

RESEARCH WORK WARRE 2018-19



VEGETABLE RESEARCH INSTITUTE FAISALABAD

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1. MUSKMELON (Cucumis mel	o L.)							
1. TITLE	DEVELOPMENT OF INBREAD AND HYBRIDS IN							
		MELON						
OBJECTIVE	Hybrid seed production in muskmelon							
RESEARCH WORKERS		Kaiser Latif Cheema						
		liq Hussain Shahid						
	Muhamr	nad Najeebullah						
LOCATION	VRI, Fai	isalabad.						
DURATION /TREATMENTS	2019							
	Lines: 25							
	Cross Co	ombinations: 08						
	S.No	Cross Combinations	S.No	Cross Combin	ations			
	1	$VRIM-9 \times VRIM-10$	5	NO- 3 x VRIM	-10			
	2	RAVI X T-96	6	RAVI X VRIM	[-10			
	3	T-96 X VRIM -9	7	GREEN FLESI	H X VRIM- 9			
	4	VRI-3 X VRIM-9	8	T-96 X VRIM-	10			
	RAVI							
	T-96							
METHODOLOGY		selected inbred lines will		•	U U			
	November 2018, keeping plant to plant and row to row distance of 60							
		300 cm, respectively,		•				
	-	ture. During first week						
		with nylon net to make is			•			
		flowers will be crossed w	-	-	-			
		nore all genotypes will be		-				
		fruit in each genotype. Selfed fruits as well as F_1 fruits will be harvested for next year evaluation.						
PREVIOUS YEAR'S	S.No.	Varieties	Yie	ld	TSS			
RESULTS	5.110.	v al ictics	IR	iu	155			
			(t/h	ac)	(%)			
	1	MELON 1301	16.'	75	13			
	2	VRIM- X VRIM-10	15.	69	13			
	3	T-96	15.	63	12			
	4	GREEN FLESH	14.	34	15			
	5	RAVI	12.	70	14			
	6	WHITE HERO ACS	11.9	96	11			
	7	RANGI PIO RZ	11.	18	10			

	LS	SD	4.78					
2. TITLE	ADAPTABILTY TRIALS OF MUSKMELON VARIETIES HYBRIDS UNDER LOW PLASTIC TUNNEL							
OBJECTIVE	To evaluate muskmelon varieties / hybrids under low plastic tunnel							
RESEARCH WORKERS	Kaiser Latif							
	Dr.Tasdiq H	ussain Shahid						
	Muhammad Najeebullah							
LOCATION	VRI, Faisala							
DURATION /TREATMENTS	2017							
	Genotypes ,9F1 and T-9	Genotypes = 9 (37F1,42 F1, 48 F1, 64 F1,74 F1,81 F1, 85 F1 ,9F1 and T-96)						
METHODOLOGY				be sown during las nnels. Sowing will b				
				eds with plant-to-plan				
		•		be adopted accordin				
		—	-	e will be kept as 7m				
	3m. Data reg	arding Brix % and yi	eld will be recor	ded.				
PREVIOUS YEAR'S								
RESULTS		VARIETIES	YIELD (T/H)	TSS(%)				
	1	M74F1	24.92	12				
	2	M-48 F1	23.11	13				
	3	M85 F1	22.35	12				
	4	M103 F1	21.28	12				
	5	M 42 F1	20.72	13				
	6	M 9 F1	20.69	12				
	7	M 81 F1	20.39	11				
	8	M 64 F1	19.40	13				
	9	M37 F1	18.76	12				
	10	T- 96	17.30	14				
		Lsd 0.05	4.43					
3. TITLE	ADAPTAB OPEN FIEI		IELON VARIE	TIES / HYBRIDS I				

OBJECTIVE	To evaluate adaptability of variety / hybrid in open field.								
RESEARCH WORKERS	Kaiser Latif Cheema Dr.Tasdiq Hussain Shahid								
	Dr.Tasdiq	Hussain Shahid							
	Muhammad Najeebullah								
LOCATION	VRI, Faisalabad								
DURATION /TREATMENTS	2019								
	Genotypes	· · · ·	peridot,Sweaty F1,V						
	Target-j123, HSM-050b, HSM-052C, HSM -060B,								
	061C, AAMM-41, AAMM-42, Maxi, Panama, SM-01,								
	01, Sweaty Baby and T-96 and Ravi.								
METHODOLOGY	The seed of 17 varieties / hybrid will be sown during 2 nd fortnight of February 2019. The sowing will be done on raised beds with plant to								
		row to row spacing of							
	-	e beds. Layout will be							
		s. The plot size will	-						
	-	Brix % and yield will l	-						
PREVIOUS YEAR'S		, , , , , , , , , , , , , , , , , , ,							
RESULTS		VARIETIES	YIELD T/H	TSS(%)					
				155(70)					
	1	T96	7.94	13					
	2	Nsc-1	6.25	13					
	3	Zumra F1	6.22	12					
	4	venus	6.19	11					
	5	AS22	5.41	10					
	6	COFIO	5.16	12					
	7	ZiTA F1	4.66	11					
	8	AJWA	4.66	10					
	9	MANKERA212	4.66	11					
	10	SPALSH4.65	4.65	10					
	11	NSC.5	4.61	12					
	12	NSC.2	4.53	11					
	13	RAVIAN	4.04	9					
	14	ASH-1	3.38	12					

DURATION /TREATMENTS 2019 Varieties = Four i.e. No.3., No.12., Green Flesh &T-96(Small) METHODOLOGY Four elite genotypes were sown in plot size of 7 × 3 m on both sides of 3					Lsd 0.05		2.45			
VARIETIES OBJECTIVE To maintain the purity of varieties. RESEARCH WORKERS Kaiser Latif Cheema Dr. Tasdiq Hussain Shahid Muhammad Najeebullah LOCATION VRI, Faisalabad DURATION /TREATMENTS 2019 Varieties = Two i.e. T-96 and Ravi METHODOLOGY Pre-basic seed of both varieties will be sown in isolation during 2nd fortnight of February 2019 on both sides of 300 cm wide beds keeping plant-to-plant distance of 45 cm. All off-type and diseased plants will be roughed before flowering and later stages of crop growth. At maturity, fruits will be harvested and seed of true to type fruits keeping in view of brix % will be collected and stored after drying. PREVIOUS YEAR'S 100 true to type fruits of each variety (T-96 & Ravi) were selected RESULTS 100 true to type fruits of each variety (T-96 & Ravi) were selected S. TITLE MAINTENANCE OF OPEN POLLINATED MUSKMELON GENOTYPES OBJECTIVE To maintain O.P. Genotypes RESEARCH WORKERS Kaiser Latif Cheema Dr. Tasdiq Hussain Shahid Muhammad Najeebullah LOCATION VRI, Faisalabad DURATION /TREATMENTS DUB Varieties = Four i.e. No.3., No.12., Green Flesh &T-96(Small) METHODOLOGY Four elite genotypes were sown in plot size of 7 × 3 m on both sides of 3										
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METHODOLOGY Four elite genotypes were sown in plot size of 7 × 3 m on both sides of 3	DURATION /TREAT	FMENTS	20							
motor wide hade with alent to alent encoing of 15 cm in isolation on	METHODOLOGY									
				meter wide beds with plant to plant spacing of 45 cm in isolation on						
				March 2019. Diseased and undesirable plants were rouged out and						
				remaining plants in each genotype were allowed to random mate. At						
				maturity desirable fruits were harvested and selection was made on the						
				basis of quality traits. Seed of selected fruits was collected for further						
mentioned below in table.				selection cycle. Characteristics of the selected fruits of four lines are						
PREVIOUS YEAR'S	PREVIOUS VEAD'S	1	me							
RESULTS										
Line Rind color Fruit Stripes Flesh color Flesh Weight Brix %		Rind color	Fruit	Stripes	Flesh color	Flesh	Weight	Brix %	1	
Name Shape type Testi coor Testi coor Name Shape type Texture Range (gm) (TSS)				-			-			
NO.3 Yellow oblate No White Soft 400-500 12-16		¥7.11	11.4	NT.	XX71.*4 .	G &	400 -00		4	

				stripes					1		
NO.12 Yellow			-do-	No	White	Soft	700-800	11-13			
	110.12	I CHOW	-40-	stripes	white	5010	700-000	11-15			
-	Green Green				Light green	Mediur	n 600-800	12-17	-		
	Flesh			No stripes	00	hard					
	ST-96	Green with	-do-	Stripes	Light	Mediur	n 200-300	13-16			
		stripes			orange	hard					
2. CHILLIES	6 (Cap	sicum annu	um L.)								
1. TITLE				COLLECTION AND MAINTENANCE OF CH GERMPLASM							
OBJECTIVE	1					m and	to utilize the	desirable	genotypes in		
				eeding p	0						
RESEARCH	WOR	KER (S)		eb Muna	war						
			Abdul	Sattar							
			Muha	mmad N	ajeebullah						
LOCATION			Faisal		~						
DURATION			Conti								
TREATMEN	TS/		Genot		= 54						
METHODOI				ry sowin		0.2018					
METHODOI				•	0		(under Isolatio	on chaml	ners)		
			Transplanting = 03.01.2019 (under Isolation chambers) Layout = Observational rows								
			Plant Spacing = 60×75 cm								
			Two to three true to type plants will be selected from each line and								
					• 1	-			each nne and		
DDEVIOUS		C	seed will be harvested separately for further use.								
PREVIOUS Y	I LAK	3	54 genotypes based on plant structure and fruit shape were maintained under isolation chamber during 2017-18.								
RESULTS						uring 20					
			S. No. Character		_	Range Minimum Maximum					
				DI			Minimum	Ma			
			1		nt height (cm		40		120		
			2		it Length (cn		2 15				
			3 Fruit diameter (mm)			-	5 30				
			5	5 Fruit position			Upward to downward				
			6 Fruit color				Yellowish green to dark green				
			7	Fru	it bitterness		Less bitter to bitter				
			8	Fru	it behavior		Solitary to bunch				
2. TITLE			FILIA	L GE	NERATIO	N STI	UDIES TO	DEVE	LOP OPEN		
							CHILLIES	, _			
OBJECTIVE	:							on of or	ben pollinated		
·			varieti					1	L		
RESEARCH	WOR	KER (S)		eb Muna	war						
				Sattar							
					ajeebullah						
LOCATION					ajecountan						
			Faisal								
DURATION			Contin		051	r					
TREATMEN	18/		\mathbf{F}_1 Ge \mathbf{F}_2	neration		Crosses Populati	ons				

