/CZL0724/CZL0722	CIMMYT	75	53	12	3.14	38	1.76	63	1.96	52	3.66	16	5.27	58
38	CZH0743	CZL0723/CZL0724/CZL0722	CIMMYT	86	44	14	3.68	33	2.05	53	1.97	51	4.23	7	5.83	53
35	CZH0739	CZL0723/CZL0719/CZL0722	CIMMYT	82	47	16	3.24	38	2.08	52	1.92	55	3.07	41	5.66	55
33	CZH0736	CZL04008/CZL0719/CZL0717/CZL0718	CIMMYT	86	44	17	3.44	35	2.43	35	1.61	61	3.74	15	5.96	52
47	CZH088	CML505/CML509/CZL085	CIMMYT	84	47	14	2.73	43	1.97	57	1.84	56	3.49	26	3.62	62
Maturity group average				82	47	15	3	37	2.20	46	2.08	47	3.45	26	5.07	57
Entries with anthesis dates between 61 and 63 days																
42	CZH083	CML508/CML507/CZL0723	CIMMYT	85	47	12	3.62	34	2.46	32	2.73	24	3.58	20	5.58	56
34	CZH0737	CZL0717/CZL0718/CZL0523/CZL0720	CIMMYT	96	34	18	3.82	29	2.59	27	3.42	4	2.73	46	6.57	44
32	CZH0735	CZL0717/CZL0718/CML505/CML509	CIMMYT	93	37	18	3.59	35	3.23	10	2.36	35	3.50	25	5.41	57
49	CZH0810	CZL03014/CZL03021/CZL04002	CIMMYT	94	38	17	3.75	32	2.33	41	2.64	28	2.52	52	7.37	33
50	CZH0811	CML444/CML395/CZL086	CIMMYT	96	36	14	3.90	29	3.37	8	2.43	34	3.42	28	6.52	48
Maturity group average				93	38	16	4	32	2.80	24	2.71	25	3.15	34	6.29	48
Entries with anthesis dates between 64 and 66 days																
48	CZH089	CZL03014/CML442/CZL04003	CIMMYT	96	36	15	3.57	35	2.10	50	3.18	8	2.73	45	6.54	47
31	CZH0734	CZL03014/CML442/CZL04002	CIMMYT	94	36	14	3.95	33	2.64	25	1.72	59	3.84	12	8.18	23
40	CZH081	CML445/CML504/CML505	CIMMYT	97	35	16	4.37	25	2.91	14	3.05	12	4.72	3	7.26	35
46	CZH087	CZL0613/CZL083/CZL084	CIMMYT	100	33	14	3.76	35	2.39	37	2.19	41	3.30	33	7.34	34
52	CZH0831	CZL0619/CZL00003/CML488	CIMMYT	108	26	15	4.13	26	2.66	23	3.23	6	2.79	44	7.37	32
20	CZH0526	CML312/CML395/CZL0521	CIMMYT	107	28	17	4.11	31	2.35	40	2.82	19	1.86	60	8.43	19
61	Local Check 1	Local Check 1	Various	92	41	18	3.37	42	2.03	55	2.32	38	2.29	56	6.56	45
51	CZH0830	CZL0814/CZL00003/CML488	CIMMYT	108	26	16	3.54	36	2.37	38	2.20	40	3.85	11	5.81	54
39	CZH0746	CZL0713/CZL077/CZL03014	CIMMYT	110	24	17	4.57	25	3.23	9	2.32	36	3.38	30	9.24	8
2	PAN 53	PAN 53	PANNAR	115	19	16	3.85	37	1.84	61	2.90	17	1.48	63	9.64	5
24	CZH0615	CZL00003/CML488/CZL03014	CIMMYT	105	27	16	4.37	28	1.96	58	2.75	21	3.26	36	8.69	14
41	CZH082	CML202/CML504/CZL081	CIMMYT	101	32	14	3.60	37	3.49	6	1.77	57	3.05	42	7.03	37
Maturity group average				103	30	16	4	33	2.50	35	2.54	30	3.04	36	7.67	29
Entries with anthesis dates between 67 and 69 days																
27	CZH0718	CZL99013/CZL079/CML507	CIMMYT	90	40	18	3.66	35	2.19	47	3.00	13	2.26	57	6.72	43
60	CZH0839	CZL0817/CML441/CML442	CIMMYT	109	22	15	4.74	19	2.82	16	2.93	16	4.38	5	8.51	16
15	CZH04002	CML312/CML442/CZL04002	CIMMYT	95	36	17	3.79	33	1.89	60	2.70	27	3.50	24	7.38	31
10	SC533	SC533	SEEDCO	106	28	18	4.17	27	2.78	18	2.85	18	3.64	17	8.23	22
21	CZH0530	CML312/CML504/CML488	CIMMYT	108	26	14	3.46	41	2.73	22	1.60	62	3.47	27	6.80	42
62	Local Check 2	Local Check 2	Various	87	40	19	4.47	21	2.48	30	3.20	7	3.55	21	8.68	15
19	CZH0524	CML395/CZL0520/CZL00009	CIMMYT	112	21	11	4.18	27	3.19	11	2.04	47	3.80	14	7.76	27
3	PAN 63	PAN 63	PANNAR	98	31	20	5.07	25	2.23	45	2.10	45	5.35	2	10.55	1
63	Local Check 3	Local Check 3	Various	95	34	20	2.94	41	1.82	62	2.73	26	3.21	37	3.60	63
54	CZH0833	CZL0816/CML444/CZL00003	CIMMYT	100	32	18	4.30	24	3.53	4	2.94	14	3.51	23	7.25	36
4	ZMS 554	ZMS 554	ZAMSEED	106	25	18	3.76	35	2.26	44	1.93	54	3.07	40	7.90	25
11	04C336	04C336	SEEDCO	111	22	20	4.83	20	2.75	20	3.42	3	3.84	13	9.34	7
44	CZH085	CZL0613/CML511/CML181	CIMMYT	102	31	15	3.72	34	3.85	2	2.01	48	1.85	61	7.72	28
12	X6C461W	X6C461W	PIONEER	107	24	17	3.49	37	3.38	7	1.99	50	2.61	50	6.48	49
14	CZH04012	CZL04008/CZL04009/CZL0722	CIMMYT	85	44	19	2.99	42	2.93	13	1.29	63	3.15	38	4.45	60
43	CZH084	CZL082/CML511/CML181	CIMMYT	101	32	12	3.81	33	2.48	31	2.10	44	2.32	54	8.50	17
28	CZH0720	CZL0710/CZL0711/CZL02012	CIMMYT	109	28	17	3.56	38	2.15	49	2.01	49	3.41	29	6.37	51
58	CZH0837	CZL0814/CML444/CZL00003	CIMMYT	113	21	15	4.04	33	2.65	24	2.45	33	2.72	47	8.25	21
8	013WH30	013WH30	DR&S-Zim	94	35	16	3.90	29	2.77	19	2.58	31	2.64	48	6.81	41
25	CZH0616	CML312/CML443/CZL0610	CIMMYT	110	23	14	4.38	24	2.44	34	2.81	20	3.61	19	8.44	18
22	CZH0536	CZL0517/CZL04021/CML181	CIMMYT	101	31	13	3.71	34	1.90	59	2.60	30	2.20	58	7.80	26
7	013WH11	013WH11	DR&S-Zim	94	36	19	3.77	37	2.51	28	1.76	58	4.07	9	6.56	45
13	CZH01008	CML443/CML444/CZL00003	CIMMYT	102	30	19	3.62	35	2.22	46	3.07	11	2.32	55	6.89	39
57	CZH0836	CZL0814/CML489/CML444	CIMMYT	117	18	16	5.25	19	3.51	5	2.73	25	5.38	1	9.92	3
17	CZH04032	CML181/CZL01005/CML511	CIMMYT	109	26	17	4.60	22	2.90	15	3.31	5	2.96	43	9.43	6
1	PAN 5M-35	PAN 5M-35	PANNAR	119	18	15	4.86	17	2.63	26	4.00	1	3.54	22	10.07	2
30	CZH0728	CML312/CML443/CZL0713	CIMMYT	110	24	16	5.12	18	3.87	1	3.42	2	3.98	10	8.98	10
9	SC513	SC513	SEEDCO	86	45	15	3.88	33	2.18	48	2.49	32	3.27	34	7.48	30
53	CZH0832	CZL0815/CML312/CZL00001	CIMMYT	101	33	16	3.71	34	2.49	29	2.74	22	2.49	53	6.43	50
16	CZH04005	CML395/CML444/CML509/CML505	CIMMYT	97	35	11	4.48	30	2.40	36	2.06	46	2.59	51	9.90	4
Maturity group average				102	30	16	4	30	2.66	28	2.56	30	3.29	32	7.77	28
Entries with anthesis dates between 70 and 72 days																
55	CZH0834	CZL087/CML444/CZL00003	CIMMYT	101	32	18	3.48	41	1.99	56	2.73	23	1.69	62	7.51	29
23	CZH0613	CML312/CML440/CZL0610	CIMMYT	107	26	17	4.01	31	2.27	43	2.13	43	4.19	8	6.84	40
29	CZH0722	CZL0712/CZL0617/CML395	CIMMYT	108	25	17	4.08	32	2.45	33	1.94	53	3.62	18	7.93	24
45	CZH086	CML144/CZL067/CML507	CIMMYT	91	38	16	4.21	28	2.09	51	2.26	39	3.35	32	8.85	12
59	CZH0838	CZL0617/CML489/CML444	CIMMYT	115	20	17	4.46	24	2.36	39	2.94	15	3.09	39	9.14	9
56	CZH0835	CZL0617/CML444/CZL00003	CIMMYT	115	20	18	4.30	25	2.04	54	3.14	9	3.27	35	8.78	13
6	AFG4663	AFG4663	AFGRI	108	26	16	4.42	28	3.64	3	1.66	60	4.25	6	8.96	11
5	AFG4611	AFG4611	AFGRI	106	27	16	4.09	32	2.75	21	2.32	37	4.58	4	6.94	38
Maturity group average				106	27	17	4	30	2.45	38	2.39	35	3.50	26	8.12	22
Entries with anthesis dates greater than 72 days																
18	CZH0521	CZL0517/CZL04021/CML181/CZL01005	CIMMYT	107	25	16	3.99									

EIHVB09: Results of evaluation of early to intermediate maturing hybrids from CIMMYT, Pannar, Seedco, Pioneer, AFGRI and DR&S-Zimbabwe across 37 sites in eastern and southern Africa, 2008/09
TABLE 3D

Entry	Name	Pedigree	Origin	Mid-Altitude Humid Warm (A) Environments												
				Across			Across		Baka Mal		Chitedze Mal		Kasapa Dem		Kasinga Dem	
				RelGY	Rank	StdDev	GrainYield	RankNo	GrainYield	RankNo	GrainYield	RankNo	GrainYield	RankNo	GrainYield	RankNo
%	Avg		t/ha	#	t/ha	#	t/ha	#	t/ha	#	t/ha	#				
Entries with anthesis dates between 58 and 60 days																
26	CZH071	CZL04008/CZL04009/VP05188	CIMMYT	82	48	16	4.92	44	5.47	18	4.99	49	3.64	46	4.40	49
36	CZH0741	CZL0721/CZL0723/CZL0722	CIMMYT	78	49	18	4.63	47	4.05	47	3.50	63	4.51	5	4.11	58
37	CZH0742	CZL0721/CZL0724/CZL0722	CIMMYT	75	53	12	4.34	52	3.51	57	4.33	59	3.18	59	3.48	62
38	CZH0743	CZL0723/CZL0724/CZL0722	CIMMYT	86	44	14	4.72	44	4.31	43	4.86	51	4.19	19	5.64	14
35	CZH0739	CZL0723/CZL0719/CZL0722	CIMMYT	82	47	16	5.05	45	5.48	17	4.22	60	4.21	15	4.35	51
33	CZH0736	CZL04008/CZL0719/CZL0717/CZL0718	CIMMYT	86	44	17	4.83	46	4.03	48	4.33	58	3.74	43	4.72	41
47	CZH088	CML505/CML509/CZL085	CIMMYT	84	47	14	5.18	46	6.80	4	4.67	55	2.82	62	5.56	16
Maturity group average				82	47	15	5	46	4.81	33	4.42	56	3.76	36	4.61	42
Entries with anthesis dates between 61 and 63 days																
42	CZH083	CML508/CML507/CZL0723	CIMMYT	85	47	12	5.26	43	5.35	21	4.56	57	4.15	25	4.88	35
34	CZH0737	CZL0717/CZL0718/CZL0523/CZL0720	CIMMYT	96	34	18	5.67	35	5.23	23	5.53	39	4.64	4	6.27	2
32	CZH0735	CZL0717/CZL0718/CZL505/CML509	CIMMYT	93	37	18	5.53	39	4.07	46	3.56	62	4.11	29	4.92	34
49	CZH0810	CZL03014/CZL03021/CZL04002	CIMMYT	94	38	17	5.47	41	3.75	53	5.07	48	4.06	31	4.40	48
50	CZH0811	CML444/CML395/CZL086	CIMMYT	96	36	14	5.56	42	5.00	29	4.76	54	3.33	56	4.26	53
Maturity group average				93	38	16	5	40	4.68	34	4.70	52	4.06	29	4.95	34
Entries with anthesis dates between 64 and 66 days																
48	CZH089	CZL03014/CML442/CZL04003	CIMMYT	96	36	15	5.85	36	5.24	22	5.87	30	4.45	7	4.76	39
31	CZH0734	CZL03014/CML442/CZL04002	CIMMYT	94	36	14	5.88	36	4.96	31	5.62	37	4.48	6	4.14	55
40	CZH081	CML445/CML504/CML505	CIMMYT	97	35	16	5.88	37	5.15	26	5.31	44	4.17	21	4.50	47
46	CZH087	CZL0613/CZL083/CZL084	CIMMYT	100	33	14	6.13	34	5.17	24	5.46	42	4.20	18	5.14	28
52	CZH0831	CZL0619/CZL00003/CML488	CIMMYT	108	26	15	7.13	27	6.29	9	5.87	31	3.26	57	6.23	3
20	CZH0526	CML312/CML395/CZL0521	CIMMYT	107	28	17	7.18	26	5.41	19	5.57	38	3.40	55	3.96	59
61	Local Check 1	Local Check 1	Various	92	41	18	5.80	38	4.37	42	6.11	26	3.74	45	5.67	12
51	CZH0830	CZL0814/CZL00003/CML488	CIMMYT	108	26	16	6.70	26	5.01	28	6.67	8	4.25	12	4.33	52
39	CZH0746	CZL0713/CZL077/CZL03014	CIMMYT	110	24	17	6.22	34	3.32	60	4.61	56	4.12	28	5.82	8
2	PAN 53	PAN 53	PANNAR	115	19	16	8.11	16	5.84	11	7.01	5	4.24	13	5.88	6
24	CZH0615	CZL00003/CML488/CZL03014	CIMMYT	105	27	16	6.40	31	4.18	45	5.85	33	3.92	38	5.71	9
41	CZH082	CML202/CML504/CZL081	CIMMYT	101	32	14	6.51	31	4.66	35	6.17	25	3.88	39	4.58	44
Maturity group average				103	30	16	6	31	4.97	29	5.86	31	4.01	28	5.06	30
Entries with anthesis dates between 67 and 69 days																
27	CZH0718	CZL99013/CZL079/CML507	CIMMYT	90	40	18	6.68	29	3.84	52	6.65	12	3.74	44	4.60	43
60	CZH0839	CZL0817/CML441/CML442	CIMMYT	109	22	15	7.07	25	5.38	20	4.96	50	4.21	16	5.83	7
15	CZH04002	CML312/CML442/CZL04002	CIMMYT	95	36	17	5.23	45	3.52	56	4.06	61	3.25	58	3.30	63
10	SC533	SC533	SEEDCO	106	28	18	7.31	24	4.50	39	6.40	17	3.97	37	5.36	21
21	CZH0530	CML312/CML504/CML488	CIMMYT	108	26	14	6.83	28	6.51	5	4.84	52	4.03	34	5.33	22
62	Local Check 2	Local Check 2	Various	87	40	19	6.18	35	3.94	50	6.32	20	3.08	60	4.51	46
19	CZH0524	CML395/CZL0520/CZL00009	CIMMYT	112	21	11	7.24	24	5.71	13	6.54	15	4.15	24	4.95	31
3	PAN 63	PAN 63	PANNAR	98	31	20	6.98	27	4.82	32	5.26	47	3.64	47	5.55	17
63	Local Check 3	Local Check 3	Various	95	34	20	6.66	28	4.99	30	5.49	40	4.23	14	5.69	11
54	CZH0833	CZL0816/CML444/CZL00003	CIMMYT	100	32	18	6.35	33	5.53	15	6.36	19	3.88	40	4.79	38
4	ZMS 554	ZMS 554	ZAMSEED	106	25	18	7.34	24	4.57	36	6.37	18	4.17	22	5.24	24
11	O4C336	O4C336	SEEDCO	111	22	20	7.64	20	6.87	3	7.59	1	3.57	48	4.52	45
44	CZH085	CZL0613/CML511/CML181	CIMMYT	102	31	15	6.41	30	3.64	54	6.30	22	4.76	1	4.38	50
12	X6C461W	X6C461W	PIONEER	107	24	17	7.15	23	4.47	40	6.74	10	3.87	41	6.13	4
14	CZH04012	CZL04008/CZL04009/CZL0722	CIMMYT	85	44	19	4.31	51	3.93	51	4.84	53	3.99	36	4.14	56
43	CZH084	CZL082/CML511/CML181	CIMMYT	101	32	12	6.70	29	4.44	41	6.01	28	4.04	33	5.11	29
28	CZH0720	CZL0710/CZL0711/CZL02012	CIMMYT	109	28	17	6.47	32	5.68	14	5.70	36	4.21	17	4.15	54
8	CZH0837	CZL0814/CML444/CZL00003	CIMMYT	113	21	15	7.54	21	5.15	25	6.97	7	3.75	42	5.33	23
8	013WH30	013WH30	DR&S-Zim	94	35	16	6.23	37	3.06	62	5.47	41	2.92	61	3.79	61
25	CZH0616	CML312/CML443/CZL0610	CIMMYT	110	23	14	6.92	28	4.24	44	5.76	35	4.17	23	4.61	42
22	CZH0536	CZL0517/CZL04021/CML181	CIMMYT	101	31	13	6.72	28	3.43	58	7.00	6	4.18	20	5.18	27
7	013WH11	013WH11	DR&S-Zim	94	36	19	6.19	33	4.51	38	6.30	21	3.46	53	5.43	19
13	CZH01008	CML443/CML444/CZL00003	CIMMYT	102	30	19	7.13	24	5.13	27	5.28	46	4.72	3	4.87	36
57	CZH0836	CZL0814/CML489/CML444	CIMMYT	117	18	16	7.94	18	6.45	7	7.25	3	3.42	54	5.70	10
17	CZH04032	CML181/CZL01005/CML511	CIMMYT	109	26	17	7.35	24	3.39	59	7.59	2	4.13	27	5.96	5
1	PAN 5M-35	PAN 5M-35	PANNAR	119	18	15	7.54	22	7.14	2	5.99	29	4.45	8	5.01	30
30	CZH0728	CML312/CML443/CZL0713	CIMMYT	110	24	16	6.80	31	3.18	61	5.42	43	3.55	49	5.64	13
9	SC513	SC513	SEEDCO	86	45	15	6.01	37	3.55	55	6.63	13	4.14	26	4.85	37
53	CZH0832	CZL0815/CML312/CZL00001	CIMMYT	101	33	16	6.31	33	2.81	63	6.82	9	3.54	50	5.22	25
16	CZH04005	CML395/CML444/CML509/CML505	CIMMYT	97	35	11	6.43	31	4.51	37	5.85	32	4.05	32	5.40	20
Maturity group average				102	30	16	7	29	4.63	36	6.09	26	3.91	34	5.02	30
Entries with anthesis dates between 70 and 72 days																
55	CZH0834	CZL087/CML444/CZL00003	CIMMYT	101	32	18	6.85	27	4.67	34	6.01	27	3.50	51	5.61	15
23	CZH0613	CML312/CML440/CZL0610	CIMMYT	107	26	17	6.23	32	5.49	16	5.77	34	4.28	11	4.94	32
29	CZH0722	CZL0712/CZL0617/CML395	CIMMYT	108	25	17	7.46	20	3.98	49	7.15	4	4.76	2	4.73	40
45	CZH086	CML144/CZL067/CML507	CIMMYT	91	38	16	6.14	33	5.79	12	5.30	45	4.32	10	4.93	33
59	CZH0838	CZL0617/CML489/CML444	CIMMYT	115	20	17	8.51	14	6.31	8	6.63	14	4.08	30	6.50	1
56	CZH0835	CZL0617/CML444/CZL00003	CIMMYT	115	20	18	7.78	21	4.78	33	6.50	16	4.00	35	4.12	57
6	AFG4663	AFG4663	AFGRI	108	26	16	7.56	21	7.17	1	6.21	24	4.41	9	5.54	18
5	AFG4611	AFG4611	AFGRI	106	27	16	6.43	32	6.17	10	6.26	23	3.48	52	3.86	60
Maturity group average				106	27	17	7	25	5.55	20	6.23	23	4.10	25	5.03	32
Entries with anthesis dates greater than 72 days																
18	CZH0521	CZL0517/CZL04021/CML181/CZL01005	CIMMYT	107	25	16	7.23	24	6.46	6	6.66	11	2.78	63	5.21	26

