



**DAVANGERE UNIVERSITY**

S.J.M. Vidyapeetha (R.)  
**S.J.M. ARTS, SCIENCE & COMMERCE COLLEGE,**  
Chandravalli, Chitradurga - 577 501

**DEPARTMENT OF BOTANY**

*A Project report on*  
**SURVEY OF ONION IN CHITRADURGA TALUK**



*For the partial fulfillment of the requirement for the Degree of*

**BACHELOR OF SCIENCE**

*Submitted by*

<b>PRAMOD PATEL B.N.</b>	<b>U13SJ21S0001</b>
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<b>KRUTHIKA J.N.</b>	<b>U13SJ21S0004</b>
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<b>SARIYA TEHREEM</b>	<b>U13SJ21S0010</b>
<b>DHANRAJ R.S.</b>	<b>U13SJ21S0012</b>

*Under the Guidance of*

**Ms. Heena Kouser**

Lecturer

Department of Botany

**2024**





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S.J.M. Vidyapeetha (R.)

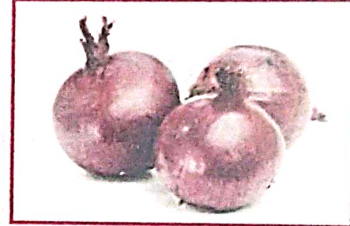
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CHITRADURGA-577502



DEPARTMENT OF BOTANY

## Certificate

This is to certify that the project work entitled "SURVEY OF ONION IN CHITRADURGA TALUK" submitted by **PRAMOD PATEL B.N., CHANDANA B.S., KRUTHIKA J.N., MANJUNATHA P.T., SARIYA TEHREEM and DHANRAJ R.S.** Students of B.Sc., VI Semester Botany of this college has satisfactorily completed the project work assigned to us my guidance as prescribed by the **Davangere University** in partial fulfillment for the award of the degree of Bachelor of Science in Botany and submitted the report during the year 2023-24.

Head of the Department  
(Prof. C.N. Venkatesh)

Guidance  
(Ms. Heena Kousar)

External Examiners

1. \_\_\_\_\_
2. \_\_\_\_\_

Date :

Place : Chitradurga

# Declaration

We hereby declared that the project work on **“SURVEY OF ONION IN CHITRADURGA TALUK”** submitted to Davangere University for the award of Bachelor's Degree in Botany is the result of the bonafide work carried out by me in the Dept. of Botany, S.J.M. Arts, Science & Commerce College, Chandravalli, Chitradurga under the guidance of **Ms. Heena Kousar**, Lecturer, Department of Botany, S.J.M. Arts, Science & Commerce College, Chandravalli, Chitradurga, affiliated to Davangere University during the year 2023-24.

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# Acknowledgement



*Our sincere gratitude to honorable **Prof. Panchakshari**, principal SJM college for rendering his helping hand in providing all facilities*

*We wish to express our deepest gratitude to our Head of the Department **Prof. C.N. Venkatesh**.*

*We wish to express our deepest gratitude to our Guide **Ms. Heena Kousar**.*

*Finally we would like to thanks our **Parents and my dear Friends**, who encouraged and gave inspiration and support in completing this project work. Directly or in indirectly helped us.*

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## INTRODUCTION

Onion is the one of the important cropping plants in Challakere Taluk. The farmers about 80% to 90% working on onion crops. It is also vegetable and growing naturally and astatically. It is good cropping system, because no used the number of equipments, onion needs less equipments but labours are needed.

It is one of the most important crop, made by man. It is also not long seasonal crop. According to the seasons the onion crops are grow by available tools Challekere taluk is best for onion crop system. We are survey the some villages in Challekere taluk, collect the information for 3 to 4 villages like, Kallahalli, Kasarahatii, rellegere. In this villages the 90% to 95% the formers working on onion crops.

According to farmer we collect the information for onion like, climate condition, soil requirement, equipments/tools, labors, fertilizers and also method to control the discard, investment and marketing. According farmer the best seasons for onion crop is October months to December there for 3 months for complete growth of onion actually 90 -100 days the complete growth of onion crop.

The other best season is June months to start the working of onion, by through germinating of leader.

Karnataka is heading for an early and better onion crop this year as it has been free of any pest attack while benefitting from timely monsoon.

Battered by crop loss due to erratic rainfall last year, onion farmers of the district are hoping for a better crop to recover their losses.

“We are expecting the harvest at least a month in advance against the normal harvesting season,” says Mr. P. Vishwanath, technical assistant at the Department of Horticulture, here.



## Survey of onion in Chitradurga Taluk

According to him, the sowing season for the 110-day onion crop begins in May and lasts till July, based on the availability of water.

Following the early spell of rains this year, the sowing started early, therefore, farmers would reap the crop by mid-August.

Onion farmers are happy as the crop has not been infected by any pest that is another prime reason for the crop loss. In some parts of the district, the onion is already around two and half months old.

“Last year, I lost 40 per cent of the crop due to erratic rain and pest attack. But thankfully, this year God has been kind to onion farmers. So far, we have not faced any problem either relating to rain or pest, which means that it will be a good harvest,” says, Mr Mallikarjun, a farmer of B.G. Kere village of Molakalmur taluk of the district.

Chitradurga district, despite having perennial water problems, is a major contributor to Karnataka's onion production.

Onion is cultivated in around 16,000 hectares, of which 5,000 hectares are rain-fed. The district normally produces around 2.5 lakh tonnes onion every year.

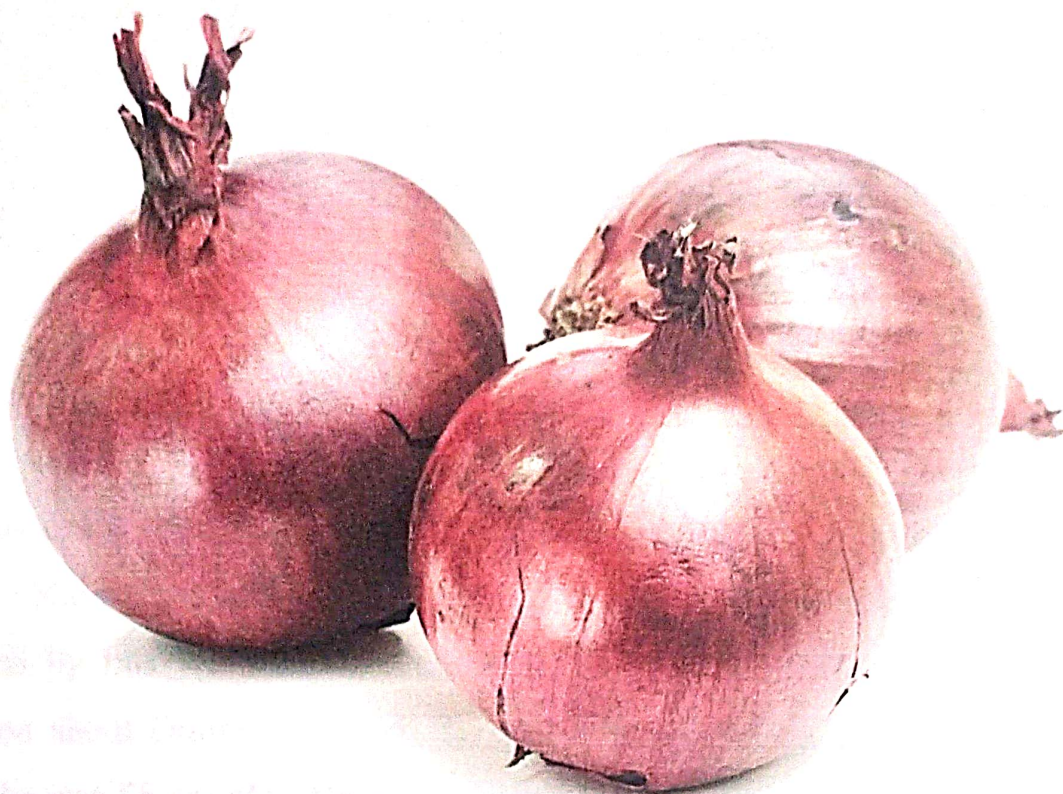
Of the six districts, onion is largely cultivated in Challakere, Molakalmur and parts of Chitradurga taluks.

