

**SADCC SMIP
CEREALS AGRONOMY EXPERIMENTS
IN
REGIONAL RESEARCH STATIONS
IN ZIMBABWE
1989-90**

07201

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**S A D C C / I C R I S A T
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LIST OF C. LEALS ASSOCIATION'S RESEARCH STATIONS IN REGIONAL
RESEARCH STATIONS IN ZIMBABWE,
1989-90

Expt. Code/ Station	Field	Crop	Experiments
<u>Matopos</u>			
MD1	R6C2	S	Multilocation Drought Trial
MD2	R6C1	S	Date of Planting Sorghum
MD3	R6C1	M	Date of Planting Millet
MD4	R6C1	F	Date of Planting Forage
MD5	R6A1	S	Assessment of Four Cereals Under Different Management Practices
MD6	R6C1	M	Drought Study of Millet
MD7	R6C1	B	Date of Planting of Banagrass
MD8	R6A1	S	Yield Stability Experiment
MD9	R6B1	S	Till, Stubble, N, Weeding
MD10	R6B1	M	Till, Stubble, N Weeding
MD11	R6B1	S	Line Source
MD12	R6C2	S	Methods of Planting and Soil Surface Configurations
MD13	R6C2	M	Methods of Planting and Soil Surface Configurations
MD14	R6C2	S/P	Sorghum Based Pigeonpea Intercropping
MD15	R6B2	S	Sorghum Downy Mildew Yield Loss Assessment
MD16	R6C1	F	Finger Millet Row Spacing and Plant Density
MD17	R6C1	P	Extra Early Pigeonpea International Trial
MD18	R6C1	P	Extra Early Pigeonpea International Trial
MD19	R6A2	S	Seed Increase
MD20	R6A2	S	68 Rows of SV1
<u>Lucydale</u>			
LC1	L9	S	Assessment of Selected Sorghum Genotypes Under Different Management In Sandy Soils.
LC2	L9	S/C	Sorghum Cowpea Intercrop
LC3	L9	M/G	Millet Groundnut Intercrop
LC4	L9	M/P	Millet Pigeonpea Intercrop
LC5	L9	M/C	Millet Cowpea Intercrop

Expt. Code/ Station	Field	Crop	Experiments
<u>Sandveld</u>			
SVB1	4B	S	Study of Crop Sequence and Nematocide Treatment on Sorghum
SVB2	4B	SMFC	Response of Four Cereals to a Nematocide Treatment in a Sick Field
SVB3	2A	S	Nematodes Management
SVB4	4B	S	Exploratory Experiment
<u>Hakoholi</u>			
	A4	S	Nematodes Management
	A5	SMFC	Response of Four Cereals to a Nematocide Treatment in a Sick Field
<u>Hlezu</u>			
	C2	S	Nematodes Management
	C2	SMFC	Response of Four Cereals to a Nematocide Treatment in a Sick Field
<u>Kadoma</u>			
		S	Sorghum Multilocation Drought Trial

S.M.L.
**CEREALS AGRONOMY EXPERIMENTS IN REGIONAL
 RESEARCH STATIONS IN ZIMBABWE
 1989**

Crops Experiments

Research Station

Matopos Lucydale Sandveld Makoholi Mbeu P.F. 1

Constraints to Production

C	Exploratory experiment.	*			
S	Study of crop sequences nematocide residual effect.	*			
S	Management of nematodes.	*	*	*	
F	Response of four cereals	*	*	*	
H	nematocide treatment.				
F					
C					
S	Sorghum downy mildew yield loss assessment.	*			
S	Emergence of selected sorghum genotypes from different sowing depth.	*			

Crop and Soil Management

S	Methods of planting and soil surface configurations.	*			
H	Methods of planting and soil surface configurations.	*			
S	Plant density x soil moisture	*			
S	Assessment of sorghum hybrid vs. variety under different management.	*			
H	Assessment of a potential millet under different management mimicking farmers conditions.	*			

Crops Experiments

Research Stations

 Matopos Lucydale Sandveld Makoholi Mlezu Kadon

F	Row spacing (finger millet).	*
S	Date of planting x cultivar	* .
EM	Date of planting x cultivar	*
F	Date of planting x cultivar	*
B	A comparative assessment	*
H	of four cereals under	
F	different inputs.	
C		
S	Assessment of selected	*
	sorghum genotypes under	
	different management in	
	sandy soil.	
S	Study on yield stability	*
	of sorghum	
S/p	Sorghum based pigeonpea	*
	intercropping.	
S/c	Sorghum based cowpea	*
	intercropping.	
M/g	Millet based groundnut	*
	intercropping.	
M/p	Millet based pigeonpea	*
	intercropping.	
S	Seed increase of selected	*
	sorghum.	
S	Sorghum uniformity crop	*
	observation.	
B	Banagrass observation.	*
B	Banagrass Relley crop	*
	observation.	
SE	Sesbania observation.	*

Crops Experiments

Research Stations

Matopos Lucydale Sandveld Makoholi Mlezu Kadoma

Drought Work

- | | |
|-----------------------------------------------------------------------------|---|
| Test and developing drought screening methods. | * |
| Test and developing drought screening methods. | * |
| Drought response of selected sorghum genotype in two soil moisture regimes. | * |
| Drought study of potential millet varieties. | * |
| A study of morpho-physiologic trait in relation to drought response. | * |

S - Sorghum, M - Pearl millet, F - finger millet, C - Corn, F - Forage,
B - Banagrass, p - Pigeonpea, c - Cowpea, g - Groundnut.

CEREALS AGRONOMY EXPERIMENTS IN REGIONAL STATIONS IN ZIMBABWE 1989-90

Exp. Code	Soil Condition	Planting	Irrigation	50% Emergence	Thinning	Weeding	Pest Control	Top Dressing
01	Moist	23-11-89	08-01-90	Various Dates	13-12-90	18-12-89	Metasystox 30-12-89	A.N. 51N 29-12-89
02	Moist	Various	Various	Various	Various	Various	Metasystox 02-12-89	Various
03	Moist	Various	Various	Various	Various	Various	Metasystox 02-12-89	Various
04	Moist	Various	Various	Various	Various	Various	Metasystox 02-12-89	Various
05	Wet	17-11-89	-	Sorghum 22-11-89	18-12-89	15-12-89	01-12-89 Metasystox	29-01-90
06	Dry	24-11-89	25-01-90	07-12-89	27-12-89	21-12-89	-	11-01-90
07	Moist	Various	Various	N/A	N/A	-	-	A.N. 5/N Various N/A
08	Moist	17-11-89	-	Various	13-12-90	20-12-89	N/A	
09	Wet	09-11-89	-	16-11-89	02-12-89	20-11-89	-	28-12-89
10	Dry	09-11-89	05-12-89	10-12-89	22-11-89	02-02-90	-	28-12-89
11	Wet	20-11-89	24-01-90	28-11-89	25-12-89	14-12-89	02-12-89	05-01-90
12	Moist	09-11-89	N/A	15-11-90		20-11-89	30-12-89 5-12 AGRITHRIN	29-12 AN
13	Dry	24-11-89	N/A	07-12-90	27-12-89	20-12-89		
14	Moist	13-11-89	N/A	20-11-89		15-12-89	Agrithrin	
15	Wet	15-12-89	-	21-02-90	09-01-90	04-01-90	-	30-01-90
16	Moist	21-12-89	24-12-89 26-12-89	-	-		-	-
17	Moist	14-12-89	23-12-89	03-01-90	-	08-01-90	-	N/A
18	Moist	15-12-89	23-12-89				-	
19	Moist	15-12-89	N/A					31-01-90
20	Moist	13-11-89	N/A	20-11-89		Machine 19-12-89		

1961-10

R6A
I = DC

LINE 5
Sorghum
ISO kg ha

DATE OF PLANTING
19.01.61
RICE ON PEA TR
FOR AG 31 DATE

CERBERU
PND N
172 150 kg AN

FIELD
NO BASAL
MILLET

STUDY
400 kg ha
150 kg AN

SEBANTA
NO BASAL
NO T.D.

SEBANTA
NO BASAL
NO T.D.

400 kg ha
Sorghum P/PA
INTECOP

SEED
400 kg ha
150 kg AN

SEED
Sorghum
MILDEW

Sorghum P/PA
INTECOP

SVI
68 LINES

SEED
MILDEW

Millet Name
Sorghum Method
Of Planting

B2A1

B2B1

B2C

Fallow

SADCC
Collaborative Agronomic Research

1. Experiment title : Multilocation Drought Trial
2. Experiment code : MD1
3. Project title : Agronomy of Sorghum
4. Name of scientists :
5. Objectives :
6. Locations : Matopos R6C2
7. Experiment details :
 - a. Design : Split Plot
 - b. No of replications : 3
 - c. Treatments :
 - . main 2 (Irrigated, non-irrigated)
 - . sub 30 (1.1.30) Cultivars
 - . sub sub
 - d. Plot size :
 - . planted 6 rows x 5 m long x 0.75 = 22.5 m²
 - . harvested 4 rows x 5 m long x 0.75 = 15 m²
 - e. cultivar : Attached
 - f. experiment area :
 - g. fertilizer kg ha⁻¹ : 400 kg ha⁻¹ D + 50N sidedressing
(N - P₁O₅ - K₂O) :
 - h. Plant protection : Standard
- i. Data to be recorded : plants (planting, emergence, heading, blooming, maturity, harvesting, yield, yield components).
soil (texture, physical and chemical)
climate (rainfall, maximum and minimum temperatures, daily)
- j. Use Cereals Agronomy data and weather data sheets :

k. Note - measure soil moisture

**MULTILOCATION DROUGHT TRIAL
1989-90**

Var. No.	Registrar No.	Name/Pedigree	Seed Source
1	1	SV1	Agronomy
2	2	SV2	Agronomy
3	3	ZSV1	Agronomy
4	4	Town	Agronomy
5	5	Marupantse	Agronomy
6	6	Segaolane B	Agronomy
7	7	Segaolane Z	Agronomy
8	8	Brown Tsweta	Agronomy
9	9	Kanye Std	Agronomy
10	10	Red Swazi	Agronomy
11	11	Serena	Agronomy
12	16	SDS 1513	Agronomy
13	28	SDSH 47	SMIP Brdg
14	29	SDSH 38	SMIP Brdg
15	26	SDSH 48	SMIP Brdg
16	32	SDS 170	SMIP Brdg
17	56	DC-75	Seed Co.
18	53	SDSH 2	SMIP Brdg
19	51	MMSH 686	Zam. S. Brdg
20	52	R201 (Maize)	Seed Co.
21	30	SDSH 8	SMIP Brdg
22	41	A-6352	Zim. S. Brdg
23	37	A-964	Zim. S. Brdg
24	38	A-603	Zim. S. Brdg
25	25	PN3	Mal. S. Brdg
26	45	MMSH 375	Zam. S. Brdg
27	46	MMSH 378	Zam. S. Brdg
28	47	MMSH 205	Zam. S. Brdg
29	48	WSV 287	Zam. S. Brdg
30	43	WSV 387	Zam. S. Brdg

Multilocation Drought Trial

1989-90

MDI

Field Plan:

6	28	20	25	17	7	27	4	26	19	9	15	
145	146	147	148	149	150	175	176	177	178	179	180	
16	29	24	15	9	27	16	29	24	11	28	18	
144	143	142	141	140	139	174	173	172	171	170	169	
14	8	4	② 18	1	12	21	10	20	① 14	6	5	
133	134	135	136	137	138	163	164	165	166	167	168	
23	10	22	3	5	13	5	22	2	7	23	13	
132	131	130	129	128	127	162	161	160	159	158	157	
11	30	2	26	19	21	17	8	25	12	1	30	
131	122	123	124	125	126	151	152	153	154	155	156	
27	3	25	1	28	26	23	13	7	28	24	12	
115	116	117	118	119	120	85	86	87	88	89	90	
2	14	7	29	15	10	15	5	27	29	6	14	
114	113	112	111	110	109	84	83	82	81	80	79	
8	17	7	① 22	24	21	17	22	16	② 1	30	18	
103	104	105	106	107	108	73	74	75	76	77	78	
20	19	12	30	16	11	8	2	21	11	25	4	
102	101	100	99	98	97	72	71	70	69	68	67	
4	13	6	23	18	5	10	3	20	9	26	19	
91	92	93	94	95	96	61	62	63	64	65	66	
25	26	27	28	29	30	7	16	6	23	17	5	
25	26	27	28	29	30	55	56	57	58	59	60	
24	23	22	21	20	19	15	21	19	14	28	30	
24	23	22	21	20	19	54	53	52	51	50	49	
13	14	15	① 16	17	18	13	2	1	② 18	9	8	
13	14	15	16	17	18	43	44	45	46	47	48	
12	11	10	9	8	7	25	10	4	3	29	24	
12	11	10	9	8	7	42	41	40	39	38	37	
11	1	2	3	4	5	6	11	26	20	22	12	27
11	2	3	4	5	6	31	32	33	34	35	36	

Main Trt. Irrigation

① Irrigated

② Non-irrigated

Sub Plot cultivars

1

30

**SADCC
Collaborative Agronomic Research**

1. Experiment title : Date of Planting (Sorghum)
2. Experiment code : MD2
3. Project title : Agronomy of Sorghum
4. Name of scientists :
5. Objectives :
6. Locations : R6C1
7. Experiment details :
 - a. Design : Split Plot
 - b. No of replications : 4
 - c. Treatments :
 - . main : 6 Date of Planting (10-15 days) intervals
 - . sub : 3 cultivars (SV1, DC-75 and Red Swazi)
 - d. Plot size :
 - . planted : 6 rows x 5m long x 0.75m = 22.5m²
 - . harvested : 4 rows x 5m long x 0.75m = 15.0m²
 - e. cultivar : 1. SV1 2. DC-75 3. Red Swazi
 - f. experiment area :
 - g. fertilizer kg ha⁻¹ : 400 kg ha⁻¹ Comp. D + 50 kg ha⁻¹
(N - P₂O₅ - K₂O) : top dressing
 - h. Plant protection : None except weeding
 - i. Data to be recorded : plants (planting, emergence, heading,
blooming, maturity, yield, yield
harvesting, components).
soil (texture, physical and
chemical)
climate (rainfall, maximum and minimum
temperatures, daily)
 - j. Use Cereals Agronomy
data and weather data
sheets :

MU2

Planting	Irrigation Or Watering	Emergence	Thinning	Weeding	Pest Control	Top Dressir
06-11-89	06-11-89	11-11-89	02-12-89		02-12-89	02-01-9
16-11-89	16-11-89	23-11-89	14-12-89		02-12-89	12-01-9
28-11-89	04-12-89	04-12-89	22-12-89	1st Weeding 21-11-89 & Kept Weed Free.	02-12-89	12-01-9
11-12-89	11-12-89	17-12-89	31-12-89		02-12-89	29-01-9
21-12-89	21-12-89	25-12-89	11-01-90		02-12-89	07-02-9
12-01-90	12-01-90	17-01-90	Attacked By Birds		-	-

MD 2

Soil Planting (Sorghum)
1989-90

Date of Planting (MP) Cultivars (SP)
 1. 6-11 4. 11/12 1. SVI
 2. 16/11 5. 21/12 2. DC-75
 Field Plan : 3. 28/11 6. 12/01 3. Red Swazi

43.5	1	3	2	1	2	3	3	1	2	Rep I
		D2			D6			D3		
43.5	3	2	1	3	1	2	2	3	1	Rep II
		D5			D1			D4		
43.5	2	1	3	2	3	1	1	2	3	Rep III
		D6			D4			D2		
43.5	1	3	2	1	2	3	3	1	2	Rep II
		D5			D1			D3		
0.5m	3	1	2	3	1	2	2	3	1	Rep II
		D3			D6			D2		
0.5m	1	2	3	1	3	2	1	2	3	Rep I
		D4			D1			D5		
Cult. No. → Date of Planting →	3	1	2	3	2	1	3	2	1	Rep I
		D6			D5			D4		
	1	2	3	2	1	3	2	1	3	
		D1			D2			D3		
	40.5m									

**SADCC
Collaborative Agronomic Research**

1. Experiment title : Date of Planting (Millet)
2. Experiment code : MD3
3. Project title : Agronomy of Millet
4. Name of scientists :
5. Objectives :
6. Locations : R6C1
7. Experiment details : Split Plot
- a. Design :
- b. No of replications : 4
- c. Treatments :
 - . main : 6 Date of Planting (10-15) days interval
 - . sub : 3 Cultivars (SV1, DC-75 and Red Swazi)
- d. Plot size :
 - . planted : 6 rows x 5m long x 0.75m = 22.5m²
 - . harvested : 4 rows x 5m long x 0.75m = 15.0m²
- e. cultivar : 1. RMP1 2. ICMV87014 3. Babala
- f. experiment area :
- g. fertilizer kg ha⁻¹ : 400 kg ha⁻¹ Comp. D. + 50 kg ha⁻¹
(N - P₁O₅ - K₂O) : top dressing
- h. Plant protection : Only hand weeding
- i. Data to be recorded : plants (planting, emergence, heading, blooming, maturity, harvesting, yield, yield components).
soil (texture, physical and chemical)
climate (rainfall, maximum and minimum temperatures, daily)
- j. Use Cereals Agronomy data and weather data sheets :

MU3

Planting	Irrigation Or Watering	Emergence	Thinning	Weeding	Pest Control	Top Dressin
06-11-89	06-11-89	09-11-89	02-12-89		02-12-89	02-01-9
16-11-89	16-11-89	20-11-89	14-12-89	First Weeding 21-11-89 & Kept Weed Free.	02-12-89	12-01-9
28-11-89	28-11-89	01-12-89	22-12-89		02-12-89	12-01-9
11-12-89	11-12-89	15-12-89	31-12-89		02-12-89	29-01-9
21-12-89	21-12-89	25-12-89	11-01-90		02-12-89	07-02-9
12-01-90	12-01-90	16-01-90	Attacked By Birds		-	-

MD3

Date of Planting (Millet)

1989-90

Date of Planting (MP)

Cultivars (SP)

1. 2/11 4. 11/12

1. RMP1 (PM VI)

2. 16/11 5. 21/12

2. ICMV 87014

Field Plan : 3. 6. 12/01

3. Babala

	1	3	2	1	2	3	3	1	2	
		D2			D6			D3		
	3	2	1	3	1	2	2	3	1	Rep IV
		D5			D2			D4		
	2	1	3	2	3	1	1	2	3	
		D6			D1			D2		Rep III
	1	3	2	1	2	3	3	1	2	
		D5			D1			D3		
43.5	3	1	2	3	1	2	2	3	1	
		D3			D6			D2		Rep II
	1	2	3	1	3	2	1	2	3	
		D4			D1			D5		
0.5m	3	1	2	3	2	1	3	2	1	
		D6			D5			D4		Rep I
alt. No. No. of Plants	1	2	3	2	1	3	2	1	3	
		D1			D2			D3		
	40.5m									

**SADCC
Collaborative Agronomic Research**

1. Experiment title : Date of Planting (Forage)
2. Experiment code : MD4
3. Project title : Agronomy of Forage
4. Name of scientists :
5. Objectives :
6. Locations : R6C1
7. Experiment details :
 - a. Design : Split Plot
 - b. No of replications : 4
 - c. Treatments :

. main	6 Date of Planting (10-15) days interval
. sub	3 Cultivars (1) Babala, (2) PNR641 (3)
 - d. Plot size :

. planted	6 rows x 5m long x 0.75 = 22.5m ²
. harvested	4 rows x 5m long x 0.75 = 15.0m ²
 - e. cultivar : 3
 - f. experiment area :
 - g. fertilizer kg ha⁻¹ : 400 kg ha⁻¹ Comp. D + 30N after
(N - P₂O₅ - K₂O) , each harvest
 - h. Plant protection : Only weeding
 - i. Data to be recorded , plants (planting, emergence, heading, blooming, maturity, harvesting, yield, yield components).
soil (texture, physical and chemical)
climate (rainfall, maximum and minimum temperatures, daily)
 - j. Use Cereals Agronomy data and weather data sheets :

MJ4

Planting	Irrigation Or Watering	Emergence	Thinning	Weeding	Pest Control	Top Dressing
08-11-89	08-11-89	13-11-89	02-12-89	21-11-89	02-12-89	02-01-90
20-11-89	20-11-89	24-11-89	14-12-89		02-12-89	12-01-90
04-12-89	04-12-89	10-12-89	22-12-89		02-12-89	12-01-90
15-12-89	15-12-89	20-12-89	31-12-89		02-12-89	29-01-90
29-12-89	29-12-89	04-01-90	11-01-90		-	07-02-90
12-01-90	12-01-90	16-01-90	Attacked By Birds		-	-

MD4

Date of Planting (Forage)

1989-90

Date of Planting (MP)

Cultivars (SP)

1. 8/11

4. 15/12

1. Babala

2. 20/11

5. 29/12

2. PNR 841

Field Plan : 3. 4/12

6. 12/01

3. PS 472

43.5 40.5m 11.10 → 11.10 →	1	3	2	1	2	3	3	1	2	Rep IV
		D2			D6			D3		
	3	2	1	3	1	2	2	3	1	Rep III
		D5			D2			D4		
	2	1	3	2	3	1	1	2	3	Rep II
		D6			D4			D2		
	1	3	2	1	2	3	3	1	2	Rep I
		D5			D1			D3		
	3	1	2	3	1	2	2	3	1	Rep I
		D3			D6			D2		
	1	2	3	1	3	2	1	2	3	Rep I
		D1			D1			D5		
3	1	2	3	2	1	3	2	1	Rep I	
	D6			D5			D4			
1	2	3	2	1	3	2	1	3	Rep I	
	D1			D2			D3			
40.5m										

SADCC
Collaborative Agronomic Research

1. Experiment title : Assessment of Cereals Under Different Management Practices.
2. Experiment code : Agro.MD5.1989-90
3. Project title : Agronomy
4. Name of scientists :
5. Objectives : Matopos R6A1
6. Locations :
7. Experiment details :
 - a. Design : Split Split Plot
 - b. No of replications : 4
 - c. Treatments :
 - . main : Inputs - 0, 1/2 Recommended and Recommended
 - . sub : 4 Cereals (1) Sorghum (2) Millet (3) F.Millet (4) Maize
 - d. Plot size :
 - . planted : ⁵ 4 rows x 5m long x 0.75m = 15.0m²
 - . harvested : ¹²⁰ 4 rows x 5m long x 0.375m = 15.0m²
 - e. cultivar : Best one of each species
 - f. experiment area :
 - g. fertilizer kg ha⁻¹ : As a treatment
(N - P, Q - K₂O)
 - h. Plant protection : As practiced
 - i. Data to be recorded : plants (planting, emergence, heading, blooming, maturity, harvesting, yield, yield components).
soil (texture, physical and chemical)
climate (rainfall, maximum and minimum temperatures, daily)
 - j. Use Cereals Agronomy data and weather data sheets :

* Finger Millet

WIKSALS AS 1989-90
89-90

<u>Input (MP)</u>	<u>Species (SP)</u>	<u>Cultivar (SSP)</u>
1. 0	1. Sorghum	1. DC-75 2. SV1
2. 1/2 Recommended	2. P. Millet	1. 88002 = 81A x SPDC? 2. SDM 87011 = SDMV 89E
3. Recommended	3. F. Millet	1. 336 2. 323
	4. Maize	1. R201 2. Khalahari White