F_3 =03 single plant progenies of 03 crosses F_4 =06 single plant progenies of 05 crosses F_5 =05 single plant progenies of 03 crosses F_6 =07 single plant progenies of 04 crosses F_7 =04 single plant progenies of 03 crossesMETHODOLOGYNursery sowing=Nursery sowing= $= 2^{nd}$ fortnight of FebruaryLayout=Observational rowsPlant Spacing= $= 60 \times 75$ cmSingle plants will be selected in each progeny on the basis of plantstructure and fruit shape, size, and color. Selected plants will be selfed.PREVIOUS YEAR'S F_1 Generation =10 Crosses F_2 =03 Populations F_3 =06 single plant progenies of 05 crosses
F_5 =05 single plant progenies of 03 crosses F_6 =07 single plant progenies of 04 crosses F_7 =04 single plant progenies of 03 crossesMETHODOLOGYNursery sowing=01.11.2018Transplanting=2nd fortnight of FebruaryLayout=Layout=Observational rowsPlant Spacing=60 x 75 cmSingle plants will be selected in each progeny on the basis of plant structure and fruit shape, size, and color. Selected plants will be selfed.PREVIOUS YEAR'S RESULTS F_1 Generation =10 Crosses F_2 =03 Populations F_3 =06 single plant progenies of 05 crosses
F_6 =07 single plant progenies of 04 crosses F_7 =04 single plant progenies of 03 crossesMETHODOLOGYNursery sowing= 01.11.2018Transplanting= 2^{nd} fortnight of FebruaryLayout= Observational rowsPlant Spacing= $60 \times 75 \text{ cm}$ Single plants will be selected in each progeny on the basis of plant structure and fruit shape, size, and color. Selected plants will be selfed.PREVIOUS YEAR'S RESULTS F_1 Generation =10 Crosses F_2 =03 Populations F_3 =06 single plant progenies of 05 crosses
F_7 =04 single plant progenies of 03 crossesMETHODOLOGYNursery sowing Transplanting Layout Plant Spacing single plants will be selected in each progeny on the basis of plant structure and fruit shape, size, and color. Selected plants will be selfed.PREVIOUS YEAR'S RESULTS F_1 Generation =10 Crosses F2 =F3=06 single plant progenies of 05 crosses
METHODOLOGYNursery sowing Transplanting Layout Plant Spacing single plants will be selected in each progeny on the basis of plant structure and fruit shape, size, and color. Selected plants will be selfed.PREVIOUS YEAR'S RESULTS F_1 Generation = F_3 10 Crosses = 06 single plant progenies of 05 crosses
Transplanting $= 2^{nd}$ fortnight of February LayoutLayout $=$ Observational rows Plant SpacingPlant Spacing $= 60 \ge 75 \ cm$ Single plants will be selected in each progeny on the basis of plant structure and fruit shape, size, and color. Selected plants will be selfed.PREVIOUS YEAR'S RESULTS F_1 Generation = F_2 10 Crosses G Single plant progenies of 05 crosses
Layout= Observational rowsPlant Spacing= $60 \ge 75 \mod$ Single plants will be selected in each progeny on the basis of plant structure and fruit shape, size, and color. Selected plants will be selfed.PREVIOUS YEAR'S RESULTS F_1 Generation = 10 Crosses F_2 = 03 Populations F_3 = 06 single plant progenies of 05 crosses
Plant Spacing $= 60 \times 75 \text{ cm}$ Single plants will be selected in each progeny on the basis of plant structure and fruit shape, size, and color. Selected plants will be selfed.PREVIOUS YEAR'S RESULTS F_1 Generation = F_2 10 Crosses F_2 F_3 $=$ 06 single plant progenies of 05 crosses
Single plants will be selected in each progeny on the basis of plant structure and fruit shape, size, and color. Selected plants will be selfed.PREVIOUS YEAR'S RESULTS F_1 Generation = F_2 10 Crosses 03 Populations F_3 F1Generation = 06 single plant progenies of 05 crosses
structure and fruit shape, size, and color. Selected plants will be selfed.PREVIOUS YEAR'S RESULTS F_1 Generation = F_2 = G Single plant progenies of 05 crossesF1 F_3 = G Single plant progenies of 05 crosses
selfed.PREVIOUS YEAR'S F_1 Generation =10 CrossesRESULTS F_2 =03 Populations F_3 =06 single plant progenies of 05 crosses
PREVIOUS YEAR'S RESULTS F_1 Generation = F_2 = F_3 =10 Crosses 03 Populations F_3 = 06 single plant progenies of 05 crosses
RESULTS \mathbf{F}_2 =03 Populations \mathbf{F}_3 =06 single plant progenies of 05 crosses
\mathbf{F}_3 = 06 single plant progenies of 05 crosses
F_4 =06 single plant progenies of 03 crosses F_5 =011 single plant progenies of 06 crosses
$\mathbf{F}_5 = 011$ single plant progenies of 06 crosses $\mathbf{F}_6 = 06$ single plant progenies of 05 crosses
3. TITLE DEVELOPMENT OF MALE STERILE LINES IN CHILLIES
OBJECTIVE:DEVELOFMENT OF MALE STERILE LINES IN CHILLIESOBJECTIVE:To develop three line ABR system for commercial production of
hybrids in chillies
RESEARCH WORKER (S) Muneeb Munawar
Abdul Sattar
Muhammad Najeebullah
LOCATION Faisalabad
DURATION Continuous
TREATMENTS/ Male sterile plants crosses 02
METHODOLOGY Nursery sowing = 16.10.2018
Transplanting = $27.12.2018$ (under Isolation chambers)
Layout = Observational rows
Male sterility will be maintained by crossing male sterile plants with
male fertile plants of same line.
PREVIOUS YEAR'S Each male sterile cross produced male sterile and male fertile plants
RESULTS in 1:1 ratio. Male sterile plants were crossed with male fertile plants
of same line for maintenance.
4. TITLE ADAPTABILITY TRIAL FOR HOT PEPPER UNDER
PLASTIC TUNNEL
OBJECTIVE To check the adaptability of exotic varieties / hybrids received from
various private companies
RESEARCH WORKER (S) Muneeb Munawar
Abdul Sattar
Muhammad Najeebullah
LOCATION Faisalabad
DURATION 2018-19
TREATMENTS /Varieties/Hybrids = 7 viz; Royal Hot, RPO-911, 16HP108, THP-036,
Wonder Hot, Golden Hot (Standard) and SV7864HM (standard)

METH	ODOLO	OGY	Nur	sery sowing	=	16.10.201	8			
				Transplanting = $19.12.2018$						
				Layout = RCBD						
				Plot size $= 6 \text{ m x } 1.5 \text{ m (tunnel)}$						
				lications	=	03		/		
			-	a will be record			uit width.	fresh gre	een fruit.	
				d and disease r		• ••••••	<i></i>			
PREVI	IOUS YI	EAR'S	~	formance of		oer varieti	es/hybrid	s under	r tunnel	l in
RESU	LTS			nrif 2017-18						
							Fruit	Fru	it	
	Rank	Entry		Company		Yield	Length			
		2		Company		(t/ha)	(cm)	(mn		
	1	Green Fire	Synger	nta, Pakistan L	td.	54.4	8.82	15.0	<i>'</i>	
	2	Golden Hot		(Downward fr		52.9	6.18	22.2		
	3	THP-034		rop Sciences (48.2	18.56	24.		
	4	SV7864HM		(Upward fruit		37.8	4.84	7.8		
	5	P-6		(Downward fr		35.3	6.8	12.		
	6	THP-036		rop Sciences (34.0	4.52	6.8	3		
	LSI	$\alpha = 5\%$				5.8				
5. TIT	LE		AD	ADAPTABILITY TRIAL FOR HOT PEPPER IN OPEN FIELD						
OBJE	CTIVE		Тос	To check the adaptability of exotic varieties / hybrids						
RESEA	ARCH W	VORKER (S)	Mur	Muneeb Munawar						
			Abd	Abdul Sattar						
			Muł	Muhammad Najeebullah						
LOCA	TION		Fais	Faisalabad						
DURA	TION		201	2018-19						
TREA	TMENT	S/	Var	Varieties/Hybrids:						
				28 viz; Sky Star, Red Sky, Sky Red, Priya, Bahar, Green Star, Simrun,						
				Veerji, HHP-091A, HHP-092B, HHP-080C, HHP-081G, HHP-082B,						
				HHP-083D, HHP-084E, HHP-085F, HP-1410, Sokiya F_1 , Hanna $F_{1,}$						
				Red Field F ₁ , Revival, SV9736HM, D-803, C-38, D-818, 16382,						
				1688, D-1, Golden Hot (Standard) & SV7864HM (Standard)						
METH	ODOLO	JGY		Nursery sowing $= 01.11.2018$						
				Transplanting= 2 nd fortnight of FebruaryLayout= RCBD						
				size	= RCH	x 0.75 m				
				lications	= 4 m = 03	л U./Ј III				
			-	a will be record		it length F	mit width	fresh o	reen fruit	t
				d and disease r		n iongui, I		, mean gi		ι,
PREVI	IOUS YI	EAR'S				ot pepper i	in open fi	eld (Set-	·I)	
RESU			[Fruit	Fruit	7
				Rank	Entry		Yield T	Length	Width	
					J	((t/ha)	(cm)	(mm)	
1								(cm)	(IIIIII)	