EIHYB09: Results of evaluation of early to intermediate maturing hybrids from CIMMYT, Pannar, Seedco, Pioneer, AFGRI and DR&S-Zimbabwe across 37 sites in eastern and southern Africa, 2008/09. TABLE 3E

Entry	Name	Pedigree	Mid-Altitude Humid Warm (A) Environments															
			Across			Mount Makulu Zam		Gwebi Zim		Agriseeds Farm Zim		Harare Zim		ART Farm Harare Zim		Chianga Ang		
			RelGY	Rank	StdDev	GrainYield	RankNo	GrainYield	RankNo	GrainYield	RankNo	GrainYield	RankNo	GrainYield	RankNo	GrainYield	RankNo	
%	Avg		t/ha	#	t/ha	#	t/ha	#	t/ha	#	t/ha	#	t/ha	#				
Entries with anthesis dates between 58 and 60 days																		
26	CZH071	CZL04008/CZL04009/VP05188	82	48	16	3.44	62	2.04	50	3.57	62	7.92	44	8.36	54	2.97	45	
36	CZH0741	CZL0721/CZL0723/CZL0722	78	49	18	4.36	56	-0.73	63	6.29	49	5.82	61	6.70	63	2.91	47	
37	CZH0742	CZL0721/CZL0724/CZL0722	75	53	12	3.38	63	0.49	58	3.47	63	6.73	56	7.11	62	3.46	30	
38	CZH0743	CZL0723/CZL0724/CZL0722	86	44	14	4.90	42	0.95	55	5.30	54	5.52	62	7.55	59	2.82	49	
35	CZH0739	CZL0723/CZL0719/CZL0722	82	47	16	5.06	38	0.42	59	4.35	60	6.02	60	7.72	58	5.53	4	
33	CZH0736	CZL04008/CZL0719/CZL0717/CZL0718	86	44	17	5.30	35	-0.04	61	5.02	58	6.88	55	7.41	61	2.05	61	
47	CZH088	CML505/CML509/CZL085	84	47	14	3.46	61	3.76	42	5.20	57	6.64	58	8.11	56	2.21	60	
Maturity group average			82	47	15	4.27	51	0.98	55	4.74	58	6.50	57	7.56	59	3.13	42	
Entries with anthesis dates between 61 and 63 days																		
42	CZH083	CML508/CML507/CZL0723	85	47	12	4.48	54	3.05	47	5.26	55	7.16	53	8.70	52	2.60	54	
34	CZH0737	CZL0717/CZL0718/CZL0523/CZL0720	96	34	18	5.64	25	0.31	60	6.36	47	6.25	59	9.36	47	3.15	37	
32	CZH0735	CZL0717/CZL0718/CML505/CML509	93	37	18	4.45	55	0.61	57	6.28	50	8.92	31	9.22	49	2.48	58	
49	CZH0810	CZL03014/CZL03021/CZL04002	94	38	17	4.75	46	1.25	54	6.62	44	7.08	54	9.61	43	3.11	39	
50	CZH0811	CML444/CML395/CZL086	96	36	14	5.65	22	3.32	46	5.88	52	7.39	50	10.15	38	3.01	42	
Maturity group average			93	38	16	4.99	40	1.71	53	6.08	50	7.36	49	9.41	46	2.87	46	
Entries with anthesis dates between 64 and 66 days																		
48	CZH089	CZL03014/CML442/CZL04003	96	36	15	4.54	53	3.40	45	6.67	43	8.06	42	9.29	48	2.33	59	
31	CZH0734	CZL03014/CML442/CZL04002	94	36	14	4.57	50	1.71	51	7.29	37	7.57	48	10.30	34	3.65	26	
40	CZH081	CML445/CML504/CML505	97	35	16	5.47	30	3.49	43	6.29	48	8.18	40	9.84	41	2.88	48	
46	CZH087	CZL0613/CZL083/CZL084	100	33	14	5.53	28	3.41	44	6.78	42	7.81	46	9.22	50	5.09	8	
52	CZH0831	CZL0619/CZL00003/CML488	108	26	15	7.63	2	5.66	30	8.43	23	10.14	13	10.91	20	3.93	21	
20	CZH0526	CML312/CML395/CZL0521	107	28	17	5.67	21	6.13	24	9.05	13	9.37	22	10.72	23	7.57	2	
61	Local Check 1	Local Check 1	92	41	18	6.50	8	2.47	48	5.85	53	7.52	49	9.03	51	1.96	62	
51	CZH0830	CZL0814/CZL00003/CML488	108	26	16	6.44	10	5.52	32	5.96	51	8.58	34	11.05	18	3.97	17	
39	CZH0746	CZL0713/CZL0717/CZL03014	110	24	17	5.53	29	6.18	21	7.16	39	8.02	43	11.07	17	2.78	51	
2	PAN 53	PAN 53	115	19	16	7.11	3	7.12	10	10.35	7	10.65	8	11.99	11	4.08	16	
24	CZH0615	CZL00003/CML488/CZL03014	105	27	16	4.82	44	2.09	49	9.30	11	8.69	33	11.94	12	2.57	55	
41	CZH082	CML202/CML504/CZL081	101	32	14	5.55	27	4.45	40	8.43	22	9.19	25	10.44	30	3.36	33	
Maturity group average			103	30	16	5.78	25	4.30	36	7.63	32	8.65	34	10.48	30	3.68	33	
Entries with anthesis dates between 67 and 69 days																		
27	CZH0718	CZL99013/CZL0719/CML507	90	40	18	5.85	20	5.83	27	6.92	41	10.72	6	10.36	32	3.38	32	
60	CZH0839	CZL0817/CML441/CML442	109	22	15	6.49	9	6.68	16	7.93	30	8.97	30	12.38	7	3.45	31	
15	CZH04002	CML312/CML442/CZL04002	95	36	17	5.21	37	1.47	52	5.24	56	8.10	41	9.74	42	4.70	12	
10	SC533	SC533	106	28	18	4.74	47	7.95	6	8.49	21	10.72	7	12.02	10	2.74	52	
21	CZH0530	CML312/CML504/CML488	108	26	14	5.28	36	8.28	4	7.09	40	9.44	20	10.95	19	4.38	15	
62	Local Check 2	Local Check 2	87	40	19	4.79	45	-0.42	62	11.18	3	9.59	18	10.89	21	3.13	38	
19	CZH0524	CML395/CZL0520/CZL00009	112	21	11	5.98	19	4.69	36	8.36	25	10.03	14	11.17	16	6.03	3	
3	PAN 63	PAN 63	98	31	20	6.24	14	8.42	3	8.53	20	9.39	21	12.20	8	2.72	53	
63	Local Check 3	Local Check 3	95	34	20	4.59	49	1.39	53	10.82	5	9.55	19	12.49	6	3.58	28	
54	CZH0833	CZL0816/CML444/CZL00003	100	32	18	3.94	59	5.12	34	9.04	14	7.27	51	10.60	29	2.99	43	
4	ZMS 554	ZMS 554	106	25	18	6.18	17	5.55	31	11.15	4	10.38	9	9.43	46	3.63	27	
11	04C336	04C336	111	22	20	6.38	13	6.15	23	9.76	9	9.73	16	12.52	5	4.65	13	
44	CZH085	CZL0613/CML511/CML181	102	31	15	5.34	34	5.18	33	7.39	36	8.33	38	10.11	40	4.42	14	
12	X6C461W	X6C461W	107	24	17	7.02	4	5.84	26	7.60	33	11.00	4	12.52	4	3.26	35	
14	CZH04012	CZL04008/CZL04009/CZL0722	85	44	19	3.88	60	0.77	56	4.34	61	4.95	63	7.48	60	1.80	63	
43	CZH084	CZL082/CML511/CML181	101	32	12	5.38	32	6.91	14	7.17	38	9.02	28	10.15	37	4.70	11	
28	CZH0720	CZL0710/CZL0711/CZL02012	109	28	17	4.70	48	7.39	9	8.11	28	9.01	29	9.48	45	2.81	50	
58	CZH0837	CZL0814/CML444/CZL00003	113	21	15	5.04	40	7.88	7	11.26	2	10.23	12	10.64	27	3.83	22	
8	013WH30	013WH30	94	35	16	5.37	33	6.67	17	8.79	18	8.28	39	11.81	13	2.98	44	
25	CZH0616	CML312/CML443/CZL0610	110	23	14	4.82	43	5.79	28	8.86	16	10.29	10	10.19	36	5.26	6	
22	CZH0536	CZL0517/CZL04021/CML181	101	31	13	6.15	18	6.01	25	8.30	26	9.05	27	10.78	22	3.08	40	
7	013WH11	013WH11	94	36	19	4.98	41	6.65	18	7.66	32	7.63	47	7.77	57	3.73	24	
13	CZH01008	CML443/CML444/CZL00003	102	30	19	6.42	11	4.64	38	9.71	10	10.90	5	12.10	9	3.26	36	
57	CZH0836	CZL0814/CML489/CML444	117	18	16	8.31	1	5.71	29	9.04	15	11.63	3	12.65	3	3.96	19	
17	CZH04032	CML181/CZL01005/CML511	109	26	17	5.56	26	8.80	1	7.54	34	9.26	24	10.65	26	5.25	7	
1	PAN 5M-35	PAN 5M-35	119	18	15	6.22	16	6.25	20	10.24	8	7.27	52	8.24	55	9.23	1	
30	CZH0728	CML312/CML443/CZL0713	110	24	16	5.43	31	4.58	39	10.58	6	8.75	32	10.63	28	5.40	5	
9	SC513	SC513	86	45	15	3.96	58	6.17	22	6.55	45	9.74	15	8.48	53	2.53	56	
53	CZH0832	CZL0815/CML312/CZL00001	101	33	16	4.54	52	6.32	19	7.40	35	9.09	26	10.69	25	3.35	34	
16	CZH04005	CML395/CML444/CML509/CML505	97	35	11	4.23	57	4.10	41	8.37	24	9.36	23	10.19	35	2.92	46	
Maturity group average			102	30	16	5.43	32	5.56	26	8.45	25	9.26	24	10.64	27	3.91	29	
Entries with anthesis dates between 70 and 72 days																		
55	CZH0834	CZL087/CML444/CZL00003	101	32	18	6.24	15	7.69	8	8.29	27	9.71	17	11.27	14	3.52	29	
23	CZH0613	CML312/CML440/CZL0610	107	26	17	4.55	51	4.65	37	6.45	46	8.57	35	10.30	33	3.72	25	
29	CZH0722	CZL0712/CZL0617/CML395	108	25	17	6.72	7	7.03	11	7.68	31	10.28	11	11.27	15	4.73	10	
45	CZH086	CML144/CZL0677/CML507	91	38	16	5.64	24	4.96	35	5.01	59	8.41	36	9.53	44	3.02	41	
59	CZH0838	CZL0617/CML489/CML444	115	20	17	6.82	5	6.99	12	12.99	1	11.68	2	13.16	1	3.94	20	
56	CZH0835	CZL0617/CML444/CZL00003	115	20	18	6.39	12	8.72	2	8.83	17	12.40	1	13.12	2	4.84	9	

EIHBY09: Results of evaluation of early to intermediate maturing hybrids from CIMMYT, Pannar, Seedco, Pioneer, AFGRI and DR&S-Zimbabwe across 37 sites in eastern and southern Africa, 2008/09.

TABLE 3F

		Mid-Altitude Humid Hot (B) Environments															
Entry Name	Pedigree	Across			Across		Sussundenga Moz		Chitala Mal		Shamva Zim		Ratray-Arnold Zim		Ratray-Arnold Zim		
		RelGY	Rank	StdDev	GrainYield	RankNo	GrainYield	RankNo	GrainYield	RankNo	GrainYield	RankNo	GrainYield	RankNo	GrainYield	RankNo	
		%	Avg		t/ha	#	t/ha	#	t/ha	#	t/ha	#	t/ha	#	t/ha	#	
Entries with anthesis dates between 58 and 60 days																	
26	CZH071	CZL04008/CZL04009/VP05188	82	48	16	4.49	55	5.25	61	4.38	61	1.54	63	4.56	58	6.93	55
36	CZH0741	CZL0721/CZL0723/CZL0722	78	49	18	4.28	53	5.09	62	4.87	54	1.79	59	3.84	63	5.12	63
37	CZH0742	CZL0721/CZL0724/CZL0722	75	53	12	4.72	51	5.41	60	4.30	63	2.25	49	4.44	62	7.08	54
38	CZH0743	CZL0723/CZL0724/CZL0722	86	44	14	5.09	46	7.52	41	4.82	56	2.04	56	4.45	61	5.90	61
35	CZH0739	CZL0723/CZL0719/CZL0722	82	47	16	4.50	50	5.05	63	4.37	62	2.75	26	5.05	52	5.64	62
33	CZH0736	CZL04008/CZL0719/CZL0717/CZL0718	86	44	17	5.27	45	6.49	53	4.99	51	2.11	53	4.47	59	7.92	49
47	CZH088	CML505/CML509/CZL085	84	47	14	5.04	47	5.73	59	5.30	45	2.81	24	4.81	55	6.54	58
Maturity group average			82	47	15	4.77	50	5.79	57	4.72	56	2.18	47	4.52	59	6.45	57
Entries with anthesis dates between 61 and 63 days																	
42	CZH083	CML508/CML507/CZL0723	85	47	12	4.65	51	5.92	58	4.50	60	2.23	50	5.15	51	6.00	60
34	CZH0737	CZL0717/CZL0718/CZL0523/CZL0720	96	34	18	6.22	35	7.52	42	6.61	14	1.74	60	5.69	44	9.15	30
32	CZH0735	CZL0717/CZL0718/CZL0505/CML509	93	37	18	5.41	44	6.44	54	4.65	57	2.59	31	5.75	42	7.97	48
49	CZH0810	CZL03014/CZL03021/CZL04002	94	38	17	5.09	47	6.26	56	4.85	55	2.48	38	4.83	54	6.48	59
50	CZH0811	CML444/CML395/CZL086	96	36	14	5.89	39	6.61	51	5.83	33	1.70	61	6.17	32	9.48	26
Maturity group average			93	38	16	5.45	43	6.55	52	5.29	44	2.15	48	5.52	45	7.82	45
Entries with anthesis dates between 64 and 66 days																	
48	CZH089	CZL03014/CML442/CZL04003	96	36	15	5.64	41	7.82	34	5.30	46	2.08	54	4.90	53	7.53	52
31	CZH0734	CZL03014/CML442/CZL04002	94	36	14	5.42	43	7.32	46	5.24	47	2.39	41	5.54	48	6.83	56
40	CZH081	CML445/CML504/CML505	97	35	16	5.75	38	6.83	50	5.98	31	2.36	43	5.70	43	7.74	51
46	CZH087	CZL0613/CZL083/CZL084	100	33	14	6.37	32	8.29	21	5.44	41	2.51	36	6.11	33	9.35	27
52	CZH0831	CZL0619/CZL0003/CML488	108	26	15	6.08	36	7.55	40	6.13	28	2.18	51	6.62	19	8.73	40
20	CZH0526	CML312/CML395/CZL0521	107	28	17	6.44	30	6.35	20	6.14	27	2.37	42	6.81	15	8.85	34
61	Local Check 1	Local Check 1	92	41	18	6.05	36	6.98	47	6.63	13	2.04	57	5.59	46	8.35	45
51	CZH0830	CZL0814/CZL00003/CML488	108	26	16	5.86	37	7.76	36	5.79	34	2.60	30	5.67	45	7.52	53
39	CZH0746	CZL0713/CZL0777/CZL03014	110	24	17	6.71	27	7.96	30	6.30	23	3.40	10	7.83	3	9.25	29
2	PAN 53	PAN 53	115	19	16	6.81	27	7.77	35	6.70	12	3.95	3	6.86	13	8.59	43
24	CZH0615	CZL00003/CML488/CZL03014	105	27	16	6.54	29	8.24	24	6.81	11	2.53	35	6.18	31	8.84	35
41	CZH082	CML202/CML504/CZL081	101	32	14	6.43	30	6.96	49	6.07	30	2.35	44	5.95	37	10.24	14
Maturity group average			103	30	16	6.18	34	7.65	36	6.04	29	2.56	37	6.15	32	8.48	40
Entries with anthesis dates between 67 and 69 days																	
27	CZH0718	CZL99013/CZL079/CML507	90	40	18	5.85	41	6.98	48	5.31	44	2.32	45	6.40	26	8.76	37
60	CZH0839	CZL0817/CML441/CML442	109	22	15	6.65	29	7.69	39	7.00	7	2.13	52	6.52	22	10.23	15
15	CZH04002	CML312/CML442/CZL04002	95	36	17	5.62	41	6.35	55	4.98	52	2.62	29	6.23	29	8.73	39
10	SC533	SC533	106	28	18	7.34	16	7.83	33	6.98	8	4.38	1	5.99	35	10.14	16
21	CZH0530	CML312/CML504/CML488	108	26	14	6.75	26	8.28	22	6.51	16	2.59	32	6.60	20	9.80	22
62	Local Check 2	Local Check 2	87	40	19	7.00	23	8.73	14	5.07	50	3.04	18	4.45	60	11.01	4
19	CZH0524	CML395/CZL0520/CZL00009	112	21	11	6.32	32	7.93	31	5.76	35	2.56	33	6.54	21	8.91	32
3	PAN 63	PAN 63	98	31	20	6.92	22	8.52	16	6.45	18	2.05	55	7.74	5	10.64	9
63	Local Check 3	Local Check 3	95	34	20	6.87	25	8.41	18	5.15	49	2.79	25	4.74	57	11.11	3
54	CZH0833	CZL0816/CML444/CZL00003	100	32	18	7.49	18	8.87	13	7.75	1	3.16	15	5.57	47	10.28	13
4	ZMS 554	ZMS 554	106	25	18	7.27	18	8.96	11	7.25	5	2.83	23	7.37	7	10.04	18
11	04C336	04C336	111	22	20	7.32	18	8.97	9	5.64	38	3.60	7	8.36	1	11.13	2
44	CZH085	CZL0613/CML511/CML181	102	31	15	6.08	35	6.60	52	6.36	20	2.84	21	5.47	49	8.46	44
12	X6C461W	X6C461W	107	24	17	7.09	21	7.90	32	7.33	4	3.25	14	6.65	17	9.93	19
14	CZH04012	CZL04008/CZL04009/CZL0722	85	44	19	4.76	53	6.08	57	4.54	59	1.68	62	4.80	56	6.77	57
43	CZH084	CZL082/CML511/CML181	101	32	12	6.36	33	7.70	37	5.38	43	2.64	28	6.78	16	9.71	23
28	CZH0720	CZL0710/CZL0711/CZL02012	109	28	17	6.55	29	8.37	19	5.57	40	2.48	37	7.80	4	9.81	21
58	CZH0837	CZL0814/CML444/CZL00003	113	21	15	6.77	24	9.06	5	6.30	22	3.11	16	6.40	27	8.66	42
8	013WH30	013WH30	94	35	16	7.11	22	9.18	3	4.95	53	3.53	9	6.24	28	10.83	7
25	CZH0616	CML312/CML443/CZL0610	110	23	14	6.94	23	8.97	10	6.61	15	2.26	48	5.94	38	10.09	17
22	CZH0536	CZL0517/CZL04021/CML181	101	31	13	6.56	27	8.12	26	6.32	21	3.28	13	5.91	39	8.86	33
7	013WH11	013WH11	94	36	19	6.63	29	7.33	45	5.60	39	2.55	34	6.23	30	10.71	8
13	CZH01008	CML443/CML444/CZL00003	102	30	19	7.50	17	9.01	8	6.50	17	3.11	17	6.51	23	10.98	5
57	CZH0836	CZL0814/CML489/CML444	117	18	16	6.72	24	8.06	28	7.00	6	3.32	12	6.92	11	8.75	38
17	CZH04032	CML181/CZL01005/CML511	109	26	17	7.15	18	8.16	25	6.16	26	4.00	2	5.97	36	10.30	12
1	PAN 5M-35	PAN 5M-35	119	18	15	7.81	13	9.05	7	7.38	3	3.72	4	7.06	10	11.39	1
30	CZH0728	CML312/CML443/CZL0713	110	24	16	6.84	26	7.70	38	5.98	32	2.98	19	6.89	12	10.32	11
9	SC513	SC513	86	45	15	5.67	41	7.51	43	5.23	48	2.29	47	5.18	50	7.79	50
53	CZH0832	CZL0815/CML312/CZL00001	101	33	16	6.30	33	8.06	27	5.66	37	2.69	27	7.98	2	8.82	36
16	CZH04005	CML395/CML444/CML509/CML505	97	35	11	6.16	35	7.37	44	5.67	36	2.41	39	7.10	8	9.01	31
Maturity group average			102	30	16	6.68	27	8.06	27	6.08	28	2.87	26	6.41	26	9.73	22
Entries with anthesis dates between 70 and 72 days																	
55	CZH0834	CZL087/CML444/CZL00003	101	32	18	7.10	21	8.50	17	6.95	9	2.84	20	6.09	34	9.88	20
23	CZH0613	CML312/CML440/CZL0610	107	26	17	6.35	30	8.71	15	6.13	29	2.40	40	5.86	41	8.17	46
29	CZH0722	CZL0712/CZL0617/CML395	108	25	17	6.79	20	8.91	12	6.43	19	3.54	8	7.47	6	8.16	47
45	CZH086	CML144/CZL067/CML507	91	38	16	6.39	29	8.03	29	4.63	58	3.36	11	6.48	25	9.59	24
59	CZH0838	CZL0617/CML489/CML444	115	20	17	7.13	20	8.26	23	7.49	2	2.30	46	7.07	9	10.33	10
56	CZH0835	CZL0617/CML444/CZL00003	115	20	18	7.82	11	9.91	1	6.91	10	3.63	6	6.83			

EIHBY09: Results of evaluation of early to intermediate maturing hybrids from CIMMYT, Pannar, Seedco, Pioneer, AFGRI and DR&S- Zimbabwe across 37 sites in eastern and southern Africa, 2008/09.

