STRATEGIES TO OVERCOME THE GAPS IN IPM/INM/SEED REPLACEMENT/MARKETING IN THE DISTRICT

Table 7.01. Dre	magad Stratagiag f	Con Interneted Mr	utrient Management	
Table- / UT Pro	nosed Siralegies i	or integrated N	inneni wianagemeni	
14010 7.01.110	posed Strategres I	or megrated it.	autone management	(11,1,1)

SI.	Particular	S	E.P	R.P	G.A	R.G	P.S		
No									
1	Soil Testing	/Soil Health	-	Recommended	F	1,4	1,2		
2	Use of Mar	nures (mt./ha.)						
	FYM/Comp	ost	Nil	10 tone/ha	F	2,3	5		
	Vermicomp	Vermicompost		1 tone/ha	F	2,3	5		
3	Cultivation	of Legumes							
	As rotationa	As rotational Crop		Crop rotation of pulse crop	F	2	2,3,5		
	As inter Cro	As inter Crop		-	F	2	2,3,5		
	As Green n	As Green manure		Sunhemp/ Dhaicha	F	2	2,3,5		
4	Use of maj	Use of major Fertilizer. N + P + K Kg./ha.							
а.		Local	-	-	-	-	-		
	Basal	H.Y.V.	25:25:0	40:20:20	р	1,2,3	1,2,3,5		
		Hybrid	30:20:10	40:50:30	р	1,2,3	1,2,3,5		
b.	Top dressing (kg./ha)								
		Local	-	-	-	-	-		
	Ν	H.Y.V.	25	40	р	1,2,3	1,2,3,5		
		Hybrid	30	N(30+30)+K 20	р	1,2,3	1,2,3,5		
5	Use of Bio	fertilizer (kg/	ha)						
	Azolla		Nil	5 Kg/ha	F	1,2,3,4	1,2,3,4,5		
6	Macro/Mic	ronutrients							
	Zink		-	25 kg/haZink Sulphate	F	1,2,3,4	1,2,3,4,5		
	Sulphur	Sulphur		Use of Sulphur Containing Fert.	Ρ	1,2,3,4	1,2,3,4,5		
Reaso	ns for gap		Proposed Strat			Gap in Adoption	n		
1. Lack 2. Lack 3. Lack	c of awareness & c resources. c capital. oper manageme	-	 Training & aw Demonstration Exposer visit. 	areness Campaign. n & On farm trail/ORF. ased fertilizer use needed	d to be	N – Nil P – Partial F - Full			

Table- 7.02: Proposed Strategies for Integrated Pest Management (IPM) (Pest – Stem Borer, Hispa, Leaf Folder & Diseases like blast, Blight, etc.)

SI.	Paddy Particulars	E.P	R.P	G.A	R.G	P.S
No.						
	Cultural Practices			1		
	Summer Ploughing	Practices by a few farmer	Deep repeated Ploughing	Р	1,2,4	1,2,3
	Timely sowing	15 th June- 30 th June	15 th June- 30 th June	N	-	-
	Transplanting	10 th July- 10 th Augst.	10 th July-30 th July	Р	1,2,4	1,2,3
	Clean Cultivation	Not in Practices	Removal of rations	F	1,2,4	1,2,3
	Resistance Varieties	IR-36, 64, MTU-7029,	IR-36, 64, MTU-7029,	Р	1,2,4	1,2,3
		Hybrid etc.	Hybrid etc.			
	Mechanical Practices					
	Pheromone Trap & Lures	Not in Practices	For attracting Male Insect	F	1,2,4	1,2,3
	Light Trap	Not in Practices	For attracting Insect	F	1,2,4	1,2,3
	Sweep net	Not in Practices	For Collecting Insect	F	1,2,4	1,2,3
3	Botanical/ Biological –Practic	es				
	Azadirachtin Products	Not in Practices	For control of sucking &	F	1,2,4	1,2,3
	1500/1000 PPM		cutting Insect.			
	Beavaria bassiana	Not in Practices	Sucking pest & borer	F	1,2,4	1,2,3
	Trichograma (Egg- parasite)	Not in Practices	For Control of borers	F	1,2,4	1,2,3
	Metarizium anisoply (Fungal	Not in Practices	For Control Brown hopper	F	1,2,4	1,2,3
	Insect)					
	Trichoderma- Vridi	Not in Practices	For control of fungal	F	1,2,4	1,2,3
			diseases			
	Psuedomonus	Not in Practices	For control of bacterial &	F	1,2,4	1,2,3
			Fungal diseases			
4	Chemical Practices					
	Seed treatment	Not as a common	Carbandzime/	Р	1,2,4	1,2,3
		Practices	captan/Thriam 2 gm/kg			
			seed			
	Seedling treatment	Not as a common	Carbandzim 0.2 Solution	Р	1,2,4	1,2,3
		Practices	Carbofuran 3G			
			2.5kg/1000m ²			
	Conservation of natural enemy	Not in Practices	Use of bio-Pesticide	F	1,2,4	1,2,3
	(frog)		Avoid Chemical pesticide			
Reaso	ns for gap	Proposed Strategy		Gap in Ad	option	
		1. Training & awareness C	ampaign.	N – Nil		
2. Lack resources.		2. Demonstration & On farm trail/ORF.		P – Partial		
		3. Exposer visit.		F - Full		
4. Impr		 Soil testing based fertiliz strengthened 	er use needed to be			
		strengthened. 5. Financial Support.				

