## Achievements on technologies assessed and refined

# OFT-1

| | | |
|---|---|---|
| 1. | Title of On farm Trial | Assessment of High yielding varieties of Onion |
| 2. | Problem diagnosed | Low yield of Onion during due to lack of suitable varieties |
| 3. | Details of technologies selected for assessment/refinement | FP-Degenerated oil variety of AGLR<br>TO-I:Onion var. Bhimashakti**(**shape is round attrative red colour ,suitable for rabi and late kharif tolerant to thrips pot yield of 42.7t/ha .duration 130days)<br>TO-II: Onion var. ArkaPragati(Light red bulbs of medium size with pungent flavor. Good storability for 5 months under room temperature. Suitable) |
| 4. | Source of Technology (ICAR/ AICRP/SAU/other, please specify) | DOGR 2016<br>IIHR 2016 |
| 5. | Production system and thematic area | Varietal |
| 6. | Performance of the Technology with performance indicators | Bulb wt (gm), Bulb size (Cm), Yield, Net income , B:C ratio |
| 7. | Final recommendation for micro level situation | Bhimashakti is a good yield with 395qtl/ha |
| 8. | Constraints identified and feedback for research | Proper nursery raising under little water and its cultivation during scarcity of water |
| 9. | Process of farmers participation and their reaction | During training programme physical biometric observation harvesting form 1m*1m. they are happy with the onion cultivation |

## *Thematic area: Horticulture*

Problem definition: Low yield due to lack of suitable varieties

Technology assessed:

TO-I:Onion var. Bhimashakti**(**shape is round attrative red colour ,suitable for rabi and late kharif tolerant to thrips pot yield of 42.7t/ha .duration 130days)

TO-II: Onion var. ArkaPragati(Light red bulbs of medium size with pungent flavor. Good storability for 5 months under room temperature. Suitable) for rabi.
Bulb yield is 34-37 t/ha

Table:

| Technology option | No. of trials | Yield component | | | Disease/ insect pest incidence (%) | Yield (q/ha) | Cost of cultivation (Rs./ha) | Gross return (Rs/ha) | Net return (Rs./ha) | BC ratio |
|---|---|---|---|---|---|---|---|---|---|---|
| | | No. of plants /$m^2$ | Wt. of blubs per plant | Size of the blubs(mm) | | | | | | |
| FP | 7 | 25 | 115gm | 38.4 | | 251 | 109000 | 376500 | 267500 | 3.4 |
| TO-1 | | 33 | 143.85gm | 60.2 | | 395.7 | 113000 | 593670 | 480670 | 5.25 |
| TO-2 | | 29 | 133.8gm | 52.7 | | 346.6 | 112000 | 519900 | 407900 | 4.64 |

Results: Bhimashakti is a good yield with 395qtl/ha

# OFT-2

| | | |
|---|---|---|
| 1. | Title of On farm Trial | Assessment of Arka Microbial Consortium ( Microbial Plant Growth promoters) and Seed pro in Cauliflower for increasing yield |
| 2. | Problem diagnosed | Low yield in cauliflower due to small curd size and weight |
| 3. | Details of technologies selected for assessment/refinement | FP-No growth promoter used<br><br>TO-1:Arka Microbial Consortium-A carrier based microbial product containing N fixing, P and Zn solubilising and plant growth promoting microbes. For the main field application of one acre of land, five kg of AMC can be mixed with 500kg of FYM and applied near the root zone of standing crop<br><br>TO-2:Seed Pro- plant growth-promoting seed coating formulation$_2$ based on combinations of *Bacillus subtilis* and *Hypocrealixi.* For the main field application of one acre of land, Five kg of seed pro can be mixed with 500kg of FYM and applied near the root of stand crop |
| 4. | Source of Technology (ICAR/ AICRP/SAU/other, please specify) | ICAR-IIHR Bangalore |
| 5. | Production system and thematic area | Vegetable production system, |
| 6. | Performance of the Technology with performance indicators | Diameter of cured, wt. of cured, yield , net income, B:C ratio |
| 7. | Final recommendation for micro level situation | Higher yield and bigger cured was obtained with AMC use in cauliflower |
| 8. | Constraints identified and feedback for research | More yield, pest and disease management technology with organic formulation in cauliflower |

| | | |
|---|---|---|
| 9. | Process of farmers participation and their reaction | During training programme physical biometric observation harvesting form 1m*1m. they are happy with use of AMC inCauliflower cultivation |