TABLE 3G

Entry	Name	Pedigree	Mid-Altitude Dry (C) Environments (Random Drought Stress)															
			Across			Across		Ntengo-Nwodzi Moz		Makohoi Zim		Matopos Zim		Kadoma Zim		Kadoma Zim		
			RelGY	Rank	StdDev	GrainYield	RankNo	GrainYield	RankNo	GrainYield	RankNo	GrainYield	RankNo	GrainYield	RankNo	GrainYield	RankNo	
%	Avg		t/ha	#	t/ha	#	t/ha	#	t/ha	#	t/ha	#	t/ha	#				
Entries with anthesis dates between 58 and 60 days																		
26	CZH071	CZL04008/CZL04009/VP05188	82	48	16	3.11	49	2.62	63	0.80	59	1.93	62	5.22	62	4.98	57	
36	CZH0741	CZL0721/CZL0723/CZL0722	78	49	18	3.13	48	2.92	60	0.74	62	2.04	55	5.49	54	4.66	61	
37	CZH0742	CZL0721/CZL0724/CZL0722	75	53	12	3.18	47	3.58	57	0.78	60	2.17	48	5.55	53	3.66	62	
38	CZH0743	CZL0723/CZL0724/CZL0722	86	44	14	3.89	35	3.95	53	1.22	14	2.13	51	6.26	37	5.97	33	
35	CZH0739	CZL0723/CZL0719/CZL0722	82	47	16	3.60	41	3.68	56	1.09	32	2.32	40	5.58	52	5.30	45	
33	CZH0736	CZL04008/CZL0719/CZL0717/CZL0718	86	44	17	3.97	35	4.18	51	1.09	33	2.55	20	6.92	22	4.85	58	
47	CZH088	CML505/CML509/CZL085	84	47	14	3.74	42	4.61	41	0.86	55	2.16	50	5.44	56	5.74	38	
Maturity group average			82	47	15	3.52	42	3.65	54	0.94	45	2.19	47	5.78	48	5.02	51	
Entries with anthesis dates between 61 and 63 days																		
42	CZH083	CML508/CML507/CZL0723	85	47	12	3.57	38	4.41	49	1.15	25	2.34	37	5.36	59	4.85	59	
34	CZH0737	CZL0717/CZL0718/CZL0523/CZL0720	96	34	18	4.20	32	4.16	52	1.16	24	2.61	17	6.73	28	6.51	22	
32	CZH0735	CZL0717/CZL0718/CML505/CML509	93	37	18	4.15	33	4.90	33	1.00	43	2.16	49	6.81	26	5.79	36	
49	CZH0810	CZL03014/CZL03021/CZL04002	94	38	17	3.64	40	3.70	55	1.14	26	2.51	24	5.73	48	5.14	50	
50	CZH0811	CML444/CML395/CZL086	96	36	14	3.77	40	4.70	38	0.92	51	2.54	21	5.98	44	5.13	51	
Maturity group average			93	38	16	3.87	37	4.37	45	1.07	34	2.43	30	6.12	41	5.48	44	
Entries with anthesis dates between 64 and 66 days																		
48	CZH089	CZL03014/CML442/CZL04003	96	36	15	4.29	29	4.53	46	1.23	12	2.32	41	6.83	25	6.63	19	
31	CZH0734	CZL03014/CML442/CZL04002	94	36	14	4.15	32	4.63	40	1.08	34	2.83	9	6.26	38	5.86	35	
40	CZH081	CML445/CML504/CML505	97	35	16	4.02	35	4.94	31	0.95	49	3.21	3	6.16	40	5.09	53	
46	CZH087	CZL0613/CZL083/CZL084	100	33	14	4.09	33	4.64	39	1.23	13	2.44	27	5.72	49	6.43	25	
52	CZH0831	CZL0619/CZL00003/CML488	108	26	15	4.53	28	5.71	13	0.97	46	2.58	18	5.32	61	8.11	1	
20	CZH0526	CML312/CML395/CZL0521	107	28	17	4.28	31	5.68	15	1.01	40	2.00	58	7.35	14	5.30	44	
61	Local Check 1	Local Check 1	92	41	18	3.34	42	2.97	59	1.13	28	2.12	52	5.46	55	5.19	49	
51	CZH0830	CZL0814/CZL00003/CML488	108	26	16	4.25	28	4.50	47	1.26	9	2.65	15	7.31	15	5.61	41	
39	CZH0746	CZL0713/CZL0771/CZL03014	110	24	17	4.40	29	4.61	42	1.20	16	3.20	4	6.86	23	6.14	32	
2	PAN 53	PAN 53	115	19	16	5.41	20	6.30	2	1.07	35	2.53	22	9.67	1	7.47	6	
24	CZH0615	CZL00003/CML488/CZL03014	105	27	16	4.32	28	4.81	34	1.26	8	2.46	25	7.29	16	5.88	34	
41	CZH082	CML202/CML504/CZL081	101	32	14	4.24	30	4.47	48	1.20	17	2.45	26	7.81	6	5.47	42	
Maturity group average			103	30	16	4.28	30	4.82	35	1.13	26	2.57	25	6.84	29	6.10	32	
Entries with anthesis dates between 67 and 69 days																		
27	CZH0718	CZL99013/CZL079/CML507	90	40	18	4.49	30	5.81	12	0.93	50	2.44	28	6.70	29	6.42	26	
60	CZH0839	CZL0817/CML441/CML442	109	22	15	4.60	28	6.08	9	1.16	23	2.43	29	6.46	34	6.92	14	
15	CZH04002	CML312/CML442/CZL04002	95	36	17	4.62	27	5.70	14	1.06	36	2.37	34	6.48	33	7.29	8	
10	SC533	SC533	106	28	18	4.63	28	6.20	5	0.82	58	2.39	31	7.38	12	6.19	30	
21	CZH0530	CML312/CML504/CML488	108	26	14	4.36	28	5.65	17	1.01	39	2.41	30	7.65	7	5.08	54	
62	Local Check 2	Local Check 2	87	40	19	3.39	43	2.77	62	1.18	21	2.03	56	5.66	50	5.75	37	
19	CZH0524	CML395/CZL0520/CZL00009	112	21	11	4.72	24	5.29	25	0.96	48	3.31	1	6.97	21	7.18	10	
3	PAN 63	PAN 63	98	31	20	4.39	34	5.12	27	0.64	63	2.33	39	7.35	13	6.42	27	
63	Local Check 3	Local Check 3	95	34	20	4.14	31	2.78	61	1.27	7	2.35	36	7.90	5	6.46	23	
54	CZH0833	CZL0816/CML444/CZL00003	100	32	18	3.99	35	4.54	45	0.98	45	2.72	12	6.64	30	5.00	56	
4	ZMS 554	ZMS 554	106	25	18	4.40	31	6.29	3	1.13	27	2.66	14	5.35	60	6.63	20	
11	04C336	04C336	111	22	20	4.53	27	5.97	10	1.00	41	3.07	6	7.83	8	5.24	47	
44	CZH085	CZL0613/CML511/CML181	102	31	15	4.37	29	4.98	28	1.17	22	2.37	35	6.85	24	6.23	29	
12	X6C461W	X6C461W	107	24	17	4.87	22	5.43	24	0.98	44	2.68	13	7.63	9	7.26	9	
14	CZH04012	CZL04008/CZL04009/CZL0722	85	44	19	3.60	37	4.72	36	1.24	10	2.39	33	5.18	63	4.75	60	
43	CZH084	CZL082/CML511/CML181	101	32	12	4.14	31	5.26	26	1.10	31	2.80	10	6.36	35	5.64	40	
28	CZH0720	CZL0710/CZL0711/CZL02012	109	28	17	4.61	26	4.57	44	1.32	3	3.27	2	6.61	31	7.11	12	
58	CZH0837	CZL0814/CML444/CZL00003	113	21	15	4.64	23	6.09	8	1.18	19	2.39	32	7.16	18	6.84	16	
8	013WH30	013WH30	94	35	16	4.38	26	4.92	32	1.32	2	2.52	23	7.07	19	5.65	39	
25	CZH0616	CML312/CML443/CZL0610	110	23	14	4.84	24	4.95	29	1.23	11	2.26	43	8.08	3	7.66	3	
22	CZH0536	CZL0517/CZL04021/CML181	101	31	13	4.35	28	5.65	16	1.22	15	2.26	44	7.50	11	5.09	52	
7	013WH11	013WH11	94	36	19	4.68	21	5.61	19	1.31	4	3.07	5	6.05	42	7.40	7	
13	CZH01008	CML443/CML444/CZL00003	102	30	19	4.52	29	6.13	7	1.28	6	1.97	61	5.44	57	7.80	2	
57	CZH0836	CZL0814/CML489/CML444	117	18	16	4.71	26	5.46	23	1.02	38	2.19	47	8.15	2	6.43	24	
17	CZH04032	CML181/CZL01005/CML511	109	26	17	4.58	25	5.48	21	1.29	5	2.22	46	7.18	17	6.73	17	
1	PAN 5M-35	PAN 5M-35	119	18	15	4.69	23	6.72	1	1.12	29	2.73	11	6.09	41	6.70	18	
30	CZH0728	CML312/CML443/CZL0713	110	24	16	4.03	34	4.28	50	1.41	1	2.23	45	5.77	45	6.59	21	
9	SC513	SC513	86	45	15	3.95	39	5.95	11	0.77	61	1.99	59	5.62	51	5.24	48	
53	CZH0832	CZL0815/CML312/CZL00001	101	33	16	4.12	30	4.94	30	1.20	18	2.95	8	6.54	32	5.24	46	
16	CZH04005	CML395/CML444/CML509/CML505	97	35	11	3.82	39	4.60	43	0.87	53	2.34	38	6.03	43	5.33	43	
Maturity group average			102	30	16	4.37	29	5.27	25	1.11	28	2.50	29	6.72	28	6.27	28	
Entries with anthesis dates between 70 and 72 days																		
55	CZH0834	CZL0871/CML444/CZL00003	101	32	18	3.96	42	3.90	54	0.82	57	2.01	57	5.38	58	7.59	4	
23	CZH0613	CML312/CML440/CZL0610	107	26	17	4.91	24	6.17	6	1.00	42	3.01	7	7.05	20	7.14	11	
29	CZH0722	CZL0712/CZL0617/CML395	108	25	17	4.14	33	4.78	35	0.97	47	1.98	60	5.76	46	7.07	13	
45	CZH086	CML144/CZL067/CML507	91	38	16	3.25	46	3.24	58	0.91	52	2.64	16	5.74	47	3.57	63	
59	CZH0838	CZL0617/CML489/CML444	115	20	17	4.35	32	5.64	18	0.86	54	2.10	53	7.97	4	5.07	55	
56	CZH0835	CZL0617/CML444/CZL00003	115	20	17	4.55	29	6.29	4	1.03	37	1.62	63	6.74	27	6.84	15	
6	AFG4663																	

EIHVB09: Results of evaluation of early to intermediate maturing hybrids from CIMMYT, Pannar, Seedco, Pioneer, AFGRI and DR&S- Zimbabwe across 37 sites in eastern and southern Africa, 2008/09.

TABLE 3H

Entry Name	Tropical Lowland Humid (E) Environments										Tropical Lowland Dry (E) Environments (Random Drought Stress)									
	Across			Ikenne Nig		Ikenne Nig		Across			Chiredzi Zim		Goodhope Bot		Francistown Bot		Pandamatenga Bot			
	RelGY	Rank	StdDev	GrainYield	RankNo	GrainYield	RankNo	GrainYield	RankNo	GrainYield	RankNo	GrainYield	RankNo	GrainYield	RankNo	GrainYield	RankNo	GrainYield	RankNo	
Entries with anthesis dates between 58 and 60 days																				
26 CZH071	82	48	16	2.89	56	2.83	59	2.85	62	1.89	34	4.12	60	3.02	34	1.40	12	0.57	38	
36 CZH0741	78	49	18	3.05	53	2.91	57	3.16	60	1.91	34	4.81	49	2.24	58	1.47	7	0.65	23	
37 CZH0742	75	53	12	3.61	44	3.54	35	3.66	54	1.86	33	4.37	56	2.69	45	1.14	28	0.99	1	
38 CZH0743	86	44	14	3.85	40	3.53	37	4.28	46	2.10	30	4.75	53	3.00	35	1.21	22	0.41	61	
35 CZH0739	82	47	16	3.53	46	3.57	33	3.49	56	1.60	40	3.86	63	2.53	51	1.30	15	0.49	52	
33 CZH0736	86	44	17	3.40	46	3.47	39	3.26	59	1.98	30	4.79	50	2.98	36	1.44	10	0.48	56	
47 CZH088	84	47	14	3.52	45	3.65	30	3.40	57	2.33	28	6.03	20	2.84	41	1.27	18	0.70	17	
Maturity group average	82	47	15	3.40	47	3.36	41	3.44	56	1.95	33	4.68	50	2.76	43	1.32	16	0.61	35	
Entries with anthesis dates between 61 and 63 days																				
42 CZH083	85	47	12	3.42	50	3.10	53	3.74	53	1.82	32	4.16	59	3.12	26	0.92	54	0.62	32	
34 CZH0737	96	34	18	3.79	43	3.08	54	4.41	44	2.50	16	5.43	35	3.77	5	1.65	1	0.97	2	
32 CZH0735	93	37	18	3.97	37	3.68	29	4.28	45	2.53	20	6.34	9	3.69	6	1.44	8	0.67	22	
49 CZH0810	94	38	17	3.60	47	3.13	51	4.03	51	2.21	31	6.14	15	2.85	40	1.34	14	0.57	40	
50 CZH0811	96	36	14	4.14	35	3.61	31	4.66	37	1.98	29	4.30	57	3.09	28	1.12	29	0.63	29	
Maturity group average	93	38	16	3.78	42	3.32	44	4.22	46	2.21	26	5.28	35	3.31	21	1.29	21	0.69	25	
Entries with anthesis dates between 64 and 66 days																				
48 CZH089	96	36	15	3.22	53	2.88	58	3.59	55	2.41	23	6.17	14	3.25	19	1.06	41	0.65	24	
31 CZH0734	94	36	14	3.75	44	3.29	45	4.16	48	1.92	38	5.15	44	2.55	49	1.09	36	0.44	59	
40 CZH081	97	35	16	5.11	16	4.65	3	5.56	22	2.21	24	5.40	37	3.02	33	1.29	16	0.88	5	
46 CZH087	100	33	14	3.94	39	3.44	41	4.48	42	1.90	32	4.08	61	3.45	10	0.99	48	0.55	42	
52 CZH0831	108	26	15	4.77	23	3.95	20	5.59	21	2.07	27	5.03	47	3.35	15	1.10	33	0.72	13	
20 CZH0526	107	28	17	4.93	18	4.54	7	5.40	27	2.12	30	5.75	28	2.47	54	1.08	38	0.81	9	
61 Local Check 1	92	41	18	5.05	22	3.53	36	6.60	2	1.54	42	4.44	55	1.83	63	0.88	57	0.82	7	
51 CZH0830	108	26	16	4.87	21	3.90	25	5.80	16	2.21	28	5.51	34	3.30	16	1.04	43	0.43	60	
39 CZH0746	110	24	17	4.19	31	3.95	21	4.42	43	2.40	23	6.34	10	3.25	20	1.63	2	0.57	39	
2 PAN 53	115	19	16	5.07	17	4.17	15	5.94	12	2.28	26	6.12	16	3.14	25	1.06	40	0.67	20	
24 CZH0615	105	27	16	4.89	19	4.14	16	5.70	18	2.18	29	6.35	8	2.50	52	1.20	24	0.49	53	
41 CZH082	101	32	14	4.03	36	3.60	32	4.52	41	2.15	27	5.39	38	3.07	31	1.09	35	0.65	25	
Maturity group average	103	30	16	4.49	28	3.84	27	5.15	29	2.12	29	5.48	33	2.93	32	1.12	34	0.64	30	
Entries with anthesis dates between 67 and 69 days																				
27 CZH0718	90	40	18	2.26	62	1.80	63	2.67	63	1.55	38	3.87	62	2.05	60	0.95	51	0.81	8	
60 CZH0839	109	22	15	5.05	15	4.62	4	5.47	25	2.38	26	6.19	13	4.07	2	0.80	58	0.46	58	
15 CZH04002	95	36	17	3.94	41	3.14	50	4.81	36	2.40	25	6.56	6	3.26	18	1.36	13	0.55	43	
10 SC533	106	28	18	3.95	39	3.22	47	4.58	39	2.14	28	6.08	19	2.49	53	1.07	39	0.64	26	
21 CZH0530	108	26	14	5.15	16	4.41	8	5.86	13	2.12	30	5.26	42	3.37	14	1.05	42	0.50	51	
62 Local Check 2	87	40	19	3.98	40	2.58	61	5.32	30	1.52	42	4.21	58	2.00	61	0.95	52	0.63	28	
19 CZH0524	112	21	11	4.25	30	3.91	24	4.57	40	2.43	21	5.93	22	3.51	8	1.19	25	0.71	14	
3 PAN 63	98	31	20	4.54	30	3.31	44	5.79	17	2.18	26	5.32	40	3.09	27	1.11	32	0.73	12	
63 Local Check 3	95	34	20	3.60	45	3.12	52	4.09	50	1.79	40	5.13	45	2.15	59	0.99	49	0.52	49	
54 CZH0833	100	32	18	5.37	13	4.58	6	6.16	6	2.16	29	6.09	18	2.75	43	1.09	37	0.38	63	
4 ZMS 554	106	25	18	4.93	23	3.82	27	5.96	11	2.53	19	6.90	3	2.63	48	1.47	6	0.67	18	
11 04C336	111	22	20	5.12	17	4.29	12	5.97	10	2.47	26	7.07	2	3.07	32	0.91	55	0.61	33	
44 CZH085	102	31	15	4.47	30	3.93	22	5.08	33	2.04	34	5.74	29	3.09	29	0.72	61	0.53	46	
12 X6C461W	107	24	17	4.82	27	2.98	56	6.59	3	2.54	21	6.76	5	3.81	4	1.09	34	0.67	21	
14 CZH04012	85	44	19	3.25	51	3.16	49	3.34	58	2.24	23	5.27	41	3.07	30	1.52	4	0.61	34	
43 CZH084	101	32	12	4.25	34	3.37	42	5.17	32	2.20	27	5.85	24	2.83	42	0.76	60	0.89	4	
28 CZH0720	109	28	17	4.44	32	3.26	46	5.60	20	2.02	31	5.73	30	1.84	62	1.16	27	0.78	10	
58 CZH0837	113	21	15	5.83	9	4.33	9	7.20	1	2.22	28	5.41	36	3.21	21	1.11	31	0.56	41	
8 013WH30	94	35	16	3.67	42	3.34	43	3.97	52	2.17	27	5.81	25	2.54	50	1.21	23	0.60	35	
25 CZH0616	110	23	14	4.56	24	4.32	10	4.88	35	2.51	23	6.26	11	3.92	3	1.27	17	0.52	50	
22 CZH0536	101	31	13	4.59	23	4.23	13	5.02	34	2.00	33	5.34	39	2.86	39	1.00	45	0.41	62	
7 013WH11	94	36	19	2.64	59	2.26	62	3.08	61	2.19	26	5.87	23	2.40	57	1.49	5	0.77	11	
13 CZH01008	102	30	19	4.53	27	3.72	28	5.37	29	1.91	38	5.55	33	2.44	56	0.78	59	0.53	47	
57 CZH0836	117	18	16	5.00	20	3.87	26	6.12	7	2.60	20	7.16	1	3.29	17	1.42	11	0.49	55	
17 CZH04032	109	26	17	4.71	23	4.05	18	5.40	27	2.10	30	5.76	27	2.87	38	0.67	62	0.49	54	
1 PAN 5M-35	119	18	15	4.91	19	4.08	17	5.85	15	2.21	27	6.09	17	2.65	46	1.57	3	0.71	15	
30 CZH0728	110	24	16	5.26	17	4.23	14	6.32	4	2.16	29	5.12	46	3.56	7	1.16	26	0.47	57	
9 SC513	86	45	15	3.41	50	2.63	60	4.12	49	2.07	29	5.62	31	2.63	47	1.00	46	0.70	16	
53 CZH0832	101	33	16	3.69	44	3.21	48	4.19	47	1.81	33	4.79	51	2.45	55	1.26	19	0.60	37	
16 CZH04005	97	35	11	4.04	38	3.45	40	4.62	38	2.17	28	5.81	26	2.95	37	0.99	47	0.60	36	
Maturity group average	102	30	16	4.34	31	3.57	33	5.11	30	2.16	29	5.75	28	2.89	36	1.10	35	0.60	34	
Entries with anthesis dates between 70 and 72 days																				
55 CZH0834	101	32	18	4.72	25	3.92	23	5.48	24	2.19	29	5.17	43	3.38	12	1.12	30	0.54	45	
23 CZH0613	107	26	17	5.20	14	4.58	5	5.86	14	2.75	16	6.23	12	4.66	1	1.44	9	0.63	30	
29 CZH0722	108	25	17	4.50	30	3.51	38	5.45												

EIHYB09: Results of evaluation of early to intermediate maturing hybrids from CIMMYT, Pannar, Seedco, Pioneer, AFGRI and DR&S-Zimbabwe across 37 sites in eastern and southern Africa, 2008/09.