Plot size - ⁵/₁* rows x 5m long x 0.75*

* Finger Millet ¹⁰/₈ rows x 5m long x 0.375

Cereals Assessment

89/90

Plot size : 5 rows x 5 m Long x 0.75
 F. Millet 10 rows x 5 m Long x 0.375

Field Plan:

N ←

	2	1	2	1	2	3	2	1	4	②	
	65	66	67	68	69	70	71	72			
	1	2	4	2	1	3	1	2	2	1	2
	64	63	62	61	60	59	58	57		③	Rep III
	2	1	1	1	2	2	2	1	3	2	1
	49	50	51	52	53	54	55	56		①	
	1	2	4	2	1	3	2	1	2	1	2
	48	47	46	45	44	43	42	41		③	
	1	2	2	2	1	1	1	2	4	2	1
	33	34	35	36	37	38	39	40		①	Rep II
	1	2	1	2	1	4	1	2	3	1	2
	32	31	30	29	28	27	26	25		②	
	2	1	3	1	2	1	2	1	2	4	③
	17	18	19	20	21	22	23	24			
	1	2	2	2	1	4	1	2	1	1	2
	16	15	14	13	12	11	10	9		②	Rep I
Species	→										
Cultivar	→	1	2	2	1	2	3	2	1	4	①
Plot No	→	1	2	3	4	5	6	7	8		← inputs
	Farm Road										

SADCC
Collaborative Agronomic Research

1. Experiment title : Drought Study of P. Millet
2. Experiment code : MD6
3. Project title : Agronomy of Millet
4. Name of scientists :
5. Objectives :
6. Locations : R6C1
7. Experiment details :
 - a. Design : Split Plot
 - b. No of replications : 4
 - c. Treatments :
 - . main ① Irrigated ② Non-irrigated
 - . sub 12 genotypes
 - . sub sub
 - d. Plot size :
 - . planted 4 rows x 5m long x 0.75 =
 - . harvested 2 rows x 5m long x 0.75 =
 - e. Cultivar : 11 + 1 Maize
 - f. experiment area :
 - g. Fertilizer kg ha⁻¹ : 400 Comp. D Basal + 50N top
(N P₂O₅ K₂O) :
 - h. Plant protection : Only weeding
 - i. Data to be recorded : plants (planting, emergence, heading, blooming, maturity, harvesting, yield, yield components).
soil (texture, physical and chemical)
climate (rainfall, maximum and minimum temperatures, daily)
 - j. Use Cereals Agronomy data and weather data sheets :

P. MILLET DROUGHT STUDY 1989-90

Ent. No.	Register No.	Name/Pedigree
1	M1	RMP1 = PMV1
2	M2 = M11	ICMVSD87014 = SDMV87014 = SDMV89004
3	M3	Babala
4	M6	ICMV82132
5	M7	IBMV8501
6	M8	SDMV87018
7	M9	NC d ₂ = SDMV89003
8	M12	SDMV8701 = 87001
9	M5	Massango Regional (Angola)
10	M14	Hangaria acc. No. 2 (Nata)
11	M11	ICMS8359 = SDMV8359 = SDMV89005
12	Maize	R201

Mu6
P. Millet Drought Study 1989-90

Main Plot - irr.

Sub Plot Genotype

- ① Irrigated
- ② Non-irrigated

1
:
:
12

Field Plan :

	4	10	12	11	3	6	12	5	9	1	10	4	
	84	83	82	81	80	79	96	95	94	93	92	91	Rep IV
	5	9	2	① 7	1	8	8	2	3	② 11	7	6	
	73	74	75	76	77	78	85	86	87	88	89	90	
	3	1	9	6	8	2	7	3	10	1	8	5	
	60	59	58	57	56	55	72	71	70	69	68	67	Rep III
	4	10	7	① 11	12	5	4	11	2	② 12	9	6	
	49	50	51	52	53	54	61	62	63	64	65	66	
	2	9	5	7	3	6	4	12	7	1	9	3	
	36	35	34	33	32	31	48	47	46	45	44	43	Rep II
	4	11	1	② 12	10	8	8	2	11	① 5	10	6	
	25	26	27	28	29	30	37	38	39	40	41	42	
	12	11	10	9	8	7	7	8	9	10	11	12	
	12	11	10	9	8	7	24	23	22	21	20	19	
Genotype No	1	2	3	② 4	5	6	6	5	4	① 3	2	1	Rep I
Plot No.	1	2	3	4	5	6	13	14	15	16	17	18	
	2 rows gap			2 rows gap			2 rows gap						

Plot size 4 rows x 5m x 0.75m

**SADCC
Collaborative Agronomic Research**

1. Experiment title : Date of Planting (Banagrass)
2. Experiment code : MD7
3. Project title : Agronomy of Forage
4. Name of scientists :
5. Objectives :
6. Locations : R6C1
7. Experiment details :
 - a. Design : RCBD
 - b. No of replications : 4
 - c. Treatments : 4 Date of Planting, 2 weeks interval
 - d. Plot size :

. planted	6 rows x 5m long x 0.75m = 22.5m ²
. harvested	4 rows x 5m long x 0.75m = 15.0m ²
 - e. cultivar :
 - f. experiment area :
 - g. fertilizer kg ha⁻¹ : 400 kg ha⁻¹ Comp. D. + 50N top
(N - P₁O₅ - K₂O) : after each cutting
 - h. Plant protection : Only weeding
- i. Data to be recorded : plants (planting, emergence, heading, blooming, maturity, harvesting, yield, yield components).
soil (texture, physical and chemical)
climate (rainfall, maximum and minimum temperatures, daily)
- j. Use Cereals Agronomy data and weather data sheet :

ND7
Date of Planting (Banagrass)

Cutting requirements	6 x (10 row)	=	60 per plot
			4

			240 per date
			4

			960 for the expt.

MEJ7 BANANA GRASS
DATE OF PLANTING

Planting	Irrigation OF Watering	Emergence	Thinning	Weeding	Pest Control	Top Dressing
10-11-89	10-11-89	-	-		-	14-01-90
24-11-89	24-11-89	-	-		-	14-01-90
08-12-89	08-12-89	-	-		-	14-01-90
22-12-89	22-12-89	-	-		-	14-01-90
06-01-90	06-01-90	-	-		-	14-01-90

SADCC
Collaborative Agronomic Research

1. Experiment title : Yield Stability
2. Experiment code : MDS
3. Project title : Agronomy
4. Name of scientists :
5. Objectives :
6. Locations : R6A1 Matopos
7. Experiment details :
 - a. Design : RCBD
 - b. No of replications : 3
 - c. Treatments : 30
 - d. Plot size :
 - . planted : 4 rows x 4.5m long x 0.75 = 15.0m²
 - . harvested : 2 rows x 4.5m long x 0.75 = 7.0m²
 - e. cultivar : 30
 - f. experiment area :
 - g. fertilizer kg ha⁻¹ : No basal application on 88 and 89
(N - P₂O₅ - K₂O)
 - h. Plant protection :
 - i. Data to be recorded : plants (planting, emergence, heading,
blossoming, maturity,
harvesting, yield, yield
components).
soil (texture, physical and
chemical)
climate (rainfall, maximum and minimum
temperatures, daily)
 - j. Use Cereals Agronomy
data and weather data
sheets :

MDB Yield Stability Experiment

Plot size: 4 rows x 4.5m long x 0.75

Field Plan :

	15	11	5	19	25	17	23	4	9	14	
31	32	33	34	35	36	37	38	39	40	41	Rep III
21	2	20	16	1	27	30	8	21	26		
50	19	78	77	76	75	74	73	72	71		
7	24	10	3	27	18	12	28	13	29		
61	62	63	64	65	66	67	68	69	70		
	15	5	11	13	4	22	23	12	16	6	
60	59	58	57	56	55	54	53	52	51		Rep II
11	21	10	20	7	2	1	15	25	29		
41	42	43	44	45	46	47	48	49	50		
14	24	28	3	26	9	30	27	19	8		
40	39	38	37	36	35	34	33	32	31		
	21	22	23	24	25	26	27	28	29	30	
21	22	23	24	25	26	27	28	29	30	10.5m	Rep I
	20	19	18	17	16	15	14	13	12	11	
20	19	18	17	16	15	14	13	12	11		
No →	1	2	3	4	5	6	7	8	9	10	4.5m
No →	1	2	3	4	5	6	7	8	9	10	

SADCC
Collaborative Agronomic Research

1. Experiment title : Crop Residue Management
2. Experiment code : MD9
3. Project title : Agronomy of Sorghum
4. Name of scientists :
5. Objectives : To determine the effects of crop residue on grain yield of sorghum and millet.
6. Locations :
7. Experiment details :
 - a. Design : Split split plot
 - b. No of replications : 3
 - c. Treatments :

main	Cultivar (I) SV1, (II) DC-75
①	No-till + Stubble Mulch 1. Fertilizer and Weeding
②	No-till - Stubble Mulch 2. No fert. and weeding
③	Fill + Stubble Mulch 3. Fert. and no weeding
④	Fill - Stubble Mulch 4. No fert. and no weeding
 - d. Plot size :

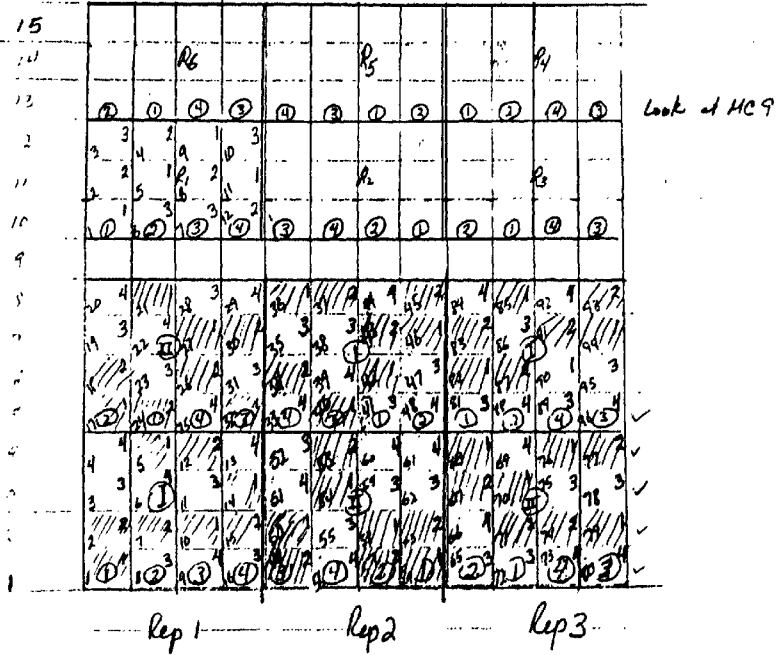
. planted	6 rows x 5m long x 0.75 =
. harvested	4 rows x 5m long x 0.75 =
 - e. cultivar : SV1 and DC-75
 - f. experiment area :
 - g. fertilizer kg ha⁻¹ : As treatment
 (N - P₁0₁ - K₁0)
 - h. Plant protection : Standard
 - i. Data to be recorded :

plants	(<u>planting</u> , <u>emergence</u> , <u>heading</u> , <u>blooming</u> , <u>maturity</u> , <u>harvesting</u> , <u>yield</u> , <u>yield</u> <u>components</u>).
soil	(<u>texture</u> , <u>physical</u> and <u>chemical</u>)
climate	(<u>rainfall</u> , <u>maximum</u> and <u>minimum</u> <u>temperatures</u> , <u>daily</u>)
 - j. Use Cereals Agronomy data and weather data sheets :