## *Thematic area: Horticulture*

Problem definition: Low yield in cauliflower due to small curd size and weight

Technology assessed:

TO-1:Arka Microbial Consortium-A carrier based microbial product containing N fixing, P and Zn solubilising and plant growth promoting microbes. For the main field application of one acre of land, five kg of AMC can be mixed with 500kg of FYM and applied near the root zone of standing crop

TO-2:Seed Pro- plant growth-promoting seed coating formulation$_2$ based on combinations of *Bacillus subtilis* and *Hypocrealixi.* For the main field application of one acre of land, Five kg of seed pro can be mixed with 500kg of FYM and applied near the root of stand crop

Table:

| **Technology option** | **No. of trials** | **Yield component** | | | **Disease/ insect pest incidence (%)** | **Yield (q/ha)** | **Cost of cultivation (Rs./ha)** | **Gross return (Rs/ha)** | **Net return (Rs./ha)** | **BC ratio** |
|---|---|---|---|---|---|---|---|---|---|---|
| | | **No. of effective tillers/hill** | **No. of spikelet per panicle** | **Wt. of curd per plant (gm)** | | | | | | |
| FP | 7 | NA | NA | 366.8 | 28.4 | 175.50 | 73000 | 175500 | 102500 | 2.4 |
| TO-1 | | NA | NA | 573.4 | 3.2 | 215.42 | 80200 | 215420 | 135220 | 2.68 |
| TO-2 | | NA | NA | 521.2 | 4.66 | 203.42 | 77800 | 203420 | 125620 | 2.64 |

Results: Higher yield and bigger cured was obtained with AMC use

# OFT-3

| | | |
|---|---|---|
| 1. | Title of On farm Trial | Assessment of micronutrient sprays in tomato (Trial in continuing) |
| 2. | Problem diagnosed | Low yield due to micronutrient deficiency and poor quality fruits |
| 3. | Details of technologies selected for assessment/refinement | FP-Use of improper dose of NPK and no micromutrient spray<br><br>TO-1-3 Foliar sprays of micronutrient mixture (B, Zn, and Mo@50ppm at 10days interval starting from 40days after transplanting(yield of 314q/ha, B:C ratio1:2.15 and1:2.15 and self life 7.6 days)<br><br>TO-2-Application of Arka vegetable spetatle special.(It contains micronutrient such as Zn, Fe, B,Cu,Mn, used as folior spray in tomato crops. It enhances fruit set, size, reduces pest and disease.<br><br>1.For every 15ltr of water, mix 75g of vegetable special powder<br><br>2.Add 2fresh lemon juice to neutralize the spray<br><br>3.Add one shampoo sachet that act as surfactant 3sprays are advocated, 1st one and half month after transplanting and other 2spray at 15days interval after the first spray |
| 4. | Source of Technology (ICAR/ AICRP/SAU/other, please specify) | www.icar.org,in,Research achievement AICRP on Horticulture(IIVR),<br><br>IIHR,Bengalor |
| 5. | Production system and thematic area | Vegetable production system, INM |
| 6. | Performance of the Technology with performance indicators | No.of fruits /pt, wt. of fruits/pt, yield, GR,GN, B:C |

| | | |
|---|---|---|
| 7. | Final recommendation for micro level situation | Trial in progress |
| 8. | Constraints identified and feedback for research | |
| 9. | Process of farmers participation and their reaction | |

## *Thematic area: Horticulture*

Problem definition:

Technology assessed:

Table:

| **Technology option** | **No. of trials** | **Yield component** | | | **Disease/ insect pest incidence (%)** | **Yield (q/ha)** | **Cost of cultivation (Rs./ha)** | **Gross return (Rs/ha)** | **Net return (Rs./ha)** | **BC ratio** |
|---|---|---|---|---|---|---|---|---|---|---|
| | | **No. of plants /$m^2$** | **Wt. of blubs per plant** | **Size of the blubs(mm)** | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |

# OFT-4

| | | |
|---|---|---|
| 1. | Title of On farm Trial | **Assessment of Nutrient management of Niger in Rainfed upland situation** |
| 2. | Problem diagnosed | Low yield due to improper nutrient management |
| 3. | Details of technologies selected for assessment/refinement | FP- imbalance N-P205-K20/ha<br>TO1- 100% RDF(40-20-20kg N-P205-k20/ha)<br>TO2- 50% RDF (20-20-10 kg N-P2O5-K2O/ha)<br>TO3- Soil test based fertiliser Recommendation |
| 4. | Source of Technology (ICAR/ AICRP/SAU/other, please specify) | Source: OUAT Annual Report-2011-12, pp-19 |
| 5. | Production system and thematic area | Rainfed upland, Niger –fallow<br>Integrated nutrient management |
| 6. | Performance of the Technology with performance indicators | Yield-qtl/ha ,Net return, B:C ratio |
| 7. | Final recommendation for micro level situation | Soil test based fertilizer application is best then 100%RDF and 50%RDF |
| 8. | Constraints identified and feedback for research | Organic fertilizer management practices |
| 9. | Process of farmers participation and their reaction | Farmer's Feed back: Farmers appreciated the soil test based fertilizerrecommendation because soil amendment with lime and need based fertilizer application gave highest yield |

## *Thematic area: Agronomy*

Problem definition: Low yield due to improper nutrient management

Technology assessed:

TO1- 100% RDF(40-20-20kg N-P205-k20/ha)

TO2- 50% RDF (20-20-10 kg N-P2O5-K2O/ha)

TO3- Soil test based fertiliser Recommendation

Table:

| Technology option | No. of trials | Yield component | | | Disease/ insect pest incidence (%) | Yield (q/ha) | Cost of cultivation (Rs./ha) | Gross return (Rs/ha) | Net return (Rs./ha) | BC ratio |
|---|---|---|---|---|---|---|---|---|---|---|
| | | No. of capitula/plant | No. of seeds/capitula | Plant height(cm) | | | | | | |
| FP | 7 | 23 | 19 | 80 | | 2.8 | 8000 | 15400 | 7400 | 1.9 |
| TO1 | 7 | 49 | 26 | 112 | | 3.9 | 10000 | 21450 | 11450 | 2.1 |
| TO2 | 7 | 40 | 22 | 100 | | 3.3 | 9000 | 18150 | 9150 | 2.0 |
| TO3 | 7 | 55 | 28 | 120 | | 4.1 | 9500 | 22550 | 13050 | 2.4 |

Results:Soil test based recommendation has given highest yield

# OFT-5

| | | |
|---|---|---|
| 1. | Title of On farm Trial | Assessment of Nutrient management of Sugarcane crop |
| 2. | Problem diagnosed | Low yield due to improper nutrient management |
| 3. | Details of technologies selected for assessment/refinement | FP- Imbalance N:P205:K20/ha<br>TO1- 100% recommended dose of fertilizer (250-100-60 kg NPK / ha).<br>TO2- Soil test based fertilizer application |
| 4. | Source of Technology (ICAR/ AICRP/SAU/other, please specify) | TO1- Source : Source :AICRP on Sugarcane 2011<br>TO2- Source :AICRP on Sugarcane 2015 |
| 5. | Production system and thematic area | Irrigated medium land<br>Integrated Nutrient Management |
| 6. | Performance of the Technology with performance indicators | Cane dia(cm), Cane ht(cm), Single cane wt (kg),Net return,B:C ratio |
| 7. | Final recommendation for micro level situation | Soil test based recommendation has given significantly higher yield then<br>100% RDF |
| 8. | Constraints identified and feedback for research | Organic fertilizer management practices |
| 9. | Process of farmers participation and their reaction | Farmers appreciated the soil test based fertilizerrecommendation practices |

## *Thematic area: Agronomy*

Problem definition: Low yield due to improper nutrient management
Technology assessed:

TO1- 100% recommended dose of fertilizer (250-100-60 kg NPK / ha).

