INTRODUCTION OF THE INSTITUTE

The Institute is located at a distance of 11 kilometers from Sahiwal city towards east on Lahore-Multan Highway. It is situated at latitude of 30° 41 N and longitude of 73° 12 E and the elevation of 175 meters. The land of Yusafwala, District Sahiwal was converted in to Government Seed Farm in the year 1925 and was handed over to the Agriculture Department (Extension Wing) for multiplication of quality seed of wheat, Maize and cotton etc.

Research work on maize was started in the 1940's which was abandoned in its infancy with the partition of Sub-continent. A regular research work on maize was restarted after partition in the year 1953-54 at Faisalabad. The seed farm Yusafwala was transferred to research wing of Agriculture Department in the year 1958-59 and converted into a Hybrid Maize Seed Farm for conducting research and seed production of hybrid maize on large scale. 30

In 1968-69 the status of this farm was raised to a Research Institute, named as Maize & Millets Research Institute, Yusafwala. Research work on Sorghum and Pearl Millet was also initiated in addition to maize with the establishment of the Institute.

The objectives of Institute are

- To evolve high yielding varieties/hybrids of maize, sorghum and pearl millet.
- Breeding for biotic and a-biotic stresses.
- To develop improved package of production technology.
- To demonstrate improved production technology.
- Transfer of technology through print and electronic media.
- To produce BNS, pre-basic, basic and certified seed.

The Institute has evolved 11 varieties & 2 hybrids of maize, 2 varieties of sorghum and one variety of pearl millet since its establishment.

Three single cross maize hybrids YH-1898, FH-949 and FH-1046 were included in NUYT-Sp.2015 and ranked 8th, 9th and 17th, respectively. Four hybrids FH-1200 (14453kg/ha), FH-1219 (13433 kg/ha), FH-1233 (13240 kg/ha) & FH-1231 (12936 kg/ha) were found promising in different trials.

Sorghum hybrid YSH-95 and pearl millet line YBS-95 were included in NUYT-Kh.2014 and ranked 5^{th} and 4^{th} , respectively.

Annual Program of Research Work for 2015-16 is given in subsequent pages:-

HYBRID MAIZE

GERMPLASM MAINTENANCE

01. TITLE	MAINTENANCE OF INBRED LINES.		
OBJECTIVE	To maintain the inbred lines for use in breeding program.		
RESEARCH WORKER(S)		Mr. Khadim Mr. Shahid Mr. Aamir O Dr. Muham Muhammad Amer Huss Ahsan Raza	Hussain Ghani mad Arshad I Altaf sain
PROJECT DURATION	Spring & Kharif 20	Muhammad	
LOCATIONS	1. Maize & Millets I 2. Maize Research S		stitute, Yusafwala-Sahiwal. alabad.
TREATMENTS	Yusafwala Faisalabad	Inbred lin	
METHODOLOGY	homozygosity. Data inbred lines for two prepare germplasm		
	Leaf 5. No. of Leaves per 7. Leaf angle (droop drooping / erect) Stem 8. Root anchor 10. Stem at maturity 12. Stem height (dwarf/medium/tall)	ping / semi-	6. Leaf size (length / width) 9. Stem at 1/2 meter growth stage (purple / Green) 11. Stem thickness

	Reproduct	ive Traits		
	13. Days to	tasseling	14. Days to silk emergence	
		hedding Period	16. Number of tassel branches	
			18. Tassel	
		17. Type of tassel		
	(spreading/o			
	19. Days to	19. Days to maturity		
	Ear / Cob t	traits		
	20. Husk co	olor	21. Husk hairiness	
	23. Ear diar	nete r	24. Ear length	
	25. Ear heig		26. Ear aspect (opening tip score	
	23. Ear neig	3111		
	27 F		(1-5)	
	27. Ear rot		28. Pith color	
	29. Kernel j	pith ratio	30. Prolificacy (%	age)
	Seed			
	31. Seed		32. Seed size	
	33. Seed sh	ape (Dent, semi	34. No. of kernel r	ows per ear
	dent / semi			r
	35. 100 grai			
	33. 100 gran	iii weigiit		
	T 1 '			
	Lodging		<u> </u>	
	42. Root loo	dging %age	43. Stalk lodging 9	%age
	Disease			
	44. Stalk ro	t %age	45. Root rot %age	
		hosporium maydis		rium turcicum (1-5)
		(1-5) 48. Any other		rain tareream (1 3)
	` ′			
	46. Ally our	40.7 My other		
-				
	G 111	D 4	C 41!	A 41
	Seedling	Days to seedling	_	Anthocyanine
	Seedling	emergence	emergence %	pigment (D/M/A)
	Seedling		_	•
	Seedling	emergence	emergence %	pigment (D/M/A) 30/50/23
		emergence 3-5 days Leaf	emergence % 60-100 % Leaf Size	pigment (D/M/A) 30/50/23 Leaf Angle
		emergence 3-5 days Leaf (L-light/G-green	emergence % 60-100 % Leaf Size (B-broad/	pigment (D/M/A) 30/50/23 Leaf Angle (drooping / Semi
		emergence 3-5 days Leaf	emergence % 60-100 % Leaf Size (B-broad/ M-medium/	pigment (D/M/A) 30/50/23 Leaf Angle
		emergence 3-5 days Leaf (L-light/G-green /D-Dark green)	emergence % 60-100 % Leaf Size (B-broad/ M-medium/ N-Narrow)	pigment (D/M/A) 30/50/23 Leaf Angle (drooping / Semi drooping/erect)
	Leaf	emergence 3-5 days Leaf (L-light/G-green /D-Dark green) 13/70/20	emergence % 60-100 % Leaf Size (B-broad/ M-medium/ N-Narrow) 8/80/15	pigment (D/M/A) 30/50/23 Leaf Angle (drooping / Semi drooping/erect) 21/46/36
		emergence 3-5 days Leaf (L-light/G-green /D-Dark green) 13/70/20 Root anchor	emergence % 60-100 % Leaf Size (B-broad/ M-medium/ N-Narrow) 8/80/15 Stem at 1/2m	pigment (D/M/A) 30/50/23 Leaf Angle (drooping / Semi drooping/erect) 21/46/36 Stem color at
	Leaf	emergence 3-5 days Leaf (L-light/G-green /D-Dark green) 13/70/20	emergence % 60-100 % Leaf Size (B-broad/ M-medium/ N-Narrow) 8/80/15	pigment (D/M/A) 30/50/23 Leaf Angle (drooping / Semi drooping/erect) 21/46/36
	Leaf	emergence 3-5 days Leaf (L-light/G-green /D-Dark green) 13/70/20 Root anchor	emergence % 60-100 % Leaf Size (B-broad/ M-medium/ N-Narrow) 8/80/15 Stem at 1/2m	pigment (D/M/A) 30/50/23 Leaf Angle (drooping / Semi drooping/erect) 21/46/36 Stem color at
	Leaf	emergence 3-5 days Leaf (L-light/G-green /D-Dark green) 13/70/20 Root anchor (week/medium/st	emergence % 60-100 % Leaf Size (B-broad/ M-medium/ N-Narrow) 8/80/15 Stem at 1/2m growth stage.	pigment (D/M/A) 30/50/23 Leaf Angle (drooping / Semi drooping/erect) 21/46/36 Stem color at maturity
	Leaf	emergence 3-5 days Leaf (L-light/G-green /D-Dark green) 13/70/20 Root anchor (week/medium/st rong) 13/43/47	emergence % 60-100 % Leaf Size (B-broad/ M-medium/ N-Narrow) 8/80/15 Stem at 1/2m growth stage. (purple/Green) 39/64	pigment (D/M/A) 30/50/23 Leaf Angle (drooping / Semi drooping/erect) 21/46/36 Stem color at maturity (green/dry)
	Leaf	emergence 3-5 days Leaf (L-light/G-green /D-Dark green) 13/70/20 Root anchor (week/medium/st rong)	emergence % 60-100 % Leaf Size (B-broad/ M-medium/ N-Narrow) 8/80/15 Stem at 1/2m growth stage. (purple/Green) 39/64 Stem height	pigment (D/M/A) 30/50/23 Leaf Angle (drooping / Semi drooping/erect) 21/46/36 Stem color at maturity (green/dry) 72/31
	Leaf	emergence 3-5 days Leaf (L-light/G-green /D-Dark green) 13/70/20 Root anchor (week/medium/st rong) 13/43/47 Stem thickness	emergence % 60-100 % Leaf Size (B-broad/ M-medium/ N-Narrow) 8/80/15 Stem at 1/2m growth stage. (purple/Green) 39/64 Stem height (dwarf/medium/ ta	pigment (D/M/A) 30/50/23 Leaf Angle (drooping / Semi drooping/erect) 21/46/36 Stem color at maturity (green/dry) 72/31
	Leaf	emergence 3-5 days Leaf (L-light/G-green /D-Dark green) 13/70/20 Root anchor (week/medium/st rong) 13/43/47	emergence % 60-100 % Leaf Size (B-broad/ M-medium/ N-Narrow) 8/80/15 Stem at 1/2m growth stage. (purple/Green) 39/64 Stem height	pigment (D/M/A) 30/50/23 Leaf Angle (drooping / Semi drooping/erect) 21/46/36 Stem color at maturity (green/dry) 72/31
	Leaf	emergence 3-5 days Leaf (L-light/G-green /D-Dark green) 13/70/20 Root anchor (week/medium/st rong) 13/43/47 Stem thickness	emergence % 60-100 % Leaf Size (B-broad/ M-medium/ N-Narrow) 8/80/15 Stem at 1/2m growth stage. (purple/Green) 39/64 Stem height (dwarf/medium/ ta	pigment (D/M/A) 30/50/23 Leaf Angle (drooping / Semi drooping/erect) 21/46/36 Stem color at maturity (green/dry) 72/31
	Leaf	emergence 3-5 days Leaf (L-light/G-green /D-Dark green) 13/70/20 Root anchor (week/medium/st rong) 13/43/47 Stem thickness 1.2-2.5 cm Days to tassel	emergence % 60-100 % Leaf Size (B-broad/ M-medium/ N-Narrow) 8/80/15 Stem at 1/2m growth stage. (purple/Green) 39/64 Stem height (dwarf/medium/ ta 9/77/17 (75-150 cm Days to silk	pigment (D/M/A) 30/50/23 Leaf Angle (drooping / Semi drooping/erect) 21/46/36 Stem color at maturity (green/dry) 72/31 Ill) m) Period of pollen
	Leaf Stem	emergence 3-5 days Leaf (L-light/G-green /D-Dark green) 13/70/20 Root anchor (week/medium/st rong) 13/43/47 Stem thickness 1.2-2.5 cm Days to tassel emergence	emergence % 60-100 % Leaf Size (B-broad/ M-medium/ N-Narrow) 8/80/15 Stem at 1/2m growth stage. (purple/Green) 39/64 Stem height (dwarf/medium/ ta 9/77/17 (75-150 cm Days to silk emergence	pigment (D/M/A) 30/50/23 Leaf Angle (drooping / Semi drooping/erect) 21/46/36 Stem color at maturity (green/dry) 72/31 Ill) Period of pollen shedding
	Leaf Stem	emergence 3-5 days Leaf (L-light/G-green /D-Dark green) 13/70/20 Root anchor (week/medium/st rong) 13/43/47 Stem thickness 1.2-2.5 cm Days to tassel	emergence % 60-100 % Leaf Size (B-broad/ M-medium/ N-Narrow) 8/80/15 Stem at 1/2m growth stage. (purple/Green) 39/64 Stem height (dwarf/medium/ ta 9/77/17 (75-150 cm Days to silk	pigment (D/M/A) 30/50/23 Leaf Angle (drooping / Semi drooping/erect) 21/46/36 Stem color at maturity (green/dry) 72/31 Ill) m) Period of pollen

		branches	(spreading/Semi erect/Erect)	(Green/Purple)
		6-19	65/38	43/60
		Days to maturity		
		100-115 days		
	Ear/Cob Traits	Husk Color (Green/ purple)	Husk hairiness (Hairy/ Absent)	
	Trans	93/10	17/86	
		Ear diameter	Ear length	Ear height
		2.7-4.4 cm	10-18 cm	40-80 cm
		Ear aspect (1-5)	Ear rot (Score 1-5)	Pith color (White/pink)
		1-2	1	85/18
		Kernel pith ratio	Prolificacy Present/ Absent	
		78-92 %	38/65	
	Seed	Seed Color (White/yellow/ dark yellow)	Seed size (Small/ medium / bold)	No. of kernel rows per ear
		3/17/83	19/64/20	12-18
		100-grain weight	Seed shape (Dent/	semi dent/flint)
		19-26 g	20/40/43	
	Lodging	Root lodging %	Stalk lodging %	
		0	0	
	Disease	Stalk rot	Root rot	H. maydis
		1-2	0	1-2
		H. turcicum		
		1-2		
PREVIOUS YEAR'S RESULTS:	Yusafwala			
RESCEIS.	101 lines were maintained by hand pollination in Kh.2014 while 1 during Spring 2015.			Kh.2014 while 153
	Faisalabad	I		
		red lines were mai ue to undesirable cha	•	pollination. 9 were

GERMPLASM DEVELOPMENT

02. TITLE	DERIVATIO	N OF INBRED LINES THROUGH INBREEDING.	
OBJECTIVE	To develop constitution of	new inbred lines with desirable characteristics for new hybrids.	
RESEARCH	Yusafwala	Mr. Shahid Hussain	
WORKER(S)		Mr. Khadim Hussain	
		Dr. Muhammad Arshad	
	Faisalabad	Muhammad Altaf	

		Amer Hussain
	Aller Hussalli Ahsan Raza Mallhi	
	Muhammad Rafique	
PROJECT DURATION	Spring & Kharif 2016	
LOCATIONS		ets Research Institute, Yusafwala-Sahiwal.
	2. Maize Researce	ch Station, Faisalabad
	** 0 1	
TREATMENTS	Yusafwala	272 families ($S_0 = 29$, $S_1 = 39$, $S_2 = 15$, $S_3 = 24$, $S_4 = 14$, $S_5 = 53$, $S_6 = 07$, $S_7 = 16$ & $S_8 = 75$)
	Faisalabad	212 families $(S_0 = 30, S_1 = 30, S_2 = 16, S_3 = 16, S_4)$
		$=33 S_5 = 37 S_6 = 31 \& S7 = 19$
METHODOLOGY	Layout	= Ear to row
	Replications	= Non-replicated
	Plot Size	= 5 m x 0.75 m
	Plant to plant	= 20 cm
	Row to row	= 75 cm
	Fertilizer	= 297–148–124 NPK, Kg/ha.
	Date of sowing	= Month of February & Mid of July
	The desirable/selected plants from each family will be selfed by hand pollination. Data of all traits will be collected in S_7 generation along with display of pictorial features to prepare germplasm directory.	
DDEVIOUS VEADS	X7 C 1	
PREVIOUS YEAR'S RESULT'S	Yusafwala. Two hundred one families (201) inbreeding families were planted ear to row and self-pollinated by hand During Kharif 2014. At harvesting one hundred and seventy nine (179) derivatives could set seed. While during Spring 2015, two hundred and sixty five (265) (S_0 =28, S_1 =26, S_2 =32, S_3 =13, S_4 =78, S_5 =11, S_6 =15 and S_7 =62 were planted and self-pollinated by hand for generation advancement. At harvesting one hundred and seventy three (173) derivatives could set seed.	
	$S_3=33$, $S_4=37$, $S_4=37$	red ninety five (195) families i.e. S_0 =30, S_1 =16, S_2 =16 S_5 =31, S_6 =19 & S_7 =13 were selected from different 13 advanced derivative families were selected from S_7 gene pool.

03. TITLE	DERIVATION OF INBRED LINES OF WHITE MAIZE.
OBJECTIVE	To develop new inbred lines with desirable characteristics for constitution of new hybrids.
RESEARCH	Mr. Ghulam Murtaza
WORKER(S)	Mr. Aamir Hussain
	Dr. Muhammad Arshad
PROJECT DURATION	Spring & Kharif 2016
LOCATIONS	Maize & Millets Research Institute, Yusafwala-Sahiwal.
TREATMENTS	93 derivative lines. ($S_0=22$, $S_1=05$, $S_2=09$, $S_3=04$, $S_4=07$, $S_5=23$ $S_6=12$

	and S ₇ =11)	
METHODOLOGY	Layout	= Ear to row
	Reps.	= Non-replicated
	Plot Size	= 5 m x 0.75 m
	Plant to plant	=20 cm
	Row to row	= 75 cm
	Fertilizer	= 297–148–124 NPK Kg/ha.
	Date of sowing	= Month of July & February
	pollination to increase h in S_7 generation along germplasm directory.	lants in each family will be selfed by hand nomozygosity. Data of all traits will be collected with display of pictorial features to prepare
PREVIOUS YEAR'S RESULTS:	Kharif 2014: Fifty nine (59) inbreeding families (S ₀ =05, S ₁ =06, S ₃ =18, S ₄ =04, S ₅ =13 & S ₆ =13) were sown for derivation of inbred lines. At harvesting 161 inbreeding families were selected from different generations on phenotypic superiority basis for future program. Spring 2015: One hundred and sixty one families of different generations i.e., S ₀ =22, S ₁ =16, S ₂ =16, S ₃ =18, S ₄ =32, S ₅ =26 S ₆ =22 and S ₇ =09 were sown for derivation of inbred lines. At maturity, selfed plants (5-10) were harvested from each family and seed of 93 families was collected for	

GERMPLASM ENHANCEMENT

04. TITLE		TELOPMENT OF GERMPLASM Susarium moniliforme TOLERANCE
OBJECTIVE	To develop germplasm tolerant	to stalk rot.
RESEARCH WORKER(S)	Muhammad Shakeel Ahmad Mr. Shahid Hussain Dr. Muhammad Arshad	
PROJECT DURATION	Spring & Kharif 2016	
LOCATION	Maize & Millets Research Insti	tute, Yusafwala-Sahiwal.
TREATMENTS	One hundred & sixty fi Two hundred & sevent	ve (165) inbred lines. y two (272) derivative families.
METHODOLOGY	Layout Replications Plot Size Plant to plant Row to row Fertilizer	= Ear to row = Non-replicated = 5m x 0.75m = 20 cm = 75 cm = 297-148-124 NPK, Kg/ha.

	Date of sowing	= Month of July & February
	toothpicks in second internode & inoculated plants will be to	inoculated with the pathogen carrier from soil surface. At maturity, all selfed orn apart with the help of scalpel and ed according to Hooker's scale (1-10). arked for breeding program.
PREVIOUS YEAR'S RESULTS:	two hundred & seventy two (2 row for screening and develo	dred & sixty five (165) inbred lines and 72) derivative families were sown ear to pment of inbred lines against stalk rot. tion recorded, all the inbred lines and ed.

