

## Personal Details



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## Research Interest

Growth regulation and nursery management and Breeding of fruit crops breeding

## Research Highlights

- Under NAIP project, I established 14 multi-tier cropping system (mango+guava+vegetables) orchards (0.80-1.0 acre) in Jamtara and Dumka districts of Jharkhand. Orchards are now in bearing stage. To address the nutritional security, 1175 fruit plants including mango (477), guava (294), aonla (165) and papaya (239) were planted in Bariland of 229 households of Dumka and Jamtara districts.
- In bael project, wedge grafting accounted for the maximum success percent (78.64) with higher scion length (5.98 cm) than the patch budding method in second year. Bael can be stored up to 35 days with minimum 40 per cent spoilage at ambient temperature. Bael can be stored up to 28 days at ambient temperature CFB box packing without spoilage and deterioration of nutritional quality. Bael pulp of cultivar Pant Sujata can be stored upto 2 months at 40C with good quality condition. Eight hundred ppm benzoic acid treatment resulted in maximum retention of TSS, reducing sugar and total sugar content of the bael pulp.
- Induction of flowering and fruitfulness in pear: After leaf fall pear plants, new shoots were pruned from top and branches during December. Two times spray of thio urea 5 % at 14 days interval from last week of January resulted in maximum production of flowering. April sprays of GA3 20 ppm along with copperoxy chloride (0.2 %) gave maximum fruit set at pea nut stage. Per plant yield was 19.5 kg which pave the way for net profit of Rs 175.6 in addition to control yield.
- In guava + pine apple project, soil nitrogen status was highest when 100% recommended dose of fertilizer was given to pineapple [100 % (P)] and 50 % fertilizer to guava [50 % (G)] under local weed mulching in respect of N, P and K. This treatment also accounted for maximum fruit production (22.4 kg pineapple +19.92 kg guava /25 square m plot) in the third year. Regarding fruit quality, the maximum T.S.S and total sugars of pineapple were recorded in F3 fertilizer treatment under plastic mulching. Identification of two promising Mango Hybrids

## Acheivement:

- \*\*\*\*Development of Mango Hybrid.1: Langra X Kesar( Row-2,Plant-4)According to first year Yield: 250 gm fruit weight, TSS=18.5 Degree Brix after ripening it becomes golden yellow in colour, 7 years plant yielded 12.50 kg fruits. Flesh Yellow: Post harvest life:7-10 days. Proposed name: Swarna Shova
- \*\*\*\*Development of Mango Hybrid.2: Langra X Vanraj( Row-1,Plant-1)  
Swarna Labanya: Fruit weight =250 grams ,TSS =170B, having Prominent Red blushed.
- \*\*\*Development of guava+Pine apple two –tier cropping system for eastern plateau and Hill Region:

## Memberships / Fellowships

## Technology Developed

- 1.Methodology :Top veneer Grafting : 2001 Individual Before grafting root stocks were 100 % defoliated by beheading. Then below the top side veneer grafting was performed. One year old root stocks were used and scions were defoliated 7-10 days before grafting.
2. Methodology : Induction of flowering and fruiting of pear

## Publication Details

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