Besides domestic consumption, a large amount is sent to Bangalore. Some farmers also export the crop to Maharashtra and Kolkata. From Kolkata, it is exported to Bangladesh.

The current wholesale price of onion in the Chitradurga market is Rs. 10/kg while the retail price is around Rs. 14/kg. However, depending on arrival of the crop, the prices are bound to fluctuate in the coming days, says wholesale dealer, Mr Mohammad Nurullah.



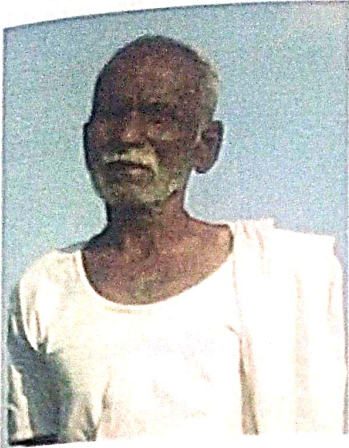
# CLASSIFICATIONS



- Kingdom : Plantae
- Sub-kingdom : Tracheobionta
- Super division : spermatopherka
- Division : magnoliophyta
- Class : Liliopsida
- Sub – class : lilliadae
- Order : lilliales
- Family : liliaceae
- Genius : allium cepa onion



## KASARAHATTI



Name	: Ramayya
Age	: 55 years
Soil	: Red
Fertilizer	: Foul excreta, cattles' dung
Flat	: 5 hectare
Investment	: 130000
Market	: Bangalore

This is the village of Chitradurga taluk which is popularly known for onion cropping. Kasarahatti is about 15 kms apart from the Chitradurga. We went to Kasarahatti by bus we went to Kasarahatti on 19 Feb 2016. For collecting the information about Onion, we meets the senior person in Kasarahatti, his name was Ramaya, he was 55 yrs old. He was cultivating onion from 24 yrs. According to the Ramaya we collect the info about cultivation of onion like climate, condition, Soil requirements, equipments /tools, labours, fertilizer's and method of control of diseases, investment and marketing.

## SEASON

It is not regular crop. It is a seasonal crop. It is cultivated twice in a year. i.e., from June 1<sup>st</sup> to august and October to December.

This season is most fevourable for cropping the onion most of the farmers likes to cultivate the onion in this seasons. Onion should be grown completely in 90 – 100 days actually 3 to 4 months.

## CLIMATE

Onion is a temperate crop but can be grown under a wide range of climatic conditions such as temperate tropical, and sub tropical climate Chitradurga has day deciduous condition. Average temp of Kasarahatti village is about 32 – 33c. This



## Survey of onion in Chitradurga Taluk

temperate is favourable for cropping the onion. Short day onion grown in the plains requires 10 – 12 hours day length. It requires about 70% relative humidity for good growth a/c to the farmers onion should be grown in the places where the average annual rainfall is 650 – 750 mm in monsoon period.

### SOIL

Onion can be grown in all types of soil. For cropping onion, soil plays an important role. There are two types of soil mainly red and black soil. Majority farmers opt the red soil for cropping.

In this village the red soil is suitable for cropping. Red soil gives more moisture holding capacity and sufficient organic matter. Mainly onion is grown in the rainy season. For soil the farmers add the fertilizers like fous and cattles. In this soil the cultivation of onion is very good. The optimum  $P^H$  range of soil is 6.0-7.5.

