

CROP DIVERSIFICATION : FOR PROFITABILITY, FOOD AND NUTRITIONAL SECURITY

Name and Address of the Farmer

Name : Sri, Indu Bhusan Swain
Village : Boria
Block : Kesinga
District : Kalahandi
Enterprise : Paddy, Pigeon pea, Banana and Cotton

Background Information:

Kalahandi is a tribal dominated district of Odisha and majority of the population depend on agriculture as their primary source of livelihood. Village Boria is situated at 30 km away from Bhawanipatna. Paddy is the only crop was grown during Kharif. During a diagnostic visit the scientist encouraged the farmers to go for low value to high value crops and from high water requiring crops to low water requiring crops. Along with Paddy in Kharif some pulses, oilseed, short duration fruits and vegetables can also be grown which has higher profitability and production potentiality that can play a big role in changing their livelihood besides providing nutritional security. During 2012-13, Pigeon pea Var. ICPL 87-119 was demonstrated in the farmers field of that village.

Sj. Indu Bhusan Swain, one of the farmers of the village was earning his livelihood from 16 acres of land. Due to traditional method of rice cultivation and poor crop productivity, he was not satisfied with the lower income. He used to cultivate only paddy both in the upland and low land. Sri Swain, after consulting with the KVK Scientists, was convinced to grow pigeon pea, cotton and banana along with Kharif paddy. He grows paddy, banana and cotton in 5 ac, 10 ac and 1 ac area respectively.

Description of the Technology:

Arhar : Line sowing of Pigeon pea (Var. ICPL 87-119) seeds (45 X30cm) ,Seed treatment with Rhizobium culture (1kg seed @ 20gms of culture) , Application of NPK @20:40:20 kg/ha as basal application, Weed management after 21 days of sowing ,Spraying of Chloropyriphos (2ml/lit of water) and planofix hormone (1 ml /4lit of water).

Banana and Cotton: Crop cultivation with complete Package of Practice.

Dissemination of Technology:

Capacity building through training, FLD OFT and other extension activities,Diagnostic visit of KVK Scientist time to time, Method demonstration showcasing all the package of practices, Distribution of extension literature on management practices of Pigeon pea, banana and cotton etc. ATMA (Dept.of Agriculture) and Horticulture (under NHM), also extended their helping hand by providing frequent training programmes to update their knowledge level

and different , Linkage with ICRISAT, Department of Horticulture and Agriculture was facilitated for inputs and all Govt. supports.

Success Point:

Arhar: On time sowing of the seed and seed treatment with Rhizobium culture, Application of recommended dose of fertilizer, Optimum care during critical growth stage of the crop, IPM and Weed management, Increase in knowledge and exposure to new technologies.

Banana and Cotton:

Adoption of improved technologies like proper planning, layout, planting, INM, IPM, etc. in banana and cotton. Marketing information gave him a great support to sell the harvested produce, which earned him maximum rates and fetches good profits. Shifted from monoculture of paddy cultivation to Arhar, Cotton and Banana cultivation.

Outcome

Productivity of Pigeon pea (Asha) recorded a higher yield of 30.4 % over local variety. He got a net profit of Rs. 4, 27,300/- per year.

Crop	Area (ha)	Yield (Q/ha)	Cost of cultivation (Rs./ha)	Gross Return (Rs./ha)	Net Return (Rs./ha)	Total Gross income (Rs.)	Total Net Income (Rs.)	BC Ratio
Rice	2.0	35	21,500	35,000	13,500	70,000	26,000	1.62
Arhar	5.0	15	25,000	73,500	48,500	3,67,500	2,42,500	2.94
Banana	1.0		1,00,000	2,50,000	1,50,000	2,50,000	1,50,000	2.50
Cotton	0.4	17.5	22,000	68,250	46,250	27,300	8800	3.10
TOTAL						7,14,800	4,27,300	

IMPACT

Horizontal expansion of pigeon pea is remarkable. Area of Pigeon pea has been increased from 5 ha to 80 ha. Farmers are now much aware to produce the HYV of Pulses rather than local degenerated variety. Area under tissue culture banana and cotton also enhanced in Boria and nearby villages. Net income of Sri, Swain is Rs. 4, 27,300/- (Rice, Arhar, Banana and Cotton). By seeing his success farmers are shifting from monoculture paddy cultivation to Pulse (Arhar), Banana and cotton cultivation. Farmers from inside, outside the district and also from outside states are visiting his farm and he became a source of inspiration for others.