Effects of plant growth, regulators on physical and chemical characteristics of apple cv. RED DELICIOUS
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ABSTRACT
The investigations were carried out to study the effect of plant growth regulators on physical and chemical characteristics of apple was carried at Division of pomology SKUAST (K) Shalimar campus on “Red delicious” tree during the cropping seasons 2001-2002. Paclobutrazol was applied through soil to the basin of the tree as per the trunk diameter and gibberelllic acid and benzyl adenine was sprayed at two different flowering stages, application of paclobutrazol decrease tree limb girth, shoot Extension, length, breath L/D ratio, pedicel length, acidity and ascorbic acid of fruits. Paclobutrozol increased to total soluble solids and firmness of fruits. He physiological loss weight and acidity were reduced gibberelllic acid and benzyl adenine changed the influence of paclobutrazol.

MATERIALS AND METHODS
The present investigation on the effect of plant growth regulators an physical and chemical characteristics of apple was conducted in the division of pomology SKUASTCK in the year 2001-2002. Red delicious apple of 20 years old trees were selected for the studies and laid out in randomized black design with one tree per treatment replicated thrice. During the entire period of experimentation all the trees were given uniform cultural practices including fertilizers application, insect pest and disease control. Paclobutrozol was applied as a soil drench around the tree away from trunk under the canopy area, GA3 and BA was sprayed at two different flowering stages, one at king bloom and second at petal fall stage. At the time of harvest, fruit yield was recorded in terms of number of standard wooden boxes removed from each tree. The observation on fruit length /breadth and fruit weight were recorded from ten fruit per tree and mean was work out. Fruit color was recorded by comparing green to red color ratio. Total soluble solids were determined by hand refractometer made in Itely (A.O.A.1970). Titrable acidity, total sugars reducing sugars and non reducing sugar were determined by A.O.A. 1970.

TREATMENT :
T1-Control
T2 -125mg PBZ cm \(^{-1}\) T-D
T3- 250 PBZ/cm T-D
T4 -35mg cm \(^{-1}\) T-D
T5 125 mg T-D + 25 ppm + 25 ppm BA At Ist bloom
T6 -PBZ @ 250mg cm \(^{-1}\) T-D+25ppm G.A+25ppm BA
T7 –PBZ@ 375 mg cm \(^{-1}\) T-D+ 25ppm G.A+25 ppm B.A
T8- PBZ@ 125mg cm \(^{-1}\) T-D +25 ppm G.A + 25 ppm B.A
T9- PBZ @ 250 mg cm \(^{-1}\) T-D + 25 ppm G.A + 25 ppm B.A
T10 –PBZ@ 375 mg cm \(^{-1}\) T-D +25 ppm G.A + 25 ppm B.A (T=Treatments T-D=Trunk Diameter
PBZ= Pactobutrazol)

RESULTS AND DISCUSSION
In the present study the soil application alone and in