SI.	Particula	rs	E.P	R.P	G.A	R.G	P.S		
No.									
1	Soil Testin	g/	-	Recommen-ded	F	1,4	1,2		
	Soil Health	1							
2	Use of Ma	nures (mt./ha.)						
	FYM/Com	oost	Nil	10 tone/ha	F	2,3	5		
	Vermicompost		Nil	1 tone/ha	F	2,3	5		
3	Cultivation of Legumes								
	As rotational Crop		Nil	Crop rotation of pulse/Vegetables/Oil seeds crop	F	2	2,3,5		
	As inter Crop		-	Pigion Pea/Black gram/Green gram	F	2	2,3,5		
	As Green manure		-	-	-	-	-		
4	Use of major Fertilizer. N + P + K Kg./ha.						1		
a.		Local	-	-	-	-	-		
	Basal	Composite	30:30:10	50:60:40	р	1,2,3	1,2,3,5		
		Hybrid	30:30:10	50:60:40	р	1,2,3	1,2,3,5		
b.	Top dress	ing (kg./ha)							
		Local	-	-	-	-	-		
	Ν	Composite	30	50	р	1,2,3	1,2,3,5		
		Hybrid	30	50	р	1,2,3	1,2,3,5		
5	Use of Bio fertilizer (kg/ha)								
	Azolla		-	-	-	-	-		
	Azospirilliu	im	Nil	5 Kg/ha as soil application	F	1,2,3,4	1,2,3,4,5		
	Azatobacto	or	Nil	5 Kg/ha as soil application	F	1,2,3,4	1,2,3,4,5		
	P.S.B.		Nil	5 Kg/ha as soil application	F	1,2,3,4	1,2,3,4,5		
	Rhizobium		-	-	-	-	-		
6	Macro/Mic	ronutrients							
	Lime		Nil	3-4 qut/ha if Furrow	F	1,2,3,4	1,2,3,4,5		
	Zink		-	Application of Zink Coated Urea	F	1,2,3,4	1,2,3,4,5		
	Sulphur		-	Use of Sulphur Containing Fert.	Р	1,2,3,4	1,2,3,4,5		
	ons for gap		Proposed Strategy		Gap in	Adoption			
 Lack of awareness & Knowledge. Lack resources. Lack capital. Improper management. 		 Training & awareness Campaign. Demonstration & On farm trail/ORF. Exposer visit. Soil testing based fertilizer use needed to be strengthened. Financial Support. 		N – Nil P – Par F - Full	tial				

Table- 7.03: Proposed Strategies for Integrated Nutrient Management (INM)

Table- 7.04: Proposed Strategies for Integrated Pest Management (IPM) (Pest – Termite, Shoot Borer, etc.)

SI.	Particulars	E.P	R.P	G.A	R.G	P.S			
No.									
1	Cultural Practices								
	Summer Plowing	Practices by a few farmer	Deep repeated Plowing	Р	1,2,4	1,2,3			
	Timely sowing	15 th June- 30 th June	15 th June- 30 th June	N	-	-			
	Clean Cultivation	Not in Practices	Removal of rations	F	1,2,4	1,2,3			
	Resistance Varieties	GS-5, Sown	Birasa Maize – 1 & 2, GS-5, Sown	P	1,2,4	1,2,3			
2	Mechanical Practices								
	Pheromone Trap & Lures	Not in Practices	For attracting Male Insect 10-12 Trap/ha.	F	1,2,4	1,2,3			
	Light Trap	Not in Practices	For attracting Insect	F	1,2,4	1,2,3			
	Sweep net	Not in Practices	For Collecting Insect	F	1,2,4	1,2,3			
3	Botanical/ Biological –Practice	es e							
	Azadirachtin Products 1500/1000 PPM	Not in Practices	For control of sucking & cutting Insect.	F	1,2,4	1,2,3			
	Beavaria bassiana	Not in Practices	Sucking past & borer	F	1,2,4	1,2,3			
	Trichograma (Egg- parasite)	Not in Practices	For Control of borers 16 card/ha.	F	1,2,4	1,2,3			
	Trichoderma- Vridi	Not in Practices	For control of fungal diseases 5kg/ha as Soil application	F	1,2,4	1,2,3			
	Psuedomonus	Not in Practices	For control of bacterial & Fungal diseases 5kg/ha as Soil application	F	1,2,4	1,2,3			
4	Chemical Practices								
	Seed treatment	Not as a common Practices	Carbandzime/ captan/Thriam 2 gm/kg seed	Р	1,2,4	1,2,3			
	Soil treatment	Lendel	Lendel/chlorepyriphos 25kg dust against termite	Р	1,2,4	1,2,3			
	Crop treatment	Not as a common Practices	Carbandzime 0.2 Solution Carbofuran 3G 25kg/ha/Chlorepyriphos1.5L it/ha.	Р	1,2,4	1,2,3			
	Conservation of natural enemy	Not in Practices	Use of bio-Pesticide Avoid Chemical pesticide	F	1,2,4	1,2,3			
		Proposed Strategy I. Training & awareness C		Gap in Ado	ption				
2. Lack 3. Lack	k resources. 2 k capital. 3 roper management. 2	2. Demonstration & On far 3. Exposer visit. 4. Soil testing based fertili: strengthened. 5. Financial Support.	m trail/ORF.	P – Partial F - Full					

