# Return on Investment (ROI)**

**We consider the case of employing this machine in Maharashtra.**

In Maharashtra,

Onion Cultivation = 48k Hectares

Talukas in Maharashtra = 358

∴ Cultivation per Taluka = 134 Hectare = 331 Acres

Fuel/Acre reqd. = 9L (Harvester) + 6L (Tractor) = 15L/Acre

Max. Cost of Diesel = ₹80/L

**∴ Total cost of Diesel = 15 * 80 = ₹1200/Acre**

**Cost a Machine owner charges a Farmer = ₹ 4000/Acre**

**∴ Profit Earned by the owner = ₹2800/Acre**

Considering that there is 1 Machine/Taluka,

**Total Profit = 2800 * 331 = ₹9.27Lakhs**

Machine Cost = 8.37 Lakhs (SolidWorks Cost Report) + 1.63Lakhs (Panelling + Fasteners + Welding)

**= ₹10Lakhs**

Considering Life of Machine as 10years,

Profit Earned = 9.27 * 10 = ₹92.7Lakhs

Money for maintenance = ₹2.7Lakhs

**∴ Net Profit Earned = ₹90Lakhs**

ROI = (Value of Investment – Cost of Investment)/ Cost of Investment = (90-10)/10

**∴ ROI = 8**

Also, the Farmer used to spend ₹7000/Acre on Manual Labour

**∴ Profit Earned by Farmer = ₹3000/Acre**

Reference –

*https://www.thehindubusinessline.com/news/national/Onion-cultivation-on-the-rise-in-some-districts-of-Maharashtra/article20690178.ece*

** Most of the values in this report have been calculated or obtained from the Design Calculation Report and SolidWorks Cost Report. However, some have been approximated in a conservative manner to make the calculations simple and easy to understand the estimation of the ROI.