MC2 - Crop Residue Management
 Expt - Split plot (strip) - Reps. 6

Main Plot	Sub plot	Sub-sub plot:
SV1	① No-till + stubble mulch	1. Fertilized, no
DC-75	② No-till - stubble mulch	2. no Fert, ^{no} we
	③ till + stubble mulch	3. Fert, ^{no} we
	④ till - stubble mulch	4. no Fert, ^{no} we

Cultivars ① SV1
 ② DC-75



line width = 2.6 m

**SADCC
Collaborative Agronomic Research**

1. Experiment title : Crop Residue Management (Millet)
2. Experiment code : MD10
3. Project title : Agronomy of Millet
4. Name of scientists :
5. Objectives : To determine the effect of crop residue on grain yield of a potential millet cultivar.
6. Locations : Matopos R6B1
7. Experiment details :
 - a. Design : Split Plot
 - b. No of replications : 6
 - c. Treatments :

. main	12	
. sub	4	
. sub sub	3	attached
 - d. Plot size :

. planted	6 rows x 5m long x 0.75 = 22.5m ²
. harvested	4 rows x 5m long x 0.75 = 15.0m ²
 - e. cultivar : ICMV-SD87014 (millet)
 - f. experiment area :
 - g. fertilizer kg ha⁻¹ : As a treatment
(N - P₁0₁ - K₁0)
 - h. Plant protection : Standard
 - i. Data to be recorded :

plants	(<u>planting</u> , <u>emergence</u> , <u>heading</u> , <u>blooming</u> , <u>maturity</u> , <u>harvesting</u> , <u>yield</u> , <u>yield</u> <u>components</u>).
soil	(<u>texture</u> , <u>physical</u> an <u>chemical</u>)
climate	(<u>rainfall</u> , <u>maximum</u> and <u>minimum</u> <u>temperatures</u> , <u>daily</u>)
 - j. Use Cereals Agronomy data and weather data sheets :

MC 9 - Crop Residue Management

Main treatment:

- ① No-till + stubble mulch
- ② No-till - stubble mulch
- ③ till + stubble mulch
- ④ till - stubble mulch

Sub plot:

1. Fertilized, weeding
2. No fertilized, weeding
3. No fertilized, no weeding

Field layout:

70	3	R	①	61	3	②	58	3	57	②	52	R	51	①	46	3	45	①	40	3	39	②	
	②	63	1	65	②	62	3	59	②	56	①	53	②	50	2	47	②	44	②	41	②	38	1
71	②	67	①	66	④	64	③	60	④	55	③	54	①	49	②	48	①	43	③	42	④	37	③
3	3	4	①	9	②	10	1	5	②	16	①	21	3	22	②	27	①	28	3	33	1	34	②
4	②	5	④	8	1	11	3	4	②	17	②	20	②	25	①	26	②	29	①	32	3	35	1
1	①	6	②	7	③	12	④	13	③	18	④	19	①	23	①	25	②	30	①	31	④	36	③

MP Gradient Irrigation:

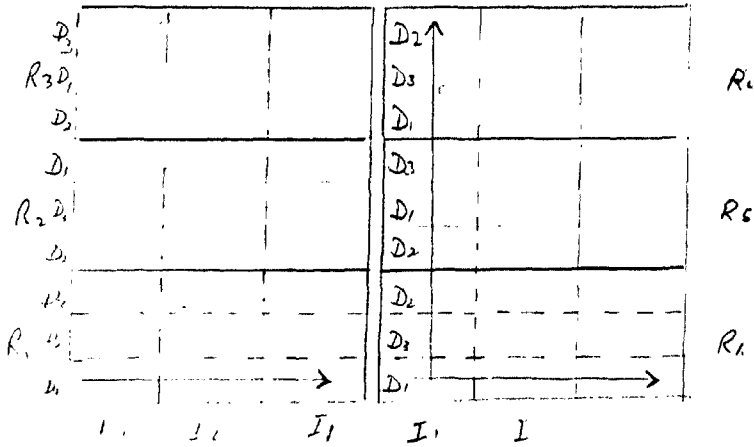
Line Source NDII

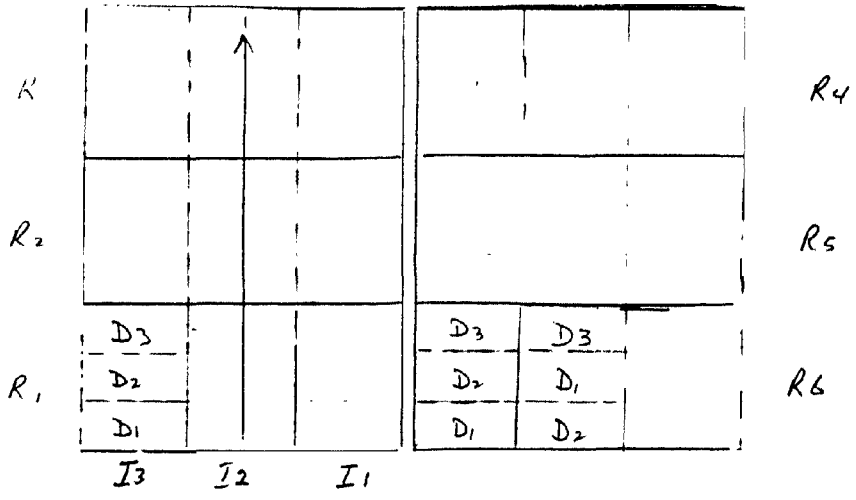
SP Plant Densities

1. I_1 - high
2. I_2 - medium
3. I_3 - low

1. D_1 high 10 cm²
2. D_2 medium 20 cm²
3. D_3 low 30 cm²

Plot size = 4 rows x 5m long x 0.75 = 15m²
 Use 36 rows in the middle of the field





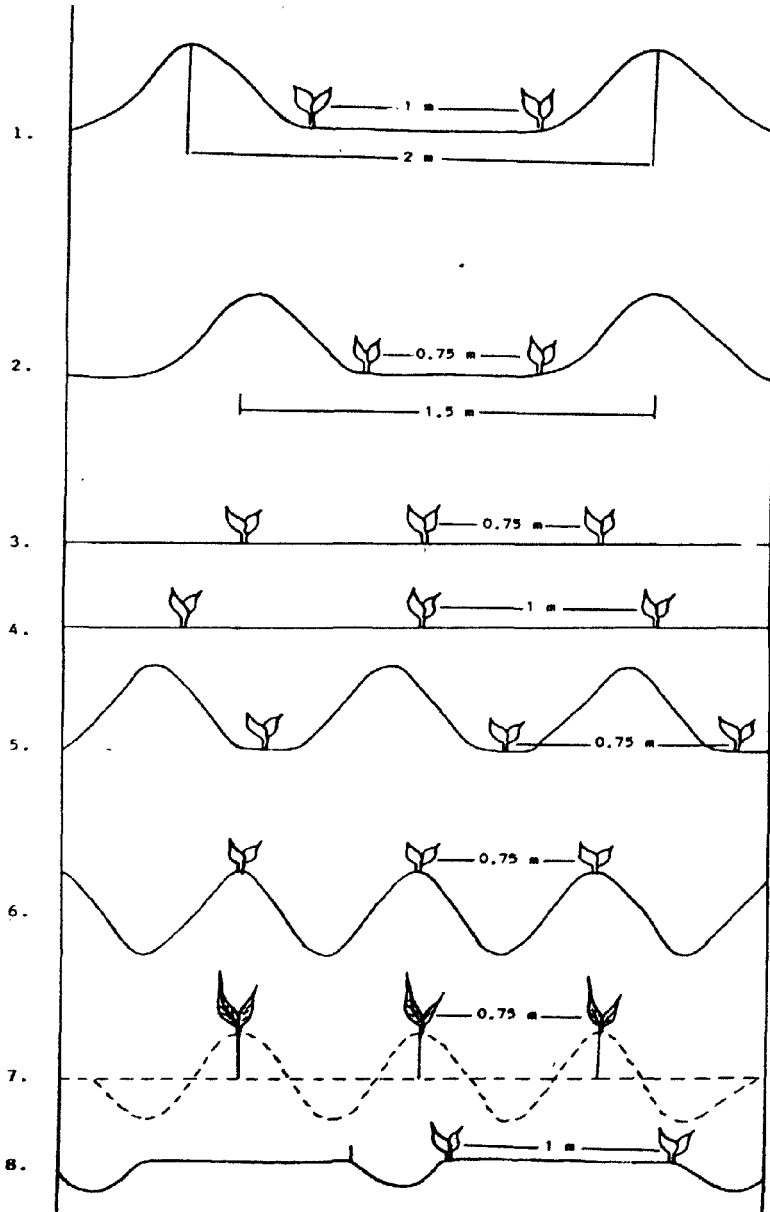
R_3							R_4
R_2							R_5
I_3	d_2	d_1	d_2				
R_1, I_2	d_2	d_3	d_1				R_6
I_1	d_1	d_2	d_3				

SADCC
Collaborative Agronomic Research

1. Experiment title : Sorghum Methods of Planting and Soil Surface Configurations.
2. Experiment code : MD12
3. Project title : Agronomy of Sorghum
4. Name of scientists :
5. Objectives :
6. Locations : R6C2
7. Experiment details :
 - a. Design : One way classification
 - b. No of replications : 8 ranges
 - c. Treatments :
 - . main : 8 Methods of Planting and Soil Surface Configurations
 - d. Plot size :
 - . planted : 6 rows x 5m long x -
 - . harvested : 4 rows x 5m long x -
 - e. cultivar : SV1
 - f. experiment area :
 - g. fertilizer kg ha⁻¹ :
 - (N - P₂O₅ - K₂O) :
 - h. Plant protection :
 - i. Data to be recorded :

plants	(<u>planting</u> , <u>emergence</u> , <u>heading</u> , <u>blooming</u> , <u>maturity</u> , <u>harvesting</u> , <u>yield</u> , <u>yield components</u>).
soil	(<u>texture</u> , <u>physical</u> and <u>chemical</u>)
climate	(<u>rainfall</u> , <u>maximum</u> and <u>minimum temperatures</u> , <u>daily</u>)
 - j. Use Cereals Agronomy data and weather data sheets :