SI.	Particula	rs	E.P	R.P	G.A	R.G	P.S			
No.										
1	Soil Testin	g/	-	Recommended	F	1,4	1,2			
	Soil Health	l								
2	Use of Ma	nures (mt./ha.))							
	FYM/Comp	oost	Nil	10 tone/ha	F	2,3	5			
	Vermicom	post	Nil	1 tone/ha	F	2,3	5			
3	Cultivation	n of Legumes								
	As rotation	al Crop	Nil	Crop rotation of Rainy season pulse/Paddy crop	F	2	2,3,5			
	As inter Cr	ор	-	Gram	F	2	2,3,5			
	As Green manure		-	Pervious	F	2	2,3,5			
4	Use of ma	jor Fertilizer. N	N + P + K Kg./ha.			L				
a.		Local	-	-	-	-	-			
	Basal	H.Y.V.	30:30:10	50:50:25	р	1,2,3	1,2,3,5			
		Hybrid	-	-	-	-	-			
b.	Top dressing (kg./ha)									
		Local	-	-	-	-	-			
	N	H.Y.V.	30	50	р	1,2,3	1,2,3,5			
		Hybrid	-	-	-	-	-			
5		Use of Bio fertilizer (kg/ha)								
	Azospirilliu	m	Nil	5 Kg/ha as soil application	F	1,2,3,4	1,2,3,4,5			
	Azatobacto	or	Nil	5 Kg/ha as soil application	F	1,2,3,4	1,2,3,4,5			
	P.S.B.		Nil	5 Kg/ha as soil application	F	1,2,3,4	1,2,3,4,5			
6	Macro/Mic	ronutrients		· · ·						
	Zink		-	Application of Zink Coated Urea	F	1,2,3,4	1,2,3,4,5			
	Boran		-	10 kg/ha	F	1,2,3,4	1,2,3,4,5			
	ons for gap		Proposed Strategy		Gap in N – Nil	Adoption	•			
 Lack of awareness & Knowledge. Lack resources. Lack capital. Improper management. 		 Demonstration & Or Exposer visit. 	 Training & awareness Campaign. Demonstration & On farm trail/ORF. Exposer visit. Soil testing based fertilizer use needed to be strengthened. 		tial					

Table- 7.05: Proposed Strategies for Integrated Nutrient Management (INM)

Table- 7.06 : Proposed Strategies for Integrated Pest Management (IPM) (Pest – Termite, Rust, Alternaria blight, etc.)

SI.	Particulars	E.P	R.P	G.A	R.G	P.S			
No.									
1	Cultural Practices					l			
	Plowing	Shallow repeated Plowing	Deep repeated Plowing	Р	1,2,4	1,2,3			
	Timely sowing	1 st week of Nov- Last week of Dec.	10 th Nov- 30 th Nov.	Р	1,2,4	1,2,3			
	Clean Cultivation	Not in Practices	Removal of rations	F	1,2,4	1,2,3			
	Resistance Varieties	Sonali, PBW-343, HUW- 334HD-2402,	Sonali, PBW-343, HUW- 334,HD-2402,HUW-468, NW-1012	Р	1,2,4	1,2,3			
2	Mechanical Practices								
	Pheromone Trap &Lures	Nil	Nil	Nil	Nil	Nil			
	Light Trap	Nil	Nil	Nil	Nil	Nil			
	Sweep net	Nil	Nil	Nil	Nil	Nil			
3	Botanical/ Biological – Practices								
	Azadirachtin Products 1500/1000 PPM	Not in Practices	For control of sucking & cutting Insect.	F	1,2,4	1,2,3			
	Trichograma (Egg- parasite)	Not in Practices	For Control of borers 16 card/ha.	F	1,2,4	1,2,3			
	Trichoderma- Vridi	Not in Practices	For control of fungal diseases 5gm/kg seed treatment	F	1,2,4	1,2,3			
4	Chemical Practices								
	Seed treatment	Not as a common Practices	Carbandzime/ captan/Thriam 2 gm/kg seed	Ρ	1,2,4	1,2,3			
	Soil treatment	Lendel	Lendel/chlorepyriphos 25kg dust against termite	Р	1,2,4	1,2,3			
	Crop treatment	Not as a common Practices	Carbandzime 0.2 %Solution/ Mencozeb 0.3% Solution against rust	Р	1,2,4	1,2,3			
	Conservation of natural enemy	Not in Practices	Use of bio-Pesticide	F	1,2,4	1,2,3			
	(Snakes)		Avoid Chemical pesticide						
	ons for gap	Proposed Strategy		Gap in Ado	ption				
1. Lack of awareness & Knowledge. 2 2. Lack resources. 2 3. Lack capital. 2 4. Improper management. 4		 Training & awareness Campaign. Demonstration & On farm trail/ORF. Exposer visit. Soil testing based fertilizer use needed to be strengthened. 		N – Nil P – Partial F - Full					