TO2- Soil test based fertilizer application

Table:

| Technology option | No. of trials | Yield component | | | Disease/ insect pest incidence (%) | Yield (qtl/ha) | Cost of cultivation (Rs./ha) | Gross return (Rs/ha) | Net return (Rs./ha) | BC ratio |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Cane dia(cm), | Cane ht(cm | Single cane wt (kg) | | | | | | |
| FP | 7 | 1.6 | 185 | 0.5 | | 810 | 80000 | 206550 | 126550 | 2.6 |
| TO1 | 7 | 1.9 | 209 | 0.7 | | 1020 | 90000 | 260100 | 170100 | 2.9 |
| TO2 | 7 | 2.2 | 211 | 0.8 | | 1090 | 91000 | 277950 | 186950 | 3.1 |

Results:Soil test based recommendation has given highest yield

# OFT-6

| | | |
|---|---|---|
| 1. | Title of On farm Trial | MANAGEMENT OF BACTERIAL ROT IN POTATO |
| 2. | Problem diagnosed | **Low yield due to bacterial rot incidence** |
| 3. | Details of technologies selected for assessment/refinement | Assessment |
| 4. | Source of Technology (ICAR/ AICRP/SAU/other, please specify) | **OUAT annual report, 2010-11**<br>**OUAT annual report, 2008-09** |
| 5. | Production system and thematic area | Plant protection |
| 6. | Performance of the Technology with performance indicators | Disease incidence(%), Yield |
| 7. | Final recommendation for micro level situation | Seed treated with *Pseudomonas flourescens*@ 5g/kg seed, Soil drenching with bleaching powder@ 25kg per ha |
| 8. | Constraints identified and feedback for research | Non availability of resistant cultivar |
| 9. | Process of farmers participation and their reaction | Farmers field visit and trainings |

## *Thematic area: Plant protection*

Problem definition: **Low yield due to bacterial rot incidence**

Technology assessed:

FP- Farmers are applying only carbendazim @ 2g/lit.

TO1- Seed treated with *Pseudomonas flourescens*@ 5g/kg seed, Soil drenching with bleaching powder@ 25kg per ha

TO2- Planting potato tuber pre-treated with Streptocycline (0.015%) along with soil drenching with same antibiotic (0.015%)+ COC @ 3g/lit

Table:

| **Technology option** | **No. of trials** | **Yield component** | | | **Disease/ insect pest incidence (%)** | **Yield (q/ha)** | **Cost of cultivation (Rs./ha)** | **Gross return (Rs/ha)** | **Net return (Rs./ha)** | **BC ratio** |
|---|---|---|---|---|---|---|---|---|---|---|
| | | **No. of effective tillers/hill** | **No. of spikelet per panicle** | **Test wt. (100 grain wt.)** | | | | | | |
| FP- Farmers are applying only carbendazim @ 2g/lit. | 07 | - | - | - | 25.35 | 135.25 | **72,500/-** | **1,35,250/-** | 62,750/- | 1.86 |
| TO1- Seed treated with *Pseudomonas flourescens*@ 5g/kg seed, Soil drenching with bleaching powder@ 25kg per ha | 07 | - | - | - | 6.64 | 177.78 | **80,000/-** | **1,77,780/-** | 97,780/- | 2.22 |
| TO2- Planting potato tuber pre-treated with Streptocycline (0.015%) along with soil drenching with same antibiotic (0.015%)+ COC @ 3g/lit | 07 | - | - | - | 8.41 | 160.11 | **80.000/-** | **1,60,110/-** | **80,110/-** | 2.00 |