TABLE 3I

Entry Name	Managed Drought Stress Environments										Managed Low N Stress Environments										
	Across			Chisumbanje Zim		Chiredzi Zim		Across		Chokwe Moz		Chitedze Mal		Golden Valley Zam		Harare Zim		Harare Zim			
	RelGY	Rank		GrainYield	RankNo	GrainYield	RankNo	GrainYield	RankNo	GrainYield	RankNo	GrainYield	RankNo	GrainYield	RankNo	GrainYield	RankNo	GrainYield	RankNo		
%	Avg	StdDev	t/ha	#	t/ha	#	t/ha	#	t/ha	#	t/ha	#	t/ha	#	t/ha	#	t/ha	#	t/ha	#	
Entries with anthesis dates between 58 and 60 days																					
26 CZH071	82	48	16	1.95	23	2.10	23	2.11	15	2.29	32	2.52	57	1.84	33	1.01	16	1.98	40	3.63	36
36 CZH0741	78	49	18	2.12	20	2.66	3	1.86	23	2.24	37	3.34	46	1.03	62	0.80	38	1.24	61	4.37	12
37 CZH0742	75	53	12	1.91	20	2.36	9	1.68	36	1.50	49	2.13	59	1.12	57	0.61	57	1.72	55	2.31	61
38 CZH0743	86	44	14	1.97	23	2.31	11	2.05	19	2.22	37	3.13	51	1.36	50	0.94	22	1.78	52	3.75	30
35 CZH0739	82	47	16	1.84	25	2.19	16	1.51	41	2.10	37	3.64	34	1.06	61	0.69	51	1.90	47	3.04	48
33 CZH0736	86	44	17	2.37	15	2.74	2	2.21	11	2.07	40	2.72	55	1.07	60	0.53	62	2.13	29	3.59	37
47 CZH088	84	47	14	2.09	19	2.17	19	2.14	14	2.23	34	3.22	47	1.49	47	0.88	28	1.77	53	2.90	53
Maturity group avera	82	47	15	2.03	21	2.36	12	1.94	23	2.09	38	2.96	50	1.28	53	0.78	39	1.79	48	3.37	40
Entries with anthesis dates between 61 and 63 days																					
42 CZH083	85	47	12	2.24	17	2.05	29	2.04	20	2.41	31	3.52	38	1.88	31	0.78	43	2.05	36	3.86	26
34 CZH0737	96	34	18	2.36	14	2.78	1	2.51	3	2.03	39	3.49	40	1.83	35	0.71	48	1.27	60	3.92	23
32 CZH0735	93	37	18	2.16	16	2.08	24	2.35	7	2.12	39	2.87	54	1.80	37	0.59	61	1.59	57	3.96	21
49 CZH0810	94	38	17	1.84	27	2.63	4	1.43	48	2.76	26	4.27	14	3.27	1	0.66	53	2.21	26	3.73	31
50 CZH0811	96	36	14	2.04	22	2.19	17	1.77	28	2.36	31	3.98	20	1.61	45	0.87	30	1.91	44	3.98	20
Maturity group avera	93	38	16	2.13	19	2.35	15	2.02	21	2.34	33	3.62	33	2.08	30	0.72	47	1.81	45	3.89	24
Entries with anthesis dates between 64 and 66 days																					
48 CZH089	96	36	15	1.88	27	2.04	30	2.18	12	2.74	25	4.18	15	2.52	11	0.82	35	2.12	30	4.58	10
31 CZH0734	94	36	14	1.81	26	2.30	13	1.45	46	2.11	38	3.79	25	1.22	53	0.68	52	2.19	27	2.99	50
40 CZH081	97	35	16	2.08	18	2.31	10	2.27	9	2.27	38	4.38	12	1.19	54	0.59	59	2.03	37	3.21	43
46 CZH087	100	33	14	1.51	33	2.12	22	1.49	43	2.66	27	4.92	4	1.65	44	1.31	7	2.44	16	3.57	39
52 CZH0831	108	26	15	1.84	30	2.36	8	1.28	53	2.62	28	3.48	41	2.61	9	0.82	34	2.32	21	3.89	24
20 CZH0526	107	28	17	1.28	43	1.79	36	1.12	60	2.45	33	3.90	22	3.14	3	0.61	56	2.36	19	2.85	54
61 Local Check	92	41	18	2.33	21	1.63	45	2.93	1	2.40	29	3.74	30	2.74	8	0.83	33	1.79	51	2.85	55
51 CZH0830	108	26	16	1.86	33	1.76	34	2.28	8	2.88	20	3.51	39	2.27	16	1.28	9	3.01	6	4.42	11
39 CZH0746	110	24	17	2.25	14	2.49	5	2.17	13	2.67	27	3.20	48	1.87	32	0.89	26	2.81	8	4.89	5
2 PAN 53	115	19	16	1.79	30	2.05	28	1.27	56	3.07	22	5.10	3	2.91	6	0.70	50	2.77	9	3.99	19
24 CZH0615	105	27	16	1.93	28	2.26	14	1.76	29	3.00	23	3.56	35	1.68	43	0.81	37	3.06	5	5.85	1
41 CZH082	101	32	14	1.78	29	2.14	21	1.74	30	2.85	26	4.09	18	2.58	10	0.76	45	1.88	48	5.15	3
Maturity group avera	103	30	16	1.90	26	2.11	22	1.83	30	2.64	28	3.99	24	2.20	24	0.84	37	2.40	23	4.02	26
Entries with anthesis dates between 67 and 69 days																					
27 CZH0718	90	40	18	0.98	54	1.02	63	1.27	55	1.60	47	2.21	58	1.15	56	0.50	63	2.01	38	2.74	56
60 CZH0839	109	22	15	2.11	25	1.50	50	2.48	5	2.77	25	4.64	7	2.35	14	0.70	49	2.46	14	3.73	32
15 CZH04002	95	36	17	1.89	25	2.20	15	1.60	38	2.38	33	4.38	11	1.89	30	0.80	40	1.90	45	3.21	42
10 SC533	106	28	18	1.94	27	1.88	32	2.21	10	2.52	28	3.41	45	1.12	59	1.41	4	1.74	54	5.20	2
21 CZH0530	108	26	14	1.86	28	1.94	31	1.79	27	2.98	23	4.80	6	3.15	2	0.80	39	2.23	25	4.26	13
62 Local Check	87	40	19	2.16	22	2.08	25	2.41	6	1.46	45	0.41	63	1.19	55	0.79	42	1.29	59	4.03	18
19 CZH0524	112	21	11	1.74	31	1.71	40	2.08	16	2.46	26	3.79	26	1.68	42	1.00	17	2.54	13	3.78	29
3 PAN 63	98	31	20	0.85	53	1.19	62	0.69	63	1.43	47	3.78	27	0.65	63	0.87	31	1.14	63	1.20	63
63 Local Check	95	34	20	1.56	36	1.69	42	1.86	24	2.57	27	3.13	49	2.08	23	1.12	14	1.94	43	4.90	4
54 CZH0833	100	32	18	1.73	33	2.18	18	1.39	51	2.17	37	4.33	13	1.48	48	0.77	44	2.24	24	2.58	59
4 ZMS 554	106	25	18	1.29	41	1.52	49	1.23	57	2.03	37	3.48	42	1.72	39	0.92	25	1.96	42	1.99	62
11 04C336	111	22	20	0.88	54	1.25	60	1.19	58	2.49	30	3.72	32	1.60	46	0.95	21	1.84	50	4.21	15
44 CZH085	102	31	15	1.45	44	1.38	55	1.34	52	2.48	28	3.05	53	1.99	27	1.31	8	2.34	20	4.12	16
12 X8C461W	107	24	17	1.42	39	1.84	35	1.43	47	2.39	33	3.77	28	2.42	13	0.88	29	1.60	56	3.52	40
14 CZH04012	85	44	19	2.56	11	2.15	20	2.73	2	2.20	32	2.56	56	2.18	22	1.22	12	1.18	62	3.93	22
43 CZH084	101	32	12	1.56	34	1.77	39	1.45	45	2.37	32	3.55	36	2.25	17	0.79	41	2.40	18	3.57	38
28 CZH0720	109	28	17	1.78	30	1.68	43	2.06	18	2.74	25	3.06	52	1.93	28	1.78	1	2.97	7	3.84	27
58 CZH0837	113	21	15	1.52	37	1.38	54	1.91	22	2.48	29	4.51	9	2.08	24	0.97	18	2.54	12	2.71	58
8 013WH30	94	35	16	1.14	45	1.23	61	1.67	37	1.75	38	0.62	62	1.38	49	0.95	20	2.06	33	3.64	35
25 CZH0616	110	23	14	1.42	41	1.78	37	1.71	32	2.67	26	3.45	43	2.34	15	1.36	5	3.12	4	3.72	34
22 CZH0536	101	31	13	1.60	36	1.78	38	1.69	35	2.31	31	3.54	37	2.22	19	0.92	24	2.06	34	2.91	52
7 013WH11	94	36	19	1.85	30	1.34	58	1.91	21	1.79	42	0.89	61	1.71	40	0.65	54	2.30	22	3.10	46
13 CZH01008	102	30	19	1.06	47	1.35	56	1.42	50	2.29	35	4.10	17	1.93	29	0.97	19	1.90	46	3.02	49
57 CZH0836	117	18	16	1.44	38	1.69	41	1.55	40	2.57	29	3.44	44	2.82	7	0.88	27	3.24	3	3.38	41
17 CZH04032	109	26	17	1.19	45	1.49	51	1.17	59	2.69	22	3.85	24	3.06	5	1.23	11	2.67	11	2.98	51
1 PAN 5M-35	119	18	15	1.74	26	2.06	26	1.56	39	3.22	17	5.51	2	2.49	12	1.12	15	2.42	17	4.76	8
30 CZH0728	110	24	16	1.97	26	2.39	7	1.69	34	3.06	21	5.66	1	2.01	26	0.85	32	2.70	10	4.06	17
9 SC513	86	45	15	1.02	53	1.25	59	0.97	62	1.50	48	1.44	60	1.76	38	0.59	60	1.48	58	2.72	

EIHBY09: Results of evaluation of early to intermediate maturing hybrids from CIMMYT, Pannar, Seedco, Pioneer, AFGRI and DR&S- Zimbabwe across 37 sites in eastern and southern Africa, 2008/09. TABLE 3J

Entry	Name	Pedigree	Origin	Low pH Stress Environments										MSV Infestation			
				Across			Across			Tsangano Mal		Kasama Zam		Across		Harare Zim	
				RelGY	Rank	StdDev	GrainYield	RankNo	GrainYield	RankNo	GrainYield	RankNo	GrainYield	RankNo	GrainYield	RankNo	GrainYield
%	Avg		t/ha	#	t/ha	#	t/ha	#	t/ha	#	t/ha	#	t/ha	#			
Entries with anthesis dates between 58 and 60 days																	
26	CZH071	CZL04008/CZL04009/VP05188	CIMMYT	82	48	16	2.46	42	1.27	63	3.70	39	6.56	53	6.56	53	
36	CZH0741	CZL0721/CZL0723/CZL0722	CIMMYT	78	49	18	2.18	42	1.69	42	2.70	63	5.19	61	5.19	61	
37	CZH0742	CZL0721/CZL0724/CZL0722	CIMMYT	75	53	12	2.17	46	1.39	55	2.86	62	6.68	51	6.68	51	
38	CZH0743	CZL0723/CZL0724/CZL0722	CIMMYT	86	44	14	2.76	37	1.66	43	3.87	34	5.29	60	5.29	60	
35	CZH0739	CZL0723/CZL0719/CZL0722	CIMMYT	82	47	16	2.23	47	1.44	50	3.04	58	7.57	45	7.57	45	
33	CZH0736	CZL04008/CZL0719/CZL0717/CZL0718	CIMMYT	86	44	17	2.71	33	1.88	28	3.51	48	7.68	42	7.68	42	
47	CZH088	CML505/CML509/CZL085	CIMMYT	84	47	14	2.61	41	1.63	46	3.36	54	7.61	43	7.61	43	
Maturity group average				82	47	15	2.45	41	1.57	47	3.29	51	6.66	51	6.66	51	
Entries with anthesis dates between 61 and 63 days																	
42	CZH083	CML508/CML507/CZL0723	CIMMYT	85	47	12	2.48	44	1.28	62	3.59	45	6.21	55	6.21	55	
34	CZH0737	CZL0717/CZL0718/CZL0523/CZL0720	CIMMYT	96	34	18	2.48	39	1.70	40	3.36	53	7.55	46	7.55	46	
32	CZH0735	CZL0717/CZL0718/CML505/CML509	CIMMYT	93	37	18	3.15	29	2.04	22	4.24	24	9.70	25	9.70	25	
49	CZH0810	CZL03014/CZL03021/CZL04002	CIMMYT	94	38	17	3.19	27	1.94	25	4.71	14	9.77	24	9.77	24	
50	CZH0811	CML444/CML395/CZL086	CIMMYT	96	36	14	2.61	34	2.17	18	3.14	56	10.29	21	10.29	21	
Maturity group average				93	38	16	2.78	35	1.83	33	3.81	38	8.70	34	8.70	34	
Entries with anthesis dates between 64 and 66 days																	
48	CZH089	CZL03014/CML442/CZL04003	CIMMYT	96	36	15	2.96	34	1.87	29	3.92	31	7.60	44	7.60	44	
31	CZH0734	CZL03014/CML442/CZL04002	CIMMYT	94	36	14	3.22	25	2.29	13	4.32	22	10.79	14	10.79	14	
40	CZH081	CML445/CML504/CML505	CIMMYT	97	35	16	2.47	44	1.33	59	3.38	52	8.15	36	8.15	36	
46	CZH087	CZL0613/CZL083/CZL084	CIMMYT	100	33	14	2.85	33	1.89	27	3.76	36	9.06	33	9.06	33	
52	CZH0831	CZL0619/CZL00003/CML488	CIMMYT	108	26	15	3.30	22	2.85	2	3.73	37	10.38	18	10.38	18	
20	CZH0526	CML312/CML395/CZL0521	CIMMYT	107	28	17	3.63	17	2.66	4	4.47	18	9.22	29	9.22	29	
61	Local Check 1	Local Check 1	Various	92	41	18	2.62	35	2.22	16	2.90	61	8.58	34	8.58	34	
51	CZH0830	CZL0814/CZL00003/CML488	CIMMYT	108	26	16	3.60	15	2.58	5	4.73	13	11.00	11	11.00	11	
39	CZH0746	CZL0713/CZL0771/CZL03014	CIMMYT	110	24	17	2.60	35	2.38	10	3.01	59	12.17	4	12.17	4	
2	PAN 53	PAN 53	PANNAR	115	19	16	3.18	27	2.14	19	4.29	23	9.82	23	9.82	23	
24	CZH0615	CZL00003/CML488/CZL03014	CIMMYT	105	27	16	3.64	27	1.49	48	5.93	3	11.99	5	11.99	5	
41	CZH082	CML202/CML504/CZL081	CIMMYT	101	32	14	2.51	41	1.76	37	3.13	57	5.41	59	5.41	59	
Maturity group average				99	33	16	2.96	31	2.02	26	3.91	36	9.24	29	9.24	29	
Entries with anthesis dates between 67 and 69 days																	
27	CZH0718	CZL99013/CZL079/CML507	CIMMYT	90	40	18	2.81	34	1.95	24	3.66	41	12.72	3	12.72	3	
60	CZH0839	CZL0817/CML441/CML442	CIMMYT	109	22	15	3.35	27	2.24	14	4.39	19	7.74	41	7.74	41	
15	CZH04002	CML312/CML442/CZL04002	CIMMYT	95	36	17	2.42	41	1.32	60	3.51	49	10.34	20	10.34	20	
10	SC533	SC533	SEEDCO	106	28	18	3.11	32	1.38	56	5.01	10	8.31	35	8.31	35	
21	CZH0530	CML312/CML504/CML488	CIMMYT	108	26	14	2.77	34	1.64	44	3.77	35	9.10	32	9.10	32	
62	Local Check 2	Local Check 2	Various	87	40	19	2.60	43	1.45	49	3.68	40	7.49	47	7.49	47	
19	CZH0524	CML395/CZL0520/CZL00009	CIMMYT	112	21	11	4.24	16	2.13	20	6.34	1	11.05	10	11.05	10	
3	PAN 63	PAN 63	PANNAR	98	31	20	3.24	33	1.36	58	5.23	6	9.21	30	9.21	30	
63	Local Check 3	Local Check 3	Various	95	34	20	2.74	42	1.38	57	4.07	28	11.70	7	11.70	7	
54	CZH0833	CZL0816/CML444/CZL00003	CIMMYT	100	32	18	2.81	35	1.80	35	3.65	42	6.96	50	6.96	50	
4	ZMS 554	ZMS 554	ZAMSEED	106	25	18	3.42	22	2.40	7	4.53	16	10.26	22	10.26	22	
11	04C336	04C336	SEEDCO	111	22	20	3.69	26	1.41	53	6.01	2	13.18	1	13.18	1	
44	CZH085	CZL0613/CML511/CML181	CIMMYT	102	31	15	3.41	23	1.83	33	5.23	7	7.39	48	7.39	48	
12	XBC461W	XBC461W	PIONEER	107	24	17	2.77	37	1.55	47	3.92	32	8.02	37	8.02	37	
14	CZH04012	CZL04008/CZL04009/CZL0722	CIMMYT	85	44	19	2.71	36	1.40	54	4.10	26	5.82	57	5.82	57	
43	CZH084	CZL082/CML511/CML181	CIMMYT	101	32	12	2.79	31	1.85	31	3.72	38	6.22	54	6.22	54	
28	CZH0720	CZL0710/CZL0711/CZL02012	CIMMYT	109	28	17	4.15	12	2.85	1	5.52	5	10.54	16	10.54	16	
8	CZH0837	CZL0814/CML444/CZL00003	CIMMYT	113	21	15	4.14	13	2.72	3	5.63	4	10.80	13	10.80	13	
8	013WH30	013WH30	DR&S-Zim	94	35	16	2.80	33	1.91	26	3.65	43	5.01	62	5.01	62	
25	CZH0616	CML312/CML443/CZL0610	CIMMYT	110	23	14	2.55	38	1.87	30	3.25	55	9.27	28	9.27	28	
22	CZH0536	CZL0517/CZL04021/CML181	CIMMYT	101	31	13	3.03	31	1.63	45	4.35	20	7.75	40	7.75	40	
7	013WH11	013WH11	DR&S-Zim	94	36	19	3.31	31	1.44	51	4.96	12	4.40	63	4.40	63	
13	CZH01008	CML443/CML444/CZL00003	CIMMYT	102	30	19	3.01	31	2.35	11	3.52	47	9.29	27	9.29	27	
57	CZH0836	CZL0814/CML489/CML444	CIMMYT	117	18	16	3.43	23	2.57	6	4.33	21	13.00	2	13.00	2	
17	CZH04032	CML181/CZL01005/CML511	CIMMYT	109	26	17	3.43	22	1.81	34	5.22	8	5.79	58	5.79	58	
1	PAN 5M-35	PAN 5M-35	PANNAR	119	18	15	3.41	25	1.74	39	4.96	11	10.36	19	10.36	19	
30	CZH0728	CML312/CML443/CZL0713	CIMMYT	110	24	16	3.13	26	2.39	8	3.89	33	9.17	31	9.17	31	
9	SC513	SC513	SEEDCO	86	45	15	2.99	31	1.76	38	4.09	27	6.03	56	6.03	56	
53	CZH0832	CZL0815/CML312/CZL00001	CIMMYT	101	33	16	2.88	32	2.19	17	3.57	46	11.41	9	11.41	9	
16	CZH04005	CML395/CML444/CML509/CML505	CIMMYT	97	35	11	2.71	35	2.02	23	3.51	50	9.33	26	9.33	26	
Maturity group average				102	30	16	3.13	30	1.88	32	4.38	26	8.92	31	8.92	31	
Entries with anthesis dates between 70 and 72 days																	
55	CZH0834	CZL0877/CML444/CZL00003	CIMMYT	101	32	18	2.56	39	1.80	36	3.43	51	6.66	52	6.66	52	
23	CZH0613	CML312/CML440/CZL0610	CIMMYT	107	26	17	2.59	36	2.24	15	3.01	60	7.25	49	7.25	49	
29	CZH0722	CZL0712/CZL0617/CML395	CIMMYT	108	25	17	3.15	29	2.39	9	4.02	30	10.60	15	10.60	15	
45	CZH086	CML144/CZL0677/CML507	CIMMYT	91	38	16	2.91	31	1.69	41	4.17	25	10.91	12	10.91	12	
59	CZH0838	CZL0617/CML489/CML444	CIMMYT	115	20	17	3.25	30	2.30	12	4.03	29	11.98	6	11.98	6	
56	CZH0835	CZL0617/CML444/CZL00003	CIMMYT	115	20	18	3.33	23	2.09	21	4.48	17	10.51	17	10.51	17	
6	AFG4663	AFG4663	AFGRI	108	26	16	2.41	40	1.32	61	3.64	44	7.90	39	7.90	39	
5	AFG4611	AFG4611	AFGRI	106	27	16	3.23	27	1.84	32	4.56	15	11.49	8	11.49	8	
Maturity group average				106	27	17	2.93	32	1.96	28	3.92	34	9.66	25	9.66	25	
Entries with anthesis dates greater than 72 days																	
18	CZH0521	CZL0517/CZL04021/CML181/CZL01005	CIMMYT	107	25	16	3.25	32	1.43	52							