SI.	– Potato Particular	rs	E.P	R.P	G.A	R.G	P.S		
No.		-							
1	Soil Testing	n/	-	Recommended	F	1,4	1,2		
I	Soil Health	-	-	Recommended		1,4	1,2		
2									
2		nures (mt./ha.		40 to 10 to 10 to 10		0.0			
	FYM/Comp		Nil	10 tone/ha	F	2,3	5		
	Karanj Cak		Nil	6 qut./ha	F -	2,3	5		
	Vermicomp		Nil	1 tone/ha	F	2,3	5		
3		n of Legumes							
	As rotation	al Crop	Nil	Crop rotation of	F	2	2,3,5		
				pulse/(green gram,					
				Black gram) crop					
	As inter Crop		-	Brasica, Radish	F	2	2,3,5		
4	Use of major Fertilizer. N + P + K Kg./ha.								
a.		Local	-	-	-	-	-		
	Basal	Improved	40:40:20	60:60:40	р	1,2,3	1,2,3,5		
		Hybrid	-	-	-	-	-		
b.	Top dress	ing (kg./ha)	L						
		Local	-	-	-	-	-		
	Ν	Improved	40	60	р	1,2,3	1,2,3,5		
		Hybrid	-	-	-	-	-		
5	Use of Bio fertilizer (kg/ha)								
	Azospirillium		Nil	5 Kg/ha as soil	F	1,2,3,4	1,2,3,4,5		
				application					
	Azatobacto	r	Nil	5 Kg/ha as soil	F	1,2,3,4	1,2,3,4,5		
				application					
	P.S.B.		Nil	5 Kg/ha as soil	F	1,2,3,4	1,2,3,4,5		
				application					
6		ronutrients							
	Lime		Nil	3-4 qut/ha if Furrow	F	1,2,3,4	1,2,3,4,5		
	Zink		-	-	-	-	-		
	Sulphur		-	Use of Sulphur	Р	1,2,3,4	1,2,3,4,5		
				Containing Fert.					
Reaso	ons for gap		Proposed Strategy		Gap in A	Adoption			
1. Lac 2. Lac 3. Lac	k of awareness k resources. k capital. roper managem	C C	 Training & awareness Demonstration & On t Exposer visit. Soil testing based fert strengthened. Financial Support. 	farm trail/ORF.	N – Nil P – Parti F - Full				

Table- 7.07: Proposed Strategies for Integrated Nutrient Management (INM)

Table- 7.08: Proposed Strategies for Integrated Pest Management (IPM) (Pest – Cutworm, Let & early blight, Wilt, etc.)

SI.	Particulars	E.P	R.P	G.A	R.G	P.S
No.						
1	Cultural Practices					1
	Deep Plowing	Shallow Plowing	Deep repeated Plowing	Р	1,2,4	1,2,3
	Timely sowing	15 th Oct- 15 th Nov(Early	15 th Oct- 15 th Nov(Early	N	-	-
		Sowing)	Sowing)			
		15 th Nov- 30 th	15 th Nov- 30 th Nov.(Normal			
		Dec.(Normal Sowing)	Sowing).			
	Clean Cultivation	Not in Practices	Removal of rations	F	1,2,4	1,2,3
	Resistance Varieties	(1)K.Chandramuhi,	(1)K.Chandramuhi,	Р	1,2,4	1,2,3
		ON-2236	K. Kuber.			
		(2) K.Sinduri, K. Jyoti	(2) K.Sinduri, K. Jyoti, K.			
			Bhar,K.Jawahar			
2	Mechanical Practices					
	Pheromone Trap &Lures	Nil	Nil	Nil	Nil	Nil
	Light Trap	Nil	Nil	Nil	Nil	Nil
	Sweep net	Nil	Nil	Nil	Nil	Nil
3	Botanical/ Biological –Practic	es				1
	Azadirachtin Products	Not in Practices	For control of sucking &	F	1,2,4	1,2,3
	1500/1000 PPM		cutting Insect.ss			
	Beavaria bassiana	Not in Practices	Sucking past & Catterpiller	F	1,2,4	1,2,3
	BT	-	For Soil treatment 5 Kg/ha.	F	1,2,4	1,2,3
	Trichoderma- Vridi	Not in Practices	For control of fungal	F	1,2,4	1,2,3
			diseases 5kg/ha as Soil			
			application			
	Psuedomonus	Not in Practices	For control of bacterial &	F	1,2,4	1,2,3
			Fungal diseases 5kg/ha as			
			Soil application			
•	Chemical Practices					
	Seed treatment	Not as a common Practices	Carbandzime/	Р	1,2,4	1,2,3
		Practices	Mencogeb0.3% Solution			
	Crop treatment	Not as a common Practices	Carbandzime 0.2 Solution	Р	1,2,4	1,2,3
		Tachces	Carbofuran 3G			
			25kg/ha/Chlorepyriphos1.5L			
			it/ha.	-		1.0.0
	Conservation of natural enemy	Not in Practices	Use of bio-Pesticide	F	1,2,4	1,2,3
	(Snakes)		Avoid Chemical pesticide			
		Proposed Strategy		Gap in Ado	ption	
	of awareness & Knowledge.	1. Training & awareness (N – Nil		
		 Demonstration & On fail Exposer visit. 		P – Partial F - Full		
	oper management.	 Soil testing based fertili 	zer use needed to be			
		strengthened. 5. Financial Support.				