HYBRID CONSTITUTION

05. TITLE	EARLY GENERATION E FAMILIES.	VALUATION/TESTING OF INBRED	
OBJECTIVE	Evaluation of new derivatives at early generations.		
RESEARCH WORKER(S)	Mr. Shahid Hussain Dr. Muhammad Arshad		
PROJECT DURATION	Spring & Kharif 2016		
LOCATION	Maize & Millets Research Instit	ute, Yusafwala-Sahiwal.	
TREATMENTS	Fifty derivatives (S _{4 &} S ₅) with o	ne male.	
METHODOLOGY	Lay out Replications Plot Size Plant to plant Row to row Fertilizer Date of sowing	= strip planting = Non-replicated = 5m x 0.75m = 20 cm = 75 cm = 297-148-124 NPK, Kg/ha. = Month of July & February	
	Fifty derivative lines will be planted in isolation with single male line to develop fifty (50) single crosses during Spring 2015. These crosses will be evaluated in preliminary yield trials in next crop season. Reconstitution of best performing single crosses will be done.		
PREVIOUS YEAR'S RESULTS:	Thirty three single crosses were developed during kharif 2014 and evaluated in Spring 2015		
06. TITLE	CONSTITUTION OF NEW HYBRIDS IN ISOLATION AND THROUGH HAND POLLINATION.		
OBJECTIVE	To constitute new single crosses for selection of best single crosses.		
RESEARCH WORKER(S)	Yusafwala Mr. Khadim Hussain Mr. Shahid Hussain Dr. Muhammad Arshad		

PROJECT DURATION	Faisalabad Muhammad Altaf Amer Hussain Ahsan Raza Mallhi Muhammad Rafique Spring & Kharif 2016
LOCATION	 Maize & Millets Research Institute, Yusafwala-Sahiwal. Maize Research Station, Faisalabad.
TREATMENTS	Yusafwala A. (Isolation) = 35 inbred lines (female) x one tester. B. (By hand) = 10 inbred lines (female) x 3 testers.
	Faisalabad A. (Isolation-1) = 60 inbred lines (female) x one tester (Isolation-2) = 30 inbred lines (female) x one tester B. (By Hand) = 10 inbred lines (female) x two testers
PREVIOUS YEAR'S RESULTS:	 Yusafwala. A. Thirty five inbred lines will be crossed with one good combiner / male line for the constitution of new hybrids in isolated block in Kharif 2015 & Spring 2016. B. While in hand pollination block, three pollinators will be used with ten female lines. Faisalabad A. Indigenous 60 & 30 new inbred lines will be crossed in two isolations with male parent F165 and F-306, respectively in Kharif, 2015 for the development of new hybrids. B. Ten Indigenous inbred lines will be crossed by hand pollination with two male lines to find out best crosses as well as good male combiner. Yusafwala. Kharif, 2014 Thirty four (34) single crosses were constituted in an isolation block using 34 inbred lines as female and 1 as pollinator. Spring, 2015 One hundred and thirty nine new crosses were developed, 50 in isolation and 89 by hand pollination, during this season. Faisalabad: One hundred and twenty (120) single crosses were constituted by hand pollination / isolation block using 80 inbred lines as female and 3 as pollinators during Kharif 2014 while 52 new single cross hybrids were constituted during spring 2015.

HYBRID EVALUATION

STATION TRIALS

07. TITLE	PRELIMINARY MAIZE HYBRID YIELD TRIALS.
OBJECTIVE	To select high yielding new hybrids.

RESEARCH	Yusafwala	Ma Vh	adim Hu	.aaain			
	rusarwara		adım Hu ahid Hus				
WORKER(S)			ama Hus hammad				
	Delegated at		nmad Sha nmad Alt				
	Faisalabad			ar			
		Amer F		111 '			
			Raza Ma				
DROJECT DURATION	G : 0 IZ	•	mad Ra	nque			
PROJECT DURATION	Spring & K	narii 201	6				
LOCATION	1. Maize &	Millets R	esearch	Institute, Yusaf	wala-Sahiy	wal.	
	2. Maize Re			· ·			
		•					
TREATMENTS	Yusafwala			ty six single cro commercial &			
	Faisalabad			enty seven sing			
			com	mercial hybrids	as check.		
			_				
METHODOLOGY	Design		RCB				
	Replication	S	Two	0.75			
	Plot Size		_	0.75m			
	Plant to plant		20 cm				
	Row to row		75 cm				
	Fertilizer			148–124 NPK K			
	Date of sow	Date of sowing Month of July & February					
				erent agronomic	c/ morphol	ogical tr	aits and
PREVIOUS YEAR'S RESULTS:	Yusafwala.						
	Trial No. 1 This trial of			ty single crosse	es includin	ng three	hybrids
	(two comm top ranking			l) as check was below: -	conducted	d. The re	sults of
	g		Di .				
	S. Entr	ries	Plant Stand	Grain yield (kg/ha)	Days to 50% silk.	Plant ht. (Cm)	Cob ht. (Cm)
	1 Y. Hy	brid (C)	26	10920 a	54	213	108
	2 YH52		25	10093 ab	51	208	125
	3 YH52	225	24	9640 abc	51	193	98
	4 30Y8	37 (C)	23	9467 abcd	57	238	130
		521 (C)	25	9440 abcd	55	200	100
	18 YH52	242	25	1987 n	57	160	85
	Rang		22-26	1987-10920	47-57	160-	73-
						238	125
	C.V.	%	13.22	16.31	2.31	10.15	14.83
	LSD		6.13	2891	2.41	39.00	NS
	,	-					
	Trial No. 2	: Kharif-	2014:				

This trial comprising of forty single crosses including three hybrids (two commercial & one local) as check was conducted. The results of top ranking entries are given below: -

S. No.	Entries	Plant Stand	Grain yield (kg/ha)	Days to 50% silk.	Plant ht. (Cm)	Cob ht. (Cm)
1	YH-5280	25	11467 a	52	213	113
2	NK6621 (C)	26	10787 ab	56	228	105
3	Y. Hybrid (C)	25	10693 abc	54	225	110
4	YH-5288	24	10307 abcd	51	198	105
5	30Y87 (C)	23	9840 abcde	57	245	138
6	YH-5266	23	9760 abcde	50	205	110
23	YH-5284	25	4453 m	55	168	95
	RANGE	16-26	4453-11467	48-57	168-	93-
					245	138
	C.V.%	10.09	16.92	2.33	5.96	10.15
	LSD at 5%	NS	2556	2.44	25.01	22.33

Trial No. 3: Kharif-2014:

This trial comprising of thirty single crosses including two hybrids (one commercial & one local) as check was conducted. The results of top ranking entries are given below: -

S. No.	Entries	Plant Stand	Grain yield (kg/ha)	Days to 50% silk.	Plant ht. (Cm)	Cob ht. (Cm)
1	NK6621 (C)	26	9187a	55	223	110
2	Y. Hybrid (C)	25	9027a	54	218	110
3	YH-5320	25	8147ab	50	218	93
4	YH-5319	25	8040abc	54	208	88
5	YH-5309	26	8027abc	53	233	115
6	YH-5315	24	8013abc	48	195	95
30	YH-5325	26	2307 i	60	188	90
	RANGE	23-26	2307-9187	47-60	178-	85-
					265	125
	C.V.%	4.14	17.61	2.09	9.37	8.29
	LSD at 5%	NS	2169	2.24	40.01	17.58

Spring: 2015:

This trial comprising of thirty six crosses including three commercial hybrids as check was conducted. The results of top ranking entries are given below:

S. No.	Entries	Plant Stand	Grain yield (kg/ha)	Days to 50%	Plant ht.	Cob ht.
				silk.	(Cm)	(Cm)
1	YH 5333	25	12600	76	192	107
2	8711 (C)	26	12587	77	196	99
3	YH 5349	25	12307	76	202	112
4	YH 5343	22	12173	76	196	116
5	YH 5346	24	11680	79	196	122

	36	Y. Hybrid (C)	21	7400	78	190	105
ĺ		Range	21.26	7400-	74-80	173-	96-
			21-26	12600		209	125
ĺ		CV%	15.78	10.20	2.49	7.50	12.06
Ī		LSD at 5%	NS	2191	NS	NS	NS

Faisalabad

Trial-1: Kharif: 2014:

This trial comprised of twenty four single crosses including two commercial hybrids as check was conducted. The results of top ranking entries are given below: -

S. No.	Entries	Plant Stand	Grain yield (kg/ha)	Days to 50% silk.	Plant ht. (Cm)	Cob ht. (Cm)
1	FH-1219	25	13433a	55	196	86
2	FH-1203	24	13375a	54	191	80
3	NT-6621(C)	25	13039ab	55	213	93
4	FH-1200	24	12244abc	54	184	85
5	FH-1208	23	10595bcd	53	205	88
12	30Y87 (C)	19	9280defg	54	211	105
24	FH-1202	14	2655	54	182	61
	Range	10-25	2655-	49-55	154-	58-
			13433		213	105
	CV%	15.36	13.82	1.49	0.98	3.24
	LSD at 5%	3.05	1193	0.79	1.86	2.64

Trial-2: Kharif: 2014

This trial comprised of twenty four single crosses including two commercial hybrids as check was conducted. The results of top ranking entries are given below: -

S. No.	Entries	Plant Stand	Grain yield (kg/ha)	Days to 50%	Plant ht.	Cob ht.
1	FH-1231	25	12936 a	silk.	(Cm) 211	(Cm)
2	NT-6621 (C)	25	11377 ab	54	205	102
3	FH-1238	21	11243 ab	54	206	99
4	FH-810 (C)	23	10709 abc	52	194	92
5	FH-1232	23	10556 abc	53	212	104
23	30Y87(C)	11	4621 de	50	187	81
24	FH-1242	8	4416 e	54	195	89
	Range	7-25	4416-	49-56	168-	73-
			12936		218	110
	CV%	13.91	17.27	1.15	1.52	4.45
	LSD at 5%	2.93	1574	0.61	2.99	4.25

Trial-1: Spring: 2015:

		trial comprised					
		nercial hybrids a ng entries are gi			. The resul	ts of top	
					T = .		
	S. No.	Entries	Plant Stand	Grain yield (kg/ha)	Days to 50% silk.	Plant ht. (Cm)	Cob ht. (Cm)
	1	FH-1260	29	14636	80	184	62
	2	FH-1266	27	13725	82	178	85
	3	FH-1263	31	13496	81	189	93
	4	FH-1257	29	13340	76	199	85
	5	FH-1246	32	13160	78	193	82
	6	NK-8711(C)	30	12974	77	195	75
	7	FH-1256	29	12876	82	183	87
	20	P15M43(C)	33	11465	77	185	76
	27	FH-1267	27	7179	83	183	74
		Range	25-33	7179-	76-84	153-	60-
				14636		213	106
		CV%					
		LSD at 5%					
	This	I-2: Spring: 201	of twenty				ree
	This common ranki	trial comprised of mercial hybrids and ng entries are gi	of twenty as check went below	vas conducted	. The resul	ts of top	
	This	trial comprised onercial hybrids a	of twenty :	as conducted	Days to 50%	rs of top Plant ht.	Cob ht.
	This common ranki	trial comprised of mercial hybrids a ng entries are gi	of twenty as check wen below	ras conducted 7: - Grain yield (kg/ha)	Days to 50% silk.	Plant ht. (Cm)	Cob ht. (Cm)
	This common ranking S. No.	trial comprised of mercial hybrids a ng entries are gi	of twenty: as check wen below Plant Stand 30	ras conducted 7: - Grain yield (kg/ha) 15063	Days to 50% silk. 80	Plant ht. (Cm) 188	Cob ht. (Cm) 85
	This commeranki	trial comprised of mercial hybrids a ng entries are gi Entries FH-1287 FH-1268	of twenty as check we ven below Plant Stand 30 29	Grain yield (kg/ha) 15063 14947	Days to 50% silk. 80 79	Plant ht. (Cm) 188 172	Cob ht. (Cm) 85
	This common ranking S. No.	trial comprised of mercial hybrids a ng entries are gi Entries FH-1287 FH-1268 FH-1276	of twenty: as check wen below Plant Stand 30	ras conducted 7: - Grain yield (kg/ha) 15063 14947 14714	Days to 50% silk. 80	Plant ht. (Cm) 188 172 188	Cob ht. (Cm) 85
	This command ranking S. No.	trial comprised of mercial hybrids a ng entries are gi Entries FH-1287 FH-1268 FH-1276 FH-1285	Plant Stand 30 29 30	Grain yield (kg/ha) 15063 14947	Days to 50% silk. 80 79 79	Plant ht. (Cm) 188 172 188 206	Cob ht. (Cm) 85 77 91
	This command ranking S. No.	trial comprised of mercial hybrids a ng entries are gi Entries FH-1287 FH-1268 FH-1276 FH-1285 FH-1290	Plant Stand 30 29 30 27	ras conducted 7: - Grain yield (kg/ha) 15063 14947 14714 14569	Days to 50% silk. 80 79 79 80	Plant ht. (Cm) 188 172 188	Cob ht. (Cm) 85 77 91
	This commerants S. No. 1 2 3 4 5	trial comprised of mercial hybrids a ng entries are gi Entries FH-1287 FH-1268 FH-1276 FH-1285	of twenty as check we ven below Plant Stand 30 29 30 27 27	Grain yield (kg/ha) 15063 14947 14714 14569 14415	Days to 50% silk. 80 79 79 80 81	Plant ht. (Cm) 188 172 188 206 208	Cob ht. (Cm) 85 77 91 99
	This command in the second of	trial comprised of mercial hybrids a ng entries are gi Entries FH-1287 FH-1268 FH-1276 FH-1285 FH-1290 FH-1270	Plant Stand 30 29 30 27 27 31	ras conducted 7: - Grain yield (kg/ha) 15063 14947 14714 14569 14415 14097	Days to 50% silk. 80 79 80 81 78	Plant ht. (Cm) 188 172 188 206 208 196	Cob ht. (Cm) 85 77 91 99 105
	This commerants S. No. 1 2 3 4 5 6 11	trial comprised of mercial hybrids a ng entries are gi Entries FH-1287 FH-1268 FH-1276 FH-1285 FH-1290 FH-1270 P15M43 (C)	Plant Stand 30 29 30 27 27 31 30	Grain yield (kg/ha) 15063 14947 14714 14569 14415 14097 12919 3175 3175-	Days to 50% silk. 80 79 79 80 81 78 76	Plant ht. (Cm) 188 172 188 206 208 196 194 120	Cob ht. (Cm) 85 77 91 99 105 96 92 58
	This commerants S. No. 1 2 3 4 5 6 11	trial comprised of mercial hybrids and gentries are given by the second of the second	respectively: Stand	ras conducted 7: - Grain yield (kg/ha) 15063 14947 14714 14569 14415 14097 12919 3175	Days to 50% silk. 80 79 79 80 81 78 76	Plant ht. (Cm) 188 172 188 206 208 196 194	Cob ht. (Cm) 85 77 91 99 105 96 92 58
	This commerants S. No. 1 2 3 4 5 6 11	trial comprised of mercial hybrids and gentries are given by the second of the second	respectively: Stand	Grain yield (kg/ha) 15063 14947 14714 14569 14415 14097 12919 3175 3175-	Days to 50% silk. 80 79 79 80 81 78 76	Plant ht. (Cm) 188 172 188 206 208 196 194 120	Cob ht. (Cm) 85 77 91 99 105 96 92 58
	This command in the second of	trial comprised of mercial hybrids a ng entries are gi Entries FH-1287 FH-1268 FH-1276 FH-1285 FH-1290 FH-1270 P15M43 (C) FH-1291 Range CV% LSD 5%	Plant Stand Plant Stand 30 29 30 27 27 31 30 18 18-31	ras conducted 7: - Grain yield (kg/ha) 15063 14947 14714 14569 14415 14097 12919 3175 3175- 15063	Days to 50% silk. 80 79 79 80 81 76 80 76-83	Plant ht. (Cm) 188 172 188 206 208 196 194 120	Cob ht. (Cm) 85 77 91 99 105 96 92 58
08. TITLE	This command in the second of	trial comprised of mercial hybrids a ng entries are gi Entries FH-1287 FH-1268 FH-1276 FH-1285 FH-1290 FH-1270 P15M43 (C) FH-1291 Range CV%	Plant Stand Plant Stand 30 29 30 27 27 31 30 18 18-31	ras conducted 7: - Grain yield (kg/ha) 15063 14947 14714 14569 14415 14097 12919 3175 3175- 15063	Days to 50% silk. 80 79 79 80 81 76 80 76-83	Plant ht. (Cm) 188 172 188 206 208 196 194 120	Cob ht. (Cm) 85 77 91 99 105 96 92 58

Mr. Khadim Hussain

Mr. Shahid Hussain Dr. Muhammad Arshad

RESEARCH WORKER (S)

Yusafwala

	Faisa	labad	Muhamma Amer Hus Ahsan Raz	sain				
PROJECT DURATION	Sprin	g & Kharif 2	016					
LOCATION	Maiz	e Research St	ation, Faisa	labad.				
TREATMENTS	Yusa	fwala		ith twenty for nybrids (Two				
	Faisa	labad	Trial 1-3: Eighteen single crosses including two commercial hybrids as checks.					
METHODOLOGY	Desig	m	= R.C.B.					
METHODOLOGI	Reps	311	= R.C.B.					
	Plot s	size	= 5 m x 1	5 m				
		to row	= 75 cm					
		to plant	= 20 cm					
	Fertil	izer	= 297:14	8:124 NPK K	.g/ha			
	Date of Sowing = Month of July & February							
PREVIOUS YEAR'S RESULTS:	Yusa Khar comi	afwala rif 2014: his trial conercial hybring entries ar	omprising ids as chec	of twelve	entries	includin	g two	
	R.	Entries	Plant	Grain	Days to	Plant	Cob	
	No.		Stand	Yield (Kg/ha)	50 % silk	ht. (cm)	ht. (cm)	
	1	NT-6621 (C)	50	9247a	57	240	130	
	2	30Y87 (C)	47	8260ab	55	203	105	
	3	YH-5209	47	7547bc	53	200	100	
	4	YH-5165	51	7467bcd	51	185	95	
	5	YH-5189	52	7007bcde	50	168	80	
	12	YH-5323	52	4740 g	53	175	93	
		Range	47-52	4740- 9247	50-57	168- 240	80- 130	
		CV%	4.45	8.96	1.65	8.63	15.57	
		LSD at 5%	NS	1326	1.93	36.55	NS	
	Th	ng: 2015: his trial com nercial hybr		•		-		

ranking	entries	are	given	below: -
	CITCITOS	ui c	51,011	0010 111

R.	Entries	Plant	Grain	Days to	Plant	Cob
No.		Stand	Yield	50 %	ht.	ht.
			(Kg/ha)	silk	(cm)	(cm)
1	YH-5232	49	12633	77	207	106
2	P1543 (c)	43	12607	77	204	102
3	YH-5254	41	11980	77	172	95
4	YH-5264	39	11767	75	201	102
5	YH-5265	44	11300	77	184	107
24	YH-5225	39	8240	78	185	112
	Dongo	38-49	8240-	73-78	170-	83-
	Range		12633		207	113
	CV%	11.53	6.19	2.52	6.59	11.90
	LSD at 5%	NS	1338	NS	NS	NS

Faisalabad

Kharif 2014

This trial comprising of fourteen entries including two commercial hybrids as check was conducted. The results of top ranking entries are given below: -