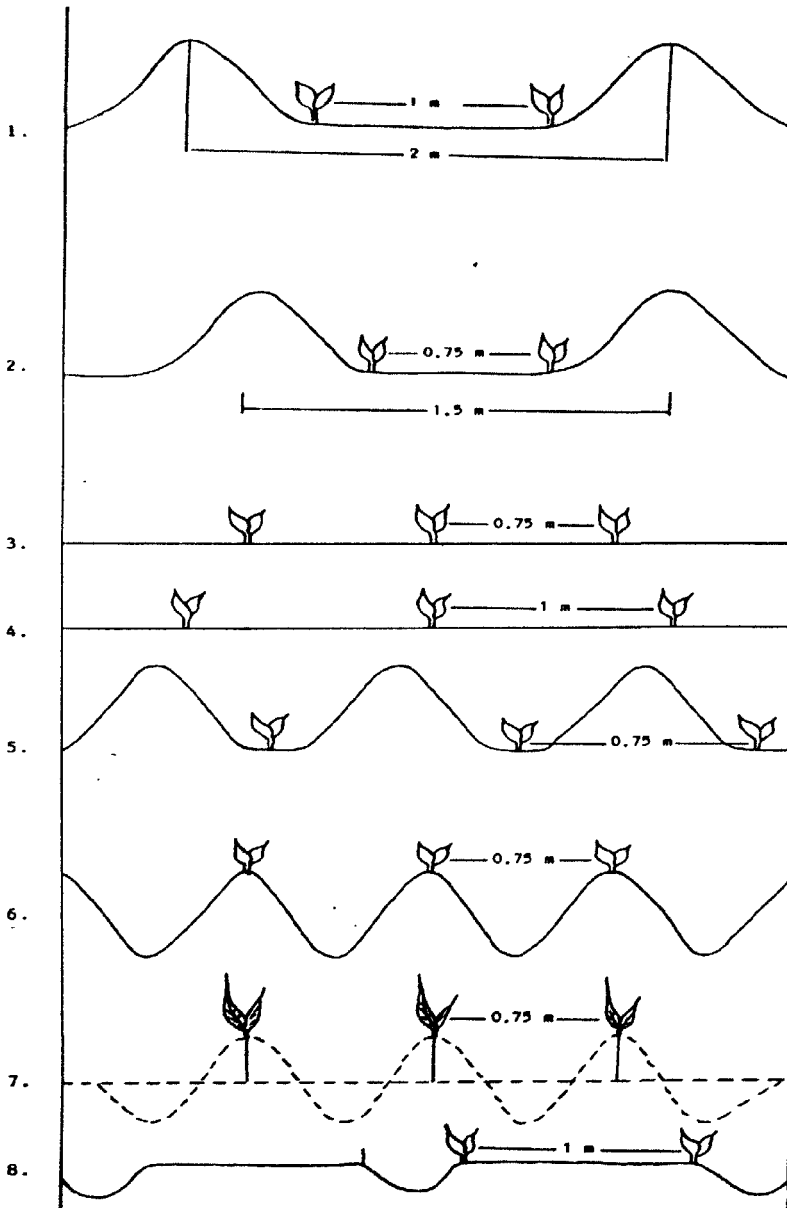
METHODS OF PLANTING



SADCC
Collaborative Agronomic Research

1. Experiment title : Millet Methods of Planting and Soil Surface Configurations
2. Experiment code : MD13
3. Project title : Agronomy of Millet
4. Name of scientists :
5. Objectives :
6. Locations : R6C2
7. Experiment details :
 - a. Design : One way classifications
 - b. No of replications : 7 ranges
 - c. Treatments :
 - . main : 8 methods of planting and soil surface configurations
 - d. Plot size :
 - . planted : 6 rows x 5m long x -
 - . harvested : 4 rows x 5m long x -
 - e. cultivar : SDM89001 - SDM87014
 - f. experiment area :
 - g. fertilizer kg ha⁻¹ :
 - (N - P₂O₅ - K₂O) :
 - h. Plant protection :
 - i. Data to be recorded : plants (planting, emergence, heading, blooming, maturity, harvesting, yield, yield components).
 soil (texture, physical and chemical)
 climate (rainfall, maximum and minimum temperatures, daily)
 - j. Use Cereals Agronomy data and weather data sheets :

METHODS OF PLANTING



SADCC
Collaborative Agronomic Research

1. Experiment title : Sorghum Downy Mildew Yield Loss Assessment
2. Experiment code : ND15
3. Project title : Agronomy
4. Name of scientists :
5. Objectives :
6. Locations : R6B2
7. Experiment details :
 - a. Design : Split split plot
 - b. No of replications : 5
 - c. Treatments :

. main	Row spacing (1) 10cm (2) 20cm (3) 30cm
. sub	Cultivars (1) SV1 (2) DC-75 (3) Control
. sub sub	Treatment (1) Seed treated (2) Seed treated + foliar (3) Control
 - d. Plot size :

. planted	4 rows x 5m long x 0.75 = 15.0m ²
. harvested	2 rows x 5m long x 0.75 = 7.5m ²
 - e. cultivar : 3
 - f. experiment area :
 - g. fertilizer kg ha⁻¹ :
(N - P₂O₅ - K₂O) :
 - h. Plant protection : Standard
 - i. Data to be recorded :

plants	<u>(planting, emergence, heading, blooming, maturity, harvesting, yield, yield components).</u>
soil	<u>(texture, physical and chemical)</u>
climate	<u>(rainfall, maximum and minimum temperatures, daily)</u>
 - j. Use Cereals Agronomy data and weather data sheets :

**SADCC
Collaborative Agronomic Research**

1. Experiment title : Finger Millet Row Spacing And Plant Density
2. Experiment code : MD16
3. Project title : Agronomy
4. Name of scientists :
5. Objectives :
6. Locations : R6C1
7. Experiment details :
 - a. Design : Split Plot
 - b. No of replications : 3
 - c. Treatments :
 - . main : 4 row spacing (1) 30 (2) 40
(3) 50 (4) 60cm apart
 - . sub : 2 plant densities (1) 10 (2) 20
 - . sub sub
 - d. Plot size :
 - . planted : 6 rows x 5m long x -
 - . harvested : 4 rows x 5m long x -
 - e. cultivar : SDFM 711 -
 - f. experiment area :
 - g. fertilizer kg ha⁻¹ : 400 Compound D
(N - P₂O₅ -- K₂O)
 - h. Plant protection :
 - i. Data to be recorded : plants (planting, emergence, heading, blooming, maturity, harvesting, yield, yield components).
soil (texture, physical and chemical)
climate (rainfall, maximum and minimum temperatures, daily)
 - j. Use Cereals Agronomy data and weather data sheet:

Finger Millet Row Spacing and Plant Density

Location: RBAI GI

Row Spacing:

1. 30 cm	x 4 =	120	180
2. 40 cm		160	240
3. 50 cm		200	300
4. 60 cm		240	360
		71	10.80

	2	1	2	1
③	24	② 23	④ 22	① 21
	1	2	1	2
	17	18	19	20
	2	1	1	2
④	16	① 15	② 14	③ 13
	1	2	2	1
	9	10	11	12
	2	1	2	1
①	2	② 7	③ 6	④ 5
	1	2	1	2
			3	4

Rep III

Rep II

Rep I

10.80m

SADCC
Collaborative Agronomic Research

1. Experiment title : Extra Early Early Pigeonpea International Trial 88 (EXPIT88) Matopos 89/90.
2. Experiment code : MD17
3. Project title :
4. Name of scientists :
5. Objectives :
6. Locations : R6C1
7. Experiment details :
 - a. Design : RCB
 - b. No of replications : 3
 - c. Treatments :
 - . main : 10 Entries
 - d. Plot size :
 - . planted : 4 rows x 5m long x 0.3 =
 - . harvested : 4 rows x 5m long x 0.3 =
 - e. cultivar : 1-10 list attached
 - f. experiment area :
 - g. fertilizer kg ha⁻¹ :
(N - P₁O₅ - K₂O) :
 - h. Plant protection :
 - i. Data to be recorded : plants (planting, emergence, heading, blooming, maturity, harvesting, yield, yield components).
 soil (texture, physical and chemical)
 climate (rainfall, maximum and minimum temperatures, daily)
 - j. Use Cereals Agronomy data and weather data sheets :

M1

Extra Early Pigeonpea International Trial 88
 (E.E.P.I.T. 88.) - Matpos 89/90

- Entries - 10
 Reps - 3
 Plot size - 4 rows x 5m long x 0.3
 no. Pedigree
- 1 ICPL 151
 - 2 83006
 - 3 83015
 - 4 84023
 - 5 85010
 - 6 85024
 - 7 85031
 - 8 87095
 - 9 87097
 - 10 87098

Field Plan

	5	2	8	7	3	6	9	10	1	4	Rep III
	11	23	14	25	26	27	28	29	30		
	1	3	6	5	1	7	2	10	4	8	Rep II
	20	11	18	17	16	15	14	13	12	11	
Ent. No →	8	5	9	2	10	6	3	1	4	7	Rep I
Ent. No →	1	2	3	4	5	6	7	8	9	10	

EARLY PIGEONPEA INTERNATIONAL TRIAL DETERMINATE
EPIT-88DT 1989/90

<u>NO</u>	<u>PEDIGREE</u>	<u>SEED SOURCE</u>
1	ICPL 87	1987 HH
2	" 151	"
3	" 83024	"
4	" 84031	"
5	" 84032	"
6	" 85015	P# 2368 (88K)
7	" 86005	1987 HK
8	" 86007	"
9	" 86009	"
10	" 86012	"
11	" 87102	"
12	" 87105	"
13	" 87108	"
14	" 87109	"

Extra Early *Hyoscyamus* International - Trial 88 Determinate
(5 x 10 FT ARR) Malpas 89/90

Plots: 14
Rep: 3
Plot size: 4 rows x 5 m long x 0.3'

Field Plan:

	3	14	2	8	12	5	9	
	42	41	40	39	38	37	36	Rep III
	6	4	1	7	10	13	11	
	29	30	31	32	33	34	35	
	9	4	7	12	10	6	8	
	28	27	26	25	24	23	22	Rep II
	2	11	14	1	3	5	13	
	15	16	17	18	19	20	21	
	1	10	3	9	6	13	5	
	14	13	12	11	10	9	8	Rep I
No →	7	12	4	11	14	2	8	
Plot no. →	1	2	3	4	5	6	7	

11

Early Pigeon International Trial Determination
I.P.I.T. - B.S.D.T. 1989/90

No.	Pidgeon	Seed Source
1	1001 87	1987 HK
2	" 151	"
3	" 85024	"
4	" 84031	"
5	" 84032	"
6	" 85015	PH 2368 (88K)
7	" 86005	1987 HK
8	" 86007	"
9	" 86009	"
10	" 86012	"
11	" 87102	"
12	" 87105	"
13	" 87108	"
14	" 87109	"

SADCC
Collaborative Agronomic Research

1. Experiment title : Selfing of Selected Sorghum Genotypes for Seed Production.
2. Experiment code : MD19
3. Project title : Agronomy of Sorghum
4. Name of scientists :
5. Objectives :
6. Locations : R6A2
7. Experiment details :
 - a. Design : Single row
 - b. No of replications :
 - c. Treatments :
 - . main
 - . sub
 - . sub sub
 - d. Plot size :
 - . planted : Single row 100m long
 - . harvested : Only Selfed Panicles
 - e. cultivar : 1-31 list is attached
 - f. experiment area :
 - g. fertilizer kg ha⁻¹ :
(N - P₂O₅ - K₂O) :
 - h. Plant protection :
 - i. Data to be recorded : plants (planting, emergence, heading, blooming, maturity, harvesting, yield, yield components).
soil (texture, physical and chemical)
climate (rainfall, maximum and minimum temperatures, daily)
 - j. Use Cereals Agronomy data and weather data sheets :

SADCC
Collaborative Agronomic Research

1. Experiment title : Observation of Field Uniformity and Effects of Previous Treatments
2. Experiment code : MD20
3. Project title : Agronomy of Sorghum
4. Name of scientists :
5. Objectives :
6. Locations : R6C2
7. Experiment details : Use Field Layout 1988/89
 - a. Design :
 - b. No of replications :
 - c. Treatments :
 - . main
 - . sub
 - . sub sub
 - d. Plot size :
 - . planted
 - . harvested
 - e. cultivar : 68 rows of SV1
 - f. experiment area :
 - g. fertilizer kg ha⁻¹ : 400 Compound D + 140 AN
(N - P₂O₅, - K₂O)
 - h. Plant protection :
 - i. Data to be recorded : plants (planting, emergence, heading, blooming, maturity, harvesting, yield, yield components).
soil (texture, physical and chemical)
climate (rainfall, maximum and minimum temperatures, daily)
 - j. Use Cereals Agronomy data and weather data sheets ,

ROW NO**PEDIGREE/NAME**

1	SV1
2	SV2
3	ZSV1
4	Town
5	Marupantse
6	Segaolane B
7	Segaolane Z
8	Brown Tsweta
9	Kanye Std
10	Red Swazi
11	Serena
12	ICSP-SD 88001
13	P997083
14	ICSV 112
15	SDS 1513
16	ICSV 193
17	VMM 6416
18	1594
19	SDS 1948
20	VMM 86/87 6416 MED 87/88 Longe
21	WSV 387
22	WSV 187
23	87 BH 8351
24	87L3475
25	SDS 1503
26	SDS 1350
27	1053
28	SDS 189
29	SDS 183
30	Mamonhe
31	Macia