Table- 7.09: Proposed Strategies for Integrated Nutrient Management (INM)

SI.	Particula	rs	E.P	R.P	G.A	R.G	P.S		
No.									
1	Soil Testin	g/	-	Recommended	F	1,4	1,2		
	Soil Health								
2	Use of Ma	nures (mt./ha.)							
	FYM/Comp	oost	Nil	10 tone/ha	F	2,3	5		
	Karanj Cak	æ	Nil	6 qut./ha	F	2,3	5		
	Vermicompost		Nil	1 tone/ha	F	2,3	5		
3	Cultivatio	Cultivation of Legumes							
	As rotational Crop		Nil	Crop rotation of Summer vegetable/Rainy Season maize	F	2	2,3,5		
	As inter Crop		-	Brasica, Linseed	F	2	2,3,5		
4	Use of ma	jor Fertilizer. N	l + P + K Kg./ha.						
a.	Basal	Improved	15:20:0	25:50:30	р	1,2,3	1,2,3,5		
b.	Top dressing (kg./ha)								
	N	Improved	20	25	р	1,2,3	1,2,3,5		
5	Use of Bio	Use of Bio fertilizer (kg/ha)							
	Rhizobium		Nil	2 Kg/ha as Seed treatment	F	1,2,3,4	1,2,3,4,5		
6	Macro/Mic	ronutrients							
	Lime		Nil	3-4 qut/ha if Furrow	F	1,2,3,4	1,2,3,4,5		
	Reasons for gap		Proposed Strategy	Proposed Strategy		Adoption	ł		
 Lack of awareness & Knowledge. Lack resources. Lack capital. Improper management. 		 Training & awareness Campaign. Demonstration & On farm trail/ORF. Exposer visit. Soil testing based fertilizer use needed to be strengthened. Financial Support. 		N – Nil P – Par F - Full	tial				

Table- 7.10: Proposed Strategies for Integrated Pest Management (IPM)

(Pest – Powdery mildew, Pod borer, Termite, Leaf Miner, Aphides, Damping off, Yellow Rust etc.) Crop – Pea

SI.	Particulars	E.P	R.P	G.A	R.G	P.S			
No.									
1	Cultural Practices		L L						
	Deep Plowing	Shallow Plowing	Deep repeated Plowing	Р	1,2,4	1,2,3			
	Timely sowing	15 th Oct- 15 th Nov(Early Sowing) 15 th Nov- 30 th	15 th Oct- 15 th Nov(Early Sowing) 15 th Nov- 30 th Nov.(Normal	Ν	-	-			
		Dec.(Normal Sowing)	Sowing).	_		100			
	Clean Cultivation	Not in Practices	Removal of rations	F	1,2,4	1,2,3			
	Resistance Varieties	Arkel, Boneviae	Arkel, Boneviae, Swarn Amar, Swarn Mukti	Р	1,2,4	1,2,3			
2	Mechanical Practices								
	Pheromone Trap &Lures	Not in Practices	For attracting Male Insect 10-12 Trap/ha.	F	1,2,4	1,2,3			
3	Botanical/ Biological –Practic	es		•					
	Azadirachtin Products 1500/1000 PPM	Not in Practices	For control of sucking & cutting Insect.	F	1,2,4	1,2,3			
	Beavaria bassiana	Not in Practices	Sucking past & Catterpiller	F	1,2,4	1,2,3			
	Trichoderma- Vridi	Not in Practices	For control of fungal diseases 0.5 Solution.	F	1,2,4	1,2,3			
	Psuedomonus	Not in Practices	For control of bacterial & Fungal diseases 0.5 Solution	F	1,2,4	1,2,3			
4	Chemical Practices								
	Seed treatment	Not as a common Practices	Carbandzime/ Captan/Thiram 2gm/kg seed	Р	1,2,4	1,2,3			
	Crop treatment	Not as a common Practices	Karathen 0.1% Sol. Sulphex 0.2%/Carbendazim 0.1%, against powdery mildew , Blue Copper/Copper Oxichloride 0.2% Solution damping off	Ρ	1,2,4	1,2,3			
	Conservation of natural enemy (Snakes)	Not in Practices	Use of bio-Pesticide Avoid Chemical pesticide	F	1,2,4	1,2,3			
Reaso	ons for gap	Proposed Strategy	۰ ـ ـ ـ ـ ـ ـ ـ ـ ـ ـ ـ ـ ـ ـ ـ ـ ـ ـ ـ	Gap in A	doption	•			
1. Lack 2. Lack 3. Lack	k of awareness & Knowledge. k resources. k capital. roper management.	 Training & awareness G Demonstration & On fai Exposer visit. Soil testing based fertili strengthened. Financial Support. 	rm trail/ORF.	N – Nil P – Partia F - Full					

Table- 7.11: Proposed Strategies for Integrated Nutrient Management (INM)