R. No.	Entries	Plant Stand	Grain Yield	Days to	Plant ht.	Cob ht.
			(Kg/ha)	silk	(cm)	(cm)
1	FH-1137	44	10888 a	52	201	93
2	FH-1025	50	10473 ab	50	205	92
3	FH-1012	50	10423 ab	52	212	92
4	NT-6621 (C)	46	10020 abc	54	213	105
5	FH-1124	41	9115 bc	50	207	95
14	30Y87 (C)	17	3496 e	56	205	103
	Range	16-	3496-	49-56	174-	73-10
		51	10888		200	
	CV%	8.94	11.01	1.56	0.98	2.46
	LSD at 5%	3.06	783	0.65	1.60	1.86

Trial 1: Spring: 2015:

This trial comprising of eighteen entries including two commercial hybrids as check was conducted. The results of top ranking entries are given below: -

R. No.	Entries	Plant Stand	Grain Yield (Kg/ha)	Days to 50 % silk	Plant ht. (cm)	Cob ht. (cm)
1	FH-1167	50	13680	80	177	108
2	FH-1117	51	12444	82	181	110
3	FH-1119	50	11733	76	170	105
4	FH-1166	51	11716	82	176	106
5	FH-1124	50	11627	80	153	82
6	NK-8711 (C)	51	11502	76	168	117

	7	P1543 (C)	51	11298	76	165	96
	18	FH-1114	51	8436	82	141	85
			42-	8436-	76-83	141-	82-
		Range	52	13680		213	125
		CV%					
		LSD 5%					
	This	al 2: Spring: 20 s trial comprimercial hybrid	rising of s as chec	ck was cond		_	
	rank	ting entries are	given be	low: -			
	R.	Entries	Plant	Grain	Days to	Plant	Cob
	No.		Stand	Yield	50 %	ht.	ht.
				(Kg/ha)	silk	(cm)	(cm)
	1	FH-1205	50	11333	77	186	91
	2	FH-1173	50	10982	78	166	94
	3	FH-1180	49	10573	80	179	108
	4	FH-1203	48	10044	78	173	94
	5	FH-1184	48	10027	77	168	99
	9	P15M43(C)	47	9422	74	178	74
	15	NK-8711 (C)	44	8622	75	167	79
	18	FH-1202	32	7756	80	163	88
	10	Range	32-	7756-	74-81	163-	74-
			50	11333	, . 01	202	110
		CV%					
		LSD 5%					
		LSD 370					
	Tria	al 3: Spring: 20	015:				
	rank	s trial compr mercial hybrid ting entries are	s as cheo given be	ck was cond low: -	lucted. The	e results	of top
	R.	Entries	Plant	Grain	Days to	Plant	Cob
	No.		Stand	Yield	50 %	ht.	ht.
		TTT 1010		(Kg/ha)	silk	(cm)	(cm)
	1	FH-1218	50	11853	79	189	99
	2	FH-1231	51	11347	84	183	96
	3	FH-1229	49	11133	77	174	104
	4	FH-1219	47	11107	81	186	100
	5	FH-1212	48	10738	78	173	89
	16	P15-M43 (C)	50	9204	76	174	85
	17	NK-8711 (C)	46	9027	76	166	79
	18	FH-1225	50	8107	82	182	92
		Range	43-	8107-	76-85	166-	79-
			51	11853		192	117
		CV%					
		LSD 5%					
09. TITLE	MA	CRO HYBRID	MAIZE `	YIELD TRIA	ALS.		

OBJECTIVE	To s	To select high yielding hybrids.						
RESEARCH WORKER(S)	Ame	Muhammad Altaf Amer Hussain Ahsan Raza Mallhi						
	7 11136	Alisan Kaza Manin						
PROJECT DURATION	Spri	ng & Kharif 2	016					
LOCATION	Mai	ize Research S	tation, Fais	alabad.				
TREATMENTS		Trial 1: Nine single crosses including two commercial hybrids as check.						
	chec	l 2: Twelve si	ngle crosse	es including t	wo comme	ercial hyb	orids as	
METHODOLOGY	Desi	σn		= RCB				
WILTHODOLOGI		lications		= Two				
		Size		= 5 m x 3 m				
		t to plant		= 20 cm				
		to row		= 75 cm				
		ilizer		= 297–148–1	124 NPK K	g/ha.		
	Date	e of sowing		= Month of J				
PREVIOUS YEAR'S	high	will be record yielding comb	oinations wi			logical tra	aits and	
RESULTS:		trial comprising trial comprision to the tres						
	R. No.	Entries	Plant Stand	Grain Yield	Days to 50 % silk	Plant ht.	Cob ht.	
	1	FH-1036	94	(Kg/ha) 11120 a	54	(cm) 218	(cm)	
	2	FH-810 (C)	90	10551 ab	53	201	105	
	3	FH-1046	98	10331 ab	52	188	92	
	4	NT-6621(C)	97	10418 abc	53	212	101	
	5	FH-963	90	9727 bc	55	198		
	9						105 94	
	9	30Y87 (C)	57	5727 d	56	202		
		Range	52- 109	5727- 11120	50-56	185- 225	79- 112	
		CV%	6.42	6.02	1.43	2.86	4.93	
		LSD 5%	4.70	474	0.62	4.72	3.97	
		202 070	.,,,,	.,,,	0.02	,_	0.57	
	Tria	ıl -2: Kharif: 2	2014:					
		trial comprision	•		_		s	
	R.	Entries	Plant	Grain	Days to	Plant	Cob	

No.		Stand	Yield (Kg/ha)	50 % silk	ht. (cm)	ht. (cm)
1	FH-950	73	10673 a	50	206	97
2	NT-6621 (C)	73	10471 ab	54	206	97
3	FH-922	72	10436 ab	50	202	101
4	FH-988	71	10124 abc	50	204	99
6	FH-810 (C)	71	9683 bcd	53	188	90
9	Y. Hybird (C)	65	8145 e	53	184	85
11	30Y87 (C)	63	7876 e	54	204	100
12	FH-936	47	6860 f	53	183	92
	Range	44-76	6860- 10673	50-54	170- 222	75- 116
	CV%	5.74	5.11	2.07	5.60	8.06
	LSD 5%	3.18	386	0.88	8.88	NS

Trial: 1: Spring 2015:

This trial comprised of nine single crosses including two commercial hybrids as check was conducted. The results of top ranking entries are given below: -

R.	Entries	Plant	Grain	Days to	Plant	Cob
No.		Stand	Yield	50 %	ht.	ht.
			(Kg/ha)	silk	(cm)	(cm)
1	FH-1036	90	11120	85	193	113
2	FH-810	90	10551	81	183	108
3	FH-1046	98	10418	80	182	108
4	NK-8711(C)	97	10031	76	170	81
5	FH-985	89	9727	80	175	98
9	P1543(C)	59	5727	74	184	96
	Range	59-	5727-	74-85	170-	81-
		98	11120		199	115
	CV%					·
	LSD 5%					

Trial: 2 Spring 2015:

This trial comprised of twelve single crosses including two commercial hybrids as check was conducted. The results of top ranking entries are given below: -

R. No.	Entries	Plant Stand	Grain Yield (Kg/ha)	Days to 50 % silk	Plant ht. (cm)	Cob ht. (cm)
1	FH-1012	83	13158	84	172	87
2	FH-928	85	12397	80	173	98
3	FH-976	86	12133	83	192	107
4	FH-929	83	11632	84	173	86
5	FH-1042	85	11606	83	166	91
8	P15M43 (C)	85	11004	77	175	77
10	NK-8711(C)	80	10853	78	148	74
12	FH-1025	81	9310	84	167	90
	Range	80-	9310-	77-85	148-	74-

	87	13158	194	107
CV%				
LSD 5%				

10. TITLE		ALUATION AINST COMM		ROMISINO L HYBRID		E HYI	BRIDS		
OBJECTIVE	To e	valuate local m	aize hvbr	ids versus n	nultinationa	ıl hybrids			
		10 0 variation 13 of 12 mg of							
RESEARCH WORKER(S)		Khadim Hussai							
		Shahid Hussain							
	Dr. N	Muhammad Ars	shad						
PROJECT DURATION	Sprii	ng & Kharif 20)16						
LOCATION	Maiz	ze & Millets Re	search In	stitute, Yusa	afwala-Sah	iwal.			
TREATMENTS	Enti	ries =10 (YH-1: FH-98		afwala hybri 16, FH-810,					
METHODOLOGY	Lay	out		= RCBI)				
		lications		= 03					
	Plot	Size		=25m x	6m				
	Plant to plant = 20 cm								
			Row to row $= 75 \text{ cm}$						
	Rov	v to row				NZ ZZ /I			
	Row Fert Date		nd count	= 297–1 = Montl	.48–124 NI n of July &	February			
	Pata Data lodgi perce be ca	v to row illizer e of sowing regarding sta ing % age, pl entage and shel alculated.	ants harv	= 297-1 = Month , days to 5 vest/plot, fr	.48–124 NF n of July & 50% silkin tesh cob w	February g, plant veight, m	height,		
PREVIOUS YEAR'S RESULTS:	Pata Data lodgi perce be ca	v to row illizer e of sowing regarding sta ing % age, pl entage and shel	ants harv	= 297-1 = Month , days to 5 vest/plot, fr	.48–124 NF n of July & 50% silkin tesh cob w	February g, plant veight, m	height,		
	Pata Data lodgi perce be ca	v to row illizer e of sowing regarding sta ing % age, pl entage and shel alculated.	ants harv	= 297-1 = Month , days to set/plot, fr ge will be con	.48–124 NF n of July & 50% silkin tesh cob w	February g, plant veight, m l grain yie Plant ht.	height, coisture eld will Cob		
	Part Data lodgi perce be ca	v to row ilizer e of sowing regarding sta ing % age, pl entage and shel alculated. rif: 2014:	ants harv ling % ag	= 297-1 = Month , days to seest/plot, from the will be considered.	48–124 NF an of July & 50% silking esh cob wollected and Days to 50 %	February g, plant veight, m l grain yie	height, soisture eld will		
	Part Data lodgi perce be ca	v to row ilizer e of sowing regarding sta ing % age, pl entage and shel alculated. rif: 2014: Entries	ants harveling % ag	= 297-1 = Montl , days to set/plot, from the will be considered. Grain Yield (Kg/ha)	48–124 NF of July & 50% silking the cobe will be cobe with the cobe will be cobe and the cobe will be cobe and the cobe will be cobe with the cobe will be cobe will be cobe with the cobe will be cobe with the c	February g, plant veight, m l grain yie Plant ht. (cm)	height, loisture eld will Cob ht. (cm)		
	Part Data lodgi perce be ca Khar No.	v to row ilizer e of sowing regarding sta ing % age, pl entage and shel alculated. rif: 2014: Entries	ants harvaling % ag Plant Stand 89	= 297-1 = Month , days to seest/plot, from the will be considered. Grain Yield (Kg/ha) 9419 a	Days to silk	Plant ht. (cm) 224	height, soisture eld will Cob ht. (cm)		
	Part Data lodgi perce be car Kha R. No.	v to row ilizer e of sowing regarding sta ing % age, pl entage and shel alculated. rif: 2014: Entries NK-6621(c) FH-963	Plant Stand 89 77	= 297-1 = Montl , days to seest/plot, from the will be considered. Grain Yield (Kg/ha) 9419 a 9007 a	Days to 50 % silk 54 56	Plant ht. (cm) 224 209	height, soisture eld will Cob ht. (cm) 118		
	Row Fert Data lodgi perce be ca Kha	v to row ilizer e of sowing regarding sta ing % age, pl entage and shel alculated. rif: 2014: Entries NK-6621(c) FH-963 YH-1898	Plant Stand 89 77 81	= 297-1 = Month , days to 3 yest/plot, fr ge will be considered (Grain Yield (Kg/ha) 9419 a 9007 a 8201 b	Days to 50% silk Days to 50% silk 50 50 6 50 6 50 6 50 6 50 6 50 6 50 6	Plant ht. (cm) 224 209	cob ht. (cm) 118 120		
	Row Fert Data lodgi perce be car Kha R. No.	v to row ilizer e of sowing regarding sta ing % age, pl entage and shel alculated. rif: 2014: Entries NK-6621(c) FH-963 YH-1898 FH-810	### Plant Stand 89 77 81 71	= 297-1 = Month , days to set/plot, from the will be considered as the considered	Days to 50 % silk Days to 50 % silk 54 56 52 58	Plant ht. (cm) 224 209 199 227	Cob ht. (cm) 118 120 104		
	Row Fert Data lodgi perce be car Khar No.	v to row ilizer e of sowing regarding sta ing % age, pl entage and shel alculated. rif: 2014: Entries NK-6621(c) FH-963 YH-1898 FH-810 FH-985	### Plant Stand 89 77 81 74 74	= 297-1 = Month , days to 3 yest/plot, fr ge will be considered (Kg/ha) 9419 a 9007 a 8201 b 8098 bc 7603bcd	Days to 50 % silk 50 % silk 50 % silk 50 % silk 50 % 50 % 50 % 50 % 51 % 54 56 52 58 54	Plant ht. (cm) 224 209 199 227 207	Cob ht. (cm) 118 120 104 134		
	Row Fert Data lodgi perce be ca Kha R. No. 1 2 3 4 5 6	v to row ilizer e of sowing regarding sta ing % age, pl entage and shel alculated. rif: 2014: Entries NK-6621(c) FH-963 YH-1898 FH-810 FH-985 30 Y 87(c)	### Plant Stand 89 77 81 74 77 77	= 297-1 = Month , days to 3 yest/plot, fr ge will be considered (Frain Yield (Kg/ha) 9419 a 9007 a 8201 b 8098 bc 7603bcd 7425 cd	Days to 50 % silk 54 55 58 54 55	Plant ht. (cm) 224 209 199 227 207 236	Cob ht. (cm) 118 120 104 134 112 133		
	Row Fert Data lodgi perce be ca Kha R. No. 1 2 3 4 5 6	v to row ilizer e of sowing regarding sta ing % age, pl entage and shel alculated. rif: 2014: Entries NK-6621(c) FH-963 YH-1898 FH-810 FH-985 30 Y 87(c) FH-949	### Plant Stand 89	= 297-1 = Month , days to 3 yest/plot, fr ge will be considered (Kg/ha) 9419 a 9007 a 8201 b 8098 bc 7603bcd 7425 cd 3233 f 3233-	Days to 50 % silk 50% silkin esh cob wollected and 50% silk 54 56 52 58 54 55 56	Plant ht. (cm) 224 209 199 227 207 236 209 109-	Cob ht. (cm) 118 120 104 134 112 133 110 104-		

Spring: 2015:

This trial comprising ten entries including two varieties and two commercial hybrids as check was conducted. The results of top ranking entries are given below.

R. No.	Entries	Plant Stand	Grain Yield (Kg/ha)	Days to 50 % silk	Plant ht. (cm)	Cob ht. (cm)
1	P1543 (C)	75	13733	69	227	111
2	NK-8711 (C)	72	12756	71	205	99
3	YH-1898	73	11642	74	218	121
4	FH-949	70	11600	73	190	126
5	FH-963	72	11428	74	187	103
10	Y. Hybrid (C)	35	6017	75	205	98
	Dance	35-75	6017-	68-75	187-	98-
	Range		13733		227	126
	CV%	7.57	7.20	2.81	9.16	2.56
	LSD at 5%	8.77	1350	3.51	NS	4.74

11. TITLE	PRE STORAGE AFLATOXINS ANALYSIS IN MAIZE.
OBJECTIVE	To estimate the susceptibility of maize hybrids/inbred lines to aflatoxins.
DEGE A DOLL WODIZED (G)	M 1 1 A1 C
RESEARCH WORKER(S)	Muhammad Altaf
	Amer Hussain
	Ahsan Raza Mallhi
	Muhammad Rafique
COLABORATIVE	Dr. Mazhar Iqbal (PSO)
RESEARCH WORKER(S)	Miss Saima Majeed (Ph.D Student)
PROJECT DURATION	2015
LOCATION	NIBGE Faisalabad (Health Biochemistry Division)
TREATMENTS	Homogenized and representative samples of grains from 72 maize
	hybrids/inbred lines of Maize Research Station, Faisalabad
METHODOLOGY	Liquid Chromatography Mass Spectrometry
PREVIOUS YEAR'S	New experiment
RESULTS:	

NATIONAL UNIFORM YIELD TRIALS

12. TITLE	NATIONAL UNIFORM/ADAPTABILITY MAIZE HYBRID YIELD TRIALS.
OBJECTIVE	To evaluate exotic/local hybrids at various locations throughout the country.

RESEARCH	Yusafwa	la	Malik Riaz Hus			
WORKER(S)			Dr. Muhammad			
	Faisalaba	ad	Muhammad Alt			
	Muhammad Rafique					
DDOLECT DUD ATION	G . 0	Spring & Kharif 2016				
PROJECT DURATION	Spring &	Knarii 2	.016			
LOCATION	1 Maize	& Millets	Research Institut	te, Yusafwala-Sahiwal.		
Location			Station, AARI, F			
TREATMENTS:	As prov Islamaba	•	National Coo	rdinator (Cereal System) PARC,		
METHODOLOGY:	As por	instruction	of National C	Coordinator (Cereal System) PARC,		
METHODOLOGI.	Islamaba		is of National C	dordinator (Cerear System) FARC,		
	Istaniaoa					
PREVIOUS YEAR'S	MA	AIZE HY	BRID ADAPTA	BILITY TRIAL		
RESULTS:	En	tries: 40,	Year: Kharif -	2014, Locations: 11		
	R. No.	Hybrid	Name	Grain Yield (Kg/Ha.)		
				(Average)		
	1	TN9208		8316		
	2	X40C24		8105		
	3	X40C25	3	8015		
	5	BP-1 KXB25	72	7953 7930		
			Islamabad.	7930		
	Source	. NAKC, I	isiailiabau.			
		MAIZE F	IYBRID ADAPT	TABILITY TRIAL		
				2015, Locations: 09		
	R. No.	Hybrid	Name	Grain Yield (Kg/Ha.)		
		J	-	(Average)		
	1	DK-663	4	9214		
	2	Garanno	on	9128		
	3	S-7219		8850		
	4	HT-208	8	8827		
	5	S-7272		8762		
	Source:	NARC, Is	slamabad.			