SADCC
Collaborative Agronomic Research

1. Experiment title : Assessment of Selected Sorghum Genotypes Under Different Management In Sandy Soils.
2. Experiment code : LC1
3. Project title : Agronomy of Sorghum
4. Name of scientists :
5. Objectives :
6. Locations : Lucydale L9
7. Experiment details :
 - a. Design : Split plot
 - b. No of replications : 3
 - c. Treatments : 6
 . main
 . sub Attached
 - d. Plot size :
 . planted 5 rows x 5m long x 0.75 = 18.75m²
 . harvested 3 rows x 5m long x 0.75 = 11.25m²
 - e. cultivar : Attached
 - f. experiment area :
 - g. fertilizer kg ha⁻¹ : No basal application, 100 kg ha⁻¹
(N - P₂O₅ - K₂O) : at 2 splits
 - h. Plant protection :
 - i. Data to be recorded : plants (planting, emergence, heading, blooming, maturity, harvesting, yield, yield components).
 soil (texture, physical and chemical)
 climate (rainfall, maximum and minimum temperatures, daily)
 - j. Use Cereals Agronomy data and weather data sheets :

**ASSESSMENT OF SELECTED SORGHUM GENOTYPES
UNDER DIFFERENT MANAGEMENT IN SANDY SOILS
1988-90**

Treatments

(MP)	Till	Stubble	(SP)	Cultivars	Registrar No.
1.	NT	+	1.	SV1	1
2.	NT	-	2.	SV2	2
3.	T	+	3.	ZSV1	3
4.	T	-	4.	Town	4
5.	MT	+	5.	Marupantse	5
6.	MT	-	6.	Segoalane B	6
			7.	DC-75	56
			8.	SDS 2	53
			9.	WSV 387	
			10.	MMSH 375	45
			11.	MMSH 378	46
			12.	MMSH 1002	47
			13.	WSV 187	
			14.	MMSH 686	51
			15.	MMSH 413	

NT - No till
 T - Ripped, disced harrow
 MT - Ripped

129

Field Plot Layout

Plot size = 5m x 5m

TFT No
(400)

118 m

1	NT + T
2	NT -
3	T + A
4	T -
5	NT +
6	NT -
7	T -
8	T +
9	NT +
10	NT -
11	NT +
12	NT -
13	NT +
14	MT -
15	NT -
16	NT +
17	T +
18	T -

315

235m
Km 1

Rep II
225

Rep III

Field Plan

			10	9	2	1	7	4	9	13	8								
			5	15	6	12	2	8	2	15									
			8	7	3	4	9	3	14	4									
	15	4	6	3	5	7	2	12	10	1	5	13	3	11	2	15	1	6	
	14	8	9	1	13	10	9	6	2	7	14	6	14	12	13	3	4	9	
	13	15	18	6	11	12	11	10				8	5	15	1	11	6	7	
	12	6	2	13	2	9	14	13				10	4	10	2	1	6	4	
	11	9	11	2	1	5	7	11				14	8	13	5	12	2	3	
	10	1	4	12	12	14	5	15	1	3	7	4	2	6	9	14	15	5	
	9	11	14	15	8	4	2	4	7	8	3	15	9	1	11	6	14	8	
	8	14	1	4	3	1	10	1	10	11	15	9	7	3	15	9	2	10	
	7	5	7	14	10	8	5	8	6	10	1	12	11	14	7	4	12	15	
	6	2	12	9	6	12	3	14	5	12	11	3	1	2	8	5	11	13	
	5	3	8	11	14	15	13	5	13	4	8	2	2	9	12	7	10	2	
	4	7	13	7	4	11	8	3	9	13	4	11	10	5	4	14	5	12	
	3	10	10						12	15	2	5	13	7	3	2	16	14	
	2	15	3						11	6	13	7	15	8	14	13	9	11	
1m	1	12	5						15	5	9	1	12	11	10	8	3	7	
5m																			

1m
5m

5 rows plot

Rep I

Rep II

Rep III

NT T T T T T T T T T T T T T T T T T T

SADCC
Collaborative Agronomic Research

1. Experiment title : Sorghum Based Cowpea Intercropping
2. Experiment code : LC2
3. Project title : Agronomy of Sorghum
4. Name of scientists :
5. Objectives :
6. Locations : L9 (Lucydale)
7. Experiment details :
 - a. Design : RCB
 - b. No of replications : 4
 - c. Treatments : 6 row ratio combinations
 - . main
 - . sub
 - . sub sub
 - d. Plot size :
 - . planted 8 rows x 5m long x 0.5 = 20.0m²
 - . harvested 6 rows x 5m long x 0.5 = 15.0m²
 - e. cultivar : SV1, 889
 - f. experiment area :
 - g. fertilizer kg ha⁻¹ : -
(N - P₂O₅ - K₂O)
 - h. Plant protection : -
- i. Data to be recorded : plants (planting, emergence, heading, blooming, maturity, harvesting, yield, yield components).
soil (texture, physical and chemical).
climate (rainfall, maximum and minimum temperatures, daily)
- j. Use Cereals Agronomy data and weather data sheets :

LC2

Row Planted	Treatments						
	1	2	3	4	5	6	7
S : C							
1 (Sole)	S	S	S	S	S	S	S
(Sole) 1	C	C	C	C	C	C	C
2 : 1	S	S	C	S	S	C	S
3 : 1	S	S	S	C	S	S	S
1 : 2	C	C	S	C	C	S	C
3 : 2	S	S	S	C	C	S	S

1 = Sorghum (CV1)

2 = Corn (CV9)

11/17 plan

	6	2	1	5	4	3	Rep IV
14	3	5	6	2	1	4	Rep III
13	5	2	4	1	6	3	Rep II
12	1	2	3	4	5	6	Rep I
	2	3	4	5	6		

**SADCC
Collaborative Agronomic Research**

1. Experiment title : Millet Based Groundnut Intercropping
2. Experiment code : LC3
3. Project title : Agronomy of Millet
4. Name of scientists :
5. Objectives :
6. Locations : L9
7. Experiment details :
 - a. Design : RCB
 - b. No of replications : 4
 - c. Treatments : 6 row ratio combinations
 - . main
 - . sub
 - . sub sub
 - d. Plot size :
 - . planted 8 rows x 5m long x 0.5 = 20.0m²
 - . harvested 6 rows x 5m long x 0.5 = 15.0m²
 - e. cultivar : SDMV 89004 - SD 87014, Plover
 - f. experiment area :
 - g. fertilizer kg ha⁻¹ : -
(N - P₂O₅ - K₂O) :
 - h. Plant protection : -
 - i. Data to be recorded : plants (planting, emergence, heading, blooming, maturity, harvesting, yield, yield components).
soil (texture, physical and chemical)
climate (rainfall, maximum and minimum temperatures, daily)
 - j. Use Cereals Agronomy data and weather data sheets
 - k. 200 kg ha⁻¹ gypsum CaSO₄,

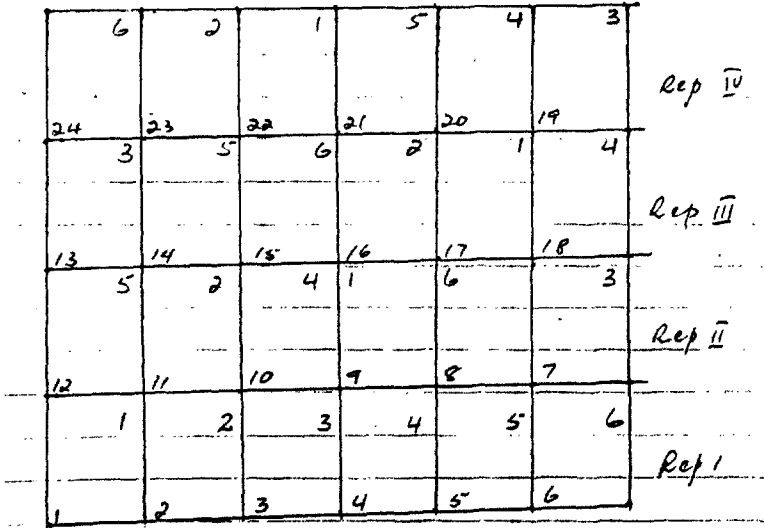
LC 3

Trt No	Row Planted		Treatments Rows						
	M	G	1	2	3	4	5	6	7
1	1 (sole)		M	M	M	M	M	M	M
2	(sole) 1		G	G	G	G	G	G	G
3	2 : 1		M	M	G	M	M	G	M
4	3 : 1		M	M	M	G	M	M	M
5	1 : 2		G	G	M	G	G	M	G
6	3 : 2		M	M	M	G	G	M	M

M = Mungbean (SDMV 89004)

G = Cowpea (Pavane)

Field Plan



SADCC
Collaborative Agronomic Research

1. Experiment title : Millet Based Pigeonpea Intercropping.
2. Experiment code : LC4
3. Project title : Agronomy of Millet
4. Name of scientists :
5. Objectives :
6. Locations : L9 (Lucydale)
7. Experiment details :
 - a. Design : RCB
 - b. No of replications : 4
 - c. Treatments :
 - . main : 6 row ratio combination
 - . sub
 - . sub sub
 - d. Plot size :
 - . planted : 8 rows x 5m long x 0.5m = 20.0m²
 - . harvested : 6 rows x 5m long x 0.5m = 15.0m²
 - e. cultivar : SDMV89004 - ICMV87014, ICPL87
 - f. experiment area :
 - g. fertilizer kg ha⁻¹ : -
 (N - P₂O₅ - K₂O) :
 - h. Plant protection : -
- i. Data to be recorded : plants (planting, emergence, heading, blooming, maturity, harvesting, yield, yield components).
 soil (texture, physical and chemical)
 climate (rainfall, maximum and minimum temperatures, daily)
- j. Use Cereals Agronomy data and weather data
 h r :

LC 4

Row No	Row Planned	Treatments						
		1	2	3	4	5	6	7
1	1 (sole)	M	M	M	M	M	M	M
2	1 (sole)	P	P	P	P	P	P	P
3	2 : 1	M	M	P	M	M	P	M
4	3 : 1	M	M	M	P	M	M	M
5	1 : 2	P	P	M	P	P	M	P
6	3 : 2	M	M	M	P	P	M	M

M = P. millet (SLMIV 89004)

P = P. pea (ICPL 87)

Field Plan:

	6	2	1	5	4	3	Rep IV
24	23	22	21	20	19		
	3	5	6	2	1	4	Rep III
13	14	15	16	17	18		
	5	2	4	1	6	3	Rep II
12	11	10	9	8	7		
	1	2	3	4	5	6	Rep I
1	2	3	4	5	6		

SADCC
Collaborative Agronomic Research

1. Experiment title : Millet Based Cowpea Intercropping
2. Experiment code : LC5
3. Project title : Agronomy of Millet
4. Name of scientists :
5. Objectives :
6. Locations : L9 (Lucydale)
7. Experiment details :
 - a. Design : RCB
 - b. No of replications : 4
 - c. Treatments :
 - . main : 6 row ratio combination
 - . sub
 - . sub sub
 - d. Plot size :
 - . planted : 8 rows x 5m long x 0.5m = 20.0m²
 - . harvested : 6 rows x 5m long x 0.5m = 15.0m²
 - e. cultivar : SDMV89004, 889
 - f. experiment area :
 - g. fertilizer kg ha⁻¹ : -
 (N - P₂O₅ - K₂O) :
 - h. Plant protection : -
 - i. Data to be recorded : plants (planting, emergence, heading, blooming, maturity, harvesting, yield, yield components).
 soil (texture, physical and chemical)
 climate (rainfall, maximum and minimum temperatures, daily)
 - j. Use Cereals Agronomy data and weather data sheets :

LCS

Trt. No	Rows Planted M : C	Treatments							
		1	2	3	4	5	6	7	8
1	1 (sole)	m	m	m	m	m	m	m	m
2	(sole) 1	c	c	c	c	c	c	c	c
3	2 : 1	m	m	c	m	m	c	m	c
4	3 : 1	m	m	m	c	m	m	m	c
5	1 : 2	c	c	m	c	c	m	c	c
6	3 : 2	m	m	m	c	c	m	m	c

m = P₂ mulch / (50Mu 5900u)

c = control (58T...)