Horticultural Crop – Cauliflower & Cabbage

SI.	- Cauliflower Particula		E.P	R.P	G.A	R.G	P.S		
No.									
1	Soil Testing	g/	-	Recommended	F	1,4	1,2		
	Soil Health								
2	Use of Ma	nures (mt./ha.)						
	FYM/Comp	ost	10 tone/ha	20 tone/ha	Р	1,2,3	1,2,3,5		
	Vermicomp	ost	Nil	2 tone/ha	F	2,3	5		
3	Cultivation	n of Legumes							
	As rotation	al Crop	Nil	Black gram/ Green gram	F	2	2,3,5		
	As inter Crop		Nil	Tomato 8:2	F	2	2,3,5		
	As Green manure		Nil	Sunhemp/ Dhaicha	F	2	2,3,5		
4	Use of maj	Use of major Fertilizer. N + P + K Kg./ha.							
a.	Basal	Improved	40:50:30	80:75:50	р	1,2,3	1,2,3,5		
b.	Top dressing (kg./ha)								
	Ν	Improved	35	80	р	1,2,3	1,2,3,5		
5	Use of Bio fertilizer (kg/ha)								
	Azospirilliu	m	Nil	5 Kg/ha as soil application	F	1,2,3,4	1,2,3,4,5		
	Agatobacto	or	Nil	5 Kg/ha as soil application	F	1,2,3,4	1,2,3,4,5		
	P.S.B.		Nil	5 Kg/ha as soil application	F	1,2,3,4	1,2,3,4,5		
6	Macro/Mic	ronutrients							
	Boran		-	10 kg/ ha Time of transplanting	F	1,2,3,4	1,2,3,4,5		
	Molibdanum		-	5 kg/ha Time of transplanting	F	1,2,3,4	1,2,3,4,5		
	ons for gap		Proposed Strategy		Gap in Ad	option			
 Lack of awareness & Knowledge. Lack resources. Lack capital. Improper management. 		 Training & awareness Campaign. Demonstration & On farm trail/ORF. Exposer visit. Soil testing based fertilizer use needed to be strengthened. Financial Support. 		N – Nil P – Partial F - Full					

Table- 7.12: Proposed Strategies for Integrated Pest Management (IPM) (Pest – Dimoend back moth, Borer, Semi Looper, Termite, Aphides, Damping off, Black Rott, Downy mildew, etc.) Horticultural /Crop – Cauliflower & Cabbage

SI.	ultural /Crop – Cauliflower Particulars	E.P	R.P	G.A	R.G	P.S					
No.											
1	Cultural Practices										
	Ploughing	Practices by a few farmer	Deep repeated Ploughing	Р	1,2,4	1,2,3					
	Timely sowing	May – June	May – June	N	-	-					
		July – August	July – August								
	Transplanting	July – August	July – August	N	-	-					
		August- September	August- September								
	Clean Cultivation	Removal of rations on	Removal of rations on	N	-	-					
		previous crops	previous crops, Solarisation								
			of seed bed	Р	4.0.4	100					
	Resistance Varieties	Kaitki, Snow ball,	Early Kuvari, Pusa	Р	1,2,4	1,2,3					
		, HazipuExtra Early	Depali,Pant Shubhra, Pusa								
	Machanical Drasticas		Early Cinthetic.								
2	Mechanical Practices	I									
	Pheromone Trap & Lures	Not in Practices	For attracting Male Insect	F	1,2,4	1,2,3					
	Yellow board	Not in Practices	Against sucking Insect	F	1,2,4	1,2,3					
	Light trap	Not in Practices	10/ha	F	1,2,4	1,2,3					
3	Botanical/ Biological – Practices										
	Azadirachtin Products	Not in Practices	For control of sucking &	F	1,2,4	1,2,3					
	1500/1000 PPM		cutting Insect.								
	Beavaria bassiana	Not in Practices	Sucking past & borer	F	1,2,4	1,2,3					
	BT	Not in Practices	Against D.B.M.	F	1,2,4	1,2,3					
	Trichograma (Egg- parasite)	-	-	-	-	-					
	Metarizium anisoply (Fungal	Not in Practices	For Control Brown hopper	F	1,2,4	1,2,3					
	Insect)										
	Trichoderma- Vridi	Not in Practices	Seed treatment For control	F	1,2,4	1,2,3					
			of fungal diseases 4gm/kg								
			seed								
	Psuedomonus	Not in Practices	For control of bacterial &	F	1,2,4	1,2,3					
			Fungal diseases								
4	Chemical Practices										
	Seed treatment	Not as a common	Carbandzime/	Р	1,2,4	1,2,3					
		Practices	captan/Thriam 2 gm/kg								
			seed								
	Seedling treatment	Not as a common Practices	Carbandzime 0.2 Solution	Р	1,2,4	1,2,3					
		Tractices	Carbofuran 3G								
			2.5kg/1000m ²								
	Conservation of natural enemy	Not in Practices	Use of bio-Pesticide	F	1,2,4	1,2,3					
	(frog)		Avoid Chemical pesticide								
Reaso	ns for gap	Proposed Strategy		Gap in Add	option						
	of awareness & Knowledge.	1. Training & awareness Campaign.		N – Nil							
	k resources.	2. Demonstration & On farm trail/ORF.		P – Partial							
		 Exposer visit. Soil testing based fertilizer use needed to be 		F - Full							
т. шрі	oper management.	strengthened.									
		5. Financial Support.									