SEED PRODUCTION

13. TITLE	SEED MULTIP	LICATION.					
OBJECTIVE	To multiply seed of single cross hybrids and their parental inbred lines						
	for experimental	and commercial purposes.					
RESEARCH	Yusafwala	Sadia Kanwal					
WORKER(S)		Malik Riaz Hussain					
		Dr. Muhammad Arshad					
	Faisalabad	Muhammad Altaf					
		Amer Hussain					

	Muhammad Rafique							
PROJECT DURATION	Spring & Khari	f 2016						
	78							
LOCATION			itute, Yusafwala-S	ahiwal.				
	2. Maize Resea	rch Station, AAR	l, Faisalabad.					
TREATMENTS	Yusafwala	A. Inbred lines	= 03 i.e. Y-14, Y	7-22, Y-27				
		B. Single crosse	s = 02 i.e. Yusafwa					
				8 & FH-1046				
	Faisalabad	A. Inbred lines		F-182, F-271, F-299				
		and ZP-633 B. Single crosses = 07 i.e. FH-810, FH-949, FH						
		8 1 1 1 1 1 1		5, FH-988, FH-1036				
			& FH-	1046				
METHODOLOGY	Lay out	Lay out Isolation Plot size 1-10 Kanals for inbred lines						
	Plot size	1-10 Kanals for 1-8 Acres for sir						
	Row to row	75 cm	igic crosses					
	Plant to plant	20 cm						
	Fertilizer	297:148:124 NP						
	Date of	Month of Januar	ry, February, July &	& August				
DDEVIOUS VEADS	Sowing							
PREVIOUS YEAR'S RESULTS	The following of	quantity of inbred	lines seed was pro-	duced:				
		Yusafwala	Faisalabad	Quantity (kg)				
	Inbred lines							
		Y-22	-	62				
		Y-27	-	60				
		-	F-107	02				
		-	ZP-633	03				
		-	F-165	60				
		-	F-182	02				
	Circula Conserva	- - VII 1000	F-271	80 2000				
	Single Crosses		-	2000				
		Yusafwala Hybrid	-	-				
		FH- 949	-	14				
			FH-793	05				
			FH-922	05				
			FH- 949	90				
			FH- 963	05				
			FH-985	05				
			FH-988	05				
			FH-1046	30				
	Double Cross	-	DTC-1	1000				

14. TITLE	IMPROVEMENT OF PARENTAL INBRED LINES OF APPROVED AND CANDIDATE HYBRIDS.

OBJECTIVE			nity regarding flowering, maturity, number of ont and better root anchor.				
RESEARCH WORKER(S)			ik Riaz Hussain				
RESEARCH WORKER(S)			Muhammad Arshad				
	1	<i>J</i> 1. 1	Wunanmad Arshad				
PROJECT DURATION	Spring & Khar	if 2	2016				
TROJECT BURNITON	Spring & Khar	11 2					
LOCATION	1. Maize & Mi	llets	s Research Institute, Yusafwala-Sahiwal.				
TREATMENTS	Y-14, Y-22, Y-	Y-14, Y-22, Y-27					
METHODOLOGY	Lay out		Strip				
	Plot size		1-2 Kanals for each inbred line,				
	Row to row		75 cm				
	Plant to plant		20 cm				
	Fertilizer		297:148:124 NPK Kg/ha				
	Date of Sowing	g	Month of January, February, July & August				
PREVIOUS YEAR'S RESULTS	Kharif 2015: 100 plants were selected from each of the three lines and selfed by hand pollination.						
15. TITLE:	ON-FARM TI	ES1	TING OF PROMISING HYBRIDS.				
OBJECTIVE:	To avaluate ma	.i	hybrids on farmer's field.				
OBJECTIVE.	10 evaluate ilia	ııze	Hydrids on farmer's field.				
RESEARCH WORKER (S):	Yusafwala	M	r. Saleem ur rahman				
RESEARCH WORKER (5).	1 usai waia		: Muhammad Arshad				
	Faisalabad	uhammad Rafique					
			uhammad Altaf				
PROJECT DURATION:	Spring & Khar	if 2	2016				
LOCATION:	6 (Four in Fais	alab	oad & two in Sahiwal division).				
TREATMENTS:	Hybrids = 08	i.e	(FH 963, FH 949, FH 985, FH 1036,FH-1046,YH-1898, Yusafwala Hybrid & one commercial hybrid)				
METHODOLOGY:	Layout		= Strips				
	Reps		= Non replicated				
	Plot size		$=45 \text{ m}^2$				
	Row to row		= 67.5 cm				
	Plant to plant		= 20 cm				
	Fertilizer		= Farmer's Practice.				
	Date of sowing	5	= Month of January and July.				

PREVIOUS YEAR'S	On-Farm Trial:
RESULTS:	Spring 2015:

	Sr. No.	Location	Entries	Grain yield
				(kg/ha)
	1	Khidder wala, Gojra	FH-949	10973
			FH-985	9285
			P1543 (C)	8926
			FH-793	8551
			EV-77	7732
	DEMON	NSTRATION PLOT O	F FH-949	
	Sr. No.	Location	Entries	Grain yield
				(kg/ha)
	1	Seed Abad Jhang	FH-949	11763
			NK-8711(C)	9645
	2	Chak no. 463 JB	FH-949	11419
		Gojra	DK 6142 (C)	10487
	DEMON	ISTRATION PLOT O	F FH-1046	
	Sr. No.	Location	Entries	Grain yield
				(kg/ha)
	1	Chimbranwali Jhang	FH-1046	9147
			P15M43 (C)	8871

MAIZE OPV'S

01. TITLE:	MAINTENANCE AND ENRICHMENT OF POPULATIONS OF POOL - 10 & 50.							
OBJECTIVE:	To enrich base popul derivations.	To enrich base population of pool 10 & 50 required for OPVs derivations.						
RESEARCH WORKER(S):		Rana Abdul Hameed Khan Dr. Muhammad Arshad						
PROJECT DURATION:	Continuous							
LOCATION:	Maize & Millets Research Institute, Yusafwala-Sahiwal.							
TREATMENTS:	Base populations of Yusafwala Pools-10 & 50.							
METHODOLOGY:	sown in isolation for t roughed out before pol to broaden the genetic	= Strip = 31.5m x 48.5m = 20cm = 75cm = 227-114-62 NPK, Kg/ha = Month of February and July se populations of pool-10 and pool-50 will be heir maintenance. Undesirable plants will be llination and open pollination will be allowed base. At maturity, crop will be harvested as a seentative samples will be kept for further						

	maintenance.						
PREVIOUS YEAR'S RESULTS:	Base population of pool-10 was maintained. Undesirable plants were roughed out before pollination and open pollination was allowed to broaden the genetic base. Base population of pool-50 was enriched by adding 10 new germplasm collected from various sources during Spring 2014. It was planted in Kharif 2014 and desirable 100 plants were selected for next selection cycle. The selected cob's seed was mixed and planted during Spring 2015 and 200 plants were selected on phenotypic superiority basis. Out of which 100 plants were selfed while 100 plants were allowed to open pollinate for next cycle of selection.						
02. TITLE:	DEVELOPMENT OF OPEN POLLINATED VARIETY						
OBJECTIVE:	To develop improved maize variety.						
RESEARCH WORKER (S):	Ghulam Murtaza Rana Abdul Hameed Khan Dr. Muhammad Arshad Mian Muhammad Shafique						
PROJECT DURATION:	Spring & Kharif 2016						
LOCATION:	Maize & Millets Research Institute, Yusafwala-Sahiwal.						
TREATMENTS:	Fifty one selected cob	S.					
METHODOLOGY:	undesirable plants wi will be made on the b 8 th -9 th node and lodg silking, again roughi greater cob length pollination. After har and bulked as a new e be evaluated against c	= 75cm = 227-114-62 NPK, Kg/ha = Month of February & July, 2014. os will be sown in isolation. Before tasseling, all be roughed out. Prior to silking, selection bases of tallness, stem girth, cob placement at a ging resistance during Kharif 2015. At 50 % and will be conducted keeping in view of and similar silking time and allow open westing, table selection of cobs will be made experimental variety (AH-15) seed which will heck varieties during Spring 2016.					
PREVIOUS YEAR'S RESULTS:	and selected the plan placement at 8 th -9 th n pollination was allow improvement cycle. N and 150 superior plan	selected lines was planted during Kharif 2014 at son the bases of height, stem girth, cob ode and uprooted the rest of the plants. Open ed and selected 100 desirable plants for next Aixed seed of 100 selected cobs was planted at swere selected and selfed. Out of these, 51 a their cob aspect as table selecton for further					

03. TITLE:	MIC	MICRO PLOT MAIZE YIELD TRIAL (OPV)							
OBJECTIVE:		To evaluate the promising maize experimental varieties for high yield potential.							
RESEARCH WORKER (S):	Mr.	Mr. Ghulam Murtaza Mr. Aamir Hussain Dr. Muhammad Arshad							
PROJECT DURATION:	Sprii	ng & Kharif 20)16						
LOCATIONS:	Maiz	Maize & Millets Research Institute, Yusafwala-Sahiwal.							
TREATMENTS:		7= YEV-6486, Pak-1, Pak-2, AH-15, YEV-6487, Pearl & MMRI Yellow.							
METHODOLOGY:	Desi	gn	= RCB						
	Reps		= 3						
	Plot		$= 5m \times 3m$	m					
	Row	to row	= 75 cm						
		t to plant	=20 cm						
		lizer		4:62 NPK I					
	Date	of Sowing	= Month	of July & F	ebruary.				
	Data will be recorded for stand count, days to 50% to 50% silking, plant height, cob height, fresh cob grain yield.								
PREVIOUS YEAR'S RESULTS:		rif 2014:	σ eight ent	tries was co	onducted	The resu	ılts are		
		n below.	g eight ein	ares was ex	mauetea.	The rest	arts the		
	Sr. No.	Entries	Plant Stand	Grain Yield (Kg/ha)	Days to 50 % silk	Plant ht. (cm)	Cob ht. (cm)		
	1	MMRI Yellow	36	4902 a	52	237	134		
	2	Agaiti-2002	34	4253 b	51	226	120		
	3	Pearl	33	4107 bc	52	219	108		
	4	FEV-77	36	3933 bc	51	208	110		
	5	YEV1098	35	3911 bc	49	192	89		
	6	YEV-6486	35	3729 c	50	223	112		
	7	Pak-2	35	2649 d	51	212	109		
	8	Pak-1 CV%	34	2347 d	52 1.94	204 9.10	100		
		LSD at 5%	6.17 NS	7.92 517	NS	9.10 NS	16.25 NS		
	Spri	ng 2015:							
	The	trial comprising below.	g eight ent	tries was co	onducted.	The resu	ılts are		
	Sr. No.	Entries	Plant Stand	Grain Yield	Days to 50 %	Plant ht.	Cob ht.		

			(Kg/ha)	silk	(cm)	(cm)
1	AH-15	70	9291 a	75	211	106
2	MMRI Yellow	70	7722 b	73	213	113
	(C)					
3	Sahiwal-2002	71	7330 c	72	225	116
4	Pearl	66	7039 c	71	235	126
5	Pak-2	68	6552 d	70	225	120
6	YEV-6487	66	6522 d	69	226	122
7	Pak-1	75	6511 d	69	216	115
8	YEV 6486	71	5986 e	69	202	107
	CV%	4.63	2.60	1.73	5.17	8.16
•	LSD at 5%	NS	324	2.0	NS	NS

03. TITLE:	MIC	CRO PLOT N RN)	MAIZE Y	TELD TR	IAL (PO	OP & S	WEET	
OBJECTIVE:		To evaluate the promising pop corn maize experimental varieties for high yield potential.						
RESEARCH WORKER (S):	Mr.	Mr. Ghulam Murtaza Mr. Aamir Hussain Dr. Muhammad Arshad						
PROJECT DURATION:	Sprii	Spring & Kharif 2016						
LOCATIONS:	Maiz	Maize & Millets Research Institute, Yusafwala-Sahiwal.						
TREATMENTS:	D	8= Pop Corn-14, Pop Corn-12, Local Sahiwal, Local Swat, Local Dir, White Pop Corn, MMRI, Sweet Corn and Local Sweet Corn.						
METHODOLOGY:	Design Reps		= RCB = 3					
	Plot size		$=4m \times 3m$					
	Row	to row	= 75 cm					
	Plan	t to plant	= 20 cm					
	Ferti	lizer	= 227:114	4:62 NPK K	g/ha			
	Date	of Sowing	= Month	of July & Fe	bruary.			
	to 50	will be recorde 3% silking, plar 1 yield.			•		-	
PREVIOUS YEAR'S RESULTS:	Spri	ng 2015:						
	The t	rial comprising w.	five entries	was conduc	eted. The	results ar	e given	
	Sr.	Entries	Plant	Grain	Days	Plant	Cob	
	No.		Stand	Yield	to 50	ht.	ht.	
	1	D C 14	0.1	(Kg/ha)	% silk	(cm)	(cm)	
	1	Pop Corn-14	91	5638 a	73	224	120	
	3	Pop Corn-12	90	4043 b	70	210	112	
	3	Local	90	3681 c	73	229	128	

	Sahiwal					
5	Local Dir	89	3673 с	70	223	127
4	Local Swat©	86	3216 d	70	228	125
	CV%	2.56	3.18	1.27	6.70	11.52
	LSD at 5%	NS	198	1.40	NS	NS

04. TITLE:	NATIONA	L UNIFORM MAIZE VA	ARIETAL YIELD TRIAL.
OBJECTIVE:	To evaluate	national maize varieties.	
RESEARCH WORKER (S):	Yusafwala	Rana Abdul Hameed Dr. Muhammad Arsl	
	Faisalabad	Mr. Muhammad Alta Mr. Muhammad Raf	
	Rawalpindi	Mr. Muhammad Sid Dr. Muhammad Irsh	
PROJECT DURATION:	Spring & K	harif 2016	
LOCATIONS:		Millets Research Institute, `search Station, Faisalabad.	Yusafwala-Sahiwal.
TREATMENTS:	As per inst PARC, Islan		Coordinator (Cereal System)
METHODOLOGY:			Coordinator (Cereal System)
	PARC, Islan	madad	
PREVIOUS YEAR'S RESULTS:	NATIONA		ARIETAL YIELD TRIAL. ations: 7
	NATIONA	L UNIFORM MAIZE V	Grain Yield (Kg/Ha.)
	NATIONA Entries: 10	L UNIFORM MAIZE V , Year: Kharif- 2014, Loca	ations: 7
	NATIONA Entries: 10 R. No.	L UNIFORM MAIZE V , Year: Kharif- 2014, Loca Variety Name	ations: 7 Grain Yield (Kg/Ha.) (Average)
	NATIONA Entries: 10 R. No.	L UNIFORM MAIZE V , Year: Kharif- 2014, Loca Variety Name FEV-77 NP-3	Grain Yield (Kg/Ha.) (Average) 5166
	NATIONA Entries: 10 R. No. 1 2 3	L UNIFORM MAIZE V, Year: Kharif- 2014, Local Variety Name FEV-77 NP-3 Rustam Special	Grain Yield (Kg/Ha.) (Average) 5166 4821 4624
	NATIONA Entries: 10 R. No. 1 2 3 4	L UNIFORM MAIZE V , Year: Kharif- 2014, Loca Variety Name FEV-77 NP-3 Rustam Special Islamabad Gold	Grain Yield (Kg/Ha.) (Average) 5166 4821 4624 4598
	NATIONA Entries: 10 R. No. 1 2 3	L UNIFORM MAIZE V, Year: Kharif- 2014, Local Variety Name FEV-77 NP-3 Rustam Special Islamabad Gold NP-4	Actions: 7 Grain Yield (Kg/Ha.) (Average) 5166 4821 4624 4598 3264
	NATIONA Entries: 10 R. No. 1 2 3 4 10 NATIONA	L UNIFORM MAIZE V , Year: Kharif- 2014, Loca Variety Name FEV-77 NP-3 Rustam Special Islamabad Gold NP-4 Source: NARC, Is	Grain Yield (Kg/Ha.) (Average) 5166 4821 4624 4598 3264 Clamabad. ARIETAL YIELD TRIAL.
	NATIONA Entries: 10 R. No. 1 2 3 4 10 NATIONA	L UNIFORM MAIZE V, Year: Kharif- 2014, Local Variety Name FEV-77 NP-3 Rustam Special Islamabad Gold NP-4 Source: NARC, Is	Grain Yield (Kg/Ha.) (Average) 5166 4821 4624 4598 3264 Clamabad. ARIETAL YIELD TRIAL.
	NATIONA Entries: 10 R. No. 1 2 3 4 10 NATIONA Entries: 14	L UNIFORM MAIZE V , Year: Kharif- 2014, Loca Variety Name FEV-77 NP-3 Rustam Special Islamabad Gold NP-4 Source: NARC, Is L UNIFORM MAIZE VA , Year: Spring- 2015, Loca	Grain Yield (Kg/Ha.) (Average) 5166 4821 4624 4598 3264 Ilamabad. ARIETAL YIELD TRIAL. ations: 4 Grain Yield (Kg/Ha.)
	NATIONA Entries: 10 R. No. 1 2 3 4 10 NATIONA Entries: 14 R. No.	L UNIFORM MAIZE V , Year: Kharif- 2014, Loca Variety Name FEV-77 NP-3 Rustam Special Islamabad Gold NP-4 Source: NARC, Is L UNIFORM MAIZE VA , Year: Spring- 2015, Loca Variety Name	Grain Yield (Kg/Ha.) (Average) 5166 4821 4624 4598 3264 Clamabad. ARIETAL YIELD TRIAL. ations: 4 Grain Yield (Kg/Ha.) (Average)
	NATIONA Entries: 10 R. No. 1 2 3 4 10 NATIONA Entries: 14 R. No.	L UNIFORM MAIZE V , Year: Kharif- 2014, Loca Variety Name FEV-77 NP-3 Rustam Special Islamabad Gold NP-4 Source: NARC, Is L UNIFORM MAIZE VA , Year: Spring- 2015, Loca Variety Name Islamabad Gold (c) Pop-corn-14 NARC-EV-1401	Grain Yield (Kg/Ha.) (Average) 5166 4821 4624 4598 3264 Ilamabad. ARIETAL YIELD TRIAL. ations: 4 Grain Yield (Kg/Ha.) (Average) 6695 5903 5798
	NATIONA Entries: 10 R. No. 1 2 3 4 10 NATIONA Entries: 14 R. No. 1 2 3 4	L UNIFORM MAIZE V , Year: Kharif- 2014, Loca Variety Name FEV-77 NP-3 Rustam Special Islamabad Gold NP-4 Source: NARC, Is L UNIFORM MAIZE VA , Year: Spring- 2015, Loca Variety Name Islamabad Gold (c) Pop-corn-14 NARC-EV-1401 EV-77 (Malka)	Grain Yield (Kg/Ha.) (Average) 5166 4821 4624 4598 3264 Ilamabad. ARIETAL YIELD TRIAL. ations: 4 Grain Yield (Kg/Ha.) (Average) 6695 5903 5798 5635
	NATIONA Entries: 10 R. No. 1 2 3 4 10 NATIONA Entries: 14 R. No. 1 2 3	L UNIFORM MAIZE V , Year: Kharif- 2014, Loca Variety Name FEV-77 NP-3 Rustam Special Islamabad Gold NP-4 Source: NARC, Is L UNIFORM MAIZE VA , Year: Spring- 2015, Loca Variety Name Islamabad Gold (c) Pop-corn-14 NARC-EV-1401	Grain Yield (Kg/Ha.) (Average) 5166 4821 4624 4598 3264 Ilamabad. ARIETAL YIELD TRIAL. ations: 4 Grain Yield (Kg/Ha.) (Average) 6695 5903 5798 5635 3585

