



## **26. Apple based Horti-agri-pasture system under temperate conditions of Kashmir valley**

Type: New Technique  
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Patent: NA

### **Name of Inventor**

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### **Description of technology**

The technology has been devised for existing apple orchards of the valley

The interspaces at the ground level in orchards can be effectively utilized for raising of different fodder and agricultural crops so as to tide over the food and fodder scarcity in the state and at the same time increase production per unit area

Different agricultural and fodder crop combinations viz. *Trifolium repense*, *Dactylis glomerata*, *Trifolium alexandrinum*, *Medicago sativa* and aromatic crop *Artemisia absinthium* are intercropped in apple based agroforestry with tree density of 610 trees per ha



### **Impact**

The yield of apple was recorded maximum ( $12.40 \text{ t ha}^{-1}$ ) in combination with Lucerne (*Medicago sativa*) followed by that ( $11.69 \text{ t ha}^{-1}$ ) in combination with Artemisia  
Apple+ Orchard grass recorded maximum yield of green fodder ( $23.0 \text{ t ha}^{-1}$ ) followed by Lucerne ( $21 \text{ t ha}^{-1}$ )

Cost and benefit ratio was 1:1.5

### **Commercial applicability**

In the Kashmir region of Jammu and Kashmir, huge tracts are barren and uncultivated and these areas can be targeted for agroforestry systems.

Alley cropping system with different crop combinations and tree spacing reduce the soil erosion due to rains and at the same time improves water infiltration and water holding capacity