SI.	Particular	s	E.P	R.P	G.A	R.G	P.S		
No.									
1	Soil Testing	1	-	Recommended	F	1,4	1,2		
	Soil Health								
2	Use of Manures (mt./ha.)								
	FYM/Compost		10 tone/ha	20 tone/ha	Р	1,2,3	1,2,3,5		
	Vermicompost		Nil	2 tone/ha	F	2,3	5		
3	Cultivation	of Legumes				1			
	As rotationa	Il Crop	Nil	Black gram/ Green gram	F	2	2,3,5		
	As inter Cro	р	Nil	Tomato 8:2	F	2	2,3,5		
	As Green manure		Nil	Sunhemp/ Dhaicha	F	2	2,3,5		
4	Use of maj	or Fertilizer. N	+ P + K Kg./ha.		•	•			
a.	Basal	Tomato	40:40:20	60:60:60	р	1,2,3	1,2,3,5		
	Busur	Brinjal	40:40:20	60:60:60	р	1,2,3	1,2,3,5		
b.	Top dressing (kg./ha)								
	N	Tomato	40	60	р	1,2,3	1,2,3,5		
		Brinjal	40	60	р	1,2,3	1,2,3,5		
5	Use of Bio fertilizer (kg/ha)								
	Azospirillium		Nil	5 Kg/ha as soil application	F	1,2,3,4	1,2,3,4,5		
	Agatobactor		Nil	5 Kg/ha as soil application	F	1,2,3,4	1,2,3,4,5		
	P.S.B.		Nil	5 Kg/ha as soil application	F	1,2,3,4	1,2,3,4,5		
6	Macro/Micronutrients								
	Boran		-	10 kg/ ha Time of transplanting	F	1,2,3,4	1,2,3,4,5		
	Molibdanum		-	5 kg/ha Time of transplanting	F	1,2,3,4	1,2,3,4,5		
Reaso	ons for gap		Proposed Strategy	1	Gap in Ad	loption	-		
1. Lack of awareness & Knowledge. 1 2. Lack resources. 2 3. Lack capital. 3 4. Improper management. 4		 Training & awareness Campaign. Demonstration & On farm trail/ORF. Exposer visit. Soil testing based fertilizer use needed to be strengthened. Financial Support. 		N – Nil P – Partial F - Full					

 Table- 7.13 : Proposed Strategies for Integrated Nutrient Management (INM)

 Horticultural/Crop – Horticultural /Crop – Tomato & Brinjal

Table-7.14 : Proposed Strategies for Integrated Pest Management (IPM) (Pest – Dimoend back moth, Borer, Semi Looper, Termite, Aphides, Damping off, Black Rott, Downy mildew, etc.)

SI.	ultural /Crop – Tomato & Bı Particulars		E.P	R.P	G.A	R.G	P.S			
No.										
1	Cultural Practices									
	Ploughing		Practices by a few farmer	Deep repeated Ploughing	Р	1,2,4	1,2,3			
	Timely sowing	g	May – June July – August	May – June July – August	N	-	-			
	Transplanting		July – August August- September	July – August August- September	N	-	-			
	Clean Cultivation		Removal of rations on previous crops	Removal of rations on previous crops, Solarisation of seed bed	N	-	-			
	Resistance	Tomato	Pusa Rubi, Pant Bahar, Pusa Shda Bahar, Indo - Amerincan hybrid	Pusa Rubi, Pant Bahar, Pusa Shda Bahar, Indo - Amrincan hybrid	Р	1,2,4	1,2,3			
	Varieties	Brinjal	Pusa Pearple Long, Pusa Pearple Round, Banaras Jaint, Panjab Barshti	Pusa Pearple Long, Pusa Pearple Round, Swarn Pratibha, Swarn Shyamali	Ρ	1,2,4	1,2,3			
2	Mechanical I	Practices			L L		•			
	Pheromone Trap & Lures		Not in Practices	For attracting Male Insect	F	1,2,4	1,2,3			
	Yellow board		Not in Practices	Against sucking Insect	F	1,2,4	1,2,3			
	Light trap		Not in Practices	10/ha	F	1,2,4	1,2,3			
3	Botanical/ Biological –Practices									
	Azadirachtin Products 1500/1000 PPM		Not in Practices	For control of sucking & cutting Insect.	F	1,2,4	1,2,3			
	Beavaria bassiana		Not in Practices	Sucking past & borer	F	1,2,4	1,2,3			
	BT		Not in Practices	Against D.B.M.	F	1,2,4	1,2,3			
	Metarizium anisoply (Fungal Insect)		Not in Practices	For Control Brown hopper	F	1,2,4	1,2,3			
	Trichoderma- Vridi		Not in Practices	Seed treatment For control of fungal diseases 4gm/kg seed	F	1,2,4	1,2,3			
	Psuedomonus		Not in Practices	For control of bacterial & Fungal diseases	F	1,2,4	1,2,3			
4	Chemical Practices									
	Seed treatment		Not as a common Practices	Carbandzime/ captan/Thriam 2 gm/kg seed	Р	1,2,4	1,2,3			
	Seedling treatment		Not as a common Practices	Carbandzime 0.2 Solution Carbofuran 3G 2.5kg/1000m ²	Р	1,2,4	1,2,3			
	Conservation of natural enemy (frog)		Not in Practices	Use of bio-Pesticide Avoid Chemical pesticide	F	1,2,4	1,2,3			
Reasc	ons for gap		Proposed Strategy		Gap in Ad	option				
1. Lack of awareness & Knowledge. 2. Lack resources. 3. Lack capital. 4. Improper management.		 Training & awareness Campaign. Demonstration & On farm trail/ORF. Exposer visit. Soil testing based fertilizer use needed to be strengthened. Financial Support. 		N – Nil P – Partial F - Full						