OPV Seed Multiplication

Basic Seed MMRI YELLOW= 2400 Kg Spring 2016 Malik Riaz Hussain SORGHUM

01. TITLE	MAINTENANO	CE OF GENE P	OOL.
OBJECTIVE	To maintain the	garmplasm for h	reeding program.
ODJECTIVE	10 mamam me	gerinpiasiii ioi b	reeding program.
RESEARCH WORKER (S)	Yusafwala	Mr. Muhamma	d Saeed
		Mr. Dilbar Hus	sain
	D.G.Khan	Mr. Ihsanullah	
		Mrs.Zaib-un-N	isa
PROJECT DURATION	Kharif 2016		
TROUBET BETATITOT			
LOCATION	1. Maize & Mill	ets Research Inst	itute, Yusafwala-Sahiwal.
	2. Sorghum Rese	earch Sub-station	n, D. G. Khan.
TO E A TO A CONTROL	00 1	ANDIX C	1 10D00 D C VI
TREATMENTS	80 entries each a	it MMRI, Yusafv	vala and SRSS, D. G. Khan.
	Seed/Seedling.		
	1. Seedling grow	vth habit	2. Coleoptile's Anthcyanin
	3. Seedling length		4. First leaf color
	5.First leaf tip		
	Leaf		
	6. No, of Leaf p		7. Leaf size (length / width)
	8. Leaf attitud semi-droopin		9. Mid rib color
	semi-droopin	ig / elect)	
	Stem		
	10. Stem length		11.Stem type (Juicy/dry)
	12. Stem thickne	ess	13. Lodging
	14. Internode ler	ngth	
	Reproductive T		16 Dadou ala lamath
	15. Days to pani 17. Panicle shap		16.Peduncle length 18. Panicle attitude
	19. Rachis lengt		20. Stigma color
	21. Anther fertil		20. Stignia color
	Seed		
	22. Seed coverin		23. Seed size
	24. Seed shape (25. 100 grain weight (gm)
	elliptic, elliptic a 26. Seed weight		
	20. Seed weight	pamere (gm)	
	Disease		
	27. Red leaf spo	t	28. Stalk rot %age
	29. Any other		
L			

METHODOLOGY	covered with I maturity, Selected collected for m characteristics 1	Strip
PREVIOUS YEAR'S RESULTS:	Eighty entries we Sahiwal and SRS	ere planted and maintained at MMRI, Yusafwala-SS, D. G. Khan.
02. TITLE	MAINTENANO LINES.	CE OF CYTOPLASMIC MALE STERILE (A)
OBJECTIVE	To maintain the	female parent lines for hybrid program.
RESEARCH WORKER(S)	Mr. Muhammad Mr. Dilbar Hussa	
PROJECT DURATION	Kharif 2016	
LOCATION	Maize & Millets	Research Institute, Yusafwala-Sahiwal.
TREATMENTS	Fifteen A & B lin	nes.
METHODOLOGY	Lay out Reps Plot size Plant to plant Row to row Fertilizer Date of sowing	= Strip = Non replicated = 5m x 2.25m = 15 cm = 75 cm = 170-84-62 NPK, (Kg/ha) = 25 th June – 15 th July
	heads of male &covered with I	be sown in 3:1 (female: male). Ten vigorous plants/ and female lines will be selected in each line Kraft paper bags before flowering and pollination d for maintenance of CMS lines. At maturity, seed for maintenance.
PREVIOUS YEAR'S RESULTS:	Fifteen lines wer	(A) and their counterpart (B) lines were planted. re maintained while three lines were rejected, one exceptibility and other two restore the fertility

03. TITLE	MAINTENANCE	OF FERTILITY RESTORER (R) LINES.
OBJECTIVE	To maintain the mal	ale parent lines for hybrid program.
RESEARCH WORKER(S)	Mr. Muhammad Sae Mr. Dilbar Hussain	
PROJECT DURATION	Kharif 2016	
LOCATION	Maize & Millets Re	esearch Institute, Yusafwala-Sahiwal.
TREATMENTS	Twenty six fertility	restorer (R) lines.
METHODOLOGY	panicles of selected	= Strip = Non replicated = 5m x 1.5m = 15 cm = 75 cm = 170-84-62 NPK (Kg/ha) = 25 th June – 15 th July plants will be selected from each line. The d plants will be covered with craft paper bags
	traits like days to 50	for their maintenance. The data on different 50% anthesis, plant height, brix percentage, leaf , tillering, lodging, panicle attitude etc. will be
PREVIOUS YEAR'S RESULTS:	Twenty six restorer	r lines were planted and maintained.
04. TITLE	DEVELOPMENT SORGHUM VARI	OF DUAL PURPOSE SWEET
OBJECTIVE	To develop sweet so content.	orghum variety with high grain yield and sugar
RESEARCH WORKER (S)	Mr. Muhammad Sae Mr. Dilbar Hussain Mian Muhammad S	1
PROJECT DURATION	Kharif 2016	
LOCATION	Maize & Millets Re	esearch Institute, Yusafwala-Sahiwal.
TREATMENTS	Eight F ₂ populations Five F ₄ populations	
METHODOLOGY	Replications Plot size Plant to Plant Row to Row Fertilizer (Kg/ha)	03 5m x 31.5m 25 cm 75 cm 79-57-62 NPK.

		Date of sowing	25 th June – 15 th July
		parents according to standard marked /selected, keeping in height, semi drooping green hand their panicles will be cover	ns will be planted along with both practice. Desirable plants will be view; brix % age, medium tall in eaves, panicle size, panicle shape red with craft paper bags to ensure nibiting cream color grains will be tion studies.
PREVIOUS RESULTS:	YEAR'S	planted and phenotypically sup	Kharif 2016. Eight F ₃ families were

HYBRIDIZATION

05. TITLE:	CONSTITUTIO	ON OF SORGHUM HYBRIDS.
OBJECTIVE:		igh yielding local hybrids as compare to brids to curtail seed import.
RESEARCH WORKERS:	Mr. Muhammad	Saeed
	Mr. Dilbar Hussa	ain
PROJECT DURATION:	Kharif-2016	
	`	
LOCATION:	Maize and Millet	ts Research Institute, Yusafwala, Sahiwal.
TREATMENTS:	CMS lines = 0	08
	Restorer lines = 0	02
METHODOLOGY	Layout	= Strip
	Replications	= Non-replicated
	Plot size	$= 5 \text{ m} \times 1.5 \text{ m}$
	Plant to plant	= 15 cm
	Row to row	= 75 cm
	Fertilizer	= 170:84:62 NPK, (Kg/ha.)
	Date of sowing	= 25 th June – 15 th July
		vill be sown side by side with restorer line in ratio
		e) in isolations. At maturity, the panicles of each
		rvested separately. The performance of harvested
	hybrids will be to	ested in the next season.
PREVIOUS YEARS		R" crosses were constituted, nine in isolation and
RESULTS:	3 by hand pollina	ation.

EVALUATION

06. TITLE	VARIETAL YIE	LD TRIAL.
OBJECTIVE	To evaluate the pr	omising varieties/strains for grain yield.
		-
RESEARCH WORKERS	Yusafwala	Mr. Dilbar Hussain

		Mr. Mu	hammad Saeed
	D.G.Khan	Mr. Ih	san Ullah
		Mrs.Za	aib-un-Nisa
PROJECT DURATION	Kharif-2016		
LOCATION			search Institute, Yusafwala-Sahiwal. Sub-station, D. G. Khan.
TREATMENTS	Eight varieties i.		10, YS-15, YSS-17, YSS-19, YSS-23 25, YSS-31 and Standard YSS-98.
METHODOLOGY	Design	=	RCB
	Reps	=	4
	Plot size	=	5m x 3m
	Plant to plant	=	15 cm
	Row to row	=	75 cm
	Fertilizer	=	170-84-62 NPK (Kg/ha)
	Date of sowing	=	Month of July
			tt, disease score, days to 50% anthesis, e, head weight, grain & stalk yield will
PREVIOUS YEAR'S RESULTS:	New experiment.		

07. TITLE	SORGHUM HYBE	RID YII	ELD TRIAL.
OBJECTIVE	Selection of high y hybrids.	ielding	local hybrids to replace multinational
RESEARCH WORKER (S)	N		nammad Saeed Par Hussain
		Ars. Zai Ar. Ihsa	b-un-Nisa nullah
PROJECT DURATION	Kharif-2016		
LOCATION			h Institute, Yusafwala-Sahiwal. tation, D. G. Khan.
TREATMENTS	Entries = 10 (9 hybr	ids & 1	check).
METHODOLOGY			RCB 3 5m x 1.5m 15 cm 75 cm 170-84-62 NPK (Kg/ha) 25 th June – 15 th July s per plot, days to 50% anthesis, disease agth, head weight and grain yield will be

DDELUCIE VE ADIC							
PREVIOUS YEAR'S RESULTS:		d trial compricted during k			cluding one	check was	S
	MMF	RI, Yusafwal	a.				
	R.	Entry	Plant	Grain	Stalk	Days	Plant
	No.		Stand	Yield	Yield	to 50%	ht.
				(Kg/ha)	(Kg/ha)	Anth.	(cm.)
	1	YSH-95	31	3439 a	30444	73	223
	2	YSH-119	32	2969 b	25333	73	222
	3	YSH-123	32	2913 b	22222	71	204
	4	YSH-118	31	2791 bc	26222	74	213
	5	YSH-122	31	2707 bcd	25111	73	219
	6	YSH-115	33	2600 bcd	26000	75	213
	7	YSS-98 (C)	33	2598 bcd	22222	71	165
	10	YSH-120	33	2051 e	26667	74	254
		Range	30-36	2051-	22222-	71-75	165-
		C V O	<i>5.71</i>	3439	30444	2.46	254
		C.V.%	5.71	8.56	10.66	2.46	8.08
		LSD at 5%	NS	188	2213	1.28	14
	R.	num Researc	Plant	Grain	Stalk	Days	Plant
		num Researc		Grain Yield	Stalk Yield	to 50%	ht.
	R.		Plant	Grain	Stalk		
	R. No.	Entry	Plant Stand	Grain Yield (Kg/ha)	Stalk Yield (kg/ha)	to 50% Anth.	ht. (cm)
	R. No.	Entry YSH 115	Plant Stand	Grain Yield (Kg/ha) 4667 a	Stalk Yield (kg/ha) 31667	to 50% Anth.	ht. (cm) 189
	R. No. 1	Entry YSH 115 YSH 123	Plant Stand	Grain Yield (Kg/ha) 4667 a 4333 ab	Stalk Yield (kg/ha) 31667 26667	to 50% Anth. 91 83	ht. (cm) 189 198
	R. No. 1 2 3	Entry YSH 115 YSH 123 YSH 95	Plant	Grain Yield (Kg/ha) 4667 a 4333 ab 4000 b	Stalk Yield (kg/ha) 31667 26667 39333	to 50% Anth. 91 83 91	ht. (cm) 189 198 205
	R. No. 1 2 3 4	YSH 115 YSH 123 YSH 95 YSH 118	Plant	Grain Yield (Kg/ha) 4667 a 4333 ab 4000 b 3333 c	Stalk Yield (kg/ha) 31667 26667 39333 27000	to 50% Anth. 91 83 91 95	ht. (cm) 189 198 205 210
	R. No. 1 2 3 4 5	YSH 115 YSH 123 YSH 95 YSH 118 YSH 122	31 31 31 30 32	Grain Yield (Kg/ha) 4667 a 4333 ab 4000 b 3333 c	Stalk Yield (kg/ha) 31667 26667 39333 27000 33000	to 50% Anth. 91 83 91 95	ht. (cm) 189 198 205 210 209
	R. No. 1 2 3 4 5	YSH 115 YSH 123 YSH 95 YSH 118 YSH 122 YSS 98 (C)	Plant	Grain Yield (Kg/ha) 4667 a 4333 ab 4000 b 3333 c 3333 c 3000 c	Stalk Yield (kg/ha) 31667 26667 39333 27000 33000 21333 21333-	to 50% Anth. 91 83 91 95 91 80	ht. (cm) 189 198 205 210 209 188 188-

NATIONAL UNIF TRIAL.	ORM/ADAPTABILITY SORGHUM YIELD
To test the adaption varieties/material un	otability and performance of the national der local conditions.
Yusafwala	Mr. Aamir Ghani Mr. Muhammad Saeed Mr. Dilbar Hussain Mian Muhammad Shafique
	TRIAL. To test the adaptivarieties/material un

	Rawalpindi	Miss. Saeeda Khar	num
		Mr. Irshad Ul Haq	
	D.G.Khan	Mrs.Zaib-un-Nisa	
		Mr. Ihsanullah	
PROJECT DURATION	Kharif-2016	5	
LOCATION(S)	1. Ma	ize & Millets Research Institu	ıte, Yusafwala-Sahiwal.
	2. Mil	lets Research Station, Rawalj	oindi.
	3. Sor	ghum Research Sub-station, l	D. G. Khan.
TREATMENTS	As provide	d by the National Coordina	tor (Cereal System) PARC,
	Islamabad.	•	,
METHODOLOGY	As per instr	ructions of National Coordinate	ator (Cereal System) PARC,
METHODOLOGY	As per instr Islamabad.	ructions of National Coordinate	ator (Cereal System) PARC,
METHODOLOGY		ructions of National Coordinate	ator (Cereal System) PARC,
METHODOLOGY PREVIOUS YEAR'S	Islamabad.	ructions of National Coordinate L UNIFORM MAIZE VAR	
	Islamabad. NATIONA		RIETAL YIELD TRIAL.
PREVIOUS YEAR'S	Islamabad. NATIONA Entries: 10	L UNIFORM MAIZE VAR , Year: Kharif- 2014, Locat	RIETAL YIELD TRIAL.
PREVIOUS YEAR'S	Islamabad. NATIONA	L UNIFORM MAIZE VAR	RIETAL YIELD TRIAL. ions: 4 Grain Yield (Kg/Ha.)
PREVIOUS YEAR'S	Islamabad. NATIONA Entries: 10	L UNIFORM MAIZE VAR , Year: Kharif- 2014, Locat	RIETAL YIELD TRIAL.
PREVIOUS YEAR'S	Islamabad. NATIONA Entries: 10 R. No.	L UNIFORM MAIZE VAR , Year: Kharif- 2014, Locat Variety Name	RIETAL YIELD TRIAL. ions: 4 Grain Yield (Kg/Ha.) (Average)
PREVIOUS YEAR'S	Islamabad. NATIONA Entries: 10 R. No.	L UNIFORM MAIZE VAR , Year: Kharif- 2014, Locat Variety Name ICSA480 x R-160	Grain Yield (Kg/Ha.) (Average) 3017
PREVIOUS YEAR'S	Islamabad. NATIONA Entries: 10 R. No.	L UNIFORM MAIZE VAR , Year: Kharif- 2014, Locat Variety Name ICSA480 x R-160 Johar	Grain Yield (Kg/Ha.) (Average) 3017 2737
PREVIOUS YEAR'S	Islamabad. NATIONA Entries: 10 R. No. 1 2 3	L UNIFORM MAIZE VAR , Year: Kharif- 2014, Locat Variety Name ICSA480 x R-160 Johar ICSA29001 x V-89058	Grain Yield (Kg/Ha.) (Average) 3017 2737 2715
PREVIOUS YEAR'S	Islamabad. NATIONA Entries: 10 R. No. 1 2 3 4	L UNIFORM MAIZE VAR , Year: Kharif- 2014, Locat Variety Name ICSA480 x R-160 Johar ICSA29001 x V-89058 ICSA101 x Johar	Grain Yield (Kg/Ha.) (Average) 3017 2737 2715 2277

09. TITLE	SEED MULTIPLICATION.				
OBJECTIVE	To produce breeder, pre-basic & basic seed of approved variety.				
	Seed production of a hybrid and parental lines for local and national				
	testing.				
RESEARCH WORKER(S)	Mr. Aamir Ghani				
	Mr. Muhammad Saeed				
	Mr. Dilbar Hussain				
	Mr. Tanveer Mukhtar				
	Mr. Asrar Mahboob				
PROJECT DURATION	Kharif-2016				
LOCATION	Maize & Millets Res	earch	Institute, Yusafwala-Sahiwal.		
TREATMENTS	Variety = YSS-98				
	CMS Line = One				
	Hybrid Constitution = One				
METHODOLOGY	Lay out	=	Blocks		
	Reps	=	Non replicated		
	Plot size	=	Breeder $= 10m \times 31.5m$		
			$Pre-basic = 20m \times 31.5m$		

			Basic	= (1/2 hectare	e)	
	Plant to plant	=	15 cm			
	Row to row	=	75 cm			
	Fertilizer	=	170-84-	62 NPK (Kg/ha	ı)	
	Date of sowing	=	25 th Jun	e – 15 th July		
PREVIOUS YEAR'S RESULTS:	The following quantity of seed was produced.					
	Variety		Quantity (Kg)			
		В	reeder	Pre-basic	Basic	
	YSS 98		9	-	2050	
	YSS-9 (Promising)			195	-	

PEARL MILLET:

01. TITLE:	MAINTANACE OF GERMPLASM					
OBJECTIVE:	To maintain the germplasm for breeding program.					
020201112	To maintain the germplasm for orecoming program.					
RESEARCH WORKERS:	Mr. Abdul Razaq					
	Muhammad Hussain Chaudhary					
PROJECT DURATION:	Kharif-2016					
LOCATION:	Maize and Millets Research Institute, Yusafwala, Sahiwal.					
LOCATION.	Whatze and withets Reser	Maize and Minets Research histitute, Tusarwara, Samwar.				
TREATMENTS:	17 lines					
METHODOLOGY:	ETHODOLOGY: Layout = S					
WETHODOLOGI.	Reps	I	plicated			
	Plot size	$=$ $5m \times 1$				
	Plant to plant distance	= 25 cm	.0111			
	Row to row distance	= 75 cm				
	Fertilizer	= 114:75	:62 NPK (kg.ha ⁻¹)			
	Date of sowing	= 15 th Ju	ne to 5 th July			
	All the lines will be maintained through self-pollination to assure homozygosity. Data regarding following traits will be collected in each line for two years along with display of pictorial features to prepare germplasm directory. Each year data of freshly included lines will also be recorded.					
	Seed/Seedling.					
	1. Seedling growth habi	2.	Coleoptile's Anthcyanin			
	3. Seedling length (cm)		First leaf color			
	5.First leaf tip					
	Leaf	•				
	6. No, of Leaf per plant8. Leaf attitude (drooping / semi-drooping / erect)		Leaf size (length / width)			
			Mid rib color			
	Stem					
	10. Stem length 12. Stem thickness		.Stem type (Juicy/dry)			
			. Lodging			
	14. Internode length					

