

1. **Title: Better livelihood through Pumpkin cultivation in sand and silt deposited areas of Assam**

2. **Category: Natural Resources management**

3. **Challenges :** In light soil (river bank), growing of pumpkin during Rabi season is difficult as water availability becomes very low due to low water holding capacity and irrigation cost is increased manifold. So growing the crop in Rabi season crop is not found to be profitable.

4. **Initiative:** Pumpkin is playing a key role in bringing vegetable revolution in Balitara area of Nalbari district, and it has not happened elsewhere in Assam on a commercial basis before it was initiated in Balitara area preponing the cultivation time. An innovative farmer from Balitara, Mr. Pankaj Kalita is the man behind this revolution. Mr. Kalita started his career as a teacher in a venture college but due to his keen interest in farming and financial hardship, he chose agriculture as source of livelihood. Mr. Kalita has been engaged in farm activities since 1996-97. The income from his farm activity was meagre for leading a smooth life. Meanwhile the devastating flood during 2004 damaged most of his paddy fields. He had to fight with the situation. Mr. Kalita rushed to the newly established Krishi Vigyan Kendra (KVK), Nalbari to obtain some suggestions in order to overcome the grim situation. The KVK scientists advised him to sow coriander in his silt deposited fields. The performance of coriander was excellent and he earned a good amount from coriander that year. And that might have given him confidence to plan his entire agricultural activity in a different way. Later, under the technical guidance of KVK, Nalbari Mr. Kalita started cultivation of pumpkin along with other crops. Having seen the profitability of pumpkin in the first year, he expanded the area under pumpkin. He succeeded in establishing pumpkin as a highly profitable vegetable. So for provisioning livelihood security under RKVY in that sand and silt deposited area of Chengnoi, pumpkin cultivation was initiated during 2013-14 and 2014-15.

He was imparted training with detailed information on pumpkin cultivation by KVK, Nalbari.

5. **Insight:** Mr. Kalita preponed the planting time of Rabi pumpkin to July-August and it was found that change in planting time helps in reducing irrigation cost to a considerable extent. Else planting during normal time in silt

deposited river bank during October-November requires frequent irrigation and adds to production cost. Mr. Kalita's experiment on planting time proved to be a successful one as early planting helps in fetching good market price due to the market demand besides reducing the cost of irrigation. In the year 2014, Mr. Pankaj Kalita initiated zero tillage of raising pumpkin in his field. One month after sowing he destroyed the weeds by using herbicides in the inter row space. It also proved to be profitable as zero tillage reduces input cost. He observed that planting pumpkin in sandy river bank soil instead of normal traditional areas gave good crop performance. In the year 2012 he formed Seven Star Vegetable Grower Society with technical guidance from KVK, Nalbari. Around 20 hectares of land on the bank of river Pagladia has been lying fallow for several years in Moriadonga area of Nalbari. The land was covered by jungles. The focus was on early cultivation of pumpkin and they achieved success. In 2015 Pankaj Kalita joined a new farm Jyoti Farmers Club at Changnoi having farm size of about 40 hectares. Within a short time, the farm has attracted many dignitaries and businessmen from Tripura, Nagaland are lifting their farm pumpkin. Scientists of KVK Nalbari guided and helped him in every aspect of pumpkin cultivation. There has been horizontal spread of pumpkin cultivation in Nalbari district and also to neighbouring districts. The Department of Agriculture, Nalbari and financial institutions also giving support to him from time to time in different forms.

6. Impact: There was a tremendous change on knowledge, skill and economic condition of the farmers. Economic of pumpkin cultivation revealed that cost of cultivation grown in an area of 1 ha was Rs 35,250.00 which gave gross and net returns of `2,25,000.00 and `1,89,750.00, respectively for the year 2014-15. The benefit : cost ratio worked out on the basis of net returns and cost of cultivation was 1: 5.38, which is a remarkable achievement. Pumpkin was sold from the farm at the rate of rupees 1500/- per quintal. Mr Pankaj Kalita is source of inspiration for the farmers of that area. The area under pumpkin increased many folds in the district. Mr. Kalita channelized the marketing of pumpkin for all the producers of that area. Many NGOs have started conducting their training programmes at Kalita's farm to share his experiences of pumpkin cultivation with the participants. Such kind of his motivational talks boost the confidence of his fellow farmers. Large number of dignitaries including MP and MLAs has also visited his field and highly appreciated the cultivation of pumpkin in commercial basis in such a remote village.

7. Lessons learned: It was challenging because the farmers were keeping the sand and silt deposited areas fallow and strategy had to be made for utilizing that fallow land for bringing pumpkin revolution in the district.

Moreover a holistic approach is required for organizing farmers for group farming.

8. Supporting quotes: “Pumpkin cultivation in the Chengnoi area has given Nalbari district a unique place in the horticultural road map of the district” - Dr Mridul Deka, Sr. Scientist and Head, KVK, Nalbari.

“Pumpkin cultivation has earned me respect as a farmer all over the state and I feel proud that I am contributing towards its promotion as I am sending truckloads of pumpkin to states like Tripura and neighbouring districts” - Pankaj Kalita, Farmer, Balitara.

9. Convergence: It was convergence mode with District Agricultural Office, NABARD *etc.* that contributed to successful implementation of the programme in the district.
