

Freshwater Aquaculture Best Option for Low yield lands of Sirmour

Category: Fresh Water Aquaculture

Challenge: Optimum use of low yield lands of Rajgarh/Sangrah area to enhance farmer's economy.

The lands of Rajgarh & Sangrah areas are famous for stone fruits (stones+fruits) not too ideal for high yields of other crops due to abundance of gravel and sand contents with poor water holding capacity. Under such soil conditions, creation of fish ponds, storage of water in them and growing of carp fish to make it more economical to the farmers was a challenge to us and to make it more viable activity in comparison to their traditional farming practices. The gap in farming practices was poor soil texture, availability of abundance of water resources, lack of awareness to harness these resources and make use of new technologies in the field of agro farming as well as aqua farming. The attractive scheme package of RKVY, the ever first time in the state was available to offer the locality farmers with 50% subsidy on construction of mud ponds later with good silt & fertilizers deposits accumulated at the bottom of ponds during the fish culture can be used for farming of leguminous crops for conservation of soil texture and protection of leeching out of nitrogen contents from the soil. Thus, helps in soil formation in sandy strata of this locality by adopting fish farming. This will not only protect the agro farming, but also encourage the crop diversification; water storage practices leading to boost the productivity of their lands ultimately boost the rural economy of the state.

Scheme implementation:

Keeping in view the decimal participation of the locality farmers in adopting the aquaculture scheme like FFDA, component plans or other projects, the extension staff of this department took the opportunity to promote aquaculture in such problematic area through RKVY, in which the rate of subsidy was also double in comparison to FFDA schemes, Mr. Amin Chand Fisheries Field Assistant and Mr. Yogesh Gupta then Senior Fisheries Officer Nahan approached Mr. Tapender Singh s/o Meen Singh Village Kuftu, P:O Sher Tandula, Tehsil Rajgarh, Distt Sirmour H.P. and provided the inputs of the scheme and constructed katcha fish ponds in 0.96ha of farm area with poor soil strata but abundant of water supply at the site from the adjacent nallah. Initially, he stocked 20000 IMC fingerlings brought from a private

hatchery at Dera Bassi (PUNJAB). Due to low profile soil nutrients in these newly built ponds, the yields from these ponds were reported very low and stunting of growth of carps. The farmer was advised to increase the addition of bio-fertilizers and in organic fertilizers in proportionate manners as per requirement of the pond area. Prior to this Mr. Tapender dried the ponds then resorted to adequate and scientifically recommended fertilizers to culture and obtain adequate standing crops of planktons and stocked appropriate number of carp fingerlings with appropriate size of fingerlings. He stocked 6000 carp fingerlings brought from carp fish seed farm Nalagarh. Hence good yield of fish market demand based size was achieved.

As per provision of the scheme, the farmer was given financial assistance in the form of subsidy amounting to 157000/- rupees in two installments. No subsidy on inputs was provided to the scheme beneficiaries and the farmer met these expenses at his own cost. In order to make him understanding of the concept of aquaculture, Mr. Tapender Singh was given exposure on culture activities at Ranchi (Jharkhand) by the state fisheries department, where he learned the methods of preparations of planktons in fish ponds. This led him to understand and adopt the aqua farming and hence helped him to increase fish production in his ponds.



Outcome of the activity:

With the implementation of RKVY scheme interest & zeal to learn the concept of aquaculture, provision of adequate financial assistance from the scheme, technical inputs, training and exposure visits, the farmer was made to understand the basic phenomenon of fish farming. Stocking of good

quality fish seed from the departmental fish seed farm, adequate advisory on number & appropriate size of seed stocking resulted in good yield of 12 qtls valued to Rs. 240,000/-rupees @ Rs. 200/- per kg sold at his own Dhabha at Rajgarh. The pattern of culture the farmer adopted was, initially he used part of the farm land filled with water rest part of the farm was still suffering from water seepage problem. From the operational farm part he could yield this production with average productivity of 0.250kg/sq mtr. Though it was just 1/4th of the level of productivity achieved in district Sirmour, But it was due to poor texture of soil of ponds, poor retentivity of the ponds which further retard the growth factors like natural food chain which led to such production results. Despite, the land was improved in terms of nutrient levels, soil making and productivity. The income from this land was earlier meager from traditional culture activities. With the continued fish farming in these ponds for 3-4 crops, the ponds shall be drained off and will be available for the farming of leguminous crops for one season for enrichment of nitrogen in the pond soils and will further enhance the fish productivity of the land under farming.

Impact:

Though the scheme on this pattern to the farmers was limited but it was 1st unit of this kind in the district Sirmour. Influenced by the outcome of the scheme more fish farmers are approaching this office. Mr Partap Chand, Kapil, Rajesh Kumar, Ravi Kumar of the locality was given assistance by this department from another scheme of NMPS with 40% subsidy on the construction of ponds and 1st year inputs. More demands from trout growers has also been generated by this unit despite the technical issues of temperature and quantity/discharge rate of water flow required for this culture are limiting factors in this area. More units are being in demand of the locality through blue revolution scheme.

Observations:

This trains the farmers and extension staff how to make such soils productive, good formations and how to arrest water seepage in ponds, storage practices to increase the moisture contents in adjacent soils making them more suitable for other crops in demand. It was also observed that providing periodic technical inputs & their follow ups help the farmer to build up the confidence while adopting the new technologies which help them to boost their economy. It is also important to mention that problems in such soil strata can be overcome, it is analysed initially the rectified with suitable soil components after studying the chemistry of both soils & water to establish

good standing crops of planktons before resorting to seed stocking in such ponds.



Thus the scheme has been successful despite there is more scope of improvement exists technically and hence yield can be enhanced to new levels. This was ever first units of RKVY in aquaculture sector in the district and have been successful in creating awareness among other farmer community to make their farming more productive, diversified and economically viable.

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Fisher family happy family