	Reproductive Tr	Reproductive Traits					
	15. Days to panicle emergence			16.Peduncle length			
	17. Panicle shape			18. Panicle attitude			
	19. Rachis length/width			20. Stigma color			
	21. Anther fertility			20. Stigilla Color			
	21. Anther fertility						
	Seed	Seed					
	22. Seed covering			23. Seed size			
	24. Seed shape (Narrow elliptic,			25. 100 grain weight (gm)			
	elliptic and spherical)						
	26. Seed weight/panicle (gm)						
			···				
	Disease						
	27. Red leaf spot			28. Stalk rot %age			
	29. Any other						
	·						
REVIOUS YEAR'S RESULTS:	Seventeen lines were sown and maintained by hand pollination.						
02. TITLE:	MAINTANACE OF CYTO PLASMIC MALE STERILE LINES						
OBJECTIVE:	To maintain and increase seed of cytoplasmic male sterile lines along with their counter part B lines for constitution of pearl millet hybrids.						
RESEARCH WORKERS:	Mr. Abdul Razaq Muhammad Hussain Chaudhary						
PROJECT DURATION:	Kharif-2016						
LOCATION:	Maize and Millets Research Institute, Yusafwala, Sahiwal.						
TREATMENTS:	19 lines						
TREATMENTS.	19 IIIICS						
METHODOLOGY:	Layout	=	Strips				
MLTHODOLOGI.	Reps	=	_	eplicated			
	Plot size	 -	_	1.5m for both A & B lines			
	Plant to plant	+=-	25 cm				
	distance		25 6111				
	Row to row	=	75 cm				
	distance		75 CIII				
	Fertilizer	=	114.7	5:62 NPK (kg.ha ⁻¹)			
	Date of sowing	=		une to 5 th July			
	The CMS (A) lines will be planted side by side along with counterpart male fertile (B) line. The heads of CMS and counterpart 'B' lines will be covered with butter paper before the emergence of the stigmas. Five heads of each limber the maintained by their counterpart 'B' lines. Data we recorded for seedling emergence %age, number of leave main tiller, leaf size, plant height, stem thickness, days to						

	anthesis, disease score, number of tillers per plant, panicle length, panicle thickness, panicle weight, grain and stalk weight per plant.						
PREVIOUS YEAR'S RESULTS:	Nineteen lines were sown and maintained by hand pollination.						
03. TITLE:	MAINTANACE OF FERTILITY RESTORER 'R' LINES						
OBJECTIVE:		To maintain and increase seed of fertility restorer lines for constitution of pearl millet hybrids.					
RESEARCH WORKERS:	Mr. Abdul Razzaq Muhammad Hussain C	haudh	nary				
PROJECT DURATION:	Kharif-2016						
LOCATION:	Maize and Millets Rese	arch l	Institute, Yusafwala, Sahiwal.				
TREATMENTS:	31 lines						
METHODOLOGY: PREVIOUS YEAR'S	Layout = Strips Reps = Non replicated Plot size = 5m x 1.5m Plant to plant = 25 cm distance Row to row distance = 75 cm Fertilizer = 114:75:62 NPK (kg.ha ⁻¹) Date of sowing = 15 th June to 5 th July All the lines will be maintained through self-pollination to assu homozygosity. Five true to type plants will be selected and 1 heads will covered be covered from each selected plant will be recorded for seedling emergence of the stigmas. Data we be recorded for seedling emergence %age, number of leaves promain tiller, leaf size, leaf angle, plant height, stem thickness, date to 50% anthesis, disease score, lodging %age, number of tilled per plant, panicle length, panicle thickness, panicle weight, graand stalk weight per plant. Thirty one lines were sown and maintained by hand pollination.						
RESULTS: 04. TITLE:	DERIVATION OF FI	ERTI	LITY RESTORER 'R' LINES				
OBJECTIVE:	To derive new fertility	restor	er lines for hybrid programme.				
RESEARCH WORKERS:	Mr. Abdul Razaq Muhammad Hussain C	haudh	ary				
PROJECT DURATION:	Kharif-2016						
LOCATION:	Maize and Millets Rese	arch l	Institute, Yusafwala, Sahiwal.				

TREATMENTS:	S_{10} families = 5					
	S_4 families = 5					
	S_3 families = 8					
METHODOLOGY:	Layout	=	Strips			
	Reps	=	Non replicated			
	Plot size	=	5m x 1.5m			
	Plant to plant	=	25 cm			
	distance					
	Row to row	=	75 cm			
	distance					
	Fertilizer	=	114:75:62 NPK (kg.ha ⁻¹)			
	Date of sowing	=	15 th June to 5 th July			
	self the selected plutter paper bags b	est plants will be selected from each family. To d plants one - two heads will be covered with gs before the emergence of the stigmas and heads mily will be harvested separately.				
PREVIOUS YEAR'S	Fight C five C and	l five C	familias ware sown. Five plants were			
RESULTS:	,		9 families were sown. Five plants were			
RESULTS:			on the basis of phenotypic performance			
	dried and threshed s		heads of each line were harvested, sun			
	uned and unestied s	separati	51y.			

05. TITLE	CROSSING BLOCK OF PEARL MILLET (Rawalpindi)				
OBJECTIVES	 i. To maintain selected pearl millet germplasm lines through hand pollination. ii. Crossing of Pearl millet lines for development of dual purpose varieties. 				
RESEARCH WORKER (S)	Mr. Muhammad Siddique Miss Saeeda Khanum & Dr. Muhammad Irshad-ul-Haq				
PROJECT DURATION	Kharif-2016				
LOCATION	Millets Research St	ation, Rawalpindi.			
TREATMENTS	55 lines.				
METHODOLOGY	Layout	Strips			
	Replications	Non replicated			
	Plot size	5m x 1.5m			
	Plant to Plant	20 cm			
	Row to Row	75 cm			
	Fertilizer (Kg/ha)	79:57:62 NPK.			
	Date of sowing	End of June / Ist week of July.			
	All the lines will be crosses will be cons	e maintained by hand pollination and possible tituted.			

PREVIOUS YEAR'S	i. All lines were maintained through bulk pollination method
RESULTS:	ii. Twenty fresh crosses were attempted and seed was harvested and
	retained to raise F ₁ population during kharif 2015

06. TITLE	DEVELOPMENT OF DUAL PURPOSE PEARL MILLET VARIETY.						
OBJECTIVE	To develop high yield condition.	To develop high yielding dual purpose variety for rainfed condition.					
RESEARCH WORKER (S)	Mr. Muhammad Sido	Miss Saeeda Khanum, Mr. Muhammad Siddique & Dr. Muhammad Irshad-ul-Haq					
PROJECT DURATION	Kharif-2016	Kharif-2016					
LOCATION	Millets Research Stat	ion, R	Rawalpindi				
TREATMENTS	i. 20 F ₁ crosses ii. 38 F ₂ Populations iii. 20 F ₃ Populations iv. 30 F ₄ Populations	ii. 38 F ₂ Populations iii. 20 F ₃ Populations					
METHODOLOGY	Layout	=	Strips				
	Replications	=	Non replicated				
	Plot size	=	5m x 1.5 m				
	Plant to Plant	=	25 cm				
	Row to Row	=	75 cm				
	Fertilizer (Kg/ha)	=	79:57:62 NPK.				
	Date of sowing	=	End of June / Ist week of July.				
	From F ₂ and F ₃ population displaying desirable characters from F ₄ population displaying	vill be developed from F ₁ crosses through selfing populations individual plants will be selected or its for the parameters like vigorous growth, head uniformity, stalk and grain yield. Uniform lines to characters like mentioned above will be selected tion during kharif 2015 for further evaluation.					
PREVIOUS YEAR'S RESULTS:	not germinated; to selfing for F ₂ poptii. Twenty single plut o develop F ₃ poptiii. Seven superior levaluation in the iv. Thirty single plant	 from F₄ population during kharif 2015 for further evaluation. i. Forty F₁crosses were planted during kharif 2014. Two were not germinated; thirty eight crosses were maintained through selfing for F₂ population. ii. Twenty single plants from three F₂ populations were selected to develop F₃ population. iii. Seven superior lines were selected from F₃ population for evaluation in the micro yield trial during kharif 2015. 					

07. TITLE:	CONSTITUTION OF PEARL MILLET HYBRIDS.
OBJECTIVE:	To estimate the general combining ability of the cytoplasmic male
	sterile lines.

RESEARCH WORKERS:	Mr. Abdul Razaq					
	Muhammad Huss	ain Cl	naudhary			
PROJECT DURATION:	Kharif-2016					
LOCATION:	Maize and Millets	c Paca	arch Institute, Yusafwala, Sahiwal.			
LOCATION.	Maize and Minets Research institute, Tusarwara, Samwar.					
TREATMENTS:	CMS lines = 1	1				
	Restorer lines = 02					
METHODOLOGY:	Layout	=	Strips			
	Reps	=	Non replicated			
	Plot size	=	5m x 1.5m			
	Plant to plant	=	25 cm			
	distance					
	Row to row	=	75 cm			
	distance		114.77 (2.)			
	Fertilizer	=	114:75:62 NPK (kg.ha ⁻¹) 15 th June to 5 th July			
	Date of sowing	=				
			nstituted in isolations. Off type plants will			
	be rouged out bef	ore no	owering.			
PREVIOUS YEAR'S RESULTS:	16 crosses were constituted in isolation in isolation.					
08. TITLE	PEARL MILLI	ET MI	ICRO YIELD TRIAL			
OBJECTIVE	To evaluate the no	erform	nance of pearl millet genotypes for grain			
OBJECTIVE			er barani conditions.			
RESEARCH WORKER (S)	Mr. Muhammad Siddique					
	Miss. Saeeda Kh					
	Dr. Muhammad I	rshad-	ul-Haq			
PROJECT DURATION	Kharif-2016					
LOCATION	Millata Daga anah	Ctation	n Danielain di			
LOCATION	Millets Research	Station	n, Kawaipindi.			
TREATMENTS	08 Entries = 07 1	ines de	eveloped at MRS. Rwp. + 01 check			
	variety.	ines ac	eveloped at MRS. Rwp. 1 of check			
METHODOLOGY	Design		R.C.B.			
	Plot size		5 m x 2.4 m			
	Plant to Plant		20 cm			
	Row to Row		60 cm			
	Fertilizer (Kg/ha)		N = 79, P= 57, K=62.			
	Date of sowing		End of June / Ist week of July.			
PREVIOUS YEAR'S RESULTS :	New Experiment					

09. TITLE	PEARL MILLET HYBRID YIELD TRIAL.
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OBJECTIVE		Selection of I	high yield	ding local h	ybrids to re	place multi	national	
RESEARCH WORKER (S)		Mr. Abdul Razaq Muhammad Hussain Chaudhary						
PROJECT DURATION		Kharif-2016						
LOCATION]	Maize & Millets Research Institute, Yusafwala-Sahiwal.				-Sahiwal.		
TREATMENTS		Entries = 17 (16 hybrid	s & 1 check).			
METHODOLOGY		_	ng ng stand c	= RCB = 3 = 5m x 1.5m = 20 cm = 75 cm = 114:75:62 NPK (Kg/ha) = 15 th June to 5 th July d count, days to 50% anthesis, disease score, length, head weight and grain yield will be				
PREVIOUS YEAR'S		recorded.						
RESULTS:								
	S. No.	Hybrid	Plant Stand	Grain Yield	Stalk vield	Days to 50%	Plant ht.	
	S. No.	Hybrid	Plant Stand	Grain Yield (kg/ha)	Stalk yield (kg/ha)	Days to 50% anthesis	Plant ht. (cm)	
		YBH-274		Yield	yield	50%	ht. (cm)	
	No. 1 2	YBH-274 YBH-269	34 24	Yield (kg/ha) 2537a 2337ab	yield (kg/ha) 24667 24667	50% anthesis 58 59	ht. (cm) 220 245	
	No. 1 2 3	YBH-274 YBH-269 YBH-273	34 24 25	Yield (kg/ha) 2537a 2337ab 2187abc	yield (kg/ha) 24667 24667 24000	50% anthesis 58 59 58	ht. (cm) 220 245 225	
	No. 1 2 3 4	YBH-274 YBH-269 YBH-273 YBH-268	34 24 25 41	Yield (kg/ha) 2537a 2337ab 2187abc 2163abcd	yield (kg/ha) 24667 24667 24000 28666	50% anthesis 58 59 58 57	ht. (cm) 220 245 225 215	
	No. 1 2 3 4 5	YBH-274 YBH-269 YBH-273 YBH-268 YBH-271	34 24 25 41 39	Yield (kg/ha) 2537a 2337ab 2187abc 2163abcd 2050bcde	yield (kg/ha) 24667 24667 24000 28666 28667	50% anthesis 58 59 58 57 58	ht. (cm) 220 245 225 215 195	
	No. 1 2 3 4	YBH-274 YBH-269 YBH-273 YBH-268	34 24 25 41	Yield (kg/ha) 2537a 2337ab 2187abc 2163abcd	yield (kg/ha) 24667 24667 24000 28666 28667 25333 21333-	50% anthesis 58 59 58 57	ht. (cm) 220 245 225 215 195 190	
	No. 1 2 3 4 5	YBH-274 YBH-269 YBH-273 YBH-268 YBH-271 YBH-236	34 24 25 41 39 23	Yield (kg/ha) 2537a 2337ab 2187abc 2163abcd 2050bcde 690	yield (kg/ha) 24667 24667 24000 28666 28667 25333	50% anthesis 58 59 58 57 58 56	ht. (cm) 220 245 225 215 195 190	
	No. 1 2 3 4 5	YBH-274 YBH-269 YBH-273 YBH-268 YBH-271 YBH-236 Range	34 24 25 41 39 23 28-36	Yield (kg/ha) 2537a 2337ab 2187abc 2163abcd 2050bcde 690 690-2537	yield (kg/ha) 24667 24667 24000 28666 28667 25333 21333- 29333	50% anthesis 58 59 58 57 58 56 54-59	ht. (cm) 220 245 225 215 195 190 190- 258	
10. TITLE:	No. 1 2 3 4 5 15	YBH-274 YBH-269 YBH-273 YBH-268 YBH-271 YBH-236 Range	34 24 25 41 39 23 28-36 18.21 NS	Yield (kg/ha) 2537a 2337ab 2187abc 2163abcd 2050bcde 690 690-2537 10.55 402	yield (kg/ha) 24667 24667 24000 28666 28667 25333 21333- 29333 13.51 NS	50% anthesis 58 59 58 57 58 56 54-59	ht. (cm) 220 245 225 215 195 190 190- 258 5.22	
	No. 1 2 3 4 5 15	YBH-274 YBH-269 YBH-273 YBH-268 YBH-271 YBH-236 Range CV% LSD at 5%	34 24 25 41 39 23 28-36 18.21 NS	Yield (kg/ha) 2537a 2337ab 2187abc 2163abcd 2050bcde 690 690-2537 10.55 402	yield (kg/ha) 24667 24667 24000 28666 28667 25333 21333- 29333 13.51 NS	50% anthesis 58 59 58 57 58 56 54-59	ht. (cm) 220 245 225 215 195 190 190- 258 5.22	
10. TITLE: OBJECTIVE:	No. 1 2 3 4 5 15	YBH-274 YBH-269 YBH-273 YBH-268 YBH-271 YBH-236 Range CV% LSD at 5%	34 24 25 41 39 23 28-36 18.21 NS	Yield (kg/ha) 2537a 2337ab 2187abc 2163abcd 2050bcde 690 690-2537 10.55 402	yield (kg/ha) 24667 24667 24000 28666 28667 25333 21333- 29333 13.51 NS	50% anthesis 58 59 58 57 58 56 54-59	ht. (cm) 220 245 225 215 195 190 190- 258 5.22	
	1 2 3 4 5 15 To ev	YBH-274 YBH-269 YBH-273 YBH-268 YBH-271 YBH-236 Range CV% LSD at 5%	34 24 25 41 39 23 28-36 18.21 NS	Yield (kg/ha) 2537a 2337ab 2187abc 2163abcd 2050bcde 690 690-2537 10.55 402	yield (kg/ha) 24667 24667 24000 28666 28667 25333 21333- 29333 13.51 NS D TRIAL. g material.	50% anthesis 58 59 58 57 58 56 54-59 1.87 2.29	ht. (cm) 220 245 225 215 195 190 190- 258 5.22	
OBJECTIVE:	No. 1 2 3 4 5 15 PEA To ev	YBH-274 YBH-269 YBH-273 YBH-268 YBH-271 YBH-236 Range CV% LSD at 5% RL MILLET	Stand 34 24 25 41 39 23 28-36 18.21 NS	Yield (kg/ha) 2537a 2337ab 2187abc 2163abcd 2050bcde 690 690-2537 10.55 402 FAL YIELI c of promisin	yield (kg/ha) 24667 24667 24000 28666 28667 25333 21333-29333 13.51 NS DTRIAL.	50% anthesis 58 59 58 57 58 56 54-59 1.87 2.29	ht. (cm) 220 245 225 215 195 190 190- 258 5.22	
OBJECTIVE:	No. 1 2 3 4 5 15 PEA To ev	YBH-274 YBH-269 YBH-273 YBH-268 YBH-271 YBH-236 Range CV% LSD at 5% RL MILLET Valuate the per	34 24 25 41 39 23 28-36 18.21 NS	Yield (kg/ha) 2537a 2337ab 2187abc 2163abcd 2050bcde 690 690-2537 10.55 402 FAL YIELI c of promising Abdul Razaq ammad Huss Saeeda Kha	yield (kg/ha) 24667 24667 24667 24000 28666 28667 25333 21333- 29333 13.51 NS D TRIAL. g material.	50% anthesis 58 59 58 57 58 56 54-59 1.87 2.29	ht. (cm) 220 245 225 215 195 190 190- 258 5.22	
OBJECTIVE:	1 2 3 4 5 15 15 PEAT Yous Rawa D.G.I	YBH-274 YBH-269 YBH-273 YBH-268 YBH-271 YBH-236 Range CV% LSD at 5% RL MILLET Valuate the per	34 24 25 41 39 23 28-36 18.21 NS	Yield (kg/ha) 2537a 2337ab 2187abc 2163abcd 2050bcde 690 690-2537 10.55 402 FAL YIELI c of promisin Abdul Razaq ammad Huss Saeeda Kha Juhammad I	yield (kg/ha) 24667 24667 24667 24000 28666 28667 25333 21333- 29333 13.51 NS D TRIAL. g material.	50% anthesis 58 59 58 57 58 56 54-59 1.87 2.29	ht. (cm) 220 245 225 215 195 190 190- 258 5.22	

LOCATION:	 Maize and Millets Research Institute, Yusafwala, Sahiwal. Millets Research Station, Rawalpindi. 							
		nets Research				Khon		
	3. 301	ignum Kesearc	ii Sub Su	ation,	D. G.	Kiiaii.		
TREATMENTS:	10 va	rieties includir	ng check.					
	Layou	ıt		=	RCBI)		
	Reps			=	3			
	Plot s			=	5m x			
		to plant distan		=	20 cm			
		to row distance	e	=	75 cm			
	Fertil			=		5:62 NPK (
	Date	of sowing		=	15 th J	Tune to 5 th J	uly	
		will be record						
		plant height,	_					
		s per main til						
	_	, head length ot, stalk yield	_			arvested pe	r piot, nead	weight
	per pr	ot, stark yieru	and grain	yieic	l.			
PREVIOUS YEAR'S	Vuco	fwala:						
RESULTS:		rial was comp	rised of te	en ent	ries			
RESCETS.	S.	Varieties Varieties	Plant		rain	Stalk	Days to	Plant
	No.	, arretres	Stand		ield	yield	50%	ht.
	1100		Starta		g/ha)	(kg/ha)	anthesis	(cm)
	1	YBS-98	34	26	07 a	48000	61	305
	2	YBS-89	39	25	56 a	46667	63	298
	3	YBS-5	34	23	16 a	40889	56	287
	4	YBS-83	38	22	96 a	40889	59	300
	5	YBS-92	39	22	58 b	42667	60	285
	10	YBS-93	36	2	044	44444	63	320
		Range	31-39	20)44-	39555-	56-73	285-
				2	607	52444		403
		CV%	10.44		.02	3.33	1.15	4.92
		LSD at 5%	NS	2	272	2570	1.129	26.47

Rawalpindi									
R.	Varieties	Plant	Grain yield	Days to	Plant				
No.		Stand	(Kg/ha)	50%	ht.				
				anthesis	(cm)				
1	YBS-93	82	2945 a	54	263				
2	YBS-89	84	2772 ab	54	241				
3	YBS-98	83	2750 ab	49	254				
4	YBS-95	84	2704 abc	50	269				
5	YBS-94	82	2608 bcd	51	245				
6	18-BY (C)	84	1548 e	58	336				
	Range	77-84	1547-2945	46-58	336-241				
	CV %	2.46	4.97	2.45	1.71				
	LSD at 5%	4.75	294.45	2.95	10.53				

D.G.Khan

R. No.	Varieties	Plant Stand	Grain Yield	Stalk yield	Days to 50%	Plant ht.
			(kg/ha)	(kg/ha)	anthesis	(cm)
1	YBS-94	29	1822	12778	72	260
2	YBS-98	28	1689	13556	71	264
3	YBS-95	28	1556	20444	70	269
4	YBS-89	28	1245	12556	76	274
5	YBS-70	27	1200	11222	74	296
8	18-BY (C)	28	1022	23444	80	318
	Range	27-29	778-	10778	68-80	242-
			1822	-		318
				23444		
	CV%	3.50	12.01	3.36	1.22	2.10
•	LSD at 5%	NS	257	815	1.54	9.75

11. TITLE:	NATIONAL UNIFORM PEARL MILLET YIELD TRIAL.				
OBJECTIVE:	To test the adaptability and performance of the national varieties				
	/material under	local conditions.			
RESEARCH WORKERS	Yusafwala	Mr. Abdul Razaq			
		Muhammad Hussain Chaudhary			
	Rawalpindi	Miss Saeeda Khanum			
		Dr. Muhammad Irshad-ul-Haq			
	D.G. Khan	Muhammad Ihsanullah			
		Zaib Un Nisa			
PROJECT DURATION:	Kharif-2016				
LOCATION:	1. Maize and M	illets Research Institute, Yusafwala, Sahiwal.			
	2. Millet Resear	ch Station, Rawalpindi			
	3. Sorghum Res	earch Sub Station, D.G. Khan			
TREATMENTS:	Treatments will	be provided by National Coordinator (Cereal System)			
	PARC, Islamabad				

METHODOLOGY	The trial will be conducted according to the instructions received with
	the seed.
PREVIOUS YEARS	This trial comprised of 12 entries was conducted during kharif 2014.
RESULTS:	The results are under compilation at NARC, Islamabad.