# OFT-7

| | | |
|---|---|---|
| 1. | Title of On farm Trial | MANAGEMENT OF DAMPING OFF IN ONION |
| 2. | Problem diagnosed | **Low yield due to damping off incidence** |
| 3. | Details of technologies selected for assessment/refinement | Assessment |
| 4. | Source of Technology (ICAR/ AICRP/SAU/other, please specify) | **OUAT annual report, 2010-11**<br>**OUAT annual report, 2008-09** |
| 5. | Production system and thematic area | Plant protection |
| 6. | Performance of the Technology with performance indicators | Disease incidence(%), Yield |
| 7. | Final recommendation for micro level situation | **Soil application of *Trichodermaviride* @2.5 kg/10kg FYM. Seed treatment with metalaxyl + mancozeb@ 2 g/kg seed. Soil drenching with metalaxyl+ mancozeb@ 2g/lit water** |
| 8. | Constraints identified and feedback for research | Non availability of resistant cultivar |
| 9. | Process of farmers participation and their reaction | Farmers field visit and trainings |

## *Thematic area: Plant protection*

Problem definition: Low yield due to damping off disease

Technology assessed:

**FP: Spraying mancozeb@2g/l**

**TO1: Soil application with *Trichodermaviride* @2.5 kg/10kg FYM, Seed treatment with carbedazim+ Thiram @ 2g/kg seed. Soil drenching with COC@3 g/lit water**

**TO2: Soil application of *Trichodermaviride* @2.5 kg/10kg FYM. Seed treatment with metalaxyl + mancozeb@ 2 g/kg seed. Soil drenching with metalaxyl+ mancozeb@ 2g/lit water**

Table:

| Technology option | No. of trials | Yield component | | | Disease/ insect pest incidence (%) | Yield (q/ha) | Cost of cultivation (Rs./ha) | Gross return (Rs/ha) | Net return (Rs./ha) | BC ratio |
|---|---|---|---|---|---|---|---|---|---|---|
| | | No. of effective tillers/hill | No. of spikelet per panicle | Test wt. (100 grain wt.) | | | | | | |
| FP: Spraying mancozeb@2g/l | 07 | - | - | - | 20.50% | 195.50 | 1,04000/- | 1,95,500/- | 91,500/- | 1.87 |
| TO1: Soil application with *Trichodermaviride* @2.5 kg/10kg FYM, Seed treatment with carbedazim+ Thiram @ 2g/kg seed. Soil drenching with COC@3 g/lit water | 07 | - | - | - | 10.00% | 220.80 | 1,05000/- | 2,20,800/- | 1,15,800/ | 2.10 |
| TO2:Soil application of *Trichodermaviride* @ 2.5 kg/10kg FYM. Seed treatment with metalaxyl + mancozeb@ 2 g/kg seed. Soil drenching with metalaxyl+ mancozeb@ 2g/lit water | 07 | - | - | - | 7.5% | 235.50 | 1,05500/- | 2,35,500/- | 1,30,000/- | 2.23 |

# OFT-8

| | | |
|---|---|---|
| 1. | Title of On farm Trial | Assessment on medicinal crops in teak based agroforestry system. |
| 2. | Problem diagnosed | Low Income from Sole teak plantation |
| 3. | Details of technologies selected for assessment/refinement | T O- 1: Teak (8 x 2 m) in E-W direction + Aloe Vera (60 x 45 cm)<br>Aloe Vera was taken as intercrops in the plantations in initial 3-5 years with tree pruning of teak plantation to maximize the land utilization.<br>T O -2: Teak (8 x 2 m) in E-W direction + Ashwagandha (30 x 10 cm) Ashwagandha was taken as intercrops in the plantations in initial 3-5 years with tree pruning of teak plantation to maximize the land utilization. |
| 4. | Source of Technology (ICAR/ AICRP/SAU/other, please specify) | AICRP on Agroforestry, OUAT, 2011 |
| 5. | Production system and thematic area | Rainfed Upland and AGF |
| 6. | Performance of the Technology with performance indicators | Plant Height(cm), Number of Branches/plant, Herbage Yield, Dry matter production ($g/m^2$) |
| 7. | Final recommendation for micro level situation | Aswagandha can be grown as a cash crop to get better profit from poor fields with low cost, lesser efforts with association of Teak. |
| 8. | Constraints identified and feedback for research | Needs different spacing of Teak with Intercrops |
| 9. | Process of farmers participation and their reaction | Field Visit and Aswagandha can be grown as a cash crop to get better profit from poor fields with low cost, lesser efforts |