Field Plot:

	6	2	1	5	4	3	Rep IV
24	23	22	21	20	19		
	3	5	6	2	1	4	Rep III
13	14	15	16	17	18		
	5	2	4	1	6	3	Rep II
12	11	10	9	8	7		
	1	2	3	4	5	6	Rep
1	2	3	4	5	6		

SADCC
Collaborative Agronomic Research

1. Experiment title : Study of Crop Sequences and Nematocide Treatment on Sorghum.
2. Experiment code : SVB1
3. Project title :
4. Name of scientists :
5. Objectives : To determine the effects of previous crops and a nematocide treatment on performance of a sorghum CV SV1 and build up of nematodes population.
6. Locations : Sandveld, Matopos
7. Experiment details :
 - a. Design : Split plot
 - b. No of replications : 4
 - c. Treatments :
 - . main : 4 cereals in 1988/89 followed by Sorghum 1090/90
 - . sub : Nematicide +, - in 88/89
 - . sub sub
 - d. Plot size :
 - . planted : 6 rows x 5m long x 0.75 = 22.5m²
 - . harvested : 4 rows x 5m long x 0.75 = 15.0m²
 - e. cultivar : SV1
 - f. experiment area :
 - g. fertilizer kg ha⁻¹ : None in 1989/90
(N - P₂O₅ - K₂O) :
 - h. Plant protection : None
- i. Data to be recorded : plants (planting, emergence, heading, blooming, maturity, harvesting, yield, yield components).
soil (texture, physical and chemical)
climate (rainfall, maximum and minimum temperatures, daily)
- j. Use Cereals Agronomy data and weather data sheets :

SABCC/ICRISAT SMIP
Collaborative work on Sorghum and Millet Agronomy

1. Experiment title : Response of 4 Cereals to a nematicide treatment in a sick field.
2. Experiment code : SVA3
3. Project title : Agronomy of Sorghum
4. Name of scientists :
5. Objectives :
6. Locations : Samvelid 4B
7. Experiment details :
 - a. Design : Split plot ¹
 - b. No of replications : 4
 - c. Treatments : 4 Species
 . main (1) treated (2) not treated
 . sub
 . sub sub
 - d. Plot size :
 . planted : 6 rows x 5 m long x 0.75 m = 22.5 m²
 . harvested : 4 rows x 5 m long x 0.75 m = 15.0 m²
 - e. cultivar : as attached
 - f. experiment area : 18 m x 47 m
 - g. fertilizer kg ha⁻¹ :
 (N - P O - K O)
 2 5 2
 - h. Plant protection : standard
 - i. Data to be recorded : plants (planting, emergence, heading, blooming, maturity, harvesting, yield, yield components).
 soil (texture, physical and chemical)
 climate (rainfall, maximum and minimum temperatures, daily).
 - j. Use Cereals Agronomy data and weather data sheets :

Response of Four Cereals to Aromatocide
Treatments in a sick Field in Sand Veld
1988/89

field layout: 48

	T_2	T_1	T_2	T_1	
14	13	14	15	16	Rep IV
11	12	13	14	15	
18	19	20	21	22	Rep III
15	16	17	18	19	
17	18	19	20	21	Rep II
14	15	16	17	18	
15	16	17	18	19	Rep I
2	3	4	5	6	
1	2	3	4	5	

18 m

- (I) = sorghum (SV1)
- (II) = Millet (ICMV-52)
- (III) = Finger Millet (336)
- (IV) = Maize (R 201)

T_1 = Treated w/ Furadan @ 6kg/ha
 T_2 = Not treated

SADCC
Collaborative Agronomic Research

1. Experiment title : Response of Four Cereals to a Nematicide Treatment in a Sick Field.
2. Experiment code : SVB2
3. Project title : Agronomy of Sorghum
4. Name of scientists :
5. Objectives :
6. Locations : Sandveld
7. Experiment details :
 - a. Design : Split Plot
 - b. No of replications : 4
 - c. Treatments :
 - . main : 4 species
 - . sub : 2 treatment (+, - nematicide)
 - . sub sub :
 - d. Plot size :
 - . planted : 5 rows x 4m long x 0.75 =
 - . harvested : 3 rows x 4m long x 0.75 =
 - e. cultivar :
 - f. experiment area :
 - g. fertilizer kg ha⁻¹ : None in 1989/90
(N - P₂O₅ - K₂O)
 - h. Plant protection : Only weeding
 - i. Data to be recorded :
 - plants : (planting, emergence, heading, blooming, maturity, harvesting, yield, yield components).
 - soil : (texture, physical and chemical)
 - climate : (rainfall, maximum and minimum temperatures, daily)
- j. Use Cereals Agronomy data and weather data sheets :

**RESPONSE OF FOUR CEREALS TO CARBOFURA (FURADAN)
TREATMENT AT SANDVELD 1989/90**

Main Plot

Sub Plot

① Sorghum - SV1

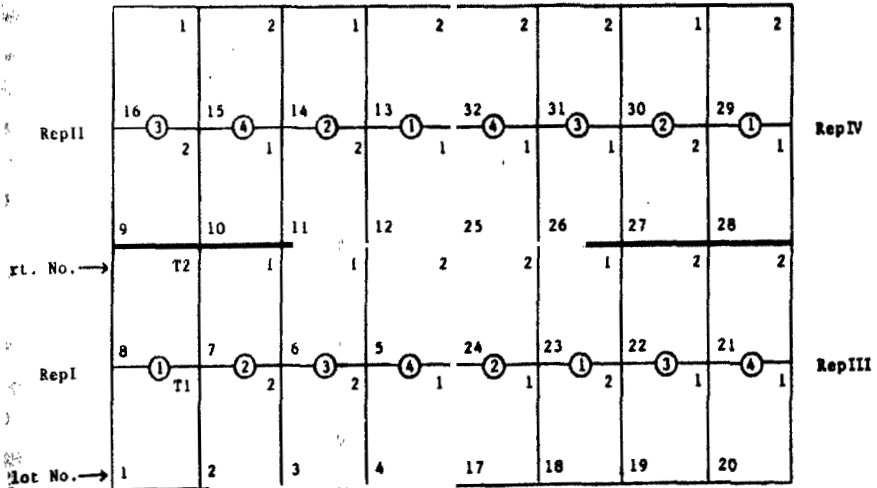
T1 - Treatment with 6 kg ha⁻¹ Furadan
T2 - Non treated

② P. Millet - ICMV-SD87014 - SMV89004

③ F. Millet - 336

④ Maize - R201

Field Plan :



**SADCC
Collaborative Agronomic Research**

1. Experiment title : Nematodes Management
2. Experiment code : SVB3
3. Project title : Agronomy of Sorghum
4. Name of scientists :
5. Objectives :
6. Locations : A, Sandveld - Matopos
7. Experiment details :
 - a. Design : Split plot (Fixed)
 - b. No of replications : 4
 - c. Treatments :
 - . main : 4 chemicals
 - . sub : 5 levels
 - . sub sub :
 - d. Plot size :
 - . planted : 6 rows x 5m long x 0.75m = 22.5m²
 - . harvested : 4 rows x 5m long x 0.75m = 15.0m²
 - e. cultivar : SV1
 - f. experiment area :
 - g. fertilizer kg ha⁻¹ : None this year
(N - P₂O₅ - K₂O) :
 - h. Plant protection : Only Weeding or as Treatment
- i. Data to be recorded :
 - plants (planting, emergence, heading, blooming, maturity, harvesting, yield, yield components).
 - soil (texture, physical and chemical).
 - climate (rainfall, maximum and minimum temperatures, daily)
- j. Use Cereals Agronomy data and weather data sheets :

Plant the 1st range SV1 as a border.

INMATES MANAGEMENT
1985-86

Trt. No.	Treatments	Kg ha ⁻¹	gw ^l	g/plot (225m ²)	g/row
1	Nemacur	10	1.0	22.5	3.75
2	Nemacur	20	2.0	45.0	7.50
3	Nemacur	30	3.0	67.5	11.25
4	Nemacur	40	4.0	90.0	15.00
5	Control	-	-	-	-
6	Furadan	1.5	0.15	3.38	0.56
7	Furadan	3.0	0.30	6.75	1.13
8	Furadan	4.5	0.45	10.13	1.69
9	Furadan	6.0	0.60	13.50	2.25
10	Control	-	-	-	-
11	Tagetes	10	1.0	22.5	3.75
12	Tagetes	20	2.0	45.0	7.50
13	Tagetes	30	3.0	67.5	11.25
14	Tagetes	40	4.0	90.0	15.00
15	Control	-	-	-	-
16	Furadan Seed Trt.	10g kg ⁻¹ seed			
17	Furadan Seed Trt.	20g kg ⁻¹ seed			
18	Furadan Seed Trt.	30g kg ⁻¹ seed			
19	Furadan Seed Trt.	40g kg ⁻¹ seed			
20	Control	-	-	-	-

Notes des Management Sandvold 1989-90

Field Plan

	2	4	5	1	3	8	10	7	9	6	
	60	71	75	77	76	75	74	73	72	71	Rep IV
	13	15	12	14	11	20	19	18	17	16	
	61	62	63	64	65	66	67	68	69	70	
	7	10	9	8	6	4	1	5	3	2	
	50	59	58	57	56	55	54	53	52	51	Rep III
	17	20	16	19	18	15	12	15	11	14	
	41	42	43	44	45	46	47	48	49	50	
	12	14	11	15	13	17	19	16	20	18	
	40	39	38	37	36	35	34	33	32	31	Rep II
	8	6	10	9	7	1	3	5	2	4	
	21	22	23	24	25	26	27	28	29	30	
	20	19	18	17	16	15	14	13	12	11	
	20	19	18	17	16	15	14	13	12	11	Rep.
No. →	1	2	3	4	5	6	7	8	9	10	
→	2	3	4	5	6	7	8	9	10		

SADCC
Collaborative Agronomic Research

1. Experiment title : Exploratory Experiment
2. Experiment code : SVB4
3. Project title :
4. Name of scientists :
5. Objectives :
6. Locations : Sandveld
7. Experiment details :
 - a. Design : 2¹
 - b. No of replications : 2
 - c. Treatments : Attached
 - . main
 - . sub
 - . sub sub
 - d. Plot size :
 - . planted 4 rows x 5m long x 0.75 = 15.0m²
 - . harvested 2 rows x 5m long x 0.75 = 7.5m²
 - e. cultivar :
 - f. experiment area :
 - g. fertilizer kg ha⁻¹ : Only as a treatment
(N - P₂O₅ - K₂O)
 - h. Plant protection :
 - i. Data to be recorded : plants (planting, emergence, heading, blooming, maturity, harvesting, yield, yield components).
soil (texture, physical and chemical)
climate (rainfall, maximum and minimum temperatures, daily)
 - j. Use Cereals Agronomy data and weather data sheets :

Exploratory Experiment SVB4

1991/92

Field Plan

24	13	bc
21	22	ac
20	19	abc
17	18	a
16	15	13
13	14	bc
12	11	abc
9	10	b
8	7	c
5	6	a
4	3	13
1	2	ab

Rep III

Rep II

Rep I

a = Carbosulfan @ 6 kg ha⁻¹
 b = N @ 105 kg ha⁻¹
 (1/2 basal + 1/2 topdress)
 c = P₂O₅ @ 64 kg ha⁻¹

Plan M2
Three Factors

Block size = 4
Replications = 3
Plots = 24

Field Plan

		3	4		
ac	abc	c	ab	b	(1)
ab	c	b	(1)	a	bc
(1)	a	abc	bc	abc	ac
bc	b	a	ac	c	ab
I		II		III	

This experiment may be conducted at one location, or single replications may be conducted at each of three locations, or single blocks may be established at each of six locations.