ILHYB09: Results of evaluation of intermediate to late maturing hybrids from CIMMYT, Panmar, Seedco, and Zamseed across 29 sites in eastern and southern Africa, 2008/09.
TABLE 4C

Entry Name	Pedigree	Origin	Comments	RelYld		Across		Across		Across		EPDOWNS Ken		Bungoma Ken		Nai Ken		Kenya Ken		Bako Eth		Embu Ken	
				%	Avg	Rank	StdDev	GrainYld	RankNo	GrainYld	RankNo	GrainYld	RankNo	GrainYld	RankNo	GrainYld	RankNo	GrainYld	RankNo	GrainYld	RankNo	GrainYld	RankNo
Entries with anthesis dates between 65 and 66 days																							
23	CZH0816	CZL0713/CML440/CML443	CIMMYT	Non-OPM Hybrid	100	22	12	5.08	25	3.37	7	2.06	19	2.84	27	2.79	17	7.84	35	7.53	27	7.53	27
29	CZH0821	CZL0708/CML440/CML443	CIMMYT	Non-OPM Hybrid	96	24	11	4.53	34	3.69	4	1.44	38	2.18	36	2.27	28	7.42	37	7.01	32	7.01	
28	CZH0820	CZL0709/CML312/CML440	CIMMYT	Non-OPM Hybrid	88	27	9	4.39	29	2.82	33	2.15	14	2.80	29	2.50	24	6.45	39	6.45	38	6.45	
Maturity group average																							
					95	24	11	4.67	29	3.32	15	1.88	24	2.81	31	2.52	23	7.27	37	6.99	32	6.99	32
Entries with anthesis dates between 67 and 68 days																							
37	CZH0829	CZL0811/CZL0812/CZL0813	CIMMYT	Non-OPM Hybrid	112	12	8	5.80	15	3.36	8	2.63	6	2.52	33	2.91	15	8.81	25	8.87	13	8.87	
27	CZH0819	CZL0819/CML444/CZL0003	CIMMYT	Non-OPM Hybrid	108	16	9	6.10	11	3.16	17	2.45	10	3.46	13	3.27	8	9.69	14	8.99	12	8.99	
25	CZH0817	CZL0713/CML312/CML440	CIMMYT	Non-OPM Hybrid	105	18	11	5.25	23	3.28	13	1.96	22	3.21	17	3.88	2	8.46	31	6.68	35	6.68	
11	CZH0654	CML312/CML443/CZL062	CIMMYT	Non-OPM Hybrid	103	18	12	5.40	26	3.01	26	1.54	37	2.03	38	1.98	37	9.71	13	8.38	17	8.38	
38	CZH0840	CZL0818/CZL0003/CML488	CIMMYT	Non-OPM Hybrid	105	19	11	5.00	28	2.93	32	2.11	17	3.44	15	1.90	38	9.36	19	6.65	36	6.65	
10	CZH0652	CML312/CML444/CZL03007	CIMMYT	Non-OPM Hybrid	101	19	9	5.35	26	3.32	11	1.64	32	3.13	21	2.00	36	9.39	18	8.36	18	8.36	
35	CZH0827	CZL0713/CML312/CZL00001	CIMMYT	Non-OPM Hybrid	102	20	11	5.37	23	3.35	10	3.04	2	2.97	23	1.77	39	8.59	28	8.07	23	8.07	
30	CZH0822	CZL0810/CZL0003/CML488	CIMMYT	Non-OPM Hybrid	101	20	9	6.45	9	3.24	15	2.39	11	3.12	22	4.67	1	9.91	10	8.84	14	8.84	
17	CZH0831	CML444/CML395/CZL0819	CIMMYT	Non-OPM Hybrid	99	20	10	6.10	18	3.38	6	1.76	29	3.94	5	2.11	31	10.06	8	10.48	2	10.48	
22	CZH0813	CZL0808/CML312/CZL00001	CIMMYT	Non-OPM Hybrid	98	21	9	5.13	25	3.26	14	1.85	25	2.42	35	2.99	14	8.39	32	7.30	28	7.30	
15	CZH0823	CML444/CZL0003/CZL03014	CIMMYT	Non-OPM Hybrid	98	21	11	5.61	23	2.82	36	1.72	30	4.08	2	2.10	33	9.20	21	9.40	8	9.40	
32	CZH0824	CZL0809/CML312/CML440	CIMMYT	Non-OPM Hybrid	102	21	10	5.25	24	2.95	30	1.69	31	3.18	19	2.89	13	9.01	23	7.30	29	7.30	
1	PAN 7M497	PAN 7M497	PANNAR	Non-OPM Hybrid	96	22	12	5.61	20	3.11	20	2.14	15	3.58	10	2.30	26	8.02	34	9.97	5	9.97	
21	CZH0812	CZL0877/CZL0003/CML488	CIMMYT	Non-OPM Hybrid	98	23	10	5.05	26	2.59	38	1.84	26	2.17	37	2.69	21	8.61	27	7.06	31	7.06	
24	CZH0816	CZL0809/CML440/CML443	CIMMYT	Non-OPM Hybrid	97	24	12	4.78	28	3.03	25	1.59	35	2.58	31	3.55	4	7.07	38	6.92	33	6.92	
26	CZH0818	CZL0809/CML312/CZL00001	CIMMYT	Non-OPM Hybrid	97	24	10	5.40	21	2.86	34	2.31	12	3.48	12	2.82	16	8.55	30	7.90	26	7.90	
34	CZH0826	CZL0809/CML442/CML445	CIMMYT	Non-OPM Hybrid	89	28	9	5.47	24	3.75	2	1.62	34	2.96	32	2.78	18	8.30	33	9.19	11	9.19	
39	Local Check	Local Check	Various	Various	83	29	10	5.32	21	2.70	37	1.88	23	2.83	24	3.37	6	9.40	17	6.64	37	6.64	
Maturity group average																							
					100	21	10	5.47	22	3.12	21	2.01	22	3.04	22	2.78	20	8.92	23	8.17	21	8.17	21
Entries with anthesis dates between 69 and 70 days																							
4	ZMS 623	ZMS 623	ZAMSEED	Non-OPM Hybrid	106	13	12	5.89	15	3.71	3	2.58	7	3.33	16	2.30	27	10.56	6	8.13	21	8.13	
20	CZH0713	CML488/CML444/CZL0617	CIMMYT	Non-OPM Hybrid	110	13	9	6.88	15	2.98	29	1.85	24	2.91	25	3.12	12	12.48	1	10.08	4	10.08	
9	CZH0408	CML444/CML395/CZL04007	CIMMYT	Non-OPM Hybrid	109	13	8	5.91	16	2.82	35	2.06	20	3.88	6	2.73	20	9.50	15	9.35	9	9.35	
31	CZH0823	CZL0769/CZL0003/CML488	CIMMYT	Non-OPM Hybrid	109	13	10	5.58	20	3.36	9	2.49	8	3.17	20	2.06	35	9.82	12	7.86	24	7.86	
14	CZH0511	CML444/CML448/CZL0654	CIMMYT	Non-OPM Hybrid	106	14	10	5.99	11	3.53	5	2.64	5	2.74	30	3.16	10	9.85	11	8.30	19	8.30	
16	CZH0625	CML395/CML444/CZL0617	CIMMYT	Non-OPM Hybrid	106	15	11	6.23	14	3.68	22	2.46	9	3.70	8	2.07	34	10.79	4	9.61	7	9.61	
19	CZH079	CML488/CML395/CZL076	CIMMYT	Non-OPM Hybrid	108	16	10	6.11	14	2.55	39	2.82	3	2.84	26	2.54	22	8.57	29	10.53	1	10.53	
5	SG641	SG641	SEEDCO	Non-OPM Hybrid	104	16	8	5.94	17	3.78	1	2.13	16	3.87	7	2.51	23	8.83	24	10.30	3	10.30	
12	CZH065	CML312/CML444/CZL04006	CIMMYT	Non-OPM Hybrid	103	17	10	6.12	14	3.19	16	1.79	28	3.50	11	3.23	9	10.21	7	9.25	10	9.25	
2	ZMS 652	ZMS 652	ZAMSEED	Non-OPM Hybrid	95	22	12	5.02	24	2.94	31	1.98	21	2.83	28	3.15	11	8.80	26	6.14	39	6.14	
8	CZH0407	CML488/CML444/CZL04006	CIMMYT	Non-OPM Hybrid	96	22	11	5.41	24	3.00	27	1.63	33	3.46	14	2.10	32	9.47	16	8.45	16	8.45	
3	ZMS 602	ZMS 602	ZAMSEED	Non-OPM Hybrid	92	22	12	5.71	17	3.14	18	2.25	13	4.07	3	2.75	19	9.94	9	7.91	25	7.91	
33	CZH0825	CZL0809/CML441/CML442	CIMMYT	Non-OPM Hybrid	90	26	8	5.20	25	3.13	19	2.08	18	3.20	18	2.25	29	9.18	22	7.28	30	7.28	
13	CZH0656	CML312/CML444/CZL0489	CIMMYT	Non-OPM Hybrid	88	28	8	5.73	18	3.05	24	1.83	27	1.68	39	3.65	3	9.33	20	8.10	22	8.10	
18	CZH073	CZL0712/CZL072/CZL073	CIMMYT	Non-OPM Hybrid	88	28	8	4.59	34	2.99	28	1.56	36	2.44	34	2.21	30	7.78	36	6.62	34	6.62	
Maturity group average																							
					101	19	10	5.75	18	3.15	20	2.14	18	3.17	19	2.66	21	9.67	16	8.55	18	8.55	18
Entries with anthesis dates greater than 70 days																							
6	02C85	02C85	SEEDCO	Non-OPM Hybrid	116	12	15	6.76	9	3.07	23	3.68	1	4.06	4	2.47	25	11.22	3	9.68	6	9.68	
36	SC721	SC721	SEEDCO	Non-OPM Hybrid	95	21	13	6.17	15	3.09	21	1.41	39	4.19	1	3.51	5	11.29	2	8.46	15	8.46	
7	SC719	SC719	SEEDCO	Non-OPM Hybrid	98	21	13	6.25	9	3.31	12	2.78	4	3.69	9	3.28	7	10.65	5	8.28	20	8.28	
Maturity group average																							
					103	18	13	6.39	11	3.16	19	2.62	15	3.98	5	3.09	12	11.05	3	8.81	14	8.81	14
Mean																							
					100	20	10	5.59	20	3.15	20	2.10	20	3.13	20	2.74	20	9.25	20	8.27	20	8.27	20
LSD (0.05)																							
					7	5	2	0.64	8	0.76	11	0.70	11	1.30	11	1.14	11	2.10	11	1.54	11	1.54	11
Min																							
					83	12	8	4.39	9	2.55	1	1.41	1	1.68	1	1.77	1	6.45	1	6.45	1	6.45	1
Max																							
					116	29	15	6.88	34	3.78	39	3.68	39	4.19	39	4.67	39	12.48	39	10.53	39	10.53	39
NonSignificant Sites																							
					29	29	29	4	0.02	0	0	1	0.57	0	0	1	1	1	1	1	1	1	1
Heritability																							
														0.13	0.13	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43

ILHYB09: Results of evaluation of intermediate to late maturing hybrids from CIMMYT, Panmar, Seedco, and Zamseed across 29 sites in eastern and southern Africa, 2008/09.

TABLE 4G

Entry	Name	Pedigree	Origin	Comments	Across			Managed Drought Stress Environments			Managed Low N Stress Environments			MSV Infestation														
					ReGY	Avg	Rank	StDev	Grain/Yield	RankNo	Uha	Grain/Yield	RankNo	Uha	Grain/Yield	RankNo	Uha	Grain/Yield	RankNo	Uha								
Entries with anthesis dates between 65 and 66 days																												
23	CZH615	CZL0713/CML440/CML443	CIMMYT	Non-OPM Hybrid	100	22	12	8	2.61	7	2.14	12	2.71	1	2.97	9	1.83	17	0.93	17	1.83	12	2.74	22	2.74	22	8.80	33
29	CZH619	CZL0301H/CML444/CZL0003	CIMMYT	Non-OPM Hybrid	108	16	16	11	2.46	9	2.40	4	2.39	4	2.59	18	1.77	21	0.88	17	1.77	25	2.67	25	12.15	5	12.15	5
28	CZH620	CZL0708/CML312/CML440	CIMMYT	Non-OPM Hybrid	89	27	9	9	1.87	25	1.49	29	1.78	22	2.35	23	1.63	23	0.88	15	2.38	30	2.38	30	8.30	37	8.30	37
Maturity group average																												
					95	24	11	14	2.01	14	2.01	15	2.29	9	2.64	17	1.75	20	0.90	15	2.60	26	2.60	26	9.75	25	9.75	25
Entries with anthesis dates between 67 and 68 days																												
37	CZH629	CZL0811/CZL0812/CZL0813	CIMMYT	Non-OPM Hybrid	112	12	8	2.73	4	2.61	3	2.43	3	3.15	7	2.14	18	0.77	32	3.50	4	3.50	4	11.19	14	11.19	14	
27	CZH619	CZL0301H/CML444/CZL0003	CIMMYT	Non-OPM Hybrid	108	16	16	11	2.46	9	2.40	4	2.39	4	2.59	18	1.77	21	0.88	17	1.77	25	2.67	25	12.15	5	12.15	5
25	CZH617	CZL0713/CML312/CML440	CIMMYT	Non-OPM Hybrid	105	18	11	11	2.39	11	2.37	5	2.33	5	2.46	22	1.92	14	0.95	10	2.89	17	10.01	29	10.01	29	10.01	29
11	CZH64	CML312/CML440/CZL062	CIMMYT	Non-OPM Hybrid	105	18	12	12	2.40	15	1.97	16	1.89	21	3.03	8	1.73	29	0.74	34	2.72	23	11.87	7	11.87	7		
38	CZH640	CZL0818/CZL0003/CML488	CIMMYT	Non-OPM Hybrid	105	19	11	11	2.43	9	2.17	9	2.22	6	2.89	11	2.41	10	1.94	1	2.88	18	10.34	25	10.34	25		
10	CZH62	CML312/CML444/CZL0307	CIMMYT	Non-OPM Hybrid	101	19	9	9	2.52	10	1.99	15	2.07	12	3.49	3	1.69	26	0.82	25	2.55	26	11.61	9	11.61	9		
35	CZH627	CZL0713/CML312/CZL0001	CIMMYT	Non-OPM Hybrid	102	20	11	11	2.28	15	2.36	6	1.77	23	2.71	15	2.07	20	0.73	35	3.42	5	10.18	27	10.18	27		
30	CZH622	CZL0810/CZL0003/CML488	CIMMYT	Non-OPM Hybrid	101	20	9	9	1.88	25	1.42	32	1.65	24	2.57	19	1.50	26	0.88	16	2.13	35	11.06	16	11.06	16		
17	CZH631	CML444/CML395/CZL0819	CIMMYT	Non-OPM Hybrid	99	20	10	10	2.15	16	2.17	10	1.34	28	2.93	10	1.70	21	0.92	13	2.47	29	10.96	19	10.96	19		
22	CZH613	CZL0808/CML312/CZL0001	CIMMYT	Non-OPM Hybrid	99	21	9	9	1.84	26	1.47	30	1.95	16	2.10	31	1.96	16	0.86	21	3.07	11	8.75	35	8.75	35		
15	CZH613	CML444/CZL0003/CZL03014	CIMMYT	Non-OPM Hybrid	98	21	11	11	2.11	18	2.17	11	1.32	29	2.83	13	2.07	10	1.05	9	3.09	10	12.14	6	12.14	6		
32	CZH624	CZL0808/CML312/CML440	CIMMYT	Non-OPM Hybrid	102	21	10	10	2.32	12	2.00	14	2.50	2	2.48	20	1.86	20	0.87	19	2.85	20	9.53	30	9.53	30		
11	PAN7M/97	PAN7M/97	PANMAR	Non-OPM Hybrid	96	22	12	12	2.16	18	1.89	19	1.27	31	3.32	4	1.39	29	0.88	18	1.91	39	5.98	39	5.98	39		
21	CZH612	CZL0812/CZL0003/CML488	CIMMYT	Non-OPM Hybrid	96	23	10	10	2.45	17	1.16	36	2.04	14	4.15	1	1.48	33	0.76	33	2.20	32	10.37	24	10.37	24		
24	CZH616	CZL0809/CML440/CML443	CIMMYT	Non-OPM Hybrid	97	24	12	12	2.10	18	1.90	18	2.08	11	2.32	25	2.22	7	1.18	5	3.26	9	10.25	26	10.25	26		
26	CZH618	CZL0809/CML312/CZL0001	CIMMYT	Non-OPM Hybrid	97	24	10	10	1.89	25	1.83	21	1.92	19	1.91	36	1.63	21	1.12	7	2.13	34	8.85	32	8.85	32		
34	CZH626	CZL0809/CML442/CML445	CIMMYT	Non-OPM Hybrid	89	28	9	9	1.79	25	1.76	23	0.35	27	2.27	26	1.90	20	0.82	24	2.97	15	8.27	38	8.27	38		
39	Local Check	Local Check	Various	Various	83	29	10	10	1.69	26	2.23	8	0.93	36	1.93	35	1.67	28	0.79	28	2.55	27	9.46	31	9.46	31		
Maturity group average																												
					100	21	10	218	17	1.95	17	1.84	18	2.73	17	1.87	19	0.96	19	2.77	20	2.77	20	10.26	23	10.26	23	
Entries with anthesis dates between 69 and 70 days																												
4	ZMS 923	ZMS 923	ZAMSEED	Non-OPM Hybrid	106	13	12	12	1.45	32	0.85	38	1.16	34	2.34	24	1.59	31	0.48	38	2.70	24	12.85	3	12.85	3		
20	CZH0713	CML489/CML444/CZL0617	CIMMYT	Non-OPM Hybrid	110	13	9	9	2.57	11	3.11	1	2.13	10	2.46	21	2.35	6	0.95	11	3.75	1	10.46	22	10.46	22		
9	CZH0018	CML444/CML395/CZL04007	CIMMYT	Non-OPM Hybrid	109	13	8	8	2.30	15	2.73	2	2.04	13	2.12	30	2.21	12	0.87	20	3.56	3	10.87	20	10.87	20		
31	CZH623	CZL0706/CZL0003/CML488	CIMMYT	Non-OPM Hybrid	109	13	10	10	1.73	28	1.77	22	1.26	32	2.16	29	2.14	8	1.27	3	3.00	13	11.81	8	11.81	8		
14	CZH651	CML444/CML443/CZL064	CIMMYT	Non-OPM Hybrid	106	14	10	10	2.05	21	1.35	34	1.94	18	2.88	12	1.84	25	0.82	37	3.06	12	11.22	13	11.22	13		
16	CZH625	CML395/CML444/CZL0617	CIMMYT	Non-OPM Hybrid	106	15	11	11	2.33	13	2.25	7	1.95	14	2.79	14	2.21	7	1.14	6	3.29	8	11.07	17	11.07	17		
19	CZH079	CML488/CML395/CZL0706	CIMMYT	Non-OPM Hybrid	104	16	8	8	2.18	19	1.43	31	1.92	20	3.18	5	2.22	7	1.09	8	3.35	6	10.39	23	10.39	23		
12	SC641	SC641	SEEDCO	Non-OPM Hybrid	104	16	10	10	2.02	21	1.67	25	1.23	33	3.16	6	2.62	2	1.61	2	3.63	2	11.30	11	11.30	11		
2	CZH655	CML312/CML444/CZL04006	CIMMYT	Non-OPM Hybrid	103	17	10	10	2.04	19	1.94	17	2.18	7	2.00	32	1.88	21	0.81	27	2.98	14	8.72	36	8.72	36		
2	ZMS 852	ZMS 852	ZAMSEED	Non-OPM Hybrid	95	21	12	12	1.66	28	1.54	28	0.84	38	2.60	17	1.81	22	0.83	23	2.78	21	8.79	34	8.79	34		
8	CZH007	CML489/CML444/CZL04006	CIMMYT	Non-OPM Hybrid	96	22	11	11	2.17	16	2.11	13	2.18	8	2.22	28	1.84	23	0.79	30	2.89	16	11.17	15	11.17	15		
3	ZMS 802	ZMS 802	ZAMSEED	Non-OPM Hybrid	92	22	12	12	1.19	37	1.09	37	0.87	37	1.61	38	1.37	32	0.81	26	1.93	38	12.45	4	12.45	4		
33	CZH625	CZL0809/CML441/CML442	CIMMYT	Non-OPM Hybrid	90	26	8	8	1.39	27	1.57	27	1.89	15	0.61	39	1.42	35	0.66	36	2.17	33	10.64	21	10.64	21		
13	CZH656	CML312/CML444/CML489	CIMMYT	Non-OPM Hybrid	88	28	8	8	1.58	31	1.73	24	1.03	35	1.98	33	1.67	29	0.79	29	2.54	28	10.03	28	10.03	28		
18	CZH073	CZL0712/CZL072/CZL073	CIMMYT	Non-OPM Hybrid	88	28	8	8	1.75	27	1.84	20	1.63	25	1.80	37	1.63	23	0.90	14	2.36	31	11.11	16	11.11	16		
Maturity group average																												
					101	19	10	189	23	1.80	22	1.62	23	2.26	24	1.92	19	0.91	21	2.93	17	2.93	17	10.86	18	10.86	18	
Entries with anthesis dates greater than 70 days																												
6	OC655	OC655	SEEDCO	Non-OPM Hybrid	116	12	15	15	1.55	32	1.39	33	1.31	30	1.95	34	1.20	38	0.43	38	1.97	37	13.34	2	13.34	2		
36	SC721	SC721	SEEDCO	Non-OPM Hybrid	95	21	13	13	1.39	34	1.28	35	0.64	39	2.23	27	1.81	25	0.77	31	2.85	19	11.26	12	11.26	12		
7	SC719	SC719	SEEDCO	Non-OPM Hybrid	99	21	13	13	2.07	22	2.01	39	1.56	26	3.81	2	1.45	29	0.86	22	2.03	36	11.36	10	11.36	10		
Maturity group average																												
					103	18	13	167	29	1.16	36	1.18	32	2.67	21	1.48	31	0.68	31	2.28	31	2.28	31	11.99	8	11.99	8	
Mean																												
					100	20	10	2.04	20	1.84	20	1.74	20	2.54	20	1.85	20	<										

TABLE 5C

EPO09- Results of evaluation of early maturing OPVs from CIMMYT and ZAMEED across 30 sites in eastern and southern Africa, 2008/09.