## *Thematic area:* Agroforestry

Problem definition: Low Income from Sole teak plantation

Technology assessed: **TO- 1**: Teak (8 x 2 m) in E-W direction + Aloe Vera (60 x 45 cm). Aloe Vera was taken as intercrops in the plantations in initial 3-5 years with tree pruning of teak plantation to maximize the land utilization.

**TO -2**: Teak (8 x 2 m) in E-W direction +Ashwagandha (30 x 10 cm). Ashwagandha was taken as intercrops in the plantations in initial 3-5 years with tree pruning of teak plantation to maximize the land utilization.

Table:

| Technology option | No. of trials | Yield component | | | Disease/ insect pest incidence (%) | Yield (q/ha) | Cost of cultivation (Rs./ha) | Gross return (Rs/ha) | Net return (Rs./ha) | BC ratio |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Plant Height (cm) | Total Fresh Wt./Plant (g) | Herbage Yield (Biomass) (Qtl/ha) | | | | | | |
| FP | 7 | - | - | - | - | - | - | - | - | - |
| 1 | 7 | **40.50** | **926.50** | **245** | - | **245** | **41210** | **122500** | **63790** | **2.9** |
| 2 | 7 | **51.87** | **62** | **4. 25** | - | **4. 25** | **11560** | **48875** | **38150** | **4.2** |
| | | | | | | | | | | |
| | | | | | | | | | | |

Results: **Please provide all the OFTs in same format**

# OFT-9

| | | |
|---|---|---|
| 1. | Title of On farm Trial | Assessment on performance of Eucalyptus clones |
| 2. | Problem diagnosed | Poor and delayed growth due to growing of local seedling |
| 3. | Details of technologies selected for assessment/refinement | T O- 1: IFGTB-6 clone. survival of plant is 90%, adapted to low-to intermediate rainfall environments with a dry season of up to 8 months. Fast growing clones always had bigger crown diameter, higher height of fresh branch, straighter stems and relatively smaller branches. Resistant to pests and diseases<br><br>T O- 2: FRI- 100 clone. Clone can withstand some water stress. Silvicultural properties including straightness, narrow crown, self-pruning, high growth rates, adaptability to a wide range of soils and climates, coppicing ability, a tendency not to spread as a weed and wide utility of wood. |
| 4. | Source of Technology (ICAR/ AICRP/SAU/other, please specify) | IFGTB, Coimbatore 2011 and FRI, Dehradhun, 2017 |
| 5. | Production system and thematic area | Rainfed Upland and AGF |
| 6. | Performance of the Technology with performance indicators | Plant Height (M), Diameter (cm), Volume |
| 7. | Final recommendation for micro level situation | Continuing the trail (IFGTB-6 showed the better performance) |
| 8. | Constraints identified and feedback for research | |
| 9. | Process of farmers participation and their reaction | Filed Visit |

## *Thematic area:* Agroforestry

Problem definition: Poor and delayed growth due to growing of local seedling

Technology assessed: T O- 1: IFGTB-6 clone. Survival of plant is 90%, adapted to low-to intermediate rainfall environments with a dry season of up to 8 months. Fast growing clones always had bigger crown diameter, higher height of fresh branch, straighter stems and relatively smaller branches. Resistant to pests and diseases

T O- 2: FRI- 100 clone. Clone can withstand some water stress. Silvicultural properties including straightness, narrow crown, self-pruning, high growth rates, adaptability to a wide range of soils and climates, coppicing ability, a tendency not to spread as a weed and wide utility of wood.