Г									
	2	BSS-410		35.1	7.16	17.5			
	3	SV7864HN	Λ	30.1	5.18	8.2			
	4	P-6		29.9	7.4	12.5			
	5	PH-274 F1		27.0	10.7	14.4			
	6	Advanta 5	12	26.8	4.8	8.5			
	7	Veerji		24.8	7.4	9.1			
	8	Advanta 50)17	22.2	5.9	10.1			
	9	Green Gold	1	21.4	7.1	9.4			
	10	Divya		18.4	6.2	23.1			
	11	HP-1410		17.8	7.2	8.2			
	12	Green Star		17.3	6.7	21.8			
	13	Disney F1		12.6	6.48	7.1			
	14	Kent		10.7	6.78	6.4			
		LSD (0.05)			5.9				
	P	erformance	of hot pe	pper in op	en field (S	et-II)			
		Rank	Yield (t/ha)	Length	Width				
			(una)	(cm)	(mm)				
		1	48.7	10.8	14.5				
		2	40.1	7.9	13.8				
		3	39.9	8.34	9.1				
		4	37.4	6.1	21.0				
		5	36.3	6.8	10.8				
		6	36.0	8.1	10.7				
		7	34.6	8.4	9.5				
		8	33.4	11.1	6.4				
		9	33.1	4.4	8.2				
		10	31.6	8.8	12.3				
		11	29.1	4.6	8.4				
		12	28.7	4.8	8.1				
		13	27.4	7.2	11.8				
		14	22.9	7.3	9.0				
		15	18.1	6.4	24.4				
			0.05) 6.3						
3. SWEET PEPPER (Capsicur									
1. TITLE	ADAPTAE TUNNEL	BILITY TH	RIAL FO	DR SWE	ET PEPI	PER UNDER			
OBJECTIVE	To study th	e adaptabilit	y and perf	ormance o	f exotic va	rieties/ hybrids			
	under tunne					-			
RESEARCH WORKER (S)	Muneeb Mu	unawar							
	Abdul Satta	ar							
	Muhammad	d Najeebullal	ı						
LOCATION	Faisalabad	5							
LOCATION	raisalavau								

DURATION	2018-19						
TREATMENTS/	8 varieties viz; Cinderella, Minerva, Jumbo, Nisha, HSP-181A, HSP-						
	180B, Commander & Coral F ₁ (Standard)						
METHODOLOGY	Nursery sowing $= 16.10.2018$						
	Transplanting $= 19.12.2018$						
	Transplanting=19.12.2018Layout=RCBDPlot size= 6×1.5 m						
	Plot size $= 6 \times 1.5 \text{ m}$						
	Replications $= 03$						
	Data will be recorded for fresh green fruit yield.						
PREVIOUS YEAR'S	New Experiment						
RESULTS:							
2. TITLE	ADAPTABILITY TRIAL FOR SWEET PEPPER IN OPEN						
	FIELD						
OBJECTIVE	To study the adaptability and performance of exotic varieties/ hybrids						
	in open field						
RESEARCH WORKE							
	Abdul Sattar						
	Muhammad Najeebullah						
LOCATION	Faisalabad						
DURATION	2018-19						
TREATMENTS /	10 viz; Roco F ₁ , 18-SP-0035, Manhattan, PS09979325, Choco, Scope						
	F ₁ , Zartaj F ₁ , SW614 F ₁ , Rambo & Coral F ₁ (Standard)						
METHODOLOGY	Nursery sowing= $01.11.2018$ Transplanting= 2^{nd} fortnight of FebruaryLevent=PCPD						
	Transplanting $= 2^{n\alpha}$ fortnight of February						
	Layout – KCBD						
	Plot size $= 4 \times 1.5 \text{ m}$						
	Replications $= 03$						
	Data will be recorded for fresh green fruit yield.						
PREVIOUS YEAR'S	RankEntryYield (t/ha)						
RESULTS:	1 MDS-9026 9.9						
	$2 \text{Coral } F_1 \qquad 9.2$						
4. CUCUMBER (Cuc	umis sativus L.)						
1. TITLE	MAINTENANCE OF CUCUMBER GERMPLASM						
OBJECTIVE	To maintain the genotypes of cucumber						
RESEARCH	Etlas Amin						
WORKER (S)	Dr. Muhammad Iqbal						
	Dr. Saeed Ahmad Shah Chishti						
LOCATION	VRI, Faisalabad						
DURATION	Continuous						
TREATMENTS	Entry = 05 (Kheera local + 4 parthenocarpic)						

METHODOLOGY	D1									
	-	ant distance = 30 cm on both sides of 2.5								
		ypes will be planted in a bed size of 5.0								
		nce of 30 cm. The genetic makeup of the	open pollinated variety will							
		ned through sib-mating.								
	Parthenoca	Parthenocarpic genotypes will be planted in November maintained								
	artificially	inducing male flowers.								
PREVIOUS YEAR'S		ype was maintained through sib mating.								
RESULTS	0									
	Sr. No.	Traits	Range							
	1	Days to flowering	40-45							
	2	Flower color								
			yellow							
	3	Fruit skin color at vegetative stage	Light green with yellowish brown spots							
	4	Fruit length (cm)	13-18							
	5	Fruit shape	Long							
	6	Average 1000 seed weight (gm)	26-30							
		inverage 1000 seea (eight (gin)	20 20							
2. TITLE	DEVELO	PMENT OF INBRED LINES I	N PARTHENOCARPIC							
2. IIILE			IN PARTHENOCARPIC							
		BER UNDER HIGH TUNNEL								
OBJECTIVE	To develop	o inbred lines for the synthesis of parthen	ocarpic hybrid in cucumber.							
RESEARCH	Etlas Amir	J								
WORKER (S)		nmad Iqbal								
WORKER (5)		Ahmad Shah Chishti								
LOCATION										
LUCATION	VRI, Faisa	nabad.								
DURATION	Continuou	S								
	0 15									
TDEATMENITS	$1 \times - 15$									
TREATMENTS	$S_0 = 15$									
TREATMENTS	$S_1 = 45$									
TREATMENTS	$S_1 = 45$ $S_2 = 07$									
TREATMENTS	$S_1 = 45$									
	$S_1 = 45$ $S_2 = 07$ $S_3 = 13$									
	$S_1 = 45$ $S_2 = 07$ $S_3 = 13$ Sowing time	-								
	$S_1 = 45$ $S_2 = 07$ $S_3 = 13$ Sowing time Plant to play	ant distance = $30 \text{ cm on both sides of}$	f 1m wide beds							
	$S_1 = 45$ $S_2 = 07$ $S_3 = 13$ Sowing time Plant to play	-	f 1m wide beds							
	$S_1 = 45$ $S_2 = 07$ $S_3 = 13$ Sowing time Plant to plat Chemical	ant distance = $30 \text{ cm on both sides of}$	f 1m wide beds of the plants. Due to this							
	$S_1 = 45$ $S_2 = 07$ $S_3 = 13$ Sowing time plant to plant to plants will plants will plants will plants will plant to plant the plant to plant the plant to plant the plant to plant the plant to plant to plant the plant to pla	ant distance = 30 cm on both sides or will be sprayed at the apical meristem change their flowering habit from gyno	f 1m wide beds of the plants. Due to this							
METHODOLOGY	$S_1 = 45$ $S_2 = 07$ $S_3 = 13$ Sowing time Plant to plants will genotypes	ant distance = 30 cm on both sides or will be sprayed at the apical meristem	f 1m wide beds of the plants. Due to this							
METHODOLOGY PREVIOUS YEAR'S	$S_1 = 45$ $S_2 = 07$ $S_3 = 13$ Sowing time Plant to plat Chemical plants will genotypes $S_0 = 50$	ant distance = 30 cm on both sides or will be sprayed at the apical meristem change their flowering habit from gyno	f 1m wide beds of the plants. Due to this							
METHODOLOGY PREVIOUS YEAR'S	$S_1 = 45$ $S_2 = 07$ $S_3 = 13$ Sowing time Plant to plant to plants will genotypes $S_0 = 50$ $S_1 = 10$	ant distance = 30 cm on both sides or will be sprayed at the apical meristem change their flowering habit from gyno	f 1m wide beds of the plants. Due to this							
TREATMENTS METHODOLOGY PREVIOUS YEAR'S RESULTS	$S_1 = 45$ $S_2 = 07$ $S_3 = 13$ Sowing time Plant to plant to plants will genotypes $S_0 = 50$ $S_1 = 10$ $S_2 = 13$	ant distance = 30 cm on both sides or will be sprayed at the apical meristem change their flowering habit from gyno will be selfed to advance generation.	f 1m wide beds of the plants. Due to this ecious to monoecious. The							
METHODOLOGY PREVIOUS YEAR'S	$S_1 = 45$ $S_2 = 07$ $S_3 = 13$ Sowing time Plant to plant to plant to plants will genotypes $S_0 = 50$ $S_1 = 10$ $S_2 = 13$ ADAPTA	ant distance = 30 cm on both sides of will be sprayed at the apical meristem change their flowering habit from gyno will be selfed to advance generation. BILIT TRIAL OF EX	f 1m wide beds of the plants. Due to this ecious to monoecious. The CUCUMBER							
METHODOLOGY PREVIOUS YEAR'S RESULTS 3. TITLE	$S_1 = 45$ $S_2 = 07$ $S_3 = 13$ Sowing time Plant to plant to plant to plants will genotypes S_0 = 50 $S_1 = 10$ $S_2 = 13$ ADAPTA HYBRIDS	ant distance = 30 cm on both sides of will be sprayed at the apical meristem change their flowering habit from gyno will be selfed to advance generation. BILIT TRIAL OF EX S/VARIETIES UNDER HIGH TUNNE	f 1m wide beds of the plants. Due to this ecious to monoecious. The XOTIC CUCUMBER							
METHODOLOGY PREVIOUS YEAR'S RESULTS	$S_1 = 45$ $S_2 = 07$ $S_3 = 13$ Sowing time Plant to plant to plant to plants will genotypes S_0 = 50 $S_1 = 10$ $S_2 = 13$ ADAPTA HYBRIDS	ant distance = 30 cm on both sides or will be sprayed at the apical meristem change their flowering habit from gyno will be selfed to advance generation. BILIT TRIAL OF EX S/VARIETIES UNDER HIGH TUNNE he adaptability of varieties/ hybrids received	f 1m wide beds of the plants. Due to this ecious to monoecious. Ther XOTIC CUCUMBER							

