B. Details of each On Farm Trial to be furnished in the following format

OFT-1: Winter Management of Pot/House Plants under Low Tunnel Polyhouse

1	Title	**Winter Management of Pot/House Plants under Low Tunnel Polyhouse**
2	Problem Diagnose/defined	Poor Winter Management
3	Details of technologies selected for assessment/refinement	T1: No/least winter management T2: Use of low cast low poly tunnel T3: Use of low cast low poly tunnel+ Protection of root area with mulch (Straw, Cocopeat or Dried leaves)
4	Source of technology	SKUAST-K
5	Production system thematic area	-
6	Thematic area	Pot/House Plant Management
7	Performance of the Technology with performance indicators	Satisfactory
8	Final recommendation for micro level situation	T3: Use of low cast low poly tunnel+ Protection of root area with mulch (Straw, Cocopeat or Dried leaves
9	Constraints identified and feedback for research	Most pot plants come from subtropical regions, making their winter management challenging even in low tunnel polyhouses.
10	Process of farmer's participation and their reaction	Through diagnostic visits, trainings, visit of farmers to KVK etc

Results of On Farm Trial-1

Crop/ enterprise	Farming situation	Problem Diagnosed	Title of OFT	No. of trials	Technology Assessed	Parameters of Assessment	Data on the Parameter	Results of assess ment	Feedback from the farmer
1	2	3	4	5	6	7	8	9	10
Pot/house plants	Irrigated	Poor Winter Management	Winter Management of Pot/House Plants under Low Tunnel Polyhouse	03	T1: No/least winter management T2: Use of low cast low poly tunnel T3: Use of low cast low poly tunnel+ Protection of root area with mulch (Straw, Cocopeat or Dried leaves	Mortality rate% and regeneration rate%	Decline in the mortality rate and increase in the regeneration rate observed.	T1: 10% regeneration rate against 90% mortality T2: 60% regeneration rate against 40% mortality T3: 80% regeneration rate against 20% mortality	Satisfactory

OFT-2: Nursery Raising of Annuals/Seasonal (Hybrid) on Scientific Guidelines

1	Title	Nursery Raising of Annuals/Seasonal (Hybrid) on Scientific Guidelines
2	Problem Diagnose/defined	Poor Germination

3	Details of technologies selected for assessment/refinement	T1:-Unscientific Seed Sowing (Farmers practice) **Technology to be Demonstrated:** T2 : Seed Sowing at optimum depths using soilless media
4	Source of technology	SKUAST-K
5	Production system thematic area	Nursery production
6	Thematic area	Nursery production
7	Performance of the Technology with performance indicators	Satisfactory
8	Final recommendation for micro level situation	T_2: Sowing of seeds at optimum depth using soilless media
9	Constraints identified and feedback for research	Constraint: Manual seed sowing very difficult and time consuming due to small seed size and light weight. Feedback for research: Mechanized seed sowing could be made possible for commercial nursery growers.
10	Process of farmer's participation and their reaction	Through diagnostic visits, trainings, visit of farmers to KVK etc.

Results of On Farm Trial-2

Crop/ enterprise	Farming situation	Problem Diagnosed	Title of OFT	No. of trials	Technology Assessed	Parameters of Assessment	Data on the Parameter	Results of assess ment	Feedback from the farmer
1	2	3	4	5	6	7	8	9	10
Annual Hybrid Salvia	Irrigated	Poor Germination	Nursery raising of annuals/seasonal (Hybrid) on scientific guidelines	03	T1:-Unscientific Seed Sowing (Farmers practice) Technology to be Demonstrated: T2 : Seed Sowing at optimum depths using soilless media	Germination % and Mortality up to transplanting %	Germination %age improved against low mortality rate.	T1: 30-40% germination recorded T2: 60-80% germination ascertained.	Satisfactory

OFT-3: Effect of Pre-treatment on Drying of Bottle guard in Open Conditions

1	Title	Effect of Pre-treatment on Drying of Bottle Guard in Open Conditions
2	Problem Diagnose/defined	Blackening of bottle guard during drying
3	Details of technologies selected for assessment/refinement	T1: Farmer's Practice T2:Dipping in 0.02 % KMS Solution for 15 minutes followed by washing and open Sun Drying
4	Source of technology	SKUAST-K
5	Production system thematic area	-
6	Thematic area	Drying

7	Performance of the Technology with performance indicators	Satisfactory
8	Final recommendation for micro level situation	Dipping of bottle guard in 0.02% KMS
9	Constraints identified and feedback for research	The results of the pre-treatment showed no blacking of bottle guard.
10	Process of farmer's participation and their reaction	Satisfactory.