Table:

| **Technology option** | **No. of trials** | **Yield component** | | | **Disease/ insect pest incidence (%)** | **Yield (q/ha)** | **Cost of cultivation (Rs./ha)** | **Gross return (Rs/ha)** | **Net return (Rs./ha)** | **BC ratio** |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Plant height (m) | Diameter (m) | Total Volume ($m^3$/ha) | | | | | | |
| FP | 7 | 4.02 | 0.03 | 3.86 | - | - | 17,400 | - | - | - |
| 1 | 7 | 4.5 | 0.035 | 5.31 | - | - | 25,600 | - | - | - |
| 2 | 7 | 4.28 | 0.032 | 5.25 | - | - | 25,600 | - | - | - |
| | | | | | | | | | | |
| | | | | | | | | | | |

Results: Trail continue….

# OFT-10

| | | |
|---|---|---|
| 1. | Title of On farm Trial | ASSESSMENT OF INCORPORATION OF AMUR CARP IN COMPOSITE CARP CULTURE FOR MAXIMIZING FISH PRODUCTION |
| 2. | Problem diagnosed | Slow growth rate of mrigal affects the average yield from composite carp culture |
| 3. | Details of technologies selected for assessment/refinement | FP:Stocking ratio catla: rohu : mrigal :: 30:40:30<br>TO-1-Stocking ratio catla: rohu : mrigal :Amur carp :: 30:40:20:10<br>TO-2-Stocking ratio catla: rohu : mrigal :Amur carp :: 30:40:15:15<br>TO-3-Stocking ratio catla: rohu : mrigal :Amur carp :: 30:40:10:20 |
| 4. | Source of Technology (ICAR/ AICRP/SAU/other, please specify) | Karnataka Veterinary, Animal and Fisheries Sciences University, Bidar, 2013. |
| 5. | Production system and thematic area | Pond based system |
| 6. | Performance of the Technology with performance indicators | Parameter(ABW-Average body weight in gm) ,Yield,Cost, GR, NR, B:C |
| 7. | Final recommendation for micro level situation | Amur carp matures in 9 month in captivity. It should be further extended to 1 year for further growth and synchronous harvesting with IMCS.. In treatment TO2, the yield is more (35.85 q/ha) and net profit (Rs. 188300/-). |
| 8. | Constraints identified and feedback for research | More yield, Growth , and Synchronous harvesting of amur carp in composite carp culture for maximizing fish production |
| 9. | Process of farmers participation and their reaction | Training programme synchronous harvesting with IMCS |

## *Thematic area:Fishery*

Problem definition:Slow growth rate of mrigal affects the average yield from composite carp culture

Technology assessed:
TO-1:Stocking ratio catla: rohu :mrigal :Amur carp :: 30:40:20:10
TO-2:Stocking ratio catla: rohu :mrigal :Amur carp :: 30:40:15:15
TO-2:Stocking ratio catla: rohu :mrigal :Amur carp :: 30:40:10:20
Table:

| Technology option | No. of trials | Yield component | | | Disease/ insect pest incidence (%) | Yield (q/ha) | Cost of cultivation (Rs./ha) | Gross return (Rs/ha) | Net return (Rs./ha) | BC ratio |
|---|---|---|---|---|---|---|---|---|---|---|
| | | No. of effective tillers/hill | No. of spikelet per panicle | Parameter (ABW-Average body weight in gm) | | | | | | |
| FP | 7 | | | - | | 28.51 | 1,50,000/- | 2,86,500/- | 1,36,500 | 1.91 |
| TO-1 | | | | Initial ABW- 15 Final ABW-500 | | 32.42 | 1,63,000/- | 3,27,800/- | 1,64,800/- | 2.01 |
| TO-2 | | | | Initial ABW- 15 Final ABW-650 | | 35.85 | 1,78,000/- | 3,66,300/- | 1,88,300/- | 2.05 |
| TO-3 | | | | nitial ABW- 15 Final ABW-550 | | 33.93 | 1,66,000/- | 3,38,900/- | 1,72,900/- | 2.04 |

Results:
Amur carp matures in 9 month in captivity. It should be further extended to 1 year for further growth and synchronous harvesting with IMCS.. In treatment TO2, the yield is more (35.85 q/ha) and net profit (Rs. 188300/-).