SI.	Particul	ars	E.P	R.P	G.A	R.G	P.S			
No.										
1	Soil Test	ing/	-	Recommended	F	1,4	1,2			
	Soil Heal	th								
2	Use of Manures (mt./ha.)									
	FYM/Compost		10 tone/ha	20 tone/ha	Р	1,2,3	1,2,3,5			
	Vermicor	npost	Nil	2 tone/ha	F	2,3	5			
3	Cultivati	on of Legumes		L	1	1	-			
	As rotation	onal Crop	Nil	Black gram/ Green gram	F	2	2,3,5			
	As inter Crop		Nil	Tomato 8:2	F	2	2,3,5			
	As Greer	n manure	Nil	Sunhemp/ Dhaicha	F	2	2,3,5			
4	Use of m	najor Fertilizer. N	N + P + K Kg./ha.		•	•				
a.	Basal	Chili	25:30:30	40:60:50	р	1,2,3	1,2,3,5			
	Dasai	Capsicum	25:30:30	40:60:50	р	1,2,3	1,2,3,5			
b.	Top dressing (kg./ha)									
	N	Chili	25	35	р	1,2,3	1,2,3,5			
		Capsicum	25	35	р	1,2,3	1,2,3,5			
5	Use of Bio fertilizer (kg/ha)									
	Azospirillium		Nil	5 Kg/ha as soil application	F	1,2,3,4	1,2,3,4,5			
	Azatobactor		Nil	5 Kg/ha as soil application	F	1,2,3,4	1,2,3,4,5			
	P.S.B.		Nil	5 Kg/ha as soil application	F	1,2,3,4	1,2,3,4,5			
6	Macro/Micronutrients									
	Boran		-	10 kg/ ha Time of transplanting	F	1,2,3,4	1,2,3,4,5			
	Molibdanum		-	5 kg/ha Time of transplanting	F	1,2,3,4	1,2,3,4,5			
		Proposed Strategy			Gap in Adoption					
2. Lack resources.23. Lack capital.34. Improper management.4		2. Demonstration & On 3. Exposer visit.	 Soil testing based fertilizer use needed to be strengthened. 		I					

Table- 7.15: Proposed Strategies for Integrated Nutrient Management (INM) Horticultural/Crop – Horticultural /Crop – Chili & Capsicum

Table-7.16 : Proposed Strategies for Integrated Pest Management (IPM) (Pest – Chili/Capsicum - Leaf Hooper, Aphides, Termite, Damping off, Anthrecnose, Leaf Sport, Bactirial Blight, etc.)

SI.	icultural /Crop – Chili & Ca Particulars		E.P R.P		G.A	R.G	P.S		
No.									
1	Cultural Practices								
	Ploughing		Practices by a few farmer	Deep repeated Ploughing	Р	1,2,4	1,2,3		
	Timely sowing		May – June July – August	May – June July – August	N	-	-		
	Transplanting		July – August August- September	July – August August- September	N	-	-		
	Clean Cultivation		Removal of rations on previous crops	Removal of rations on previous crops, Solarisation of seed bed	N	-	-		
	Resistance	Chili	Kalyanpur red, RCH-236, Arka Lohit,	Kalyanpur red, RCH-236, Arka Lohit, Pusa Jwala.	Р	1,2,4	1,2,3		
	Varieties	Capsicum	Arka Basant,California wonder.	Arka Basant,California wonder.	Р	1,2,4	1,2,3		
2	Mechanical Practices								
	Pheromone T	rap & Lures	Not in Practices	For attracting Male Insect	F	1,2,4	1,2,3		
	Yellow board		Not in Practices	Against sucking Insect	F	1,2,4	1,2,3		
	Light trap		Not in Practices	10/ha	F	1,2,4	1,2,3		
3	Botanical/ Bi	iological –Practi	ces						
	Azadirachtin Products 1500/1000 PPM		Not in Practices	For control of sucking & cutting Insect.	F	1,2,4	1,2,3		
	Beavaria bassiana		Not in Practices	Sucking past & borer	F	1,2,4	1,2,3		
	BT		Not in Practices	Against D.B.M.	F	1,2,4	1,2,3		
	Metarizium anisoply (Fungal Insect)		Not in Practices	For Control Brown hopper	F	1,2,4	1,2,3		
	Trichoderma- Vridi		Not in Practices	Seed treatment For control of fungal diseases 4gm/kg seed	F	1,2,4	1,2,3		
	Psuedomonus		Not in Practices	For control of bacterial & Fungal diseases	F	1,2,4	1,2,3		
4	Chemical Practices								
	Seed treatment		Not as a common Practices	Carbandzime/ captan/Thriam 2 gm/kg seed	Р	1,2,4	1,2,3		
	Seedling treatment		Not as a common Practices	Carbandzime 0.2 Solution Carbofuran 3G 2.5kg/1000m ²	Р	1,2,4	1,2,3		
	Conservation of natural enemy (frog)		Not in Practices	Use of bio-Pesticide Avoid Chemical pesticide	F	1,2,4	1,2,3		
Reaso	ons for gan	<u> </u>	Proposed Strategy	1	Gap in Add	ontion	1		
Reasons for gap 1. Lack of awareness & Knowledge. 2. Lack resources. 3. Lack capital. 4. Improper management.		1. Training & awareness Campaign. 2. Demonstration & On farm trail/ORF. 3. Exposer visit. 4. Soil testing based fertilizer use needed to be strengthened. 5. Financial Support.		N – Nil P – Partial F - Full	σριισπ				