12. TITLE:	SEED MU	LTIPLICATI	ON				
OBJECTIVE:	To increase the seed of promising varieties /lines.						
RESEARCH WORKERS:	Mr. Abdul						
		Muhammad Hussain Chaudhary					
		er Mukhtar					
	Mr. Asrar	Mahboob					
PROJECT DURATION:	Kharif-201	6					
LOCATION:	Mains and	Millata Dagaga	la Turas	:44. \	Visafriala Californi		
LUCATION:	Maize and	Willets Researc	ın ınsı	itute, r	Yusafwala, Sahiwal.		
TREATMENTS:	Varieties/lines = 08						
TREATIVELY (18.	v directory ii						
METHODOLOGY:	Layout	=	strip				
	Reps	=	Non 1	eplicated			
	Plot size	=	Bree	eder = $10m \times 31.5m$			
					$pasic = 20m \times 31.5m$		
				Basi	c = (1/2 hectare)		
	Plant to pla	ant distance	=	20 cn	n		
	Row to rov	v distance	=	75 cn			
	Fertilizer		=		5:62 NPK (kg.ha ⁻¹)		
	Date of sov	wing	=	15 th .	June to 5 th July		
	Seed of all the lines/varieties will be produced in				produced in isolations. Off type		
	plants will be rouged out before flowering.						
PREVIOUS YEAR'S	S. No.			Quantity(kg)			
RESULTS:	1	18-BY (Basic					
	2	YBS-98 (Cert	ified)		89		

13. TITLE:	ON FARM PEARL MILLET YIELD TRIAL				
OBJECTIVE:	Evaluation of promising varieties at farmer field.				
RESEARCH WORKER (S):	Rawalpindi	Dr. Muhammad Irshad-ul-Haq Mr. Muhammad Siddique			
	D. G Khan Mr. Muhammad Ihsanullah Mrs. Zaib Un Nisa				
PROJECT DURATION:	Kharif-2016				
LOCATIONS:	Rawalpindi Division (four locations) Dera Ghazi Khan Division (five locations)				

TREATMENTS:	Three Entries	
METHODOLOGY:	Layout	Strips
	Reps	Non replicated
	Plot size	One Kanal (506 m ²)
	Plant to Plant	20 cm
	Row to Row	60 cm
	Fertilizer (Kg/ha)	79: 57: 62 NPK
	Date of sowing	End of June / 1 st week of July.

PREVIOUS YEAR,S RESULTS:	Kha	rif-2013,Rawalpindi				
	S.	T 42	Grain Yield (kg/ha)			
	No.	Location	YBS-95	YBS-98	18-BY	
	1	BARS, Fateh Jang	870	914	830	
	2	Sohawa (Jehlum)	1840	2340	1580	
	3	BARI, Chakwal	1660	1900	1560	
		TOTAL	4370	5154	3970	
	Dera	 a Ghazi Khan Division				
	S.	Location	Grain	n Yield (kg	/ha)	
	No.	Location	YBS-95	YBS-98	18-BY	
	1	Muhammad Riaz S/O Haji	1442	1541	1106	
		Munir Ahmad R/O Mouza				
		Haider Wahan, D.G.Khan.				
	2	Ghulam Haider S/O Moosa	1166	1324	929	
		Khan R/O Mouza Pukkhan				
		Tehsil Tounsa Distt. D.G.Khan.				
	3	Muhammad Ibrahim S/O	1521	1620	1245	
		Muhammad Hussain R/O				
		Chotti Zareen, D.G.Khan.				
	4	Muhammad Afzal S/O	2154	2371	2015	
		Muhamma Mirza R/O Mouza				
		Chak Buzdar, D.G.Khan.				
	5	Mukhtiar Hussain S/O Rahim	1739	1917	1363	
		Ali R/O Mouza Qaim Wala,				
		D.G.Khan.				
		Average	1604	1755	1332	

AGRONOMY

01. TITLE:	DETERMINATION OF OPTIMUM PLANT SPACING FOR MAIZE HYBRIDS
OBJECTIVE:	To find out the optimum planting geometry for obtaining maximum grain yield of promising maize hybrids.
RESEARCH WORKER	Mr. TanweerMukhtar
(S):	Mr. Asrar Mahboob
PROJECT DURATION:	Spring & Kharif 2016
LOCATION:	Maize & Millets Research Institute, Yusafwala-Sahiwal.

TREATMENTS: A. Hybrids: FH-1046 B. Planting Geometry Plant Population 1 R-R = 75cm & P-P = 12.5cm 106666 2 R-R = 75 cm & P-P = 15cm 88888 3 R-R = 75 cm & P-P = 17.5 cm 76100							
B.Planting GeometryPlant Population1R-R = 75cm & P-P = 12.5cm1066662R-R = 75 cm & P-P = 15cm88888							
1 R-R = 75cm & P-P = 12.5cm 106666 2 R-R = 75 cm & P-P = 15cm 88888							
2 D D = 75 one % D D = 17.5 one 7.6100							
3 R-R = 75 cm & P-P = 17.5 cm 76190							
4 R-R = 75 cm & P-P = 20 cm 66666							
5 R-R = 75 cm & P-P = 22.5 cm 59276							
METHODOLOGY: Design = RCB							
Replications. = 4							
Plot size $= 5 \text{mx } 3 \text{m}$							
Fertilizers $= 300-150-125 \text{ NPK (Kg/ha)}$							
Date of sowing = Month of January & July							
Data regarding plants per plot, days to 50% silking, plant height,	coh						
height and grain yield will be recorded.	, coo						
noight and grain yield will be recorded.							
PREVIOUS YEAR'S Kharif – 2014							
RESULTS:							
Sr. No. Plant density/ ha. Grain yield (kg /ha)							
FH-1046 1 133333 7577 d							
1 133333 7577 d 2 106666 7915 cd							
3 88888 8606 ab							
4 76190 8989 a							
5 66666 8280 bc							
CV% 4.40							
LSD at 5% 560.90							
LSD at 3/0 300.50							
Spring-2015	Spring-2015						
Sr.No. Plant density/ ha. Grain yield (kg /ha)							
FH-949 YH-1898	8						
1 133333 9637 de 8332 f	~						
2 106666 12880 a 9254 e							
3 88888 13350 a 11590 b)						
4 76190 13120 a 11020 bo							
5 66666 11840 b 10390cd							
CV% 4.72							
Cd1							
i Treatments 644.15							
ii. Interaction 910.97							

02. TITLE:	EFFECT OF DIFFERENT PLANTING METHODS ON GRAIN YIELD OF MAIZE.		
OBJECTIVE:	To search out the most suitable planting method for obtaining maximum grain yield of maize.		
RESEARCH WORKER	Mr. TanweerMukhtar		
(S):	Mr. Asrar Mahboob		

PROJECT DURATION:	Spring	Spring & Kharif 2016				
LOCATION:	Maize & Millets Research Institute, Yusafwala-Sahiwal.					
TREATMENTS:	S. No.	Planting method	Planting Geometry			
	1	Ridge Sowing	R-R (30") sowing on one side			
	2	Bed Sowing	B-B (36") sowing on both side			
	3	Bed Sowing	B-B (42") sowing on both side			
	4	Bed Sowing	B-B (48") sowing on both side			
METHODOLOGY:	Design	1	RCB			
	Replic	eations.	4			
	Plot si	ze	5m x 5.25m			
	Fertili	zers	300-150-125(NPK, Kg/ha)			
	Sowin	g date	Months of February & July			
	Data 1	regarding stand count, d	lays to 50% silking, plant height, cob			
	height	and grain yield will be re	ecorded and analyzed statistically.			
PREVIOUS YEAR'S RESULTS:	New p	New project.				

03. TITLE:		DETERMINATION OF OPTIMUM PLANT SPACING FOR SORGHUM HYBRID			
OBJECTIVE:		To find out the optimum planting geometry for obtaining maximum grain yield of promising sorghum hybrid.			
RESEARCH WORKER (S):		TanweerMukhtar Asrar Mahboob			
PROJECT DURATION:	Kha	rif-2016			
LOCATION:	Mai	ze & Millets Research Instit	ute, Yusaf	wala-Sahiwal.	
TREATMENTS:	A. Hybrids: YSH-95				
	В.	8 8		Plant Population	
	1	1 R-R = $75 \text{ cm } \& \text{ P-P } = 15 \text{ cm}$		88888	
		2 R-R = 75 cm & P-P = 17.5 cm		76190	
		3 $R-R = 75 \text{ cm } \& P-P = 20 \text{ cm}$		66666	
	4	4 R-R = 75 cm & P-P = 22.5 cm		59276	
METHODOLOGY:	Des	ign	= RCB		
	Rep	Replications.		= 4	
	Plot	size	= 5mx 3m		
	Fert	ilizers	= 170-84-62 NPK (Kg/ha)		
	Date of sowing		= Month of July		
	Data regarding plants per plot, days to 50% anthesis, plant he grain yield will be recorded.				
PREVIOUS YEAR'S RESULTS:	New	New project			

04. TITLE:	EFFECT OF PLANT SPACING ON GRAIN YIELD OF NEW PEARL MILLLET VARIETIES				
OBJECTIVE:	To see	rah out the optim	num plant dangitu	for obtaining m	avimum arain
OBJECTIVE:		To search out the optimum plant density for obtaining maximum grain yield of pearl millet.			
RESEARCH WORKER	Mr. A	srar Mahboob			
(S):		anweerMukhtar			
PROJECT DURATION:	Kharif				
LOCATION:	Maize	& Millets Resea	rch Institute, Yusa	fwala-Sahiwal	
	-				
TREATMENTS:	A. B.	Variety: YBS- Plant spacing	95		
	S. No.	Plant spacing		Plant o	lensity/ha.
	1	R-R = 75cm &		6	6666
	2	R-R = 75cm &			9276
	3	R-R = 75 cm &			3333
	4	R-R = 75 cm &			8496
	5	R-R = 75 cm &	z P-P =30cm	4	4444
METHODOLOGY:	Design = RCB				
	Replications. = 3				
		Plot size = 5mx 3m			
	Fertilizers = 114-75-62 NPK				
	Date o	f sowing	$=15^{th}$ June to 5^{th}	July	
	anthes		count, No of til Stover yield and gr		
PREVIOUS YEAR'S RESULTS:	Khaif	-2014			
	Sr.N o.	Plant spacing			n Yield g/ha)
				YBS-95	YBS-98
	1	R-R = 75cm &		2316	2453
	2		P-P = 22.5cm	2056	2569
	3	R-R = 75 cm 8	z P-P = 25cm z P-P = 27.5cm	2393	2762
	5			2987 2413	2691 2184
	3	5 R-R = 75 cm & P-P = 30cm CV %		12.53	
	LSD at 5% NS				
05. TITLE	MAIZ	E SEED MULT	TIPLICATION.		
OBJECTIVE	To multiply seed of Maize OPV's (MMRI-Yellow, Pearl.				
RESEARCH WORKER(S)	Asrar Mahboob TanweerMukhtar				
WORKER(S)	ranwe	eeriviukhtar			

PROJECT DURATION	Spring & Kharif 2016						
LOCATION	1. Maize & Millets Research Institute, Yusafwala-Sahiwal.					i	
TREATMENTS	MMRI Yellow	and P	earl.				
METHODOLOGY	Lay out	Lay out Isolated blocks					
	Plot size	Pearl	(Basic	:)		10 Kanals	
		MM	RI Yell	ow (I	Basic)	10 Kanals	
		MM	RI Yell	ow ((Certified)	30 Kanals	
	Row to row	75 cr	n				
	Plant to plant	20 cr	n				
	Fertilizer	297:	148:124		K Kg/ha		
	Date of	Sprir	ng	10 th	January t	o 20 th February	,
	Sowing	Kharif 10 th July to 10 th August					
PREVIOUS YEAR'S							
RESULTS	The following	quanti	ty seed	of M	aize OPV	's was produced	d:
			Kl	narif	2014	Spring	2015
	Category		MM	RI	Pearl	MMRI	Pearl
	Category		Yello	ow		Yellow	
	Basic (kgs)		450	0	1415	1300	2156
	Certified (kgs)		216	0	720	4050	570

06. TITLE:	EFFECT OF DIFFERENT PLANTING RATIO OF MALE AND FEMALE INBRED LINES ON MAIZE HYBRID SEED PRODUCTION					
OBJECTIVE:	To standardize planting ratio of male and female inbred lines for economical seed production of Maize Hybrid YH-1898.					
RESEARCH WORKER (S):	Dr. Javed Iqbal Tanweer Mukhtar Asrar Mahboob Mian Munir Ahmed					
PROJECT DURATION:	Spring & Kharif 2016					
LOCATION:	Maize & Mille	ets Research Instit	tute, Yusafwal	la-Sahiwal.		
TREATMENTS:	Treatments	Male lin	es	Female lines		
	2	1		<u>3</u> 4		
	3	1		5		
	4	1		6		
	5	1		7		
	6	1		8		
METHODOLOGY:	Design		D.C.D.			
METHODOLOGY:	Design Replications.		= RCB = 4			
	Plot size		= 5 m x 1.25	5 m		
	Fertilizers		= 3 m x 1.23 m = 300-150-125 NPK (Kg/ha)			
	Date of sowin	σ		July & February		
	Date of sowing	5		sary & reordary		

	Data regarding yield and yield components will be recorded and analyzed statistically.
PREVIOUS YEAR'S RESULTS:	New project

07. TITLE:	DETERMINATION OF OPTIMUM PLANT SPACINGS FOR SEED PRODUCTION OF MAIZE HYBRIDS				
OBJECTIVE:	To find out the optimum planting geometry for obtaining maximum seed of maize hybrid YH-1898.				
RESEARCH WORKER (S):	Dr. Javed Iqbal Tanweer Mukhtar Asrar Mahboob Mian Munir Ahmed				
PROJECT DURATION:	Spri	ng & Kharif 2016			
LOCATION:	Mai	ze & Millets Research Instit	tute, Yusat	fwala-Sahiwal.	
TREATMENTS:	A. B. 1	B. Planting Geometry		Plant Population 106666	
	3 4	R-R = 75 cm & P-P = 150 R-R = 75 cm & P-P = 170 R-R = 75 cm & P-P = 20	.5cm	88888 76190 66666	
METHODOLOGY:	Design Replications. Plot size Fertilizers Date of sowing Data regarding yield and yield spacing will be varied amounted.		= RCB = 4 = 5 mx 3.75 m = 300-150-125 NPK (Kg/ha) = Month of July deld components will be recorded. long female lines.		
PREVIOUS YEAR'S RESULTS:	New	project			

SOIL CHEMISTRY

01. TITLE	EFFECT OF FERTILIZER DOSES ON GRAIN YIELD OF NEW MAIZE HYBRID.
OBJECTIVE	To find out the optimum dose of NP for maximum grain yield of new Maize Hybrids
RESEARCH WORKER(S)	Mr. Muhammad Jamil