RESEARCH	Etlas Amin								
WORKER (S)	Dr. Muhami	mad Iobal							
		hmad Shah Chis	shti						
LOCATION	VRI, Faisalabad.								
DURATION	Continuous Varieties/ Hybrids = 20								
TREATMENTS	Varieties/ Hybrids = 20Sowing time= 2^{nd} fortnight of November, 2018								
METHODOLOGY	Sowing time	e		ight of November,	, 2018				
	-	Design = RCB							
		Replications = 3							
	Plot size		$= 6 \times 1 \text{ m}$. h. (h; J f. 1					
	Plant to plan			n both sides of 1m					
	be recorded	ing number of in	runs per plant, m	uit yield and disea	ise reaction will				
PREVIOUS YEAR'S		ce of Cucumbe	r hybrids in an	adaptability tria	al at Vegetable				
RESULTS			bad during 2017		ii ut vegetuble				
	Sr.	HYBRIDS	No. of Fruits	YIELD (t/ha)]				
	No.		/Plant						
	1	SXQ-3776	14	108.43	-				
		(Check)							
		(Check)							
	2	POYRAZ	13	99.13	-				
	2		15	<i>yy</i> .15					
	3	JAVA	12	85.54	-				
	4	RAYYAN	10	72.06	-				
	5	TCB-701	10	65.60	-				
	6	15CU5277	10	58.89					
	7	TCB-702	10	58.43					
	8	KINGSTAR	10	56.91					
	9	CHELSEA	8	55.66					
					4				
	10	YIELDER	9	53.00					
				47.45	-				
	11	TCB-705	8	47.45					

	[12	TCB-703	7	47.39		
		12	ICD-705	/	47.39		
		13	MULTISTAR	8	44.00		
		10		0	11.00		
		14	15CU-5276		43.51		
			LSD (0.05)		9.71		
4. TITLE			BILITY TRIA S/VARIETIES IN (EXOTIC	CUCUMBER	
OBJECTIVE	To c	heck t	he adaptability of va	arieties/ hybrids	received from	different seed	
		panies					
RESEARCH		s Amiı					
WORKER (S)			nmad Iqbal				
LOCATION			Ahmad Shah Chisht	1			
LOCATION		,	labad.				
DURATION		tinuou		·			
TREATMENTS			eceived from private	2 seed companie	S - 1-4 f Γ - 1	- 2010	
METHODOLOGY		ing tin			ght of February	7, 2019	
		Design = RCB Replications = 3					
	Plot			$= 5.0 \times 2.5$	m		
						2.5 m wide beds	
	1 Iuli	t to ph		- 50 cm on	both sides of z	2.5 m while beds	
	Data	regar	ding fruit color, nun	aber of fruits per	blant and frui	t vield will be	
	reco	-	6	1	1	5	
PREVIOUS YEAR'S	Perf	orma	nce of cucumber v	arieties /Hybrid	ls in Adaptat	oility Trial during	
RESULTS		rif, 20		_			
]	Rank	Varieties/Hybrids	No. of fruit	s/ nlant 🛛 🛛 Fr		
			· ••••••••••••••••••••••••••••••••••••	itto: of fi un		uit Yield (t/ha)	
			· · · · · · · · · · · · · · · · · · ·			uit Yield (t/ha)	
		1	HCU-171C	5		uit Yield (t/ha) 30.75	
			HCU-171C	5		30.75	
		1 2					
		2	HCU-171C Target kareena	5		30.75 21.55	
			HCU-171C	5		30.75	
		2	HCU-171C Target kareena MESSI-F1	5 4 4		30.75 21.55 21.23	
		2	HCU-171C Target kareena	5		30.75 21.55	
		2 3 4	HCU-171C Target kareena MESSI-F1 NSC-CM ₄ F ₁	5 4 4 3		30.75 21.55 21.23 19.31	
		2	HCU-171C Target kareena MESSI-F1	5 4 4		30.75 21.55 21.23	
		2 3 4 5	HCU-171C Target kareena MESSI-F1 NSC-CM ₄ F ₁ Akad	5 4 4 3 3		30.75 21.55 21.23 19.31 17.79	
		2 3 4	HCU-171C Target kareena MESSI-F1 NSC-CM ₄ F ₁	5 4 4 3		30.75 21.55 21.23 19.31	
		2 3 4 5 6	HCU-171C Target kareena MESSI-F1 NSC-CM ₄ F ₁ Akad KL-086	5 4 4 3 3 3 3		30.75 21.55 21.23 19.31 17.79 17.52	
		2 3 4 5	HCU-171C Target kareena MESSI-F1 NSC-CM ₄ F ₁ Akad	5 4 4 3 3		30.75 21.55 21.23 19.31 17.79	

	8	Thamin II	3	16.86
	0		5	10.00
	9	SV6346CD	3	15.55
	10	Kalaam F ₁	3	14.60
	11	NSC-CM ₁ F ₁	3	14.57
	12	Debra	2	14.49
	13	Safaa	3	14.25
	14	Alpha prime	2	13.20
	15	SV6352CD	2	11.65
	16	Kheera local (Check)	2	7.86
	17	Early king	2	7.25
	18	NSC-CM ₂ F ₁	1	4.86
		LSD (0.05)		3.48
5. TITLE	DEVELO	OPMENT OF OPEN P	OLLINATED VAR	IETY
OBJECTIVE	To develo	p high yielding and hea	t tolerant open pollin	ated variety
RESEARCH	Etlas Am	in		
WORKER (S)		mmad Iqbal		
		Ahmad Shah Chishti		
LOCATION	VRI, Fais	alabad.		
DURATION	Continuo	18		
TREATMENTS	Source p	opulation		
METHODOLOGY	Source po tolerance,	lant distance = opulation will be sown more female flowers w seed of individual plan	30 cm on both si Plants having des ill be selected and le	Tebruary, 2019 des of 2.5 m wide beds irable characters i.e heat et them open pollinate. At to grow progeny rows in

PREVIOUS YEAR'S Source	population	was developed.	
RESULTS	r • r • • • • • • • • •	······································	
5. BITTER GOURD (Momor	dica charar	ntia L.)	
1. TITLE	COLLEC	CTION AND MAINTENAN	NCE OF BITTER GOURD
	GERMPI		
OBJECTIVE		0 1	n in order to preserve the genetic
		he germplasm	
RESEARCH WORKERS	Mudassar Nusrat Par		
		Ahmad Shah Chishti	
		ad Najeebullah	
LOCATION	Faisalabad		
DURATION	Continuou		
TREATMENTS	Entries	= 15	
METHODOLOGY	Sowing D		ight of February, 2019
	Layout	$=$ 5.0 m \times	2.5 m
	Plant Space		
			ated varieties will be maintained
DDEVIOUS VEADS	through si		use maintained through sibling
PREVIOUS YEAR'S RESULTS	S .	Traits	vere maintained through sibbing. Range
RESULTS		Traits	Kange
	No	E	Light Cross Dada areas
	1.	Fruit color	Light Green- Dark green
	2.	No. of female	10-25
		Flowers/plant	
	3.	Avg. Fruit weight (g)	20-60
	4.	Avg. Fruit length (cm)	12-23
2. TITLE	DEVELO	DPMENT OF INBRED LIN	NES IN BITTER GOURD
OBJECTIVE	To develo	p synthetic varieties in bitter	gourd
RESEARCH WORKERS	Mudassar	1	
		Ahmad Shah Chishti	
		ad Najeebullah	
LOCATION	Faisalaba		
DURATION TREATMENTS	Continuou $S_0 =$	02	
	$S_0 = S_1 = S_1$	02 04	
	$S_1 = S_2 = S_2$	06	
	$\mathbf{S}_{2}^{2} = \mathbf{S}_{3}^{2} =$	17	
	$\mathbf{S}_4 =$	13	
	$S_5 =$	06	
	S ₆ =	03	
	$S_7 =$	06	
METHODOLOGY	Sowing D	$ate = 2^{nd}$ fortnight of 1	February, 2019

	Lavout - Non raplicated
	Layout = Non-replicated Bed Size = 6.0×2.5 m
	I U
	All genotypes in S_1 to S_7 generations will be sown in the field during 2^{nd} fortnight of February. Flowers of selected plants of these genotypes
	will be selfed to advance the generations. Selfed fruits will be
	collected, separately for future study. $S_0 = 02$
PREVIOUS YEAR'S RESULTS	0
KESUL15	
	$S_2 = 07$ $S_3 = 04$
	$S_3 = 04$ $S_4 = 03$
	$S_{5} = 03$
	$S_{6} = 07$
3. TITLE	DEVELOPMENT OF SYNTHETIC VARIETY IN BITTER GOURD
OBJECTIVE	To develop synthetic varieties in bitter gourd
RESEARCH WORKERS	Mudassar Iqbal
	Nusrat Parveen
	Dr. Saeed Ahmad Shah Chishti
	Muhammad Najeebullah
LOCATION	Faisalabad
DURATION	Continuous
TREATMENTS	Inbred lines: 10
METHODOLOGY	Sowing Date = 2^{nd} fortnight of February, 2018
	Layout = Non-replicated
	Bed Size = 5.0×2.5 m
	Plant Spacing = 60 cm
	All inbred lines will be sown in the field during 2 nd fortnight of
	February along with an open pollinated tester variety. The inbred lines
	will be crossed with a common tester and the progenies will be
	evaluated in replicated trials for general combining ability of yield and
	yield contributing characters.
PREVIOUS YEAR'S	New Experiment
RESULTS	
4. TITLE	GENERAL COMBINING ABILITY TESTING OF BITTER
	GOURD LINES
OBJECTIVE	To find out the best general combiners for the development of synthetic
	variety.
RESEARCH WORKERS	Mudassar Iqbal
	Dr. Saeed Ahmad Shah Chishti
	Muhammad Najeebullah
LOCATION	Faisalabad