Results of On Farm Trial-3

Crop/ enterprise	Farming situation	Problem Diagnosed	Title of OFT	No. of trials	Technology Assessed	Parameters of Assessment	Data on the Parameter	Results of assess ment	Feedback from the farmer
1	2	3	4	5	6	7	8	9	10
Vegetables	Drying without pretreatment leads to blackening	Blackening of bottle guard during drying	Effect of Pre treatment on Drying of Bottle Guard in Open Conditions	01	SKUAST-K	1) Blackening 2) Rehydration Ratio	1) No Blackening 2) Good Rehydration Ratio	Table below	Satisfactory

Table-3

Treatments	Results
T1: Farmers Practice	Blackening
T2: Dipping in 0.02% KMS Solution	1) No Blackening 2) Good RR Ratio

OFT-4: Assessment of post bloom chemical thinner on the regularity of bearing & quality of Apple Cv. Fuji Zehn Aztec under high density plantation.

1	Title	Assessment of post bloom chemical thinner on the regularity of bearing & quality of Apple under high density plantation
2	Problem Diagnose/defined	Alternate bearing, small fruit size
3	Details of technologies selected for assessment/refinement	T1: Farmers practice (No Thinning) T2: NAA @ 15ppm, 20-25 days from full bloom
4	Source of technology	SKUAST-K
5	Production system thematic area	Fruit Production
6	Thematic area	Crop Load Management
7	Performance of the Technology with performance indicators	Satisfactory
8	Final recommendation for micro level situation	Naphthalene Acetic Acid (NAA)is recommended as post bloom chemical thinner @ 10-15 mg/liter of water, 7-10 days after petal fall
9	Constraints identified and feedback for research	It is concluded from the study that T1 (NAA @15ppm, 20-25 days from full bloom) sprayed twenty days after full bloom maintained crop load to an optimum level and was effective in attaining better quality and also enhanced the return bloom in cultivar Fuji Zehn Aztec.
10	Process of farmer's participation and their reaction	Satisfactory

Results of On Farm Trial-4

Crop/ enterprise	Farming situation	Problem Diagnosed	Title of OFT	No. of trials	Technology Assessed	Parameters of Assessment	Data on the Parameter	Results of assess ment	Feedback from the farmer
1	2	3	4	5	6	7	8	9	10
Apple	Irrigated	Alternate bearing	Assessment of post bloom chemical thinner on the regularity of bearing & quality of Apple under high density plantation	03	See Table	See Table	Table	See Table	Satisfactory

Table: 4

The plants were raised on M9-T337 and trained on Tall Spindle system with spacing of 1 × 3m. The fruit plants of cultivar Fuji Zehn Aztec were thinned 7-10 Days after petal fall (at 10-12mm fruit let diameter stage). Four branches of uniform girth were selected from each tree for recording different observations

Conclusion

Treatment code	Treatment	Fruit retention (%)	Fruit drop (%)	Return bloom (%)	Yield (kg/tree)	Yield efficiency (kg/cm^2)	Length: breadth Rati0	Fruit weight (g)	SSC (%)	Fruit acidity (%)	SSC: acidity	Total sugars (%)
T_0	Control	45.00 74.51	62.9 25.48	18.5 51.7	5.2 10.5	0.86	0.87	188.35	14.21	0.59	24.08	9.02
T_1	NAA @ 15 ppm	94.51 (9.773)	5.49 (2.548)	85.34	20.50	1.41	0.90	223.80	15.87	0.40	40.08	11.07

T1 performed better in maintaining return bloom with 43.2%over control and maintained optimum crop load and fruit quality in cultivar Fuji Zehn Aztec under high density plantations.

OFT-5: Foliar application of Calcium for improving quality of Cherry

1	Title	Foliar application of Calcium for improving quality of Cherry
2	Problem Diagnose/defined	Cherry cracking, physiological disorders and poor quality
3	Details of technologies selected for assessment/refinement	T1= Farmers Practice (No Spray) T2 = Three foliar spray of Calcium @0.3% (3g/litre)
4	Source of technology	SKUAST-K
5	Production system thematic area	Fruit Production
6	Thematic area	Quality improvement in fruit
7	Performance of the Technology with performance indicators	Satisfactory
8	Final recommendation for micro level situation	Three foliar spray of Calcium @0.3% (3g/litre) Four weeks after full bloom(last week of April), Third week of May and First week of June
9	Constraints identified and feedback for research	Pre harvest applications of Ca improved fruit yield decreased pedicel shriveling and reduced the incidence of fruit rots.
10	Process of farmer's participation and their reaction	Satisfactory

Results of On Farm Trial-5

Crop/ enterprise	Farming situation	Problem Diagnosed	Title of OFT	No. of trials	Technology Assessed	Parameters of Assessment	Data on the Parameter	Results of assess ment	Feedback from the farmer
1	2	3	4	5	6	7	8	9	10
Cherry	Rainfed	Physiological disorder	Foliar application of Calcium for improving quality of Cherry Cv. *Bigarreau Noir Grossa* (Mishri)	03	See Table	See Table	Table	See Table	Satisfactory