Analysis of Variance

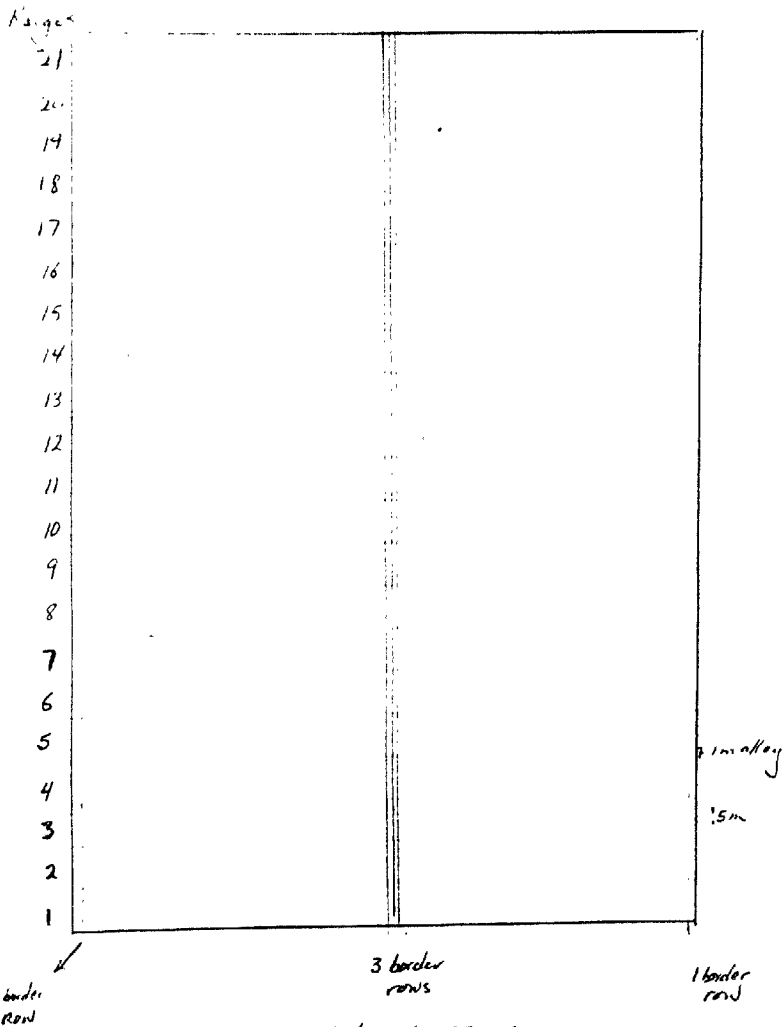
<u>Source</u>	<u>D. F.</u>
Total	23
Blocks	5
Main effects	3
Error	15

$$F_{.05} = 4.54$$

$$F_{.01} = 8.68$$

Station: Kartama

Field: 40m x 125m (expected 21 range 2.5m, 1m:
and 53 rows at 0.75m)



Expt. KCI = Drought Multi-location Trial 89/90

plotsize: 4.0m x 5m long x 0.75m

**SADCC
Collaborative Agronomic Research**

1. Experiment title : Sorghum Multilocation Drought Trial
2. Experiment code : KB1
3. Project title : Agronomy
4. Name of scientists :
5. Objectives :
6. Locations : Kadoma
7. Experiment details :
 - a. Design : Split Plot
 - b. No of replications :
 - c. Treatments :
 - . main : 1. No-Stress (irrigated)
2. Stress (non-irrigated)
 - . sub : 30 Cultivars
 - . sub sub :
 - d. Plot size :
 - . planted : 4 rows x 5m long x 0.75m = 15m²
 - . harvested : 2 rows x 5m long x 0.75m = 7m²
 - e. cultivar : 30
 - f. experiment area :
 - g. fertilizer kg ha⁻¹ : Standard
(N - P₂O₅ - K₂O) :
 - h. Plant protection : Standard
 - i. Data to be recorded : plants (planting, emergence, heading, blooming, maturity, harvesting, yield, yield components).
soil (texture, physical and chemical)
climate (rainfall, maximum and minimum temperatures, daily)
 - j. Use Cereals Agronomy data and weather data sheet :

KB₁ Sorghum Multilocation Drought Trial

Field layout: Kadoma

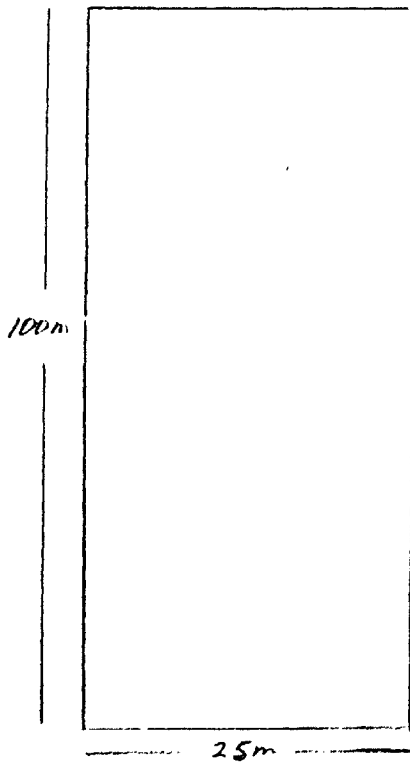
175	176	177	178	179	180	181	182	183	184	185	186
174	173	172	171	170	169	168	167	166	165	164	163
162	161	160	159	158	157	156	155	154	153	152	151
150	149	148	147	146	145	144	143	142	141	140	139
138	137	136	135	134	133	132	131	130	129	128	127
126	125	124	123	122	121	120	119	118	117	116	115
114	113	112	111	110	109	108	107	106	105	104	103
102	101	100	99	98	97	96	95	94	93	92	91
90	89	88	87	86	85	84	83	82	81	80	79
78	77	76	75	74	73	72	71	70	69	68	67
66	65	64	63	62	61	60	59	58	57	56	55
54	53	52	51	50	49	48	47	46	45	44	43
42	41	40	39	38	37	36	35	34	33	32	31
30	29	28	27	26	25	24	23	22	21	20	19
18	17	16	15	14	13	12	11	10	9	8	7
6	5	4	3	2	1	0	0	0	0	0	0

Plot size: 4 rows x 5m (long x 7.5m = 15m²)

- I. No stress (Supplementary Irrigation)
- II stress (No. " " " ")

Ent.
co.
DC

Station: A1 to 2.1
Field 3 C 2



**SADCC
Collaborative Agronomic Research**

1. Experiment title : Nematode Management
2. Experiment code : MLB1
3. Project title : Agronomy of Sorghum
4. Name of scientists :
5. Objectives :
6. Locations : C2 Mlezu
7. Experiment details :
 - a. Design : RCBD
 - b. No of replications : 4
 - c. Treatments : 20 Attached
 - . main
 - . sub
 - . sub sub
 - d. Plot size :
 - . planted 4 rows x 5m long x 0.75 = 15.0m²
 - . harvested 2 rows x 5m long x 0.75 = 7.5m²
 - e. cultivar : SV1
 - f. experiment area :
 - g. fertilizer kg ha⁻¹ : None this year
(N - P₂O₅ - K₂O) :
 - h. Plant protection : Only weeding
 - i. Data to be recorded : plants (planting, emergence, heading, blooming, maturity, harvesting, yield, yield components).
soil (texture, physical and chemical)
climate (rainfall, maximum and minimum temperatures, daily)
 - j. Use Cereals Agronomy data and weather data sheets :

**I NEMATODES MANAGEMENT
1989-90**

Trt. No.	Treatments	Kg ha ⁻¹	gm ¹	g/plot (225m ²)	g/row
1	Nemacur	10	1.0	22.5	3.75
2	Nemacur	20	2.0	45.0	7.50
3	Nemacur	30	3.0	67.5	11.25
4	Nemacur	40	4.0	90.0	15.00
5	Control	-	-	-	-
	Furadan	1.5	0.15	3.38	0.56
7	Furadan	3.0	0.30	6.75	1.13
8	Furadan	4.5	0.45	10.13	1.69
9	Furadan	6.0	0.60	13.50	2.25
10	Control	-	-	-	-
11	Tagetes	10	1.0	22.5	3.75
12	Tagetes	20	2.0	45.0	7.50
13	Tagetes	30	3.0	67.5	11.25
14	Tagetes	40	4.0	90.0	15.00
15	Control	-	-	-	-
16	Furadan Seed Trt.	10g kg ⁻¹ seed	-	-	-
17	Furadan Seed Trt.	20g kg ⁻¹ seed	-	-	-
18	Furadan Seed Trt.	30g kg ⁻¹ seed	-	-	-
19	Furadan Seed Trt.	40g kg ⁻¹ seed	-	-	-
20	Control	-	-	-	-

Nematodes Management 1989/90

Field Plan:

	2	10	7	11	19	14	6	8	
80	79	78	77	76	75	74	73		Rep IV
	5	13	4	20	9	12	3	15	
85	66	61	68	69	70	71	72		
	18	16	1	17	5	14	4	11	
7	53	52	51	60	59	58	57		
	16	10	2	19	7	1	15	6	R ₁
77	51		52	53	54	55	56		
	12	3	20	9	17	8	18	13	
73	41	76	42	44	43	42	41		
	6	11	5	13	2	12	1	16	
73	34	35	36	37	38	39	40		
	10	14	9	4	17	8	15	7	R ₂
32	31	30	29	28	27	26	25		
	17	18	19	20	19	3	20	18	
17	18	19	20	21	22	23	24		
	16	15	14	13	12	11	10	9	
16	15	14	13	12	11	10	9		R ₃
WNo. →	1	2	3	4	5	6	7	8	
Field →	1	2	3	4	5	6	7	8	

**SADCC
Collaborative Agronomic Research**

1. Experiment title : Response of Four Cereals to a Nematocide Treatment in a Sick Field.
2. Experiment code : *MLB2*
3. Project title : Agronomy of Sorghum
4. Name of scientists :
5. Objectives :
6. Locations : C2 Nlezu
7. Experiment details :
 - a. Design : Split Plot
 - b. No of replications : 4
 - c. Treatments :
 - . main : 4 species
 - . sub : 2 treatments (+, - Furadan)
 - . sub sub :
 - d. Plot size :
 - . planted : 4 rows x 5m long x 0.75 = 15.0m²
 - . harvested : 2 rows x 5m long x 0.75 = 7.5m²
 - e. cultivar : Attached
 - f. experiment area :
 - g. fertilizer kg ha⁻¹ :
 - (N - P₂O₅ - K₂O) :
 - h. Plant protection : Only Weeding
 - i. Data to be recorded :
 - plants (planting, emergence, heading, blooming, maturity, harvesting, yield, yield components).
 - soil (texture, physical and chemical)
 - climate (rainfall, maximum and minimum temperatures, daily)
 - j. Use Cereals Agronomy data and weather data sheets :

MLB2

Response of Four Cereals to Carbofuran (Furadan)
Treated at Mezu 1989/90

MP Species/cultivar

- 1) Sorghum - SV1
- 2) P Millet - ICAM-SD B7014 = SDMU B7004
- 3) F Millet - 536 or
- 4) Maize - R201

SP Treatment

- T₁ = treated with 6 E/kg F.
- T₂ = non

Plot size: 4 rows x 5m long x 0.75m

Field Plan:

