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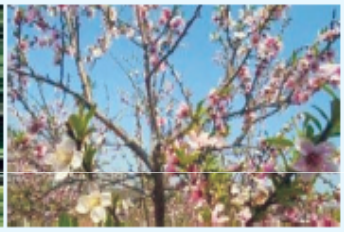
Peach – A profitable fruit plant

The present study was initiated in 2008 for identifying most compatible intercrops with peach plants and to ascertain the effect of different moisture conservation practices on the growth performance and fruit yield of peach plants. One-year old grafted saplings of peach cultivar *Shan-E-Punjab* were procured from PAU and planted in a pit size of $1m^3$ dug out at 6m × 6m spacing during January 2008.

Managing peach tree

Peach orchard



Peach blossom

The intercrops viz. sorghum (*Sorghum bicolor L.*), pearl millet (*Pennisetum typhoides*) and cluster bean (*Cyamopsis tetragonaloba*) were sown in *kharif* season. The moisture conservation practices for peach plants include: (i) Control (flat basin), ii) Trench (1m*0.3m*0.3m, l*b*d), and (iii) Circular Trench (0.3m*0.3m, b*d, 50cm away from trunk). The study consisted of 12 treatments given below:

1. Pure Peach (control)
2. Peach + Trench
3. Peach + Circular Trench
4. Peach + Sorghum
5. Peach + Pearl Millet
6. Peach + Cluster Bean
7. Peach + Sorghum + Trench
8. Peach + Pearl Millet + Trench
9. Peach + Cluster Bean + Trench
10. Peach + Sorghum + Circular Trench
11. Peach + Pearl Millet + Circular Trench
12. Peach + Cluster Bean + Circular Trench

The results of the 9-year study indicated that average plant height (5.74 m), spread (7.92 m) and fruit yield (137 kg/plant) was obtained maximum in Peach + Guar + Circular Trench as compared to other treatments. Plant height ranged from 4.40 m to 5.74 m, spread from 5.90 m to 7.92 m and yield from 103.25 kg/plant to 137.0 kg/plant among various treatments. Peach + Circular Trench + Cluster Bean combination was found most effective in conserving the most precious natural resources viz; soil and water by producing minimum run off and sediment loss of 3.49% and 0.69 t/ha respectively. The Control/Pure plantation produced maximum run off of 10.32% and sediment loss of 2.12 t/ha. Among various treatments, B : C ratio ranged from 3.83 to 5.24, maximum in Peach + Cluster Bean + Circular Trench with a payback period of 6-7 years.

The first sample fruiting was obtained/harvested after 3rd year of plantation in 2010 and in a span of 8 years, peach plantation gave a gross revenue of ₹23.98 lakh and the productivity ranged from 4.43 t/ha – 38.10 t/ha (2010-17). Maximum gross revenue per plant was obtained at ₹2800 in the year 2016.

These findings can be implemented in the Shivaliks of Jammu, Himachal Pradesh, Punjab, Haryana and Uttarakhand experiencing sub-tropical climate and hilly areas of Punjab and Nilgiris. Due to high returns per unit area and low gestation period and availability of low chilling cultivars, there is a good scope for cultivation of peach in the North Indian subtropics and plains of Uttar Pradesh, Bihar and West Bengal which falls in Indo-Gangetic plains.

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