	MianMuhammad Shafique						
PROJECT DURATION	Spring	Spring & Kharif 2016					
LOCATION	Maize	& Millets	Research Ins	titute, Yus	afwala-Sahiwa	1.	
TREATMENTS	Α.	Hybrid =	= FH-1046				
	В.		Ferti	lizer levels	S.		
	Treatn	nents	N		P	K	
			(Kg/ha)	(1	Kg/ha)	(Kg/ha)	
	1		0		0	0	
	2		225		112	100	
	3		250		125	100	
	4		275		137	100	
	5		300		150	100	
	6		325		162	100	
METHODOLOGY:	Design		= RCB				
	Replica		= 3				
	Plot siz		$= 5 \text{m x} ^{2}$				
	Fertiliz			treatment			
	Date of	sowing	= Month	of January	/ & July.		
	Hybrids will be kept in main plots and fertilizer doses in sub-plot All P, K and 1/8 N will be applied at sowing time, 1/5 N at 4 le stage, 1/3 N at grand growth stage, while last 1/3 N just befor flowering stage. The data regarding stand count, days to 50% silkin plant height, cob height and grain yield will be recorded and analyze statistically.					N at 4 leaf N just before to 50% silking,	
PREVIOUS YEAR'S RESULTS:	Khaif-	2014					
	Sr.	Ferti	lizer levels (Kg/ha)	Maize Hyb	rid= FH-1046	
	Sr. No.	Fertil N	lizer levels (Kg/ha) K	Plant	rid= FH-1046 Grain Yield (Kg/ha)	
	No.		P	K	Plant Stand	Grain Yield (Kg/ha)	
	No. 1	N 0	P 0	K 0	Plant Stand 109	Grain Yield (Kg/ha) 4771e	
	No. 1 2	N 0 225	P 0 112	0 100	Plant Stand 109 110	Grain Yield (Kg/ha) 4771e 6758 d	
	No. 1 2 3	0 225 250	0 112 125	0 100 100	Plant Stand 109 110 111	Grain Yield (Kg/ha) 4771e 6758 d 7235 cd	
	No. 1 2 3 4	0 225 250 275	0 112 125 137	0 100 100 100	Plant Stand 109 110 111 109	Grain Yield (Kg/ha) 4771e 6758 d 7235 cd 7858 bc	
	No. 1 2 3	0 225 250 275 300	0 112 125	0 100 100	Plant Stand 109 110 111 109 110	Grain Yield (Kg/ha) 4771e 6758 d 7235 cd 7858 bc 9022 a	
	No. 1 2 3 4 5	0 225 250 275	0 112 125 137 150 162	0 100 100 100 100	Plant Stand 109 110 111 109 110 111 111	Grain Yield (Kg/ha) 4771e 6758 d 7235 cd 7858 bc 9022 a 8466 ab	
	No. 1 2 3 4 5	0 225 250 275 300	0 112 125 137 150 162 CV %	0 100 100 100 100	Plant Stand 109 110 111 109 110 111 1.43	Grain Yield (Kg/ha) 4771e 6758 d 7235 cd 7858 bc 9022 a 8466 ab 6.23	
	No. 1 2 3 4 5	0 225 250 275 300	0 112 125 137 150 162	0 100 100 100 100	Plant Stand 109 110 111 109 110 111 111	Grain Yield (Kg/ha) 4771e 6758 d 7235 cd 7858 bc 9022 a 8466 ab	
	No. 1 2 3 4 5	0 225 250 275 300 325	0 112 125 137 150 162 CV %	0 100 100 100 100	Plant Stand 109 110 111 109 110 111 1.43	Grain Yield (Kg/ha) 4771e 6758 d 7235 cd 7858 bc 9022 a 8466 ab 6.23	
	No. 1 2 3 4 5 6	N 0 225 250 275 300 325	0 112 125 137 150 162 CV %	0 100 100 100 100 100	Plant Stand 109 110 111 109 110 111 1.43 NS	Grain Yield (Kg/ha) 4771e 6758 d 7235 cd 7858 bc 9022 a 8466 ab 6.23	
	No. 1 2 3 4 5 6 Spring	N 0 225 250 275 300 325	0 112 125 137 150 162 CV % LSD at 5%	0 100 100 100 100 100	Plant Stand 109 110 111 109 110 111 1.43 NS	Grain Yield (Kg/ha) 4771e 6758 d 7235 cd 7858 bc 9022 a 8466 ab 6.23 689	
	No. 1 2 3 4 5 6 Spring	N 0 225 250 275 300 325 2015	0 112 125 137 150 162 CV % LSD at 5%	0 100 100 100 100 100	Plant Stand 109 110 111 109 110 111 1.43 NS	Grain Yield (Kg/ha) 4771e 6758 d 7235 cd 7858 bc 9022 a 8466 ab 6.23 689	
	No. 1 2 3 4 5 6 Spring	N 0 225 250 275 300 325 2015	0 112 125 137 150 162 CV % LSD at 5%	0 100 100 100 100 100	Plant Stand 109 110 111 109 110 111 1.43 NS	Grain Yield (Kg/ha) 4771e 6758 d 7235 cd 7858 bc 9022 a 8466 ab 6.23 689 rid= YH-1046 Grain Yield	
	No. 1 2 3 4 5 6 Spring Sr. No.	0 225 250 275 300 325 2015 Fertil	0 112 125 137 150 162 CV % LSD at 5%	0 100 100 100 100 100 100 Kg/ha)	Plant Stand 109 110 111 109 110 111 1.43 NS Maize Hyb Plant Stand	Grain Yield (Kg/ha) 4771e 6758 d 7235 cd 7858 bc 9022 a 8466 ab 6.23 689 rid= YH-1046 Grain Yield (Kg/ha)	
	No. 1 2 3 4 5 6 Spring Sr. No.	0 225 250 275 300 325 Pertil N	0 112 125 137 150 162 CV % LSD at 5%	0 100 100 100 100 100 100 Kg/ha) K	Plant Stand 109 110 111 109 110 111 1.43 NS Maize Hyb Plant Stand	Grain Yield (Kg/ha) 4771e 6758 d 7235 cd 7858 bc 9022 a 8466 ab 6.23 689 rid= YH-1046 Grain Yield (Kg/ha) 6625 e	

5	300	150	100	104	11218 a
6	325	162	100	105	10182 b
	CV %			1.85	4.74
	LSD at 5%			NS	794

02. TITLE				CRTILIZER M HYBRID		ON GRA	IN YIELD OF	
	11211	50110	.11011		•			
OBJECTIVE	To find out the optimum dose of NP for maximum grain yield of new Sorghum Hybrids							
RESEARCH WORKER(S)	Mr. Muhammad Jamil MianMuhammad Shafique							
PROJECT DURATION	Kharit	f-2016						
LOCATION	Maize	& Mill	lets R	esearch Inst	itute, Yusa	fwala-Sahiv	wal.	
TREATMENTS	A. I		= YS	H-95.				
	В.				er levels.			
	Treatr	nents		N		P	K	
	1			(Kg/ha)	-	g/ha)	(Kg/ha)	
	1	l		0		0	0	
	2	2		125	(52	50	
	3			150		74	50	
	4			175	{	37	50	
	5	5		200 1		00	50	
	ϵ	5		225	1	12	50	
METHODOLOGY:	Design			= RCB				
		cations		= 3				
	Plot si				= 5m x 4.5m			
	Fertili				= As per treatment = Month of July.			
	Date	of sowir	ıg	= Mont	n of July.			
	genera regard and gr	al grow ling star ain yiel	th pend conditional	riod, while unt, days to l be recorde	last 1/3 N 50% anthe d and analy	before floorsis, plant h		
PREVIOUS YEAR'S	Sr.		ertiliz	er levels (K			ybrid= YSH-95	
RESULTS:	No.	N		P	K	Plant Stand	Grain Yield (Kg/ha)	
	1	0		0	0	80	1300 d	
	2	125		62	50	81	2200 c	
	3	150		74	50	81	2433 с	
	4	175		87	50	81	2800 ab	
	5	200		100	50	81	2756 b	
	6	225)	112	50	80	3056 a	
				CV %		2.47	6.40	
				LSD at 5%		NS	282	

PLANT PATHOLOGY

01.TITLE	TESTING OF STALK ROT (Fusarium moniliforme) INTENSITY IN MAIZE HYBRIDS BY ARTIFICIAL INOCULATION.					
OBJECTIVE	To study the response of maize hybrids against stalk rot.					
RESEARCH WORKER(S)	Mr. Muhammad Shakeel Ahmad Mian Muhammad Shafique					
PROJECT DURATION	Spring & Kharif 2016					
LOCATION	Maize & Millets Research Inst	itute, Yusafwala	-Sahiwal.			
TREATMENTS	Maize Hybrids = FH-949, FH-	-1046, FH-793, I	FH-963 &	FH-985.		
METHODOLOGY:	Lay Out	RCBD				
	Replications	04				
	Plot Size	5m x 0.75m				
	Plant to plant distance	20cm				
	Row to row distance	75cm				
	Fertilizer	300-150-125 N	0-150-125 NPK(Kg/ha)			
	Date of sowing Month of January & July					
	At silking stage, all the hybrathogen by toothpicks meth from soil level. Four weeks at noted with the help of Hooker	nod at second in fter inoculation,	nternodes disease int	of the plants ensity will be		
PREVIOUS YEAR'S	Spring 2015					
RESULTS	Name of maize hybrids	Infestation %age of inoculated internode	Scale	Reaction		
	-	1-25	1	Highly resistant		
	-	26-50	2	Resistant		
	FH-793, FH-985, FH-949, FH-963, FH-1046	51-75	3	Moderately Resistant		
	-	76-100	4	Moderately susceptible		
	Among five maize hybrids tes moderately resistant reaction a			howed		

02.TITLE	TESTING OF SEED DRESSING FUNGICIDES AGAINST SEEDLING DISEASES IN MAIZE.
OBJECTIVE	To evaluate the performance of different seed dressing fungicides against seedling diseases.

RESEARCH WORKER(S)	Mr. Muhammad Shakeel Ahmad Mian Muhammad Shafique					
PROJECT DURATION	Spring	Spring & Kharif 2016				
LOCATION	Maize	Maize &Millets Research Institute, Yusafwala-Sahiwal.				
TREATMENTS	Fungio	 Hombre 186.25 Topsin –M 70W Protoco 150% WI Control. 	VP @ 2gm/ Kg seed.			
METHODOLOGY:	Lay O	ut	RCBD			
	Replic	ations	04			
	Plot Si	ize	5mx2.25	óm		
	Plant t	o plant distance	20cm			
	Row to	o row distance	75cm			
	Fertilia	zer	300-150	-125 NPK(Kg/ha)		
	Date o	of sowing	Month o	f January & July		
	Seed dressing of the maize Hybrid YH-1898 will be done with Fungicide above mentioned doses before sowing of the crop. Data regarding seed seedling mortality % age will be recorded after 10 days of germination.					
PREVIOUS YEAR'S RESULTS:	Sprin	g 2015				
	Sr. No	Treatments	Plant Stand	Seedling Diseases Attack %age	Grain yield (Kg/ha	
	1	Argyl Super 62.5% WS	59	2.08	11706 a	
	2	Hombre 186.25% FS	58	2.49	11406 ab	
	3	Topsin –M 70WP	56	2.91	10575 bc	
	4	Protoco 150%WP	56	6.24	10436 c	
	5	Control	53	12.49	8756 d	
		CV% age	2.27	32.95	5.58	
		LSD at 5%	1.96	2.66	909	

ENTOMOLOGY

01.TITLE	TESTING OF DIFFERENT SEED DRESSING INSECTICIDES
	AGAINST SHOOT FLY (Atherigona soccata Rond)
OBJECTIVE	To find out the most effective seed dressing insecticides against shoot fly.
RESEARCHER	Mr. Muhammad Shakeel Ahmad
WORKER(S)	Muhammad Shafique
PROJECT DURATION	Spring -2016
LOCATION	Maize & Millets Research Institute, Yusafwala-Sahiwal.

TREATMENTS	Insecticides: 1. Confidor 70 WS @ 7gm/kg seed 2. Coniflex70 WS @ 5gm/kg seed 3. Hombre 186.25. FS @ 20ml/kg seed 4. Hombre Excel 372.5 FS @ 10ml/kg seed 5. Control						
METHODOLOGY:		Hybrid = YH-1898 Layout = RCBD					
METHODOLOGI.	Layo		=				
	Repl	ications	=	04			
	Plot	Size	=	5mx	x2.25m		
	Plan	t to plant distance	=	20c	m		
	Row	to row distance	=	75c	m		
	Ferti	lizer	=	300	300-150-125 NPK(kg/ha)		
	Date	of sowing	=	Month of January & July			
	Seed dressing will be done with insecticides at above-mentioned debefore sowing of the crop. Observation on shoot fly attack will recorded 21 days after germination of the crop. At maturity, yield will also be recorded.					attack will be	
PREVIOUS YEAR'S	Spr	Spring 2015					
RESULTS	Sr. No			Plant Stand	Shootfly Infestation %age	Grain yield (Kg/ha	
	1	Hombre 186.25. FS		57	1.31	11339 a	
	2			57	3.09	11144 a	
	3			57	1.75	11122 a	
	4	4 Confidor 70 WS		56	1.31	10981 a	
	5	5 Control		56	43.51	9433 b	
		CV% age		3.04	36.64	5.04	
		LSD at 5%		NS	5.75	840	

02.TITLE	TESTING OF DIFFERENT GRANULAR INSECTICIDES AGAINST MAIZE BORER (ChiloPartellusSwin)				
	TOTAL TOTAL DOLLAR (CIMOZ WYCHING)				
OBJECTIVE	To find out the most effective granular insecticide against maize borer.				
RESEARCH	Mr. Muhammad Shakeel Ahmad				
WORKER (S)	Muhammad Shafique				
PROJECT DURATION	Spring & Kharif 2016				
LOCATION	Maize & Millets Research Institute, Yusafwala-Sahiwal				
TREATMENTS	1- Furadan 3G @ 8 Kg /acre				
	2- Ferterra 0.4% G @ 4 Kg /acre				
	3- Oncol 3%G @ 8 Kg /acre				
	4- karbosol 3%G @ 8 Kg /acre				
	5- Control				
	Hybrid = YH-1898				

METHODOLOGY:	Lay	Out		RCBD			
WETHODOLOGI.	Replications		=	04			
	Plot Size			5mx2.25m			
	Plant to Plant distance			20cm			
		to row distance		75cm			
		ilizer	=		NPK (kg/ha)		
					```		
				ranular insecticides will be applied at the			
				nfestation. Observation on maize borer attack			
				one week after application of insecticides. At			
DDELWOYIG AVE AD'G		urity, yield data					
PREVIOUS YEAR'S	Kha	rif- 2014	Hyb	rid= YH-1898			
RESULTS	Sr.	Treatments	Plant		Borer attack %	Grain	
	No		Stand	% age before	age after	yield	
				application of insecticide	application of insecticide	(Kg/ha)	
	1	Furadan	75	13.66	3.33	7260 a	
	2	karbosol	75	16.67	4.33	6795ab	
	3	Ferterra	75	19.99	5.33	6458 b	
	4	Oncol	75	17.00	4.66	6409 b	
	5	Control	75	20.72	18.72	6304 b	
		CV% age	0.30	27.32	27.52		
		LSD at 5%	NS	NS		5.09	
		LSD at 5%	NS	NS	3.08	520	
	Spr	ing 2015					
	Sr.	Treatments	Plant	Borer attack	Borer attack	Grain	
	No		Stand	% age before	% age after	yield	
				application	application of	(Kg/ha)	
				of insecticide	insecticide	11220	
	1	karbosol	57	8.74	2.18	11330 a	
	2	Furadan	57	9.68	2.20	11133 a	
	3	Ferterra	56	8.47	2.22	11022 a	
	4	Oncol	57	15.15	3.42	10508 b	
	5	Control	56	16.53	15.15	9458c	
		CV% age	2.50	34.95	53.73	2.73	
		LSD at 5%	NS	6.31	4.16	450	

02. TITLE	RESPONSE OF MAIZE CROP TOWARDS DIFFERENT LEVELS OF PHOSPHORUS SOWN AFTER POTATO.						
OBJECTIVE	To find out the optimum dose of Phosphorus (P) for maximum grain yield of spring hybrid maize sown after potato.						
RESEARCH WORKER(S)	Mr. Muhammad Jamil MianMuhammad Shafique						
PROJECT DURATION	Kharif-2015and Spring-2016						
LOCATION TREATMENTS	Maize & Millets Research Institute, Yusafwala-Sahiwal.  Potato: Fertilizer dose as farmer practice i.e. N P K (Kg/ha)  300 225 125						
	Spring Mai	ze:	Hybrid = YH	[-1898			
	B.		Fertilizer				
	Treatments		N	P	K		
			(Kg/ha)	(Kg/ha)	(Kg/ha)		
	1		275	30	0		
	2		275	60	0		
	3		275	90	0		
	4		275	120	0		
	5		275	150	0		
	6		275	180	0		
METHODOLOGY:	Design		= RCB				
METHODOLOGT:			= RCB				
	Replications						
	Plot size = 5m x 4.5m  Fertilizer = As per treatment						
	Date of sowin	nσ	- As per treat	inicit			
		_	= October,20	15			
	Potato crop will be sown in kharif 2015 according to farmer's fertilizer dose (300:225:125 NPK Kg/ha. After harvesting of potato crop, maize crop will be sown during spring 2016 and fertilizer will be applied as per treatment.  All P, K and 35 kg N will be applied at sowing time, 56 kg N at leaf stage, 92 kg N at grand growth stage, while last 92 kg N just before flowering stage. The data regarding stand count, days to 50% silking, plant height, cob height and grain yield will be recorded and analyzed statistically.						
PREVIOUS YEAR'S RESULTS:	New experiment.						

03. TITLE	IMPACT OF FERTILIZER DOSES ON GRAIN YIELD OF SPRING MAIZE SOWN AFTER POTATO.					
OBJECTIVE	To find out the optimum dose of Potasium (K) for maximum grain yield of spring hybrid maize sown after potato.					
RESEARCH WORKER(S)	Mr. Muhammad Jamil MianMuhammad Shafique					
PROJECT DURATION	Kharif-2015an	d Spri	ng-2016			
LOCATION TREATMENTS	Maize & Millets Research Institute, Yusafwala-Sahiwal.  Potato: Fertilizer dose as farmer practice i.e. N P K (Kg/ha)  300 225 125					
	Spring Maize	<u>. Н</u>	ybrid = YH-		.5 125	
	B.	· 11	•	levels. (Kg/ha)		
	Treatments		N	P P	K	
	1		275	120	0	
	2		275	120	30	
	3		275	120	60	
	4		275	120	90	
	5		275	120	120	
	6		275	120	150	
METHODOLOGY:	Design		= RCB			
	Replications		= 3			
	Plot size		$= 5m \times 4.5n$			
	Fertilizer		= As per tre	atment		
	Date of sowing					
	Potato = October,2015 Maize = February,2016					
	Potato crop will be sown in kharif 2015 according to farmer's fertilizer dose (300:225:125 NPK Kg/ha. After harvesting of potato crop, maize crop will be sown during spring 2016 and fertilizer will be applied as per treatment.  All P, K and 35 kg N will be applied at sowing time, 56 kg N at 4 leaf stage, 92 kg N at grand growth stage, while last 92 kg N just before flowering stage. The data regarding stand count, days to 50% silking, plant height, cob height and grain yield will be recorded and analyzed statistically.					
PREVIOUS YEAR'S RESULTS:	New experiment.					

09. TITLE	SEED PRODUCTION OF SORGHUM SUDANGRASS HYBRID AND DEVELOPMENT OF PRODUCTION TECHNOLOGY.
OBJECTIVE	To produce seed of new high yielding sadabahar fodder and development of its production technology for end users.

RESEARCH WORKER(S)	Mr. Aamir Ghani					
	Mr. Muhammad Saeed					
	Mr. Dilbar Hussain					
	Mian Muhammad Sl	hafiqu	ie			
PROJECT DURATION	Kharif-2015.					
LOCATION	Maize & Millets Res	search	Institute, Yusafwala-Sahiwal.			
TREATMENTS	YCMS 10 x Sudangrass					
METHODOLOGY	Lay out	=	Strip			
	Reps	=	Non replicated			
	Plot size	=	20 m x 31.5 m			
	Plant to plant	=	15 cm			
	Row to row	=	75 cm			
	Fertilizer	=	170-84-62 NPK (Kg/ha)			
	Date of sowing	=	25 th June – 15 th July			
	Cytoplasmic male sterile line "YCMS 10" will be planted with Sudan					
	grass (Male) by 6:2 female: male on ridges.					
PREVIOUS YEAR'S	New experiment.					
RESULTS:						