DURATION	Continuous		
TREATMENTS	14		
METHODOLOGY	Sowing Date = 2^{nd} fortnight of February, 2019		
	Layout = RCBD		
	Replications = 3		
	Bed Size = 2.0×2.5 m		
	Plant Spacing $=$ 45 cm		
	Data regarding disease incidence, days to first picking and yield will be recorded.		
PREVIOUS YEAR'S	New experiment		
RESULTS			
5. TITLE	DEVELOPMENT OF BITTER GOURD (MEDIUM SIZED) VARIETY FOR OFF SEASON CULTIVATION		
OBJECTIVE	To develop high yielding and disease tolerant, medium sized bitter		
	gourd variety for prolonged availability from August to December		
RESEARCH WORKERS	Mudassar Iqbal		
	Dr. Saeed Ahmad Shah Chishti		
	Muhammad Najeebullah		
LOCATION	Faisalabad		
DURATION	Continuous		
TREATMENTS	Entries = Received from different sources		
	Seed obtained from sib mating of varieties/Hybrids = 03		
METHODOLOGY	Sowing Date = 2^{nd} week of June, 2019		
	Bed Size = 5.0×2 m		
	Plant Spacing = 60cm Seed obtained from different resources will be sown to check their		
	adaptation in off season.		
PREVIOUS YEAR'S	Three lines was survived and maintained by sib mating to check its		
RESULTS	adaptation in next year.		
6. TITLE	ADAPTABILITY EVALUATION OF BITTER GOURD		
	VARIETIES FOR FEBRUARY-MARCH SOWING SEASON		
OBJECTIVE	To find out high yielding, early fruiting and disease resistant/tolerant		
	varieties		
RESEARCH WORKERS	Mudassar Iqbal		
	Dr. Saeed Ahmad Shah Chishti		
	Muhammad Najeebullah		
LOCATION	Faisalabad		
DURATION	Continuous		
TREATMENTS	Varieties/ hybrids = Received from seed companies		
METHODOLOGY	Sowing Date = 2^{nd} fortnight of February, 2019		
	Layout = RCBD		
	Replications $= 3$		
	Bed Size = 5.0×2.5 m		
	Plant Spacing $=$ 45 cm		
	Data regarding disease incidence, days to first picking, yield and		

	disease re	eaction will be recorded.		
PREVIOUS YEAR'S	Performance of different Bitter Gourd Varieties/Hybrids i			
RESULTS	Adaptability Trials during kharif, 2018.			
	Set-I R. No.		$\mathbf{E}_{\mathbf{T}}$	
	K. NO.	Variety/Hybrid	Fruit Yield (T/ha)	
	1	Kohsar F1	17.14	
	2	Panther F1	15.10	
	3	Tarzan F1	14.27	
	4	Aswad (Check)	12.64	
	5	Nelum F1	11.59	
	6	Zarar	10.44	
	13	Carlos	5.77	
		LSD (0.05)	2.38	
	Set-II			
	R. No.	Variety/Hybrid	Fruit Yield (T/ha)	
	1	7499 F1	12.02	
	2	Daizy	10.23	
	3	Aswad (Check)	8.03	
	4	Target Bg-555	7.89	
	10	4722	3.94	
		LSD (0.05)	2.34	
6. OKRA (Abelmoschus esc	ulentus L.)			
1. TITLE		CTION AND MAINTENANCE		
OBJECTIVE		in the germplasm and to utilize the transformer of the second s	ne desirable genotypes in the	
RESEARCH WORKERS	Rashida A			
	Dr. Akhta			
	Muhamm	ad Najeebullah		
LOCATION	Faisalabad			
DURATION	Continuou			
TREATMENTS		/Lines = 45		
METHODOLOGY	Sowing da		f February, 2019	
	Plot Size	= 7.0 × 1.5 m		
	Spacing = $75 \times 30 \text{ cm}$			
		ers of each genotype of selected naintain the genotypes.	true to type plants will be	
PREVIOUS YEAR'S		e lines were maintained and 02 ne	w accessions were collected	
RESULTS		e study. These lines will be us		

	programme.		
2. TITLE	HYBRIDIZATION AND STUDY OF FILIAL GENERATIONS OF OKRA		
OBJECTIVE	To create genetic variability for the development of high yielding and disease resistant varieties		
RESEARCH WORKERS	Rashida Aslam Dr. Akhtar Saeed Muhammad Najashullah		
LOCATION	Muhammad Najeebullah Faisalabad		
DURATION	Continuous		
TREATMENTS	(i)-New Crosses between parents <i>viz</i> ;		
METHODOLOGY	 (i)-New Crosses between parents <i>VIZ</i>; High yielding: OK-1301, OK-1302, OK-940 Disease tolerant: OK-1401, OK-1313 and OK-1314 (ii) F₁ = 12 Crosses (iii) F₂ = 15 Crosses (iv) F₃ = 10 Crosses (v) F₄ = 10 Crosses (vi) F₅ = 05 Crosses (vii) F₆ = 12 Crosses (i) Above mentioned parents will be sown during last week of February in separate block to attempt crosses. 8-10 flowers will be crossed in each combination. At maturity, crossed seed of all the crosses will be collected separately for future study in F₁ generation. (ii) In F₂, F₃ and F₄ seed of selected plants will be collected and bulked. (iii) In F₅ and F₆ single plants will be selected keeping in view the economic characters and their seed will be collected for plant to row testing. 		
PREVIOUS YEAR'S	The seed of 15 crosses in F_1 , 10 crosses in F_2 , 10 crosses in F_3 , 05		
RESULTS	crosses in F_4 and 12 crosses in F_5 were harvested in bulk.		
3. TITLE	ADAPTABILITY TRIAL IN OKRA		
OBJECTIVE	To check the adaptability of okra exotic varieties/hybrids		
RESEARCH WORKERS	Rashida Aslam Dr. Akhtar Saeed		
	Muhammad Najeebullah		
LOCATION	Faisalabad		
DURATION	Continuous		
TREATMENTS	Entries = Received from different seed companies		
METHODOLOGY	Sowing date= 2^{nd} fortnight of February, 2019Lay out=RCBDReplication=3Plot size= 7.0×1.5 mRow to Row=75 cm		
	Plant to Plant=10 cm on both sides of 75 cm wide ridges.Entries will be sown along with one check variety Sabz Pari. Data		

	regarding recorded.		fresh fruit yield and disease will		
PREVIOUS YEAR'S RESULTS	Performance of Okra varieties /Hybrids in Adaptability Trial during 2017.				
	SET-I				
	S. No	o. Variety	Fresh fruit yield (t/ha)		
	1	Excel F ₁	18.82		
	2	HO-042B	18.53		
	3	OH-940	18.17		
	4	MSC-5050	18.15		
	5	BS-782	18.10		
	6	No. 64	17.68		
	7	Resham	17.52		
	8	Sabz Pari (Checl	k) 17.33		
	9	HO-041B	17.22		
	10) HS-15	17.20		
	1	I MSC-2020	17.07		
	12	2 Noori-786	17.05		
	13	3 Silky-460	16.86		
	14	4 Malka	16.58		
	1:	5 MSC-3030	16.55		
	10	5 Sydney F ₁	16.30		
	17	7 MSC-2525	16.28		
		LSD (0.05)	1.27		
7. WATER MELON (Cit					
1. TITLE		EVELOPMENT (ATERMELON	OF INBRED LINES		
OBJECTIVE	Т	o develop inbred	lines for the development		

	hybrids/composite varieties.
RESEARCH WORKERS	Nusrat Parveen Kaiser Latif Cheema Dr. Muhammad Hussain Shahid
LOCATION	Muhammad Najeebullah
DURATION /TREATMENTS	Faisalabad Continuous
DURATION / I REATMENTS	Continuous $S_0=12$ $S_3 =$ Selfed seed of five lines $S_8 =$ Selfed seed of four lines
METHODOLOGY	The seed of S_0 , S_3 and S_8 will be sown in fruit to row fashion during 3^{rd} week of November 2018, on both sides of 3ft wide beds keeping plant to plant distance of 60 cm under high tunnel covered with plastic sheet. During first week of March, 2019 the tunnel will be covered with nylon net to make isolation chamber to avoid pollinators. 2-3 flowers on 3-4 selected plants in each bed will be selfed to get at least one mature fruit for generation advancement. At maturity, selfed seed of respective lines will be collected, separately along with characterization of the selected plants and fruits for next generation studies.
PREVIOUS YEAR'S	Selfed seed of four S ₇ and five S2 lines were obtained after
RESULTS	selection.
2. TITLE	DEVELOPMENT OF OPEN POLLINATED VARIETIES
OBJECTIVE	To select high yielding and disease resistant plants/fruits to develop open pollinated varieties.
RESEARCH WORKERS	Nusrat Parveen Kaiser Latif Cheema Dr. Muhammad Hussain Shahid Muhammad Najeebullah
LOCATION	Faisalabad
DURATION	Continuous
TREATMENTS	Seed of two types of fruits (Green oblong and green round).
METHODOLOGY	From broad based population, two types of fruits were selected (Green oblong and green round). These will be sown at isolation distance during 2nd week of Feb, 2019, on both sides of 3 meter wide beds, keeping plant to plant distance of 60 cm. Plants

	having desirable fruits on the basis of rind color, shape and TSS % age will be selected.
PREVIOUS YEAR'S RESULTS	Seed of selected plants/fruits from both groups (Green oblong and green round) was collected.
3. TITLE	DEVELOPMENT OF HYBRIDS IN WATER MELON.
OBJECTIVE	Synthesis of different cross combinations in watermelon
RESEARCH WORKERS	Nusrat Parveen Kaiser Latif Cheema Dr. Muhammad Hussain Shahid Muhammad Najeebullah
LOCATION	Faisalabad
DURATION /TREATMENTS	2019 Six Combinations: VRIWM-1 x VRIWM-2, VRIWM-1 x VRIWM-4, VRIWM-1 x VRIWM-5, VRIWM-2 x VRIWM-4, VRIWM-2 x VRIWM-5, VRIWM-4 x VRIWM-5.
METHODOLOGY	Above selected in-bred lines were sown on 15-01-2019, keeping plant to plant and row to row distance of 60 cm and 3ft, respectively, under high tunnel. During March the tunnel will be covered with nylon net to make isolation chamber to avoid pollinators. Female flowers will be crossed with respective male parent, manually.
PREVIOUS YEAR'S RESULTS	NEW EXPERIMENT
4. TITLE	ADAPTABILTY TRIALS OF WATERMELON VARIETIES/ HYBRIDS UNDER LOW PLASTIC TUNNEL
OBJECTIVE	To evaluate watermelon varieties / hybrids under low plastic tunnel
RESEARCH WORKERS	Nusrat Parveen Kaiser Latif Cheema Dr. Muhammad Hussain Shahid Muhammad Najeebullah
LOCATION	VRI, Faisalabad
TREATMENTS	Varieties/Hybrids = Varieties/Hybrids received from seed companies
METHODOLOGY	The seed of varieties / hybrid was sown during 1 st week of December, 2018 under low plastic tunnels. Sowing was done on both sides of three meter wide raised beds with plant-to-plant distance of 50 cm. Layout of the experiment was adopted according to the RCBD with