### WATER FACILITIES

For cultivating of onion water is very much essential, it plays an important role. Ramayya has 5 hectares land. He supplies water through the borewells. In first two weeks water is supplied 2 times. Water supply is done by gents. If the onion is grown in slope areas water supply is done in every 2 days. If the water facilities is not good cropping and onion is very difficult. The farmers will face lot of problems.

**Seeds:** There are many types of onion seeds.

- Namely:**
1. Seethal
  2. Indo America
  3. Nassic Red
  4. Jindhal
  5. Sathara



## Survey of onion in Chitradurga Taluk

The farmer Ramayya has selected Indo-America seed. Account to the farmers. It gives goods yield, it is resistance of disease, it gives good sized & good coloured onions. Most of the farmers are selecting Indo-American seed in Chitradurga taluk.

### **LABOURS**

Onion is one of the labour oriented crop. It does not needs much equipments, in onion cropping the farmer mainly needs labours.

The weed is picked by labours particular ladies for every 15 days, i.e., twice in a month. It needs 5 labours per acre.

The weed picking is done by ladies by using small iron pieces instrument. The weed separation by onion each ladies labour fee per day 150/-. Water supply is done by gents, the man needs the amount 300/-.

### **MARKETING**

Rate of the onion depend upon the marketing and also size of the onion. Mainly grading is done before marketing. There are 3 sizes

Big size

Medium size

Small size

If the size of the onion is big the cast of onion is more big sized onion is more profit. The famers mainly needs labours for grading and packing and transporting the onion to the market. For each packet of onion during marketing it costs about 10 rupees for packet as labours fee.

For big sized onion MRP is about 40 Rs. Per kg.

For medium sized onion MRP is about 30 Rs. Per kg.

For small sized onion MRP is about 20 Rs. Per kg.



# Survey of onion in Chitradurga Taluk

During marketing transportation fee paid by farmers itself.

## **EQUIPMENTS**

There is no need of equipments and tools. It is labour oriented.

## **FERTILIZERS**

The farmer is growing the onion in red soil, he is using the fertilizers like fowl excreta, cattles' dung, urea, potash, insecticides (19 – 96 DAP) (10 – 20 mixture), tonics.

The fertilizers are added once in 25 days.

## **PREPARATION OF SEED**

At the end of the flowering stage, they collect the seeds from the flowers. They dry the seed and the seeds are inserted into the soil. Some of the seeds will grow and some seeds will fail to grow.

## **DISCASES AND CONTROLLING MEASURES**

### **1. KOLE ROGA**

The onion will show yellow colour it is a viral disease it's a dwarf virus.

## **SYMPTOMS**

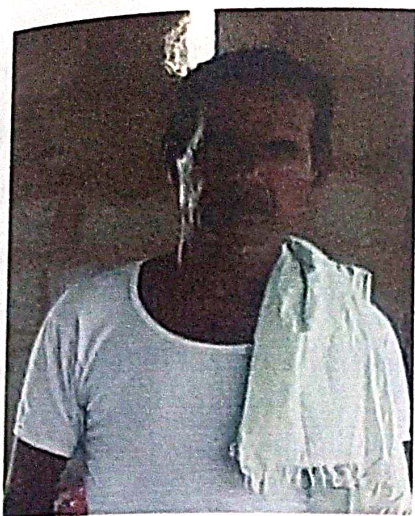
Mild chlorotic stripes to bright yellow stripes, mosaic, curling of leaves and stunted growth.

## **CONTROL**

1. Use virus free planting material.
2. Use resistance cultivators.
3. Aphid control will reduce the incidence of onion yellow dwarf virus.