Entry Name	Across			Mid Altitude East Africa Environments			Mid Altitude Humid Warm (A) Environments			Herera Zm			ART Firm Harere Zm			Mpongwe Zm			Change Ang													
	RelQY	Rank	% Avg StDev	Grain/Yield	RankNo	RankNo	Grain/Yield	RankNo	RankNo	Grain/Yield	RankNo	RankNo	Grain/Yield	RankNo	RankNo	Grain/Yield	RankNo	Grain/Yield	RankNo	Grain/Yield	RankNo											
Entries with anthesis dates between 69 and 80 days																																
16 VP0711	100	21	10	474	33	374	616	23	604	22	541	2	351	26	555	22	601	33	683	26	736	31	766	27	976	37	455	25				
25 VP0735	98	21	10	529	27	449	634	24	616	18	406	27	324	34	452	35	605	32	687	23	747	28	853	29	1181	27	486	22				
32 VP082	98	22	10	486	32	429	643	22	624	15	443	22	360	24	626	11	454	37	807	11	710	32	762	29	1084	31	567	10				
31 VP077	96	24	11	403	37	388	652	23	550	28	453	15	381	18	525	27	550	35	632	32	635	34	854	18	1234	17	666	4				
12 VP041	97	24	11	572	23	488	640	23	584	23	420	25	455	3	438	36	611	31	864	7	747	27	739	30	1005	35	507	19				
11 VP05120	94	25	8	583	18	573	6	584	30	479	37	390	10	416	9	546	24	667	27	712	20	710	33	661	36	1151	25	367	30			
13 VP05181	91	26	8	546	25	497	20	595	29	633	44	371	22	571	20	693	24	683	25	667	36	728	32	1115	28	588	7					
24 VP0734	89	28	10	442	34	390	558	27	622	17	295	39	426	5	513	29	559	34	491	39	570	39	802	24	963	38	351	33				
35 08RDE01	84	29	12	432	37	308	39	596	34	527	47	8	356	39	421	39	685	24	764	22	658	39	764	39	784	39	518	15				
33 ZM309	86	30	7	404	38	341	587	26	605	21	288	38	409	11	459	34	615	30	516	37	693	35	658	37	1155	24	462	23				
Maternity group average	93	25	10	487	30	422	611	24	556	25	410	25	391	16	504	28	578	32	676	24	704	32	743	29	1064	29	487	19				
Entries with anthesis dates between 61 and 62 days																																
18 VP0717	105	16	9	612	18	518	673	21	607	20	489	6	321	35	649	6	710	21	635	30	886	9	765	28	1212	16	518	16				
20 VP0720	106	17	9	569	21	528	15	610	27	724	15	458	2	626	10	675	26	630	33	873	11	911	9	1006	34	697	3					
21 VP0728	103	17	7	544	25	417	30	671	19	544	22	424	24	347	27	541	25	722	20	764	15	788	20	787	26	1183	21	589	6			
17 VP0715	105	18	10	575	20	533	14	616	26	632	21	631	14	457	13	327	32	486	32	781	17	554	36	803	19	1116	27	414	29			
34 ZM401	102	19	10	616	14	569	7	683	21	673	20	534	31	485	9	373	20	486	33	851	7	964	4	751	25	1072	32	575	9			
23 VP0730	102	20	10	557	22	554	10	580	33	646	22	510	35	516	5	316	37	602	15	697	23	645	29	839	17	844	21	518	17			
30 VP076	101	21	10	517	28	416	31	619	25	593	24	533	32	419	26	374	19	568	21	686	25	688	22	754	24	715	35	980	36			
Maternity group average	103	18	9	6	21	5	18	6	24	6	21	13	4	25	6	21	7	20	5	6	8	18	8	23	11	27	5	17				
Entries with anthesis dates between 63 and 64 days																																
6 07SADVE	116	11	8	704	8	690	814	13	724	6	389	29	359	25	599	16	695	16	822	10	933	7	957	6	1374	5	1131	1				
2 ZM423	112	14	8	599	19	491	22	708	15	708	17	646	12	343	36	326	33	555	23	838	10	1030	2	875	10	935	7	1281	15	305	38	
5 ZM528-FLINT	108	14	11	677	7	621	3	734	11	634	5	535	3	481	1	675	5	847	6	744	18	917	2	897	12	1095	30	503	20			
14 VP05191	110	15	10	652	11	526	16	777	5	741	16	702	8	392	35	381	17	588	18	828	11	758	16	917	8	984	3	1334	8			
1 ZM421	101	20	9	618	15	493	21	743	9	647	22	521	34	494	7	343	28	490	31	806	14	623	34	756	23	1108	29	561	12			
3 ZM621	94	24	8	566	23	463	25	689	20	616	24	570	27	319	32	364	23	412	37	616	29	788	14	749	26	847	20	1149	26	456	34	
39 LocalCheck2	92	25	13	552	22	357	36	747	7	688	20	657	10	426	5	611	14	788	16	590	35	833	38	635	38	1588	2	366	21			
22 VP0729	92	26	10	501	27	526	17	476	37	622	24	480	38	371	33	301	38	490	30	753	18	801	12	855	14	731	31	1033	33			
38 LocalCheck1	84	27	12	616	16	535	13	697	18	650	23	548	29	455	14	392	14	394	38	444	38	506	38	784	21	724	34	1697	1			
Maternity group average	101	19	10	6	16	5	17	7	15	6	21	6	21	4	20	5	24	4	20	5	17	8	17	8	20	13	17	6	18			
Entries with anthesis dates greater than 66 days																																
9 08SADVE1	118	9	7	726	3	585	5	867	1	787	11	712	7	448	18	415	10	657	6	980	1	853	8	1007	1	1053	1	1467	3	320	36	
8 07SADVE3	119	10	9	697	6	584	8	830	3	813	12	890	1	440	23	395	12	694	3	945	2	1053	1	949	5	875	17	1285	16	745	2	
7 07SADVE2	114	10	8	710	3	586	4	834	2	750	15	691	9	444	21	385	15	620	12	927	3	1018	3	961	4	823	22	1356	6	386	32	
15 VP0710	109	14	9	639	11	541	12	736	10	710	18	538	30	452	17	328	31	577	19	879	6	906	5	823	18	897	14	1189	19	489	21	
4 ZM523	106	14	9	692	7	651	7	733	12	724	15	632	13	534	4	371	21	653	7	827	12	900	6	943	6	897	13	1331	9	340	34	
19 VP0719	102	17	10	604	17	549	11	659	22	738	14	614	19	452	16	426	7	784	1	804	15	677	28	868	12	993	2	1309	10	514	18	
10 08SADVE2	103	16	10	593	18	439	28	747	8	717	16	728	4	459	12	384	16	612	13	842	9	745	17	851	15	959	5	1298	13	312	37	
28 VP0743	103	19	9	658	11	519	18	797	4	673	20	578	26	481	8	329	30	684	4	827	13	683	27	739	30	818	23	1307	11	329	35	
27 VP0741	102	19	13	659	8	583	9	754	6	723	18	507	36	447	20	294	39	699	2	729	19	853	9	858	13	894	15	1342	7	566	11	
37 SC513	97	20	14	528	27	354	37	702	17	747	16	728	5	369	34	321	36	590	17	914	4	799	13	967	3	961	4	1301	12	542	13	
36 07ZAM Pop.1	88	27	10	526	28	483	24	588	32	670	20	651	11	484	10	393	13	517	28	617	28	632	31	742	29	905	10	1382	4	431	26	
Maternity group average	106	16	10	6	13	5	14	7	11	7	16	7	15	5	17	4	21	6	10	8	10	8	13	9	12	9	11	13	4	10	5	24
Entries with anthesis dates greater than 68 days																																
26 VP0739	97	21	10	551	23	381	33	722	13	701	17	582	24	335	37	438	4	626	9	708	22	715	19	844	16	927	8	1291	14	518	14	
29 VP0745	77	31	8	540	26	440	27	641	24	617	24	581	25	395	31	343	28	530	2													

EPO09. Results of evaluation of early maturing OPVs from CIMMYT and ZAMEED across 30 sites in eastern and southern Africa, 2008/09.

Entry Name	Pedigree	Across			Mid Altitude Humid Hot (B) Environments			Mid Altitude Dry (C) Environments (Random Drought Stress)			Kaoma Zim																					
		RelGY	Rank	Avg SDDw	Grain/Yield	RankNo	uHa	Chitila Mli	Shamba Zim	Retray-Amold Zim	Retray-Amold Zim	Across	Baka Mli	Matopos Zim	Kaoma Zim	Makaholi Zim	Kaoma Zim															
%																																
Entries with anthesis dates between 59 and 60 days																																
16	VR0711			10	5.02	24	4.03	38	4.94	36	3.25	21	6.21	15	5.61	31	3.89	19	5.84	14	2.29	20	6.01	18	0.62	23	4.41	23				
25	VR0735	VHTC06ASyn		10	5.38	19	4.83	24	4.49	38	3.98	14	7.10	2	6.29	16	3.95	22	5.20	12	2.22	23	5.48	30	0.52	30	4.57	20				
32	VR082	(ZEW6B2FZ/EWA2F2)F2		98	22	10	4.91	24	4.48	31	5.08	34	6.01	17	5.56	34	4.08	19	5.12	24	2.39	14	7.84	1	0.48	33	4.51	22				
31	VR077	(VP47/G16BNSegCa)F2		96	24	11	4.67	27	4.31	33	5.19	32	5.58	29	5.86	29	3.72	18	5.67	15	2.05	33	6.12	15	0.90	1	4.14	32				
12	VR041	VP47-H		97	24	11	4.83	27	4.87	21	5.52	31	5.57	29	5.50	35	3.27	25	4.76	25	1.79	38	4.21	38	0.72	7	4.73	15				
13	VR0120	(ZEW6G1F2/S9ADVEA2F2)		94	25	8	4.92	26	4.12	35	6.07	27	3.30	18	5.72	24	3.29	24	4.19	33	2.09	29	5.57	28	0.70	9	3.85	35				
24	VR0734	VHTC06ASyn		89	28	10	5.08	24	5.05	19	7.53	10	3.17	25	5.53	31	3.84	16	5.16	23	2.11	28	6.18	12	0.60	4	4.74	14				
35	08RDEE01	(EWA2F2/S9ADVEA2F2)		84	29	12	4.48	30	3.41	39	6.12	25	5.20	39	4.54	39	3.80	21	4.11	36	1.83	37	6.91	6	0.66	19	5.04	7				
33	ZM039	VP047		86	30	7	4.79	27	4.80	25	5.57	30	5.40	35	5.41	38	3.25	22	3.68	21	2.16	25	5.79	24	0.69	13	4.14	31				
93	25	10	4.91	25	4.47	29	5.66	30	3.19	25	5.75	26	5.51	31	3.61	21	4.84	26	2.13	26	2.13	26	5.86	21	0.68	16	4.45	23				
Entries with anthesis dates between 61 and 62 days																																
16	VR0717	(Syn0E2/VP047)F2		105	16	9	5.82	18	5.47	10	6.89	21	6.01	17	6.05	19	3.77	16	5.23	20	2.79	4	6.13	14	0.84	3	4.41	24				
20	VR0720	(VP47/05SADVF2)		106	17	9	5.94	19	4.75	27	7.44	12	6.28	12	6.44	14	4.15	16	7.26	2	2.35	16	6.00	19	0.77	5	4.64	17				
21	VR0728	VHTB06ASyn		103	17	7	6.02	12	6.69	3	7.08	19	4.16	6.29	11	6.71	11	3.77	20	4.68	27	2.12	27	6.46	8	0.63	22	4.85	11			
17	VR0715	(VP47/05SADVF2)F2		105	18	10	5.96	20	4.86	22	5.83	29	4.15	6.72	6	5.81	32	4.18	16	6.36	8	2.29	19	5.87	22	0.61	26	5.42	4			
34	ZM401	Syn0E2		102	19	10	5.51	20	4.76	26	5.97	28	2.87	34	6.32	10	3.84	20	4.14	35	2.24	22	6.34	9	0.55	28	4.75	13				
23	VR0730	VHTA06TSyn		102	20	10	5.31	24	5.00	20	7.45	11	2.98	29	5.98	27	3.62	22	5.84	13	2.14	26	5.46	31	0.50	32	4.18	30				
30	VR076	(VP47/05SADVF2)		101	21	10	5.75	18	5.66	8	7.63	9	4.00	13	6.01	24	3.64	22	6.36	7	2.07	31	4.59	35	0.66	20	4.62	18				
103	18	9	5.75	18	5	17	7	18	4	19	6	15	6	15	6	16	2	2	2	2	2	2	2	2	2	2	2	2	1	19	5	17
Entries with anthesis dates between 63 and 64 days																																
6	07SADVE	(07SADV/07SADVF)F2		116	11	9	5.81	16	4.72	29	6.72	22	3.20	24	7.47	1	6.98	6	4.19	14	4.87	28	3.13	1	7.13	5	0.68	15	5.51	3		
2	ZM423	ZM423#		112	14	8	5.74	18	4.65	30	7.76	6	4.01	12	5.88	23	6.20	18	3.95	16	5.43	18	2.55	9	5.95	20	0.70	11	4.61	19		
5	ZM525-FLINT	02SADVE-#		108	14	11	5.75	17	5.11	17	7.16	18	2.96	31	6.53	8	6.91	8	4.26	15	6.07	9	2.78	5	6.53	7	0.47	34	5.08	6		
14	VR05191	Syn051		110	15	10	6.30	12	6.71	2	8.22	3	3.29	19	7.01	3	5.69	28	3.65	20	5.21	21	2.43	11	6.06	17	0.61	25	4.33	26		
1	ZM421	ZM421-#		101	20	9	5.59	19	4.15	34	7.26	17	5.14	1	5.59	26	6.05	20	4.13	16	5.53	16	2.40	12	7.46	2	0.66	21	4.55	21		
3	ZM521	ZM521		94	24	8	5.02	24	5.46	11	6.71	23	2.38	38	5.49	34	5.86	25	3.55	19	4.18	34	2.27	21	5.73	26	0.85	2	4.99	8		
39	LocalCheck2	LocalCheck2		92	25	13	4.35	30	4.08	37	5.12	33	2.52	38	4.77	32	3.27	23	4.49	30	2.07	32	4.79	34	0.70	10	4.22	29	28			
22	VR0729	VHTA06ASyn		92	26	10	5.76	18	5.84	6	7.73	8	3.85	15	5.55	30	5.94	22	3.01	28	4.59	29	1.89	36	4.43	37	0.62	24	3.56	36		
38	LocalCheck1	LocalCheck1		84	27	12	5.32	21	4.37	32	6.11	26	2.72	36	5.39	36	7.80	3	3.28	28	6.59	4	1.22	39	3.33	39	0.21	39	5.26	5		
104	19	10	5.75	18	5	22	7	17	3	24	6	19	4	19	6	22	6	4	4	4	4	12	18	6	21	1	20	5	17			
Entries with anthesis dates between 65 and 66 days																																
9	08SADVE1	(EWA2F2/S9ADVF)F2		118	9	9	6.81	7	6.91	1	7.91	4	5.04	2	6.79	5	7.90	1	4.22	14	5.87	12	2.64	8	6.08	16	0.72	8	5.85	2		
8	07SADVE3	(07SADV/07SADVF)F2		119	10	9	6.32	11	5.26	14	8.30	1	4.96	3	5.94	21	7.83	2	4.86	11	6.85	3	2.88	2	6.18	13	0.67	18	6.49	1		
7	07SADVE2	(07SADV/07SADVF)F2		114	10	8	5.97	14	5.36	13	7.74	7	4.20	7	6.01	17	6.30	15	3.86	18	3.97	37	2.87	3	5.34	32	0.70	12	4.80	12		
15	VR0710	(VP47/05SADVF)F2		109	14	9	6.06	15	5.13	16	7.88	5	4.03	11	6.35	9	6.49	13	4.29	13	5.86	11	2.73	6	7.38	3	0.68	14	4.66	16		
4	ZM523	ZM523#		106	14	9	6.00	14	6.04	4	7.32	16	2.97	30	6.94	4	6.54	12	3.47	19	4.31	31	2.37	15	5.49	29	0.67	17	4.91	10		
19	VR0719	(VP47/05SADVF)F2		102	17	10	5.69	17	5.84	7	6.99	20	3.22	32	6.28	12	6.04	21	4.08	18	6.45	6	2.67	7	7.36	4	0.52	31	3.41	38		
10	08SADVE2	Advanced07(BaBa)AAdvanced08(BaBa)A#		103	18	10	5.47	17	5.88	5	4.91	37	4.09	10	6.71	7	5.58	33	4.06	20	7.41	1	2.33	18	6.27	10	0.55	29	3.00	34		
28	VR0743	MOZV06ASyn		103	19	9	5.64	21	5.06	18	7.38	14	3.01	28	5.61	25	6.74	10	3.62	20	5.86	10	2.18	24	5.90	21	0.74	6	3.53	37		
27	VR0741	(Obatane)WDC2SNF2(WDC2SNF2)S9LWOBIF2		102	19	13	5.81	16	4.72	28	6.66	24	4.31	5	5.90	22	6.75	9	3.68	23	5.39	19	1.97	35	6.25	11	0.60	27	4.37	25		
37	SC513	SC513		97	20	14	6.17	14	5.48	9	8.25	2	4.95	4	5.51	32	7.34	4	3.35	25	4.23	32	2.50	10	5.33	33	0.40	37	4.28	28		
36	07 ZAM Pop. 1	07 ZAM Pop. 1		88	27	10	5.41	22	5.46	12	7.43	13	3.28	20	5.36	37	5.85	26	3.22	27	3.94	38	2.00	34	5.75	25	0.45	36	3.06	33		
106	16	10	5.41	22	5	15	6	15	6	12	7	13	4	13	6	17	7	4	4	4	4	19	5	18	1	21	5	21	5	21	5	21
Entries with anthesis dates greater than 66 days																																
26	VR0739	(Obatane)WDC2SNF2(WDC2SNF2)S9LWOBIF2		97	21	10	6.17	14	5.23	15	7.33	15	4.24	6	6.12	16	7.11	5	3.96	22	6.49	5	2.08	30	5.81	23	0.45	35	4.92	9		

ILPO09: Results of evaluation of intermediate to late maturing OPVs from CIMMYT, AFGRI, Zamseed and DRI-Malawi across 27 sites in eastern and southern Africa, 2008/09. TABLE 6C

Entry Name	Mid Altitude East Africa Environments										Mid Altitude Humid Warm (A) Environments									
	Across		Embu Ken		Kakamega Ken		Bako Eth		Across		Africa University Zim		Chitedze Mal		Kasaapa Dem		Kasunga Dem			
RelIGY %	Rank	GrainYield t/ha	RankNo	GrainYield t/ha	RankNo	GrainYield t/ha	RankNo	GrainYield t/ha	RankNo	GrainYield t/ha	RankNo	GrainYield t/ha	RankNo	GrainYield t/ha	RankNo	GrainYield t/ha	RankNo	GrainYield t/ha		
	Avg	StDev	#		#		#		#		#		#		#		#			
Entries with anthesis dates between 66 and 67 days																				
20 VP086	122	7	6	8.42	8	2.95	4	8.23	17	6.84	10	3.52	4	5.84	13	3.36	9	7.22	2	
21 05SADVI	103	8	5	9.05	2	2.87	6	8.77	9	6.80	9	3.12	8	6.68	5	2.60	23	6.78	5	
10 ZM625	109	10	5	6.77	20	2.82	7	8.47	13	6.73	10	2.73	11	6.75	4	3.77	3	6.26	10	
15 07WEEVIL	104	12	6	7.30	17	2.51	13	8.53	11	6.55	12	3.52	5	6.65	6	3.50	7	6.34	8	
19 VP085	102	12	6	8.66	4	2.46	14	9.53	3	6.34	13	3.56	3	5.58	16	3.35	10	5.82	14	
24 Local Check	96	15	7	8.11	13	3.88	1	7.97	19	6.19	12	2.86	10	4.57	22	2.99	18	7.18	4	
2 Chitedze 2	96	15	5	8.07	14	2.94	5	7.99	18	6.15	15	2.53	13	5.25	17	3.22	14	5.05	18	
Maturity group average	106	11	6	8.05	11	2.92	7	8.50	13	6.51	12	3.12	8	5.90	12	3.26	12	6.38	9	
Entries with anthesis dates between 68 and 69 days																				
14 07SADVI	115	7	5	8.30	9	3.13	3	8.23	16	7.19	6	3.71	1	5.71	15	3.29	13	7.19	3	
4 07 ZAM Pop.2	109	9	5	7.20	19	2.68	10	9.64	2	6.93	8	3.14	7	7.33	2	3.05	17	5.99	13	
13 ZM725	109	9	5	8.59	5	2.31	16	9.51	4	7.00	7	3.22	6	6.02	12	3.64	4	6.42	7	
22 08SADVI	108	9	7	8.89	3	2.29	17	7.84	20	6.92	8	2.51	15	5.83	14	3.60	6	6.14	12	
3 Chitedze 5	107	11	5	6.13	15	2.70	9	7.75	21	6.80	9	3.57	2	6.20	10	3.29	12	6.47	6	
9 ZM623	104	11	6	8.58	6	2.71	8	8.32	14	6.25	16	2.01	23	5.18	20	3.11	15	5.51	17	
12 ZM721	100	12	6	8.46	7	2.17	18	8.59	10	6.34	13	3.05	9	6.44	8	3.89	2	4.88	19	
7 AFRIC1	95	13	8	6.68	21	0.70	23	9.45	6	7.05	7	2.45	16	6.31	9	2.95	19	6.22	11	
1 UG2	102	13	6	8.12	12	2.59	11	9.27	7	5.91	18	2.18	22	6.03	11	3.99	1	4.46	22	
8 ZM621	102	13	6	7.22	18	1.83	21	8.50	12	6.42	15	2.28	19	5.22	19	2.82	22	5.68	15	
11 ZM627	98	14	5	8.15	11	2.00	20	8.24	15	6.10	16	2.41	17	5.24	18	2.41	24	4.85	20	
16 VP074	89	18	4	7.68	16	2.57	12	8.81	8	5.65	20	2.28	20	5.12	21	3.08	16	4.39	23	
17 VP072	85	19	5	6.47	22	1.76	22	6.86	22	5.52	19	2.32	18	3.43	24	2.90	20	3.88	24	
Maturity group average	102	12	6	7.87	13	2.26	15	8.54	12	6.47	12	2.70	13	5.70	14	3.23	13	5.54	15	
Entries with anthesis dates greater than 69 days																				
23 08SADVL	110	9	6	9.29	1	3.66	2	9.70	1	6.84	9	2.67	12	6.53	7	3.44	8	6.33	9	
5 07 ZAM Pop.3	96	13	7	8.21	10	2.40	15	9.48	5	7.02	8	2.22	21	7.37	1	3.62	5	7.34	1	
6 07 ZAM Pop.4	86	17	6	4.82	23	2.09	19	6.43	23	6.10	15	2.52	14	6.89	3	2.85	21	5.63	16	
18 VP071	43	24	1	3.86	24	0.68	24	4.56	24	4.03	23	1.56	24	3.67	23	3.33	11	4.65	21	
Maturity group average	84	16	5	6.54	15	2.21	15	7.54	13	5.99	14	2.24	18	6.12	9	3.31	11	5.99	12	
Mean	100	12	6	7.70	13	2.45	13	8.36	13	6.40	12	2.75	13	5.83	13	3.25	13	5.86	13	
LSD (0.05)	15	4	1	1.56	7	1.35	7	1.25	7	0.68	5	1.24	7	1.42	7	1.30	7	1.34	7	
Min	43	7	1	3.86	1	0.68	1	4.56	1	4.03	6	1.56	1	3.43	1	2.41	1	3.88	1	
Max	122	24	8	9.29	24	3.88	24	9.70	24	7.19	23	3.71	24	7.37	24	3.99	24	7.34	24	
NumSignificantSites	25	25	25	1	1	1	1	1	1	6	6	1	1	1	1	0	0	1	1	
Heritability	0.83	0.83	0.83	0.74	0.45	0.45	0.83	0.86	0.86	0.83	0.83	0.83	0.83	0.88	0.88	0.00	0.00	0.68	0.68	

ILPOP09: Results of evaluation of intermediate to late maturing OPVs from CIMMYT, AFGRI, Zamseed and DRI-Malawi across 27 sites in eastern and southern Africa, 2008/09.
TABLE 6D

Entry Name	Mid Altitude Humid Warm (A) Environments										Mid Altitude Humid Hot (B) Environments																									
	RelGY	Across	Rank	Avg	StdDev	GrainYield	RankNo	#	t/ha	#	GrainYield	RankNo	#	t/ha	GrainYield	RankNo	#	t/ha	GrainYield	RankNo	#	t/ha	GrainYield	RankNo	#	t/ha										
Entries with anthesis dates between 68 and 69 days																																				
20 VP086	122	7	6	6.84	10	9.36	2	7.00	22	8.07	15	9.38	6	10.03	10	6.29	12	5.83	19	4.77	14	3.05	3	8.28	2											
21 05SADVI	113	8	5	6.80	9	8.35	12	7.61	15	8.27	11	8.08	18	10.25	7	6.58	7	7.59	1	4.93	10	2.25	18	7.23	9											
10 ZM625	109	10	5	6.73	10	8.92	7	7.98	9	7.72	19	8.69	14	10.56	5	6.57	7	7.46	3	5.05	8	2.83	6	7.19	11											
15 07WEEVIL	104	12	6	6.55	12	7.17	21	7.58	16	8.06	16	7.83	24	18	10.54	18	5.36	20	5.57	22	4.63	16	2.35	17	5.87	22										
19 VP085	102	12	6	6.34	13	8.01	14	7.71	11	7.34	22	9.46	5	7.40	24	5.79	17	6.17	13	4.61	19	2.15	19	6.80	18											
24 Local Check	96	15	7	6.19	12	4.88	23	7.62	14	10.06	1	10.19	1	8.01	22	5.54	18	6.39	11	3.92	23	1.93	22	6.30	20											
2 Chietze 2	96	15	5	6.15	15	8.97	6	7.55	18	7.55	20	7.99	19	10.18	9	5.72	18	6.01	17	4.62	17	2.57	13	6.53	19											
Maturity group average	106	11	6	6.51	12	7.58	12	7.58	15	8.15	15	8.80	12	9.38	14	5.98	14	6.43	12	4.65	15	2.45	14	6.86	14											
Entries with anthesis dates between 68 and 69 days																																				
14 07SADVI	115	7	5	7.19	6	8.62	10	8.64	3	9.25	3	8.44	15	10.33	6	6.19	10	6.38	12	5.44	2	1.80	23	6.76	15											
4 07ZAM Pop.2	109	9	5	6.93	8	7.74	17	8.18	5	9.20	5	8.95	10	9.63	15	6.81	4	6.86	6	5.22	6	3.36	2	8.36	1											
13 ZM725	109	9	5	7.00	7	9.09	4	8.16	7	9.09	6	9.61	3	10.23	8	6.61	5	7.10	5	5.25	5	2.59	11	7.48	5											
22 08SADVI	108	9	7	6.92	8	9.15	3	8.69	2	9.23	4	8.89	12	9.82	13	6.65	5	7.14	4	5.15	7	2.74	7	7.66	4											
3 Chietze 5	107	11	5	6.80	9	8.73	9	7.67	12	8.18	12	8.76	13	9.52	17	6.46	9	6.52	10	4.75	15	1.72	8	8.12	3											
9 ZM623	104	11	6	6.25	16	7.82	16	7.90	10	9.07	7	8.91	11	11.40	2	6.48	8	7.48	2	4.95	9	2.45	15	7.02	13											
12 ZM721	100	12	6	6.34	13	7.56	19	8.16	6	7.95	17	8.44	16	11.56	1	6.30	8	6.04	16	5.59	1	2.67	9	7.28	8											
1 UG2	102	13	6	5.91	18	8.32	13	6.70	23	7.76	18	8.97	9	8.96	20	5.98	15	6.65	9	4.57	20	2.83	4	6.73	16											
8 ZM621	102	13	6	6.42	15	7.39	20	9.88	1	8.10	14	9.18	8	9.88	12	6.12	13	6.67	7	4.57	21	2.53	14	7.13	12											
11 ZM627	98	14	5	6.10	16	7.66	15	7.55	18	8.88	9	8.18	17	8.05	21	5.82	15	6.06	15	4.80	12	2.03	20	6.61	17											
16 VP074	89	18	4	5.65	20	7.70	18	7.56	17	6.87	23	7.61	21	7.96	23	5.78	18	5.58	21	4.55	22	2.91	5	7.20	10											
17 VP072	85	19	5	5.52	19	8.48	11	7.55	18	7.48	21	7.05	22	9.59	16	4.92	19	4.53	23	4.82	11	2.03	21	5.42	23											
Maturity group average	102	12	6	6.47	12	8.07	12	8.07	10	8.47	11	8.66	12	9.75	13	6.17	11	6.44	11	4.94	11	2.56	12	7.13	11											
Entries with anthesis dates greater than 69 days																																				
23 08SADVI	110	9	6	6.84	9	9.07	5	7.66	13	8.75	6	9.23	7	10.02	11	6.13	10	5.62	20	5.38	3	3.62	1	7.40	6											
5 07ZAM Pop.3	96	13	7	7.02	8	8.82	8	8.05	8	8.30	10	9.98	2	11.05	3	6.17	10	5.86	18	5.27	4	2.59	12	7.39	7											
6 07ZAM Pop.4	86	17	6	6.10	15	6.32	22	7.06	21	8.15	13	6.67	23	10.58	4	5.84	16	6.09	14	4.79	13	2.66	10	6.04	21											
18 VP071	43	24	1	4.03	23	4.52	24	4.66	24	5.10	24	4.86	24	9.02	19	3.03	24	2.39	24	2.68	24	1.21	24	4.00	24											
Maturity group average	84	16	5	5.99	14	7.18	15	6.86	17	7.58	14	7.68	14	10.17	9	5.24	15	4.99	19	4.53	11	2.52	12	6.21	15											
Mean	100	12	6	6.40	12	7.72	13	7.72	12	8.23	13	8.54	13	9.71	13	5.96	13	6.19	13	4.79	13	2.52	13	6.90	13											
LSD (0.05)	15	4	1	0.68	5	2.09	7	1.89	7	1.38	7	2.69	7	1.38	7	0.69	5	1.47	7	0.61	7	1.07	7	1.31	7											
Min	43	7	1	4.03	6	4.52	1	4.66	1	5.10	1	4.86	1	7.40	1	3.03	4	2.39	1	2.68	1	1.21	1	4.00	1											
Max	122	24	8	7.19	23	9.75	24	9.88	24	10.06	24	10.19	24	11.56	24	6.81	24	7.59	24	5.59	24	3.62	24	8.36	24											
NumSignificantSites	25	25	6	0.83	6	1	1	0.29	1	0.69	1	0.65	0	0	3	0.80	3	0.70	1	-	0	0.36	0	1	1											
Heritability																																				

ILPOP09: Results of evaluation of intermediate to late maturing OPVs from CIMMYT, AFGRI, Zamseed and DRI-Malawi across 27 sites in eastern and southern Africa, 2008/09.

TABLE 6E

Entry Name	Mid Altitude Dry (C) Environments (Random Drought Stress)										Lowland Tropical Humid (D) Environments										
	Re:GY %	Across Rank	Across GrainYield t/ha	Across RankNo	Chokwe Moz GrainYield t/ha	Chokwe Moz RankNo	Kadoma Zim GrainYield t/ha	Kadoma Zim RankNo	Matopos Zim GrainYield t/ha	Matopos Zim RankNo	Makoholi Zim GrainYield t/ha	Makoholi Zim RankNo	Kadoma Zim GrainYield t/ha	Kadoma Zim RankNo	Across GrainYield t/ha	Across RankNo	Ikenne Nig GrainYield t/ha	Ikenne Nig RankNo			
	Avg	StdDev																			
Entries with anthesis dates between 66 and 67 days																					
20 VP086	122	7	6	4.03	2	3.76	1	5.30	13	2.88	4	0.76	22	5.45	1	4.88	4	5.78	3	3.99	5
21 05SADVI	113	8	5	3.77	4	3.12	3	6.01	3	2.81	8	0.81	21	5.40	2	4.67	9	5.77	4	3.56	13
10 ZM625	109	10	5	3.29	7	2.74	5	5.88	6	2.90	3	1.11	7	4.23	14	4.18	17	5.16	15	3.20	18
15 07WEEVIL	104	12	6	2.59	15	1.74	17	4.99	15	2.82	7	1.03	11	3.22	22	4.34	15	5.20	14	3.48	15
19 VP085	102	12	6	3.03	11	3.02	4	5.46	11	2.76	9	1.02	12	3.32	21	4.58	11	5.54	9	3.62	12
24 Local Check	96	15	7	2.37	21	1.42	20	4.94	17	2.08	23	0.97	14	3.61	20	4.30	13	4.70	18	3.90	7
2 Chitedze 2	96	15	5	2.98	12	1.80	15	5.71	9	2.64	12	1.00	13	4.51	10	3.67	21	4.30	21	3.04	21
Maturity group average	106	11	6	3.15	11	2.51	9	5.47	11	2.70	9	0.96	14	4.25	13	4.37	13	5.21	12	3.54	13
Entries with anthesis dates between 68 and 69 days																					
14 07SADVI	115	7	5	3.35	7	1.78	16	5.89	5	3.05	2	1.11	7	5.23	3	4.84	5	5.57	7	4.11	3
4 07 ZAM Pop. 2	109	9	5	3.40	7	2.30	11	5.68	10	2.87	5	0.92	15	5.05	4	4.67	8	5.28	12	4.06	4
13 ZM725	109	9	5	2.99	15	2.71	6	5.96	4	2.31	22	1.34	2	3.95	16	4.70	8	5.71	5	3.68	10
22 08SADVI	108	9	7	3.38	7	2.52	8	5.76	8	3.34	1	0.89	19	4.27	13	4.01	19	4.92	17	3.11	20
3 Chitedze 5	107	11	5	3.22	10	2.41	10	6.21	2	2.63	13	1.33	3	4.61	8	4.54	9	4.93	16	4.14	2
9 ZM623	104	11	6	2.91	14	1.25	21	4.62	19	2.60	15	1.09	9	4.89	6	4.72	7	5.58	6	3.85	8
12 ZM721	100	12	6	2.41	19	1.01	22	6.71	1	2.54	17	1.28	4	3.70	18	4.86	5	5.56	8	4.17	1
7 AFRIC1	95	13	8	3.10	10	1.43	19	4.36	23	2.83	6	0.90	17	5.05	5	3.46	23	4.07	23	2.86	22
1 UG2	102	13	6	2.99	15	2.25	12	4.46	22	2.44	21	0.89	18	4.28	12	4.61	9	5.31	11	3.91	6
8 ZM621	102	13	6	3.56	7	3.44	2	4.54	21	2.66	11	0.90	16	4.59	9	4.33	13	5.32	10	3.35	16
11 ZM627	98	14	5	2.86	13	1.87	14	4.99	16	2.69	10	1.24	5	4.03	15	5.09	6	6.50	1	3.68	11
16 VP074	89	18	4	2.67	16	1.62	18	4.80	18	2.63	14	1.06	10	3.75	17	3.68	21	4.19	22	3.18	19
17 VP072	85	19	5	1.80	22	0.74	23	5.06	14	2.44	20	1.12	6	2.22	24	4.05	17	4.58	20	3.52	14
Maturity group average	102	12	6	2.97	13	1.95	14	5.31	13	2.69	12	1.08	10	4.28	12	4.43	11	5.19	12	3.66	10
Entries with anthesis dates greater than 69 days																					
23 06SADVI	110	9	6	2.93	14	2.57	7	5.37	12	2.59	16	0.87	20	3.62	19	4.89	6	5.99	2	3.80	9
5 07 ZAM Pop. 3	96	13	7	2.99	14	2.11	13	5.88	7	2.48	18	1.48	1	4.36	11	4.23	15	5.24	13	3.21	17
6 07 ZAM Pop. 4	86	17	6	3.21	12	2.51	9	4.54	20	2.46	19	0.59	24	4.67	7	3.58	21	4.60	19	2.56	23
18 VP071	43	24	1	1.32	24	0.51	24	3.88	24	1.04	24	0.69	23	2.39	23	1.63	24	2.03	24	1.22	24
Maturity group average	84	16	5	2.61	16	1.93	13	4.92	16	2.14	19	0.91	17	3.76	15	3.58	16	4.47	15	2.70	18
Mean	100	12	6	2.97	13	2.11	13	5.29	13	2.60	13	1.02	12	4.18	13	4.27	13	5.08	13	3.47	13
LSD (0.05)	15	4	1	0.74	6	1.41	7	1.61	7	0.66	7	0.53	7	1.51	7	0.63	6	0.86	7	0.93	7
Min	43	7	1	1.32	2	0.51	1	3.88	1	1.04	1	0.59	1	2.22	1	1.63	4	2.03	1	1.22	1
Max	122	24	8	4.03	24	3.76	24	6.71	24	3.34	24	1.48	24	5.45	24	5.09	24	6.50	24	4.17	24
NumSignificant Sites	25	25	25	3	3	1	1	0	1	1	0	0	1	1	2	2	2	1	1	1	1
Heritability				0.64	0.64	0.55	0.55	0.00	0.00	0.49	0.49	0.16	0.16	0.62	0.62	0.87	0.87	0.84	0.84	0.85	0.85

ILPO09: Results of evaluation of intermediate to late maturing OPVs from CIMMYT, AFGRI, Zamseed and DRI-Malawi across 27 sites in eastern and southern Africa, 2008/09.