	three replications. The plot size was kept as 4m x 3m. Data regarding		
	Brix % and yield will be recorded.		
PREVIOUS YEAR'S	New Experiment		
RESULTS			
5. TITLE	ADAPTABILITY TRIAL OF WATERMELON		
	VARIETIES/ HYBRIDS IN OPEN FIELD		
OBJECTIVE	To evaluate exotic varieties/hybrids of watermelon		
RESEARCH WORKERS	Nusrat Parveen		
	Kaiser Latif Cheema		
	Dr. Muhammad Hussain Shahid		
	Muhammad Najeebullah		
LOCATION	Faisalabad		
DURATION	Continuous		
TREATMENTS	Varieties/Hybrids = Varieties/Hybrids received from		
	seed companies		
METHODOLOGY	Sowing time = 2^{nd} fortnight of February, 2019		
	Plot Size = $4 \text{ m x } 3 \text{ m}$		
	Design = RCBD		
	Replications = 3		
	Plant to plant distance $= 50$ cm		
	Sowing Method / = On both sides of 3 meter wide		
	beds.		
	Data regarding disease incidence, TSS% and fruit yield will be		
	recorded.		
PREVIOUS YEAR'S	Yield performance of various varieties/hybrids of watermelon		
RESULTS	during 2018		

Rank	Variety/Hybrid	TSS%	Yield (T/ha)
1	Commandor F ₁	9.17	10.97
2	WMH-4715	8.66	10.95
3	SVWC-6988	7.00	8.13
4	NSC WM2 F ₁	10.00	7.78
5	WMT 4807	8.33	7.06
6	SVWC 4183	7.66	6.6

7	Launcher	6.66	5.70
8	Sugar Baby (Check)	9.00	4.84
9	Advanta1401	7.16	4.83
10	MDS-770	7.00	4.4
11	NSC WM1 F ₁	7.33	4.13
12	Nautilus	8.00	2.11
13	Turi-F ₁	7.00	2.13
14	MDS 101	7.00	1.83
I	LSD (0.05)	1.18	2.17

Set-II

Rank	Variety/Hybrid	TSS%	Yield (T/ha)
1	525 F ₁	7.30	10.53
2	WM 4163	7.00	8.14
3	Prince	8.00	6.52
4	MDS 452	7.70	6.37
5	NSC WM3	7.30	5.84
6	WS93	7.70	5.32
7	WMT 4809	6.70	5.21
8	TWM 1610	8.00	4.75
9	Global	7.00	4.08
10	Vigo	7.30	3.95
11	Jackie	7.00	3.52
12	SVI 770WC	7.00	3.50
13	Sugar Baby (Check)	8.80	2.85

	14	MDS 215	59	8.00	1.94	4
	L	SD (0.05)		NS	2.8	
8. BOTTI	LE GOURI	D (Lagena	ria siceraria L)	·	
1. TITLE			MAINTENA	NCE OF BOTTLE	GOURD GERM	IPLAM
OBJECTI	VE			of lines having desira	ble characteristic	s for future use in
			the breeding p			
RESEAR	CH WORK	ERS	Dr. Muhamma	1		
			Mudassar Iqba			
LOCATIO	N		Muhammad N Faisalabad	lajeebullali		
DURATIC			Continuous			
TREATM				tries = 04 viz; Faisala	bad Round, 4545	5 Lattu, NBGH-107
			and VRIBG-2			,
METHOD	OLOGY		Sowing time	$=2^{nd}$ fortnig	ht of February, 2	018
			Plot Size	$= 7 \times 4 m$		
			Spacing	= 45 cm		
			At the time of	f flowering, pollen o	f each line will b	e collected, bulked
			and flowers	of respective line	will be pollinat	ted. Seed will be
			extracted from	n fruits, resulting from	n manual pollina	tion.
DDDUIOI				• . • •		
RESULTS	JS YEAR'S	•	Two lines wer	e maintained.		
RESULIS)		Sr. No.	Variety Name	Character	Range
			1	FSD ROUND	Fruit Weight	150-500
					(gm)	100 000
					Fruit Color	Light green-
						Green
					Fruit Shape	Round-Pear
					The second se	Kouliu-Peal
					-	shape
			2	VRIBG 2	Fruit Weight	
			2	VRIBG 2	Fruit Weight (gm)	shape 100-400
			2	VRIBG 2	Fruit Weight	shape100-400Light green-
			2	VRIBG 2	Fruit Weight (gm) Fruit Color	shape100-400Light green- Green
			2	VRIBG 2	Fruit Weight (gm) Fruit Color Fruit Length	shape100-400Light green-
			2	VRIBG 2	Fruit Weight (gm) Fruit Color Fruit Length (cm)	shape100-400Light green- Green12-20
2. TITLE					Fruit Weight (gm) Fruit Color Fruit Length (cm) Fruit Shape	shape100-400Light green- Green12-20Cylindrical
2. TITLE				VRIBG 2	Fruit Weight (gm) Fruit Color Fruit Length (cm) Fruit Shape	shape100-400Light green- Green12-20Cylindrical
2. TITLE OBJECTI	VE		DEVELOPM GOURD		Fruit Weight (gm) Fruit Color Fruit Length (cm) Fruit Shape POPULATION	shape100-400Light green- Green12-20Cylindrical
OBJECTI	VE CH WORK	ERS	DEVELOPM GOURD To create gene Dr. Muhamma	ENT OF SOURCE	Fruit Weight (gm) Fruit Color Fruit Length (cm) Fruit Shape POPULATION	shape100-400Light green- Green12-20Cylindrical
OBJECTI		ERS	DEVELOPM GOURD To create gene Dr. Muhamma Mudassar Iqba	ENT OF SOURCE etic variability in bott ad Iqbal al	Fruit Weight (gm) Fruit Color Fruit Length (cm) Fruit Shape POPULATION	shape100-400Light green- Green12-20Cylindrical
OBJECTI	CH WORK	TERS	DEVELOPM GOURD To create gene Dr. Muhamma	ENT OF SOURCE etic variability in bott ad Iqbal al	Fruit Weight (gm) Fruit Color Fruit Length (cm) Fruit Shape POPULATION	shape100-400Light green- Green12-20Cylindrical

DURATION	Continuous
TREATMENTS	Number of entries = 06 varieties
METHODOLOGY	Sowing time= 2^{nd} fortnight of February, 2018Plot Size= 7×4 mSpacing= 45 cm.At the time of flowering, pollen of different lines will collected and bulked and 10 flowers of each line will be pollinated.
PREVIOUS YEAR'S RESULTS	Seed was extracted from crossed fruits for sowing it in 2 nd cycle.
3. TITLE	ADAPTABILITY TRIAL ON EXOTIC BOTTLE GOURD VARIETIES/ HYBRIDS
OBJECTIVE	To test the imported varieties/hybrids for their performance evaluation
RESEARCH WORKERS	Dr. Muhammad Iqbal Kashif Nadeem Muhammad Najeebullah
LOCATION	Faisalabad
DURATION	Continuous
TREATMENTS	Entries = varieties provided by different seed companies along with check varieties Faisalabad Round and VRIBG-2 (Long) in two sets respectively based on their fruit shape.
METHODOLOGY	Sowing time= 2^{nd} fortnight of February, 2019Plot Size= 7×4 mDesign=RCBDReplications=3Spacing=45 cm. (on both sides)Data will be recorded regarding fruit shape, number of fruits per plant disease reaction and fruit yield.
PREVIOUS YEAR'S RESULTS	Set-I (Round Shaped)

	Rank	Varieties/ Hybrid	Fruit Yield (T/ha)
	1	BOT- 404	41.0
	2	Asian Pride	37.1
	3	BOT- 403	32.3
	4	Faisalabad Round (Check)	31.3
	9	Waleed F ₁	23.1
		LSD (0.05)	9.2
	Set-II (Lo	ong Shaped)	
			Fruit Yield
	Rank	Varieties/ Hybrid	(T/ha)
	1	Spacer F ₁	29.9
	2	HBO 382 A	26.6
	3	VRIBG-02 (Check)	21.2
		LSD (0.05)	7.5
9. BRINJAL (Solanum melor	igena L.)		
1. TITLE	COLLEC GERMPI	TION AND MAINTENANCE	OF BRINJAL
OBJECTIVE		and maintenance of germplasm	for future use in breeding
RESEARCH WORKERS	Amir Lati Dr. Saeed	f Ahmad Shah Chishti ad Najeebullah	
LOCATION	Faisalabac		
DURATION	Continuou	15	
TREATMENTS	Accession		
METHODOLOGY	Plot size	owing date $= 2^{nd}$ fortnigransplanting date $= 2^{nd}$ fortnig $= 5 m \times 1.25$ ant distance $= 50 cm$	ht of February, 2019 ht of March 2019 m.
	-	Ill be done in selected plants of ea	ach accession

