

BRIEFING to the 58th IPTT MEETING, 29 April 2009

KALAHARI MELON SEED DEVELOPMENT PROJECT 2008/09

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UPDATE ON FARMERS' FIELD TESTING OF IMPROVED KMS CROSSES

Background

The Kalahari Melon Seed (KMS) Breeding Project has selected 3 crosses (KMS07-02, KMS 07-17 and KMS 06-27) of improved KMS to be tested by the farmers in Northern Namibia and Caprivi during the 2008/9 cropping season. The main objective of this field testing is to evaluate the performance of the 3 selected crosses in comparison to the traditional varieties (farmer's cultivars). The results of this testing will assist the breeding project in its further selection programme.

The field testing is ongoing and it is conducted with two categories of farmers

1. 23 "Full testing farmers" who are expected to follow the full testing protocol and record data using KMS recording forms at each steps of the growing cycle until harvesting and seed extraction. Recording is done with the assistance of the Agricultural Extensionists / CRIAA
2. 76 "Qualitative testing farmers" who are expected to provide a qualitative evaluation of the performance of the improved crosses (but they might also record information along the growing season).

Results at early April 2009

	KMS06-27	KMS07-17	KMS07-02
Total No. of "full testing farmers":	22	22	22
- Oshikoto	5	5	5
- Oshana	3	3	3
- Ohangwena	6	6	6
- Omusati	4	4	4
- Caprivi	4	4	4
No. of plots planted	22	22	22
Total No. of seeds planted	460	480	478
No. of seeds replanted	+ 30	0	0
No of seeds planted per plot (range)	20-30	20-30	18-30
Total No. of seeds that germinated	160	303	312
% germination	35%	63%	63%
No. of plots with no germination	1	1	0
No. of plots with => 50% germination	5	15	18
No. of plots with 100% germination	2 (Caprivi)	3 (Caprivi)	5 (4 NCRs)
No. of plants growing after germination	82	134	156
% of seeds planted	18%	28%	33%
% of seeds germinated	51%	44%	50%
No. of plots that failed after germination	3	5	5
No. of plots with => 50% surviving plants / planted seeds	2 (Caprivi)	4 (3 NCRs)	8 (5 NCRs)

Comparison between the KMS crosses and the Traditional Varieties

<i>KMS improved crosses</i>	<i>Vs Traditional Varieties</i>
<p>1. Germination</p> <ul style="list-style-type: none"> ▪ Crosses KMS 07-17 and KMS 07-02 germinated fast ▪ Cross KMS 06-27 took time to germinate <p>2. Growth</p> <ul style="list-style-type: none"> ▪ Crosses growth rate is similar to traditional varieties <p>3. Flowering and Elongation</p> <ul style="list-style-type: none"> ▪ Crosses do not take time to flower ▪ Do not stretch longer (short strings) ▪ Fruiting immediately after flowering <p>4. Resistance</p> <ul style="list-style-type: none"> ▪ Resistant to dry spell ▪ Badly affected by pests such as insects (local name Oinghili) but not by diseases ▪ Vulnerable to excess rain & flood water 	<ul style="list-style-type: none"> ▪ Same as other two crosses ▪ Germinates faster than cross KMS 06-27 <ul style="list-style-type: none"> ▪ Same growth rate as crosses <ul style="list-style-type: none"> ▪ Take time to flower ▪ Strings stretch longer than the crosses ▪ Low fruiting speed compare to improved KMS crosses <ul style="list-style-type: none"> ▪ Same ▪ Better resistant to diseases & pests compare to crosses ▪ Also vulnerable to heavy rain & too much flood water
<p>Recording by the farmers continue along the season, full report on the performance of the crosses in comparison with the traditional varieties will be compiled at the end of this season.</p>	