**INTRODUCTION**

**-A**g r ic u l t u r e

Tamil Nadu being 7th largest area in India has 6th largest population. It is t e leading producer o f agriculture products. Agriculture is the main occupation of Tamil Nadu people. Agriculture has a sound tone in this competitive world. Cauvery is the main source o f water. Cauvery delta regions are called as rice bowl of Tamil Nadu. Rice is the major crop grown in Tamil Nadu. Other crops like Paddy, Sugarcane, Cotton, Coconut and groundnut are grown. Bio-fertilizers are produced efficiently. Many areas Farming acts as major source o f occupation

Agriculture makes a dramatic impact in the economy o f a country. Due to the change o f natural factors, Agriculture farming is degrading now-a days. Agriculture directly depends on the environmental factors such as sunlight, humidity, soil type, rainfall, Maximum and Minimum Temperature, climate, fertilizers, pesticides etc. Knowledge of proper harvesting o f crops is in need to bloom in Agriculture. India has seasons of

1. Winter which occurs from December to March

2. Summer season from April to June

3. Monsoon or rainy season lasting from July to September and

4. Post-mon oon or autumn season occurring from October to November.

Due to the diversity of season and rainfall, assessment of suitable crops to cultivate is necessary. Farmers face major problems such as crop management, expected crop yield an productive yield from the crops. Farmers or cultivators need proper assistant regarding crop cultivation as now-a-days many fresh youngsters are interested in agriculture

Impact of IT sector in assessing real world problem is moving at a faster rate. Data is increasing day by day in field o f agriculture. With the advancement in Internet o f Things, there are ways to grasp huge data in field of Agriculture. There is a need of a system to have obvious analyzes o f data of agriculture and extract or use useful information from the spreading data. To get insights from data, it has to be learnt.

**II. K**n o w l e d g e d is c o v e r y i n d a t a b a s e s Extracting knowledge from the data set is the process of mining. It aims to give accurate results to farmers. It finds hidden patterns. It discovers useful knowledge from the tremendous data set. It is one o f the processes in Knowledge Discovery in Databases (KDD). Apart from the KDD process, in recent days with the development in IT world, Machine Learning has emerged to handle big volume o f data and involves high performance computing too. Application of Machine Learning in Agriculture peaks up day by day. Machine Learning techniques are used in crop management, livestock management, water management and soil management [18recommendation algorithm. They provide personalized products in E-Commerce. These recommendation concepts are used in agriculture in this paper to provide crops to sow. Simple Data Analytics is used on crop dataset and personalization o f agricultural crops are suggested to famers.