

SUCCESS STORY OF A VERY SUSTAINABLE INTEGRATED FARMING SYSTEM- PADDY CUM FISH

By: Smt Banylla Kharbamon SMS (Horticulture)
Smt J.K. Marak SMS (Fisheries)

Introduction

Paddy is the major crop of the NICRA village Umjalasiaw; it is their main source of income. Catching fish from rice fields is a common practice between the village people since long ago. In some areas, irrigation-fed rice fields have also been adapted locally by the farmers to include fish farming. Traditional rice-fish production systems have an important socioeconomic part in the life of the farmers in the region. Integrated farming activity has opened new horizons of increasing production per unit area at low inputs through an increased interest in utilization of animal manures as a substitute of high cost of major inputs also the movement of fishes in rice field increases the availability of nitrogen and phosphorus thereby improving the fertility of soil. It is also shown to improve diversification, intensification and sustainability.

KVK Intervention

With the help of Krishi Vigyan Kendra Jaintia Hills, an improved technology on rice fish integration developed by ICAR, Umiam (2013) was demonstrated in the village at the paddy field of Smt Partial Suting in an area of 0.05 ha.

Output and Outcome:

A low lying area which retains water for 4-6 months has been opted for rice-fish farming under mid hill condition. The rice fish plot (500sq.mt) was design with perimeter canal (size 1mt width & 0.5m depth) for rearing improved variety of common carp called Amur carp and local common carp at a stocking density of 4000 nos. per ha . A Paddy (local variety) was transplanted in the 2nd week of July and after 21 days of transplantation an amur carp and local common carp of size 10-15 cm length were released in the ratio of 1:1. The total nos. of fingerlings released was 200 Nos. The fishes were harvested in the month of November at the time of harvesting of paddy. Apparently Amur carp obtained an average growth of 250 gm and the average growth of local common carp was recorded to be 190 gm after 120 days culture duration. The survival percentage of fish was 90-95%. The yield of paddy was 50kg and total fish yield was 20kg and the farmer could get gross income of Rs. 5250 and net profit of Rs.2750 from 0.05ha and B:C ratio 2.1:1 without any external input. This technology provided the farmer with better livelihood and efficient use of available resources.

Impact:

The intervention of Rice –cum-fish culture has resulted in improving income of the farmers, improves the yield of paddy and increase nutrient intake which brings food security for them. The culture of fish in rice fields also enhance the sustainability of rice farming, since indications are the presence of fish makes the rice field ecosystem more balanced and stable with fish removing the insect pest population to tolerable levels, the contamination of water and soil by pesticides may be curtailed. This technology is very much accepted by the farmer and now she is planning to increase her area. Now, other 2 farmers are eager to adopt this technology seeing its profitability and sustainability.



Image: Releasing of fingerlings in paddy cum fish plot



Image: Field day of paddy cum fish



Image: Fish harvested from the paddy fields