Table: 5

Treatments	Annual Shoot Growth (cm)	Fruit Yield (Kg tree^{-1})	Fruit Calcium (%)	Shelf life (days)
T1= No Spray	18.27	8.38	0.36	03
T2 = Three foliar spray of Calcium @0.3% (3g/litre) (Ist Spray= 4 weeks after full bloom (Last week of April) 2nd Spray= Third week of May 3rd Spray= 1st week of June)	20.06	10.10	0.45	07

OFT-6: Assessment of Effect of Integrated Nutrient Management on Maize yield of Quality Protein Maize in higher belts

1	Title	Assessment of Effect of Integrated Nutrient Management on Maize yield of Quality Protein Maize in higher belts
2	Problem Diagnose/defined	Integrated Plant Nutrient Management System
3	Details of technologies selected for assessment/refinement	Nutrient Management in quality Protein Maize
4	Source of technology	SKUAST-K
5	Production system thematic area	
6	Thematic area	Crop Production & Quality
7	Performance of the Technology with performance indicators	Satisfactory
8	Final recommendation for micro level situation	Needs repeated Trails
9	Constraints identified and feedback for research	Adoptability
10	Process of farmer's participation and their reaction	Satisfactory

Results of On Farm Trial-6

Crop/ enterprise	Farming situation	Problem Diagnosed	Title of OFT	No. of trials	Technology Assessed	Parameters of Assessment	Data on the Parameter	Results of assess ment	Feedback from the farmer
1	2	3	4	5	6	7	8	9	10
Quality Protein Maize	Rainfed	Poor yield & Low Protein Content	Assessment of Effect of Integrated Nutrient Management on Maize yield of Quality Protein Maize in higher belts	03	Nutrient Management in quality Protein Maize	Yeild, Quality and Economics	See Table	See Table	Satisfactory

Table: 6

Treatments	Protein%	Grain yield (q/ha)	Cost of Cultivation (Rs.)	Returns (Rs.)	Benefit (Rs.)	Ratio Benefit/Cost (Rs.)	% superiority over Check
Farmers Practice	3.22	53.77	15930	35500	19570	1.22	7.45
QPM-1	8.96	57.78	27540	93570	66030	2.40	

OFT-7: Production Performance of Fodder Production of KDFM Fodder Maize

1	Title	Production Performance of Fodder Production of KDFM Fodder Maize
2	Problem Diagnose/defined	Low green Fodder yield (Tonnage) of local varieties of Maize.
3	Details of technologies selected for assessment/refinement	T1: Farmers Practice T2: Package of Practices
4	Source of technology	SKUAST-Kashmir
5	Production system thematic area	Fodder Production
6	Thematic area	Fodder Production
7	Performance of the Technology with performance indicators	On going
8	Final recommendation for micro level situation	awaited
9	Constraints identified and feedback for research	-
10	Process of farmer's participation and their reaction	-

Results of On Farm Trial-7

Crop/ enterprise	Farming situation	Problem Diagnosed	Title of OFT	No. of trials	Technology Assessed	Parameters of Assessment	Data on the Parameter	Results of assess ment	Feedback from the farmer
1	2	3	4	5	6	7	8	9	10
Fodder Production	Rainfed	Low green Fodder yield	Production Performance of Fodder Production of KDFM Fodder Maize	03	KDFM (SKUAST)	Green Fodder Yeild	-	-	-

OFT-08: Shrink Wrap Packing of Tomato for Extension of Shelf-life under Ambient Conditions

1	Title	Shrink Wrap Packing of Tomato for Extension of Shelf-life under Ambient Conditions
2	Problem Diagnose/defined	Poor shelf life of Tomato
3	Details of technologies selected for assessment/refinement	T1: Farmer's Practice T2:Packaging using shrink wrap (LDPE and PP) at ambient conditions
4	Source of technology	SKUAST-K
5	Production system thematic area	Horticulture Crop
6	Thematic area	Packaging of Horticulture Production
7	Performance of the Technology with performance indicators	Shelf-Life
8	Final recommendation for micro level situation	Packaging using LDPE along with shrink wrap
9	Constraints identified and feedback for research	Cost efficient at higher production
10	Process of farmer's participation and their reaction	Farmers were satisfied

Results of On Farm Trial-08

Crop/ enterprise	Farming situation	Problem Diagnosed	Title of OFT	No. of trials	Technology Assessed	Parameters of Assessment	Data on the Parameter	Results of assess ment	Feedback from the farmer
1	2	3	4	5	6	7	8	9	10

Tomato	No Pac aging	Poor shelf life of Tomato	Shrink Wrap Packing of Tomato for Extension of Shelf-life under Ambient Conditions	02 No. with 03 replicates	Shirink Wrap	See Table	See Table	See Table	Satisfactory

Table: 08

Results	LDPE film wrapped Tomato	PP film wrapped Tomato	Unwrapped Tomato
Weight Loss (%)	05	6.5	08
Shelf Life Extension (Days)	25* Days	20* Days	15*Days
Storage Conditions (25-28ºC) *Acceptable with good firmness			

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