TABLE 6F

Entry Name	Lowland Tropical Dry (E) Environments (Random Drought Stress)											Managed Drought Stress Environments										
	Across			Francistown Bot			Pandamatanga Bot			Across			Chisumbanje Zim			Chiredzi Zim						
	ReIGY %	Rank	StdDev	GrainYield t/ha	RankNo	#	GrainYield t/ha	RankNo	#	GrainYield t/ha	RankNo	#	GrainYield t/ha	RankNo	#	GrainYield t/ha	RankNo	#				
Entries with anthesis dates between 66 and 67 days																						
20 VP086	122	7	6	2.73	1	3.92	1	5.23	10	1.55	1	1.21	18	2.20	2	2.14	2	2.07	1			
21 05SADVI	113	8	5	1.67	20	2.35	22	5.12	14	0.98	17	1.34	15	2.23	4	1.74	4	1.25	6			
10 ZM625	109	10	5	2.09	10	3.07	11	5.04	15	1.11	8	1.67	8	1.96	7	1.56	7	1.16	8			
15 07WEEVIL	104	12	6	1.97	11	2.83	13	4.36	22	1.11	9	1.47	13	2.01	5	1.64	5	1.26	5			
19 VP085	102	12	6	2.00	9	2.83	12	5.85	6	1.16	6	1.69	7	1.84	8	1.51	8	1.18	7			
24 Local Check	96	15	7	1.93	11	2.47	19	5.96	4	1.39	3	0.88	21	1.35	17	1.14	17	0.93	16			
2 Chitedze 2	96	15	5	1.68	18	2.38	21	4.52	21	0.99	15	1.81	2	1.66	14	1.54	9	1.43	4			
Maturity group average	106	11	6	2.01	11	2.83	14	5.15	13	1.18	8	1.44	12	1.89	7	1.61	7	1.33	7			
Entries with anthesis dates between 68 and 69 days																						
14 07SADVI	115	7	5	2.52	4	3.66	4	5.54	8	1.38	4	1.75	3	1.57	8	1.68	12	1.45	3			
4 07 ZAM/Pop 2	109	9	5	2.40	7	3.76	3	4.01	23	1.05	11	0.75	24	1.24	17	1.24	15	0.84	18			
13 ZM725	109	9	5	2.27	7	3.40	7	5.47	9	1.14	7	2.20	1	1.24	14	1.32	18	1.16	9			
22 08SADVI	108	9	7	2.35	10	3.90	2	5.55	7	0.80	18	0.82	22	1.18	15	1.42	16	0.94	14			
3 Chitedze 5	107	11	5	2.34	7	3.31	9	4.56	19	1.38	5	1.72	5	1.45	11	1.80	10	1.10	11			
9 ZM623	104	11	6	1.89	14	2.75	15	5.94	5	1.04	12	1.60	10	1.47	9	1.99	5	0.95	13			
12 ZM721	100	12	6	1.91	12	2.75	14	7.11	1	1.07	10	1.20	19	1.37	13	1.66	13	1.07	12			
7 AFRIC1	95	13	8	2.18	12	3.57	5	5.12	13	0.79	19	1.50	12	1.26	12	0.84	21	1.69	2			
1 UG2	102	13	6	2.49	4	3.56	6	5.13	12	1.42	2	1.70	6	1.11	17	1.30	19	0.93	15			
8 ZM621	102	13	6	2.07	12	3.13	10	6.03	3	1.02	13	1.35	14	1.34	14	1.87	8	0.80	20			
11 ZM627	98	14	5	1.51	22	2.26	23	4.54	20	0.76	20	1.74	4	1.27	15	1.71	11	0.83	19			
16 VP074	89	18	4	1.59	21	2.52	18	4.89	16	0.65	23	1.03	20	0.90	21	1.16	20	0.63	22			
17 VP072	85	19	5	1.71	18	2.44	20	4.65	17	0.99	16	1.61	9	1.58	9	2.24	1	0.92	17			
Maturity group average	102	12	6	2.10	11	3.15	10	5.27	12	1.04	12	1.46	11	1.31	13	1.59	13	1.02	13			
Entries with anthesis dates greater than 69 days																						
23 08SADVI	110	9	6	2.17	11	3.33	8	6.36	2	1.02	14	1.28	16	1.53	9	1.93	7	1.13	10			
5 07 ZAM/Pop 3	96	13	7	1.63	20	2.59	17	4.59	18	0.66	22	1.58	11	0.72	22	0.75	22	0.68	21			
6 07 ZAM/Pop 4	86	17	6	1.67	19	2.61	16	5.22	11	0.72	21	1.79	23	0.25	23	0.54	23	-0.04	23			
18 VP071	43	24	1	0.82	24	1.45	24	3.84	24	0.18	24	1.24	17	-0.09	24	0.39	24	-0.56	24			
Maturity group average	84	16	5	1.57	18	2.50	16	5.00	14	0.65	20	1.23	17	0.60	19	0.90	19	0.30	20			
Mean	100	12	6	1.98	13	2.95	13	5.19	13	1.02	13	1.42	13	1.28	13	1.56	13	0.99	13			
LSD (0.05)	15	4	1	0.52	6	0.96	7	2.00	7	0.41	7	1.16	7	0.53	6	0.64	7	0.75	7			
Min	43	7	1	0.82	1	1.45	1	3.84	1	0.18	1	0.75	1	-0.09	2	0.39	1	-0.56	1			
Max	122	24	8	2.73	24	3.92	24	7.11	24	1.55	24	2.20	24	2.14	24	2.24	24	2.07	24			
NumSignificantSites	25	25	25	2	2	1	1	0	1	1	1	0	2	2	1	1	2	1	1			
Heritability				0.44		0.61		0.13		0.67		0.00		0.80		0.75		0.39				

ILPOP09: Results of evaluation of intermediate to late maturing OPVs from CIMMYT, AFGR1, Zamseed and DRI-Malawi across 27 sites in eastern and southern Africa, 2008/09. TABLE 6G

Entry Name	Across					Managed Low N Stress Environments					Low pH Stress Environment					MSV Infestation				
	Rel/GY %	Rank	StdDev	GrainYield t/ha	RankNo	Golden Valley Zam	Harare Zim	Harare Zim	Harare Zim	Harare Zim	Across	Kasama Zam	Across	Across	Harare Zim	Across	Across	Across	Across	Across
						GrainYield	RankNo	RankNo	RankNo	RankNo	GrainYield	RankNo	RankNo	RankNo	GrainYield	RankNo	RankNo	RankNo	RankNo	RankNo
Entries with anthesis dates between 66 and 67 days																				
20	VP066	122	7	6	1.90	5	0.73	8	3.07	1	1.76	8	1.70	10	1.70	10	1.70	10	1.70	10
21	06SADVI	113	8	5	1.68	9	0.61	14	2.75	4	1.71	10	1.89	4	1.89	4	1.89	4	1.89	4
10	ZM625	109	10	5	1.60	11	0.57	17	2.63	5	1.49	16	1.79	8	1.79	8	1.79	8	1.79	8
15	07WEEVIL	104	12	6	1.61	7	0.75	6	2.47	8	1.50	15	2.02	2	2.02	2	2.02	2	2.02	2
19	VP065	102	12	6	1.43	15	0.53	19	2.34	11	1.42	20	1.17	18	1.17	18	1.17	18	1.17	18
24	Local Check	96	15	7	1.25	20	0.49	20	2.01	19	1.58	12	1.48	12	1.48	12	1.48	12	1.48	12
2	Chilec2e 2	96	15	5	1.36	15	0.66	11	2.07	18	2.19	2	1.15	19	1.15	19	1.15	19	1.15	19
	Maturity group average	106	11	6	1.55	12	0.62	14	2.48	9	1.67	12	1.60	10	1.60	10	1.60	10	1.60	10
Entries with anthesis dates between 68 and 69 days																				
14	07SADVI	115	7	5	1.77	5	0.96	3	2.58	6	1.96	3	1.18	17	1.18	17	1.18	17	1.18	17
4	07ZAM Pop. 2	109	9	5	1.53	12	0.61	13	2.44	10	1.76	9	1.43	14	1.43	14	1.43	14	1.43	14
13	ZM725	109	9	5	1.77	9	0.59	15	2.95	2	1.87	4	1.64	11	1.64	11	1.64	11	1.64	11
22	06SADVI	108	9	7	1.67	7	1.00	1	2.33	12	1.77	7	1.88	6	1.88	6	1.88	6	1.88	6
3	Chilec2e 5	107	11	5	1.46	15	0.48	21	2.45	9	1.47	17	1.84	7	1.84	7	1.84	7	1.84	7
9	ZM623	104	11	6	1.35	12	0.97	2	1.72	22	1.64	11	2.13	1	2.13	1	2.13	1	2.13	1
12	ZM721	100	12	6	1.67	11	0.55	18	2.79	3	1.85	5	1.46	13	1.46	13	1.46	13	1.46	13
7	AFRIC1	95	13	8	1.26	19	0.33	22	2.19	16	1.57	13	0.93	23	0.93	23	0.93	23	0.93	23
1	UG2	102	13	6	1.62	8	0.72	9	2.53	7	1.57	14	1.89	3	1.89	3	1.89	3	1.89	3
8	ZM621	102	13	6	1.55	10	0.83	5	2.27	14	1.45	19	1.11	20	1.11	20	1.11	20	1.11	20
11	ZM627	98	14	5	1.57	9	0.86	4	2.29	13	1.79	6	1.73	9	1.73	9	1.73	9	1.73	9
16	VP074	89	18	4	1.46	13	0.72	10	2.21	15	1.45	18	1.07	21	1.07	21	1.07	21	1.07	21
17	VP072	85	19	5	1.08	22	0.33	23	1.82	21	1.17	23	1.41	15	1.41	15	1.41	15	1.41	15
	Maturity group average	102	12	6	1.52	11	0.69	11	2.35	12	1.64	11	1.51	12	1.51	12	1.51	12	1.51	12
Entries with anthesis dates greater than 69 days																				
23	06SADVI	110	9	6	1.28	16	0.66	12	1.90	20	2.20	1	1.88	5	1.88	5	1.88	5	1.88	5
5	07ZAM Pop. 3	96	13	7	1.34	17	0.58	16	2.11	17	1.22	22	1.04	22	1.04	22	1.04	22	1.04	22
6	07ZAM Pop. 4	86	17	6	1.18	15	0.75	7	1.61	23	1.41	21	1.19	16	1.19	16	1.19	16	1.19	16
18	VP071	43	24	1	0.43	24	0.33	24	0.54	24	0.66	24	0.49	24	0.49	24	0.49	24	0.49	24
	Maturity group average	84	16	5	1.06	18	0.58	15	1.54	21	1.37	17	1.15	17	1.15	17	1.15	17	1.15	17
	Mean	100	12	6	1.45	13	0.65	13	2.25	13	1.60	13	1.48	13	1.48	13	1.48	13	1.48	13
	LSD (0.05)	15	4	1	0.32	5	0.32	7	0.55	7	0.79	7	0.79	7	0.79	7	0.79	7	0.79	7
	Min	43	7	1	0.43	5	0.33	1	0.54	1	0.66	1	0.49	1	0.49	1	0.49	1	0.49	1
	Max	122	24	8	1.90	24	1.00	24	3.07	24	2.20	24	2.13	24	2.13	24	2.13	24	2.13	24
	NumSignificantSites	25	25	25	2	2	1	1	1	1	0	0	1	1	1	1	1	1	1	1
	Heritability				0.66	0.66	0.50	0.50	0.81	0.81	0.60	0.60	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28
					0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69

7. Single Cross and Inbred Parent Trials

SXPT09

SXPT09: Results of evaluation of early, intermediate and late maturing single cross female hybrids from CIMMYT at Harare, 2008/09. TABLE 7A

Name	Grain Yield t/ha	Anth Date d	ASI d	Ear Rot Score #	GLS 1-5	E.turc 1-5	Plant Height cm	Ear Height cm	Ear Position 0-1	Ears per plant #	Husk Cover %	Lodging %
CML144/CZL067	7.71	78	1.0	6	2.5	2.0	188	93	0.49	1.11	2	2
CZL01005/CML181dent	9.10	81	1.0	1	2.0	1.8	185	95	0.52	1.19	5	0
CML312/CML395	5.20	76	1.0	2	1.8	2.0	178	90	0.50	1.15	0	2
CML312/CML440	5.80	78	0.5	2	2.3	2.5	138	98	0.74	1.37	9	8
CML312/CML504	10.84	78	1.0	1	2.0	2.3	230	123	0.54	1.61	16	0
CML312/CZL00001	8.83	79	0.5	2	2.0	2.5	215	110	0.51	1.33	30	0
CML395/CML444	5.33	77	0.5	4	2.3	2.5	203	115	0.56	1.84	11	0
CML395/CZL0520	11.39	80	0.0	3	1.5	2.3	238	118	0.50	1.50	10	2
CML440/CML443	8.11	80	1.5	5	2.5	2.3	230	113	0.49	1.69	0	16
CML443/CML444	6.40	75	0.0	0	2.3	2.8	173	85	0.50	1.11	5	5
CML444/CML445	6.75	77	0.5	0	2.5	3.5	188	85	0.46	0.98	0	2
CML445/CML504	9.66	75	1.0	1	2.0	2.3	183	78	0.43	1.38	11	0
CML488/CML395	4.89	77	1.0	3	1.5	3.0	218	113	0.52	1.10	0	0
CZL02003/CZL03005	10.88	76	1.0	1	1.8	2.3	218	110	0.50	1.12	16	1
CZL02005/CML507	8.56	79	1.0	4	2.0	1.5	228	135	0.59	1.04	0	4
CZL00003/CML488	8.89	75	1.0	2	2.3	2.0	188	95	0.51	1.01	7	0
CML444-IR/CML312-IR	10.75	80	1.0	2	2.0	2.3	233	140	0.61	1.43	0	0
CZL04008/CZL04009	9.22	79	0.5	1	1.5	1.8	233	120	0.52	1.48	13	6
CZL04008/CZL0719	11.23	78	0.0	2	1.5	1.8	230	123	0.54	1.32	13	0
GQL5/CML202[F2-3sx]-11-4-1-1-BB	8.89	79	1.0	1	1.3	2.5	223	113	0.51	1.14	2	2
CZL0613/CML511	7.19	77	0.5	1	1.8	2.3	220	113	0.49	1.18	2	5
CZL0613/CZL067	8.16	81	0.5	2	1.8	1.8	203	100	0.49	1.30	21	0
CML395-IR/CML444-IR	10.27	78	0.5	9	2.3	2.3	255	135	0.53	1.07	11	0
CZL0712/CZL0617	8.29	76	1.0	3	1.8	2.3	200	90	0.44	1.29	4	2
CZL0713/CZL077	7.82	75	1.0	13	2.0	2.0	213	95	0.44	1.45	12	2
CZL0717/CZL0718	9.13	78	1.5	2	2.0	2.3	228	125	0.55	1.08	0	1
CZL0721/CZL0724	7.59	74	0.5	1	2.3	3.3	190	95	0.51	1.22	0	2
CZL0723/CZL024	6.60	79	1.5	3	1.8	1.8	223	110	0.50	1.55	0	0
CZL082/CML511	7.54	77	1.0	9	2.3	2.5	183	90	0.50	1.18	8	8
SC721	8.07	82	-0.5	5	1.5	2.0	225	123	0.55	1.29	11	0
VH053274	9.72	78	0.0	2	2.5	2.0	205	108	0.52	1.14	0	2
Mean	8.35	77	0.7	3	2.0	2.3	208	107	0.52	1.28	7	2
CV (%)	14.7	4.0	133.3	143.3	20.7	25.8	16.4	24.0	15.6	30.9	153.3	214.2
Heritability	0.62	0	0	0	0.18	0.08	0.02	0	0	0	0	0
LSD	2.09	5.25	1.64	7.09	0.69	0.98	57.86	43.82	0.14	0.67	18.26	8.39

Inbred Parent Trial (IPT09)

IPT09: Results of evaluation of early, intermediate and late maturing inbred lines from CIMMYT at Harare, 2008/09.

TABLE 7B

Name	Grain Yield	Anth	Ear	Plant	Ear	Ear	Ears	Husk	E.turc	Lodging
	t/ha	Date	Rot	Height	Height	Position	#	Cover	1-5	%
		d	%	cm	cm	0-1		%		
CML144	1.13	86	24	128	52	0.40	0.98	0.0	2.3	21
CML181	2.17	83	5	139	66	0.47	1.00	1.5	2.0	13
CML202	3.06	91	32	155	71	0.45	0.75	15.2	2.3	17
CML312	0.63	85	11	150	47	0.33	1.08	0.0	2.0	16
CML312-IR	2.37	84	8	163	71	0.42	0.73	0.0	1.5	6
CML390	1.06	86	5	134	57	0.42	1.32	0.0	1.8	31
CML390	1.89	83	1	137	58	0.42	1.10	16.8	2.8	38
CML390-IR	2.33	82	5	125	45	0.40	0.92	0.0	2.5	7
CML395	2.07	89	6	151	70	0.46	1.22	1.6	2.3	38
CML395-IR	1.55	93	18	146	59	0.41	1.08	10.7	1.8	8
CML440	0.52	77	11	94	34	0.35	1.01	28.6	2.0	9
CML441	0.61	87	13	128	42	0.34	0.55	0.0	2.0	11
CML442	2.05	81	19	155	56	0.37	0.89	0.0	2.0	0
CML443	1.77	84	7	124	67	0.52	0.84	0.0	2.0	21
CML444	3.02	90	11	142	83	0.57	0.74	0.0	1.5	21
CML444-IR	0.60	93	12	111	53	0.48	0.97	3.4	2.5	20
CML445	1.83	85	9	127	51	0.38	0.97	1.7	1.8	63
CML488	0.83	83	11	113	60	0.52	0.85	0.0	1.8	33
CML489	2.51	91	13	124	46	0.36	0.89	0.0	2.3	18
CML504	2.42	87	1	135	55	0.40	1.21	14.5	2.3	30
CML505	0.94	80	1	114	55	0.50	0.92	0.0	2.5	5
CML507	2.02	79	4	143	60	0.43	0.79	0.0	2.0	13
CML508	2.08	79	3	135	50	0.40	0.85	0.0	2.8	18
CML509	1.94	79	13	155	64	0.42	0.98	9.2	2.0	12
CML511	1.38	87	13	152	61	0.41	0.64	0.0	2.0	12
CML539	1.76	83	17	130	48	0.35	0.48	1.7	2.5	8
CZL00001	1.14	81	0	124	56	0.43	0.56	0.0	2.5	45
CZL00003	1.66	85	3	157	65	0.41	0.78	4.2	2.0	21
CZL01005	0.93	83	10	120	67	0.58	0.88	0.0	2.3	0
CZL02012	1.34	85	6	134	53	0.40	0.93	0.0	2.0	38
CZL03007	2.44	85	3	132	61	0.47	0.73	6.3	2.0	56
CZL03021	3.58	89	22	164	77	0.47	0.51	0.0	1.5	23
CZL04002	2.86	84	2	126	54	0.45	0.76	0.0	1.8	1
CZL04003	1.73	80	2	111	41	0.35	1.12	0.0	1.8	4
CZL04005	0.47	94	11	121	46	0.37	1.02	0.0	2.5	6
CZL04006	0.98	85	9	140	53	0.38	1.09	1.7	1.5	12
CZL04007	1.29	83	16	116	40	0.33	1.05	11.5	1.5	19
CZL04008	0.72	74	5	99	29	0.29	0.85	9.4	1.8	18
CZL04009	1.13	75	6	130	36	0.27	0.93	2.4	1.8	23
CZL04021	0.52	90	3	118	55	0.47	0.81	0.0	2.0	10
CZL0517	0.50	97	5	128	42	0.32	1.02	1.4	2.5	32
CZL052	2.28	80	3	136	55	0.39	1.06	1.5	1.5	72
CZL0523	3.74	75	2	144	66	0.45	0.95	3.0	2.0	43
CZL054	3.02	84	5	152	66	0.43	0.74	20.0	2.5	3
CZL0610	1.89	88	2	128	57	0.42	0.85	0.0	1.8	41
CZL0617	0.90	90	13	146	52	0.34	0.77	5.0	2.5	9
CZL0619	2.48	82	2	137	67	0.50	1.14	0.0	1.8	5
CZL071	1.32	89	13	143	66	0.45	1.26	48.8	1.8	6
CZL0710	2.69	82	12	134	67	0.50	0.76	1.9	2.0	26
CZL0711	2.11	81	13	125	49	0.37	0.72	0.0	1.8	17
CZL0713	2.69	84	2	141	68	0.48	0.98	0.0	1.5	8
CZL0717	0.86	80	4	105	35	0.36	0.87	3.4	2.0	13
CZL0718	2.02	79	10	149	54	0.37	0.88	1.8	2.0	33
CZL072	2.98	83	4	164	66	0.41	0.98	10.3	1.8	12
CZL0720	1.04	80	14	93	33	0.38	0.97	5.2	1.5	3
CZL0721	1.35	75	7	120	28	0.24	0.83	0.0	2.0	0
CZL0722	6.01	75	2	185	85	0.46	0.96	2.8	2.5	7
CZL0723	1.01	81	6	95	43	0.44	0.56	0.0	2.8	42
CZL0724	0.41	81	9	124	45	0.37	0.43	6.7	2.3	4
CZL073	2.46	83	14	144	45	0.30	0.65	6.7	2.5	5
CZL076	1.87	90	0	153	67	0.43	0.53	0.0	2.5	10
CZL077	1.66	81	3	146	60	0.42	0.87	0.0	2.5	8
CZL078	1.13	85	0	103	48	0.45	0.58	1.8	2.8	31
CZL079	1.58	84	1	124	43	0.35	1.04	0.0	2.5	47
CZL081	1.11	81	13	132	53	0.38	0.89	0.0	2.0	48
CZL0810	1.16	86	27	149	74	0.51	0.77	3.0	1.8	22
CZL0816	1.20	82	13	113	57	0.49	0.84	1.5	2.3	63
CZL0817	3.27	83	7	156	61	0.40	0.87	2.8	2.3	34
CZL0818	3.86	84	2	133	66	0.49	1.07	11.7	1.8	0
CZL082	2.59	88	7	150	56	0.38	0.63	0.0	2.3	14
CZL083	1.47	81	15	144	63	0.47	1.05	1.7	2.0	23
CZL083	1.63	83	1	131	60	0.46	0.78	1.9	2.3	17
CZL084	1.50	80	7	140	54	0.38	0.89	0.0	2.0	6
CZL085	0.66	78	2	97	41	0.41	0.84	0.0	2.3	10
CZL086	1.32	80	0	133	63	0.46	0.78	0.0	1.8	33
CZL089	3.21	87	11	159	94	0.59	0.92	0.0	2.0	6
CZL99013	2.08	83	6	160	68	0.42	0.92	1.3	2.5	3
CZL99013	0.99	84	3	144	65	0.44	0.87	3.4	2.8	9
SYN312-SR	2.24	83	5	160	83	0.51	0.87	9.2	2.5	7
VP05188	4.43	75	7	171	67	0.39	0.94	0.0	1.8	17
Mean	1.83	84	8	135	57	0.42	0.88	3.7	2.1	19
CV (%)	35.2	2.1	105.7	8.4	15.3	13.3	28.5	257.3	26.3	91.6
Heritability	0.99	1	0.08	1	0.99	0.99	0.03	0.09	0	0.25
LSD	1.08	4.04	19.81	18.89	14.6	0.09	0.59	22.41	1.29	41.7



CIMMYT