PREVIOUS YEAR'S	07 a	ccessions were ma	aintained.			
RESULTS	The	range of character	istics recorded is as under:			
	Sr. No.	Character	Range			
	1	Plant height	50-110			
	2	(cm) No. of	7-18			
		Fruits/plant				
	3	Fruit weight	40-150			
		(gm)				
	4	Growth habit	Erect, Semi erect & Spreading			
	5	Leaf Shape	Long, Narrow & Broad			
	6	Fruit Color	White, Purple & Black			
	7	Fruit Shape	Round, Long & Oblong			
2. TITLE			L GENERATIONS IN BRINJAL			
OBJECTIVE			ing, insect pest and disease resistant, good			
RESEARCH WORKERS		ity brinjal pure lin	5.			
RESEARCH WORKERS	Amir Latif Dr. Saeed Ahmad Shah Chishti					
LOCATION		ammad Najeebull alabad				
DURATION		tinuous				
TREATMENTS			200			
	i) $F_1 = 5$ crosses ii) $F_2 = 6$ populations					
	iii) $F_4 = 20$ single plant progenies of 10 crossesDate of sowing (Nursery)= 2^{nd} fortnight February, 2019					
		splanting				
		cing	$= 125 \text{ cm} \times 50 \text{ cm}$			
	The	generations wil	l be advanced by using Pedigree method. hies will be selected for further studies.			
PREVIOUS YEAR'S		$F_1 = 16 \text{ cross}$				
RESULTS		,	gle plant progenies of 20 crosses			
3. TITLE	SYN	THESIS OF BR	INJAL HYBRIDS			
OBJECTIVE			ing brinjal hybrids suitable for general			
	culti	vation.				
RESEARCH WORKERS	Amir Latif					
		Saeed Ahmad Sha				
		ammad Najeebull	ah			
LOCATION	Fais	alabad				
DURATION	Con	tinuous				

TREATMENTS	Parents = 3
METHODOLOGY	Nursery sowing date $= 2^{nd}$ fortnight of February, 2019Nursery Transplanting date $= 2^{nd}$ fortnight of March, 2019Plot size $= 05 \text{ m} \times 1.25 \text{ m}$ Plant to plant distance $= 50 \text{ cm}$ The crosses among desirable parents will be made to develop 3 F1hybrids.
PREVIOUS YEAR'S	Six hybrids were developed
RESULTS	
4. TITLE	ADAPTABILITY TRIAL OF BRINJAL GENOTYPES
OBJECTIVE	To test the adaptability of imported/localvarieties/hybrids
RESEARCH WORKERS	Amir Latif Dr. Saeed Ahmad Shah Chishti Muhammad Najeebullah
LOCATION	Faisalabad
DURATION	Continuous
TREATMENTS	LBH-001, LBH-002, LBH-005, LBH-006, LBH-020, LBH-021, Jhansi F1 (Check), Kokila F1(Check), Dilnasheen(Check) and Bemissal (Check).
METHODOLOGY	Nursery sowing date $= 2^{nd}$ fortnight of February, 2019Nursery Transplanting date $= 2^{nd}$ fortnight of March, 2019Plot size $= 05 \text{ m} \times 1.25 \text{ m}$ Plant to plant distance $= 50 \text{ cm}$ Data regarding fruit yield, average fruit weight and fruit shape will be recorded.
PREVIOUS YEAR'S RESULTS	New experiment
5. TITLE	ADAPTABILITY TRIAL OF BRINJAL GENOTYPES
OBJECTIVE	To test the adaptability of imported varieties/hybrids
RESEARCH WORKERS	Amir Latif Dr. Saeed Ahmad Shah Chishti Muhammad Najeebullah
LOCATION	Faisalabad
DURATION	Continuous
TREATMENTS	Varieties/Hybrids = 8 viz; MAHY-106, MAHY-112, No. 295, No. 3715, Black Round, Balikesir, Pala-49, Dilnasheen (Check)

METHODOLOGY	Nursery sowi	ng $= 2^{nd}$ fortnight of February, 2019			
	Transplanting				
	Replications				
	Design	= RCBD			
	Plot size	$= 5 \text{ m} \times 1.25 \text{ m}$			
	Spacing	= $125 \text{ cm} \times 50 \text{ cm}$ on raised beds			
	Data on fruit recorded.	yield, average fruit weight and fruit sha	pe will be		
PREVIOUS YEAR'S		e of Brinjal Entries during Kharif-20	18		
RESULTS					
	Sr. No.	Genotypes	Yield (T/ha)		
	1	WEL	21.3		
	2	VRIB-2013	10.6		
	3	Kokila-F ₁	9.8		
	4	KHBR-202B	9.6		
	5	Dilnasheen (Check)	9.5		
	6	VRIB-2016	7.0		
	7	EP-900	6.2		
	8	KHBR-205E	4.5		
	9	Pala-49	0.0		
		LSD	6.9		
10. SPONGE GOURD (Luff	a cylindrica L.)				
1. TITLE	COLLECTIO GERMPLASM	N AND MAINTENANCE OF SPON A	GE GOURD		
OBJECTIVE		f lines having desirable characteristics f	or further use in		
RESEARCH WORKERS	Nusrat Parveen				
	Kaiser Latif C	Theema			
	Dr. Muhamma	ad Hussain Shahid			
	Muhammad N				
LOCATION	Faisalabad				
LUCATION	1 alsalabad				

TREATMENTS	Entries $= 10$						
METHODOLOGY	Sowing date	= 1 st we	ek of March, 20	019			
	Plot Size	= 5 x 3.0) m				
	Plant spacing		· ·	of 3 meter wide beds)			
	The available material will be sown and data will be recorded on av. fru						
	weight, av. fruit length, fruit color, disease resistance and No. of female						
	flowers per plant. Selected lines will be maintained through sib mating.						
PREVIOUS YEAR'S	Open pollinated varieties were maintained through sibbing						
RESULTS	S. No Traits Minimum Maximum						
	S. No	Traits	wiininum	Maximum			
	1.	Fruit color	Pale green	Dark green			
	2	No. of female	10	20			
		flowers/plant					
	3	Avg. Fruit weight	30.0 g	90.0 g			
	5	(g)	2010 8	2010 8			
	4.	Avg. Fruit	12.0 cm	23.0 cm			
	4.	length(cm)	12.0 cm	25.0 CIII			
		8					
2. TITLE	RESISTANT	AENT OF HIGH YIE	LDING AND	DISEASE			
OBJECTIVE		t of vs. he high yielding and dis	sease resistant	open pollinated			
	variety.	te mgn yreiding and di		open pomilated			
RESEARCH WORKER (S)	Nusrat Parve	een					
	Kaiser Latif	Cheema					
		nad Hussain Shahid					
	Muhammad						
LOCATION	VRI, Faisalab	*					
	,						
DURATION	Continuous						
TREATMENTS	Individual pla						
METHODOLOGY	Sowing time		eek of March,				
	Plant to plant			of 3 meter wide beds			
		nt progenies will be plant					
		ys to first female flowerin flowers per plant. All pos					
	seeds will be c		sible intereross	es will be made and			
PREVIOUS YEAR'S		nts were selfed from so	ource populatio	n			
RESULTS							
3. TITLE	DEVELOPN	MENT OF INBRED L	INES IN SPO	NGE GOURD.			
OBJECTIVE		nbred lines for the deve					
		osite/Synthetic varietie	es.				
RESEARCH WORKERS	Nusrat Parve						
	Kaiser Latif						
	Dr. Muhamr	nad Hussain Shahid					

	Muhammad Najeebullah
LOCATION	Faisalabad
DURATION	Continuous
/TREATMENTS	$S_0=8$
	50-0
	S_1 = Selfed seed of 1 lines
	S_2 = Selfed seed of 3 lines
	S_3 = Selfed seed of 3 line
	S_4 = Selfed seed of 3 lines
	S_6 = Selfed seed of 10 lines
METHODOLOGY	Sowing date = 2^{nd} week of November, 2019
	Plant spacing $=$ 50 cm
	The seed of $S_{0,} S_{1,} S_{2}$, S_{4} and S_{6} was sown in walk in tunnel covered with
	plastic sheet and 10 flowers on 3-4 selected plants in each entry will be
	selfed to get at least one mature fruit for generation advancement.
	Selection will be made on the basis of days to first female flowering, No. of
	female flowers/vine, fruit color, disease resistance and fruit yield. At
	maturity, selfed seed will be collected separately for further studies.
PREVIOUS YEAR'S RESULTS	Selfed seed of 19 lines was collected.
4. TITLE	ADAPTABILITY TRIAL OF SPONGE / RIDGE GOURD VARIETIES / HYBRIDS
OBJECTIVE	To check the adaptability of sponge gourd hybrids / varieties received
	from seed companies
RESEARCH WORKERS	Nusrat Parveen
	Kaiser Latif Cheema
	Dr. Muhammad Hussain Shahid
	Muhammad Najeebullah
	•
LOCATION	Faisalabad
DURATION	Continuous
TREATMENTS	Varieties / hybrids will be supplied by the seed companies and locally adapted cultivar will be used as standard check.
METHODOLOGY	Sowing date = 1st fortnight of March, 2019
	Design $=$ RCBD Replication $= 03$
	Plot size $= 3.0 \times 4.0 \text{ m}$
	Spacing $= 50 \text{ cm}$ (on both sides of 3 meter wide beds)
	Data will be recorded regarding days to first fruit picking, fruit color,
	disease resistance and fruit yield.

