More than 67% of Bhadrak district (Orissa state) population is resource poor and living below the poverty line. Resource poor farmers and farm women usually have employment during kharif season and remain unemployed rest of the year. Food security is a major problem in this district.

Elephant foot yam (Amorphophallus paeoniifolius) a tropical tuber crop is found throughout Orissa as a wild crop. People during off-season collect the tubers from nearby community lands, mango orchards, forests etc. The wild type of elephant foot yam is having itching property, and hence majority of the people do not consume the tubers. Regional Centre of Central Tuber Crops Research Institute, Bhubaneswar is popularizing ‘Gajendra’ a non acrid variety throughout Orissa. The yield potential of ‘Gajendra’ is very high. It yields about 3-4 kg/plant in well managed fields. The average multiplication rate is 7-8 times. It is rich in calcium, phosphorus and other minerals and vitamins.

Krishi Vigyan Kendra, Ranital, Bhadrak has introduced elephant foot yam in its adopted villages-Gopalpur, Janajodi and Madhusudanpur to create supplementary income during off-season. KVK has selected thirty farm families belonging to two self-help groups and two farmers club in these three villages. The farmers were trained on production technology of elephant food yam for enriching technical know how on elephant food yam cultivation.

During 2007-08 (kharif) and 2008-09 (kharif), all the trained farmers were given 25 kg elephant foot yam to be planted in 40 m² small plot each in homestead garden. Elephant foot yam was planted during second fortnight of June at 90 cm x 90 cm spacing. A pit size of 30 cm x 30 cm x 30 cm was dug out. Then a well decomposed cow manure 2 kg was mixed with the top soil and filled ¾th of the pit. 500 g cut tubers of elephant foot yam were treated with cow dung slurry (one kg of fresh cow dung in one litre of water) one day before planting on the pit and then closed the pit with the remaining soil and small mound was formed on the pit. Crops like cowpea, cucumber, leaf vegetables etc were grown as intercrop in the elephant foot yam. The farmers duly followed other recommended package of practices. Each farmer harvested about 150-175 kg corm within 6-7 months after planting. During evaluation of the demonstrations, we realized that elephant foot yam cultivation has played an important role as a supplementary source of household food and nutritional security as well as petty cash.
income for these resource poor farm families.

Farmers used elephant food yam as a vegetable as well as a supplementary source of petty cash. There is a great demand for Gajendra variety of elephant foot yam and farmers can easily sell the produce in the market. When there is an urgent need of petty cash, they can take two to three tubers to the market for sale. As elephant food yam is a cheap source of carbohydrate and is rich in minerals and vitamins, it has potential to provide household food and nutritional security among resource poor farm families. During evaluation of the demonstration it was found that women farmers were more interested in elephant foot yam cultivation. Household consumption 30% of the produce was used and the remaining 70% was sold at the rate of Rs18-20/kg in local Bhadrak market. Each farmer sold elephant foot yam tubers to the tune of Rs 1000. Short duration vegetables such as cowpea, leafy green vegetables, black gram, green gram, cucumber etc. grown as intercrop provided additional income apart from household consumption. Elephant foot yam storability of 5-6 months gave farmers more flexibility in marketing. Consumption of elephant foot yam depends on family needs and market price. Interestingly some farmers were preparing pickles from elephant foot yam for household consumption. All the farmers were continuing the cultivation of elephant foot yam in their homestead garden.

The cultivation of elephant food yam variety ‘Gajendra’ in large scale will play a possible role in improving livelihood among resource poor farmers by providing household security and supplementary income as well as empowering women.

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