OUS YE . <u>TS</u>			ance of Sponge C Kharif, 2018.	Sourd Varieties/H	Hybrids in Ada
Rank	Variety/ Hy	brid	Virus attack	Fruit color	Fruit yield (t/ha)
1	Reshmi		MR	Light green	17.18
2	No. 3942 F ₁		MR	Dark green	16.44
3	Kiran F ₁		MS	Light green	15.72
4	ASSP-65-90 F1	1	MS	Dark green	15.59
5	Monika F ₁		MR	Light green	15.46
6	SBS-14 F ₁		MS	Light green	14.92
7	White Seeded I	F_1	S	Dark green	13.26
8	Kareena F ₁		S	Light green	12.28
9	NSCSG-1-F ₁		HS	Dark green	11.68
10	Local (Check)		S	Pale Green	10.81
11	USTAV F ₁		HS	Dark green	10.024
12	Sareena F ₁		S	Dark green	9.51
	LSD (0.05)				1.35

MR=Moderately resistant MS=Moderately susceptible S= Susceptible HS= Highly susceptible

Pe	erformai	nce of Ridge Gourd V	Varieties/Hybrids in A	Adaptability Trial	during Kharif, 2018.	
Γ	Rank	Variety/ Hybrid	Fruit color	Virus attack	Fruit Yield (t/ha)	
_	Nalik					
	1	NSCRG-2 F ₁	Light green	MS	8.92	
	2	Local (Check)	Pale green	MR	7.20	
	3	RG-4161	Light green	HS	6.81	
	4	MSC-8155	Light green	MS	6.58	
Γ	5	NSCRG-1 F ₁	Dark green	HS	4.66	
	6	LSD (0.05)	1.11rately susceptibleS= Susceptible			
11.	. TIND	A GOURD (Praecit	rullus fistulosus L.)			
1. T	TTLE		COLLECTION AN GERMPLAM	ID MAINTENA	NCE OF TINDA GOUR	D
OB.	JECTI	VE	To collect and maint program.	ain the germplas	m for future use in breedin	g
RE	SEARC	CH WORKERS	Ghazanfar Hammad Raja Javed Ur Rehm Muhammad Tasdeed Muhammad Najeebu	l Hussain Shahid		
LO	CATIC	N	Faisalabad			
DU	RATIC)N	Continuous			
	EATM THOD	ENTS/ OLOGY	New collections Variety maintained Sowing time Bed Size $P \times P$ The genetic makeup through sib-mating.	$= Dilpasa$ $= 1st wee$ $= 7.0 \times 2$ $= 40 \text{ cm}$	k of March, 2019	
	EVIOU SULTS	S YEAR'S	Variety Dilpasand w	as maintained in	isolation.	
2. T	ITLE		EVALUATION OF T HYBRIDIZATION F		ACCESSION FOR FUTUR	E

OBJECTIVES	To evaluate the promising accessions for future inbred lines				
	development and production of high yielding varieties of tinda gourd.				
RESEARCH WORKER (S)	Ghazanfar Hammad				
KESEARCH WORKER (5)	Raja Javed Ur Rehman				
	Dr. Muhammad Tasdeeq Hussain Shahid				
	Muhammad Najeebullah				
LOCATION	Faisalabad				
DURATION	Continuous				
TREATMENTS/	New Collection = Promising lines from adaptability source along with				
METHODOLOGY	Dilpasand (Check)				
	Sowing time $= 1^{st}$ week of March, 2019				
	Plot Size $= 7.0 \times 2.50 \text{ m}$				
	Plant spacing $= 40 \text{ cm}$				
	The seed of promising accession of the tinda gourd will be obtained for				
	future hybridization programme.				
	The promising plants will be selected and plant to row progenies will be				
	made for future selection of superior plants.				
PREVIOUS YEAR'S	26 accessions were evaluated and superior plant selection had been				
RESULTS	selected.				
3. TITLE	ADAPTABILITY TRIAL OF TINDA GOURD				
OBJECTIVE	To test the adaptability of exotic genotypes / hybrids of vegetable				
	marrow.				
RESEARCH WORKERS	Ghazanfar Hammad				
	Raja Javed Ur Rehman				
	Dr. Muhammad Tasdeeq Hussain Shahid				
	Muhammad Najeebullah				
LOCATION	Faisalabad				
DURATION	Continuous				
TREATMENTS	Entries = Material from seed companies				
METHODOLOGY	Date of sowing = 1^{st} week of March, 2019				
	Design $=$ RCBD				
	$\begin{array}{ccc} \text{Repeats} & = & 03 \end{array}$				
	Plot Size = 5.50×1.25 m				
	Plant spacing $=$ 40 cm				
	Data regarding fruit yield were calculated to carry out statistical				

	analysis.				
PREVIOUS YEAR'S RESULTS	Rank	Entry	Avg. No. of Fruits	Fruit Yield (T/Ha)	
	1	Chaman	163	9.03	
	2	Dilpasand 4040	172	8.11	
	3	Local Check	76	3.45	
		LSD (0.05%)	3.2	0.8	

12. vegetable	MARROW (Cucurbita pepo L.)		
1. TITLE	COLLECTION AND MAINTENANCE OF VEGETABLE MARROW GERMPLASM		
OBJECTIVE	To evaluate the vegetable marrow germplasm and select the desirable lines for		
	future use in breeding program.		
RESEARCH	Ghazanfar Hammad		
WORKERS	Raja Javed Ur Rehman		
	Dr. Muhammad Tasdeeq Hussain Shahid		
	Muhammad Najeebullah		
LOCATION	Faisalabad		
DURATION	Continuous		
TREATMENTS	New collections = Suitable material from adaptability trial		
METHODOLOGY	Date of sowing $= 2^{nd}$ fortnight of February, 2018		
	Design =Non-replicated		
	Bed size $=5.50 \times 1.25$ m		
	Plant spacing =40 cm		
	The genetic purity of the germplasm will be maintained through sib mating. Off- type and viral disease infected plants will be rouged out.		
PREVIOUS	Two genotypes maintained through sib mating during Kharif 2018		
YEAR'S			
RESULTS			
2. TITLE	INBREDLINE DEVELOPMENT IN VEGETABLE MARROW		
OBJECTIVE	Synthesis of high yielding round and pear shaped hybrids of vegetable marrow.		
RESEARCH	Ghazanfar Hammad		
WORKERS	Raja Javed Ur Rehman		

	Dr. Muhammad Taadaag Hussain Shahid				
	Dr. Muhammad Tasdeeq Hussain Shahid				
LOCATION	Muhammad Najeebullah				
DURATION	Faisalabad				
DURATION	Continuous				
TREATMENTS	$S_0 \text{ seed} = S_1 \text{ seed} = S_2 \text{ seed} = S_3 \text{ seed}$	= 08 = 03	n adaptability tri	al	
METHODOLOGY	Date of sowing = 2^{nd} fortnight of February, 2019				
	2	= Non-replicated	d		
	Bed size				
	Plant spaci			0 0 10	
		f these selfed generations	will be planted	for future self	ing to enhanc
3. TITLE	homozygos			DDOW	
5. 111LE	ADAPIA	BILITY TRIAL OF VE	JE I ABLE MA	KKOW	
OBJECTIVE		adaptability of exotic gen	otypes / hybrids	of vegetable 1	narrow.
RESEARCH	Ghazanfar	Hammad			
WORKERS	Raja Javed Ur Rehman				
	Dr. Muhammad Tasdeeq Hussain Shahid				
	Muhammad Najeebullah				
LOCATION	Faisalabad				
DURATION	Continuous				
TREATMENTS	Entries= Suitable material from seed companies				
METHODOLOGY	Date of sowing $= 2^{nd}$ fortnight of February, 2019.				
	Design $=$ RCBD				
	Repeats $= 03$				
	Plot Size = 5.50×1.25 m				
	Plant spacing $= 40 \text{ cm}$				
	Data regarding fruit yield were calculated to carry out statistical analysis.				
PREVIOUS	Performance of varieties/hybrids in adaptability trial Kharif 2018				
YEAR'S	<u>Set-I</u>				
RESULTS		~	-	Avg. No. of	Yield
	S. No.	Genotypes	Fruit type	Fruits	(T/Ha)
	1	Squash Long (1702) F1	Long	136.0	25.17
	2	Cavili	Long	145.8	24.08
	3	Falak	Long	121.1	22.33
	4	Squash Malika F1	Round	162.7	22.08
	5	Squash Green Star F1	Round	149.7	21.59

6	Frozen F1	Long	122.7	21.32
7	VRI-Check II	Round	133.0	20.60
8	Squash Oval Star	Round/Ablong	139.4	19.93
9	Kamla	Long	112.8	19.51
10	Oskar	Round	109.0	19.28
11	Mishal F1	Round	90.00	17.4
12	VRI-Check I	Pear	97.9	16.44
13	Zennat F1	Round	90.9	15.79
14	YOUMNA	Round	62	11.05
15	Beauty 222	Round	65.12	10.99
16	Asian Ball	Round	52.00	10.20
17	Green boy ACS	Round	63.6	10.11
	LSD (0.05))	8.8	1.48

<u>Set-II</u>

S. No.	Genotypes	Fruit type	Avg. No. of Fruits	Yield (T/Ha)
1	HSQ-2	Long	159.24	29.87
2	TSQ-229	Long	139.81	23.89
3	TSQ-227	Round	134.86	22.35
4	Clarita	Long	120.38	21.95
5	Polka F1	Long	96.00	21.27
6	Anita	Long	117.71	20.92
7	Scarla	Long	113.52	20.87
8	TSQ-225	Round	129.14	20.69
9	VRI-Check II	Round	64.76	20.29
10	Tiger Ball	Round	144.76	20.29
11	VRI-Check I	Pear	97.90	16.20
12	Sama	Long	84.57	16.17
13	SV-2987YL	Long	85.33	15.58
14	Eskanderany	Long	86.86	14.52
15	King ball F1	Round	53.71	10.13
16	SV-3923YL	Long	52.95	9.89
LSD (0.05)		6.85	1.94	

13. KITCHEN GARDENING				
2. TITLE	POPULARIZATION OF KITCHEN GARDENING			
OBJECTIVES	To promote the Kitchen Gardening in the Urban and Peri-Urban areas			
RESEARCH WORKER (S)	of Punjab Muhammad Sarwar			
	Dr. Akhtar Saeed			
	Muhammad Najeebullah			
LOCATION	Seed kits preparation at VRI., Faisalabad			
	Distribution throughout Punjab			
DURATION	Continuous			
TREATMENTS	Seed Kits of Summer vegetables = 60,000			
	Vegetables = 8 (Bitter gourd, Bottle gourd, Sponge gourd, Long melon, Cucumber, Okra, Vegetable marrow)			
METHODOLOGY	Seed kits of summer vegetables will be prepared and will be distributed in the Punjab province through AARI Network, Extension Wing of Agriculture Department and other Government Departments & NGO's.			
PREVIOUS YEAR'S	Last year 60,000 Summer vegetables kits were prepared and sold			
RESULTS	among the Kitchen Gardeners through AARI Network, Extension Wing of Agriculture Department and other Government Departments & NGO's.			