## KALLAHALLI



Name	: Basavarajappa
Age	: 30 years
Soil	: Red
Fertilizer	: Urea, Potash
Flat	: 3 hectare
Investment	: 80000
Market	: Bangalore

This is the village of Chitradurga taluk which is popularly known for onion cropping. Kallahalli is about 10 kms apart from the Chitradurga. We went to Kallahalli by bike we went to Kallahalli on 15 Feb 2016. For collecting the information about Onion, we meets the senior person in Kallahalli, his name was Basavarajappa, he was 30 yrs old. He was cultivating onion from 14 yrs. According to the Basavarajappa we collect the info about cultivation of onion like climate, condition, Soil requirements, equipments /tools, labours, fertilizer's and method of control of diseases, investment and marketing.

## SEASON

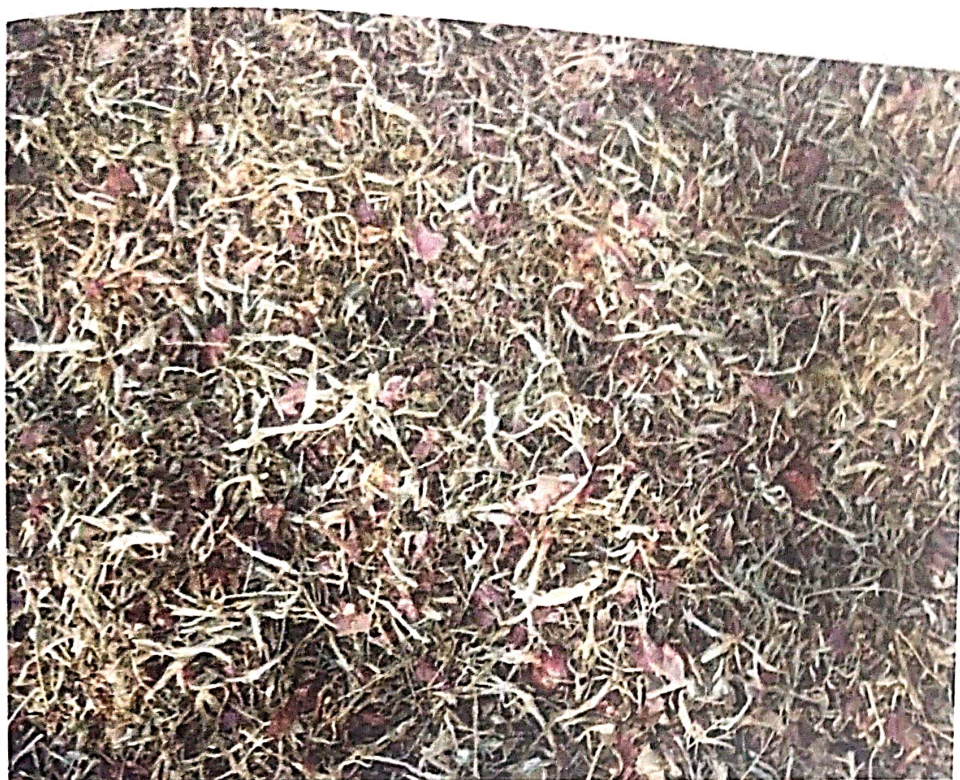
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## SEED PRODUCTION:

### ONION



Seed is the basic unit of crop production and has greater contribution than environment and cultural factors. India needs 6500 tons of onion seed annually for covering 8 lack hectares area. Organized sector contribute around 54% of the total seed requirement & rest is met by farmers own seed, often produced without meeting isolation requirement.

#### 1) Method of seed production

##### a) Seed to seed method

Seedlings after transplanting are allowed to over winter in the field. The bulbs are not lifted and allowed to flower in the same field. This method is not preferred because it doesn't allow the examination of true to typeness of the onion bulb and rouging of off types and diseased and multicentre bulbs. The genetic purity of the seeds produced from such method is usually poor, though the cost of seed production is less compared to bulb to seed method but this method is not preferred.



## Survey of onion in Chitradurga Taluk

Bangalore markets. Transportation charge is payed by farmers itself per acre transportation charge costs about 5,000 – 6000.



On marketing onion are separated as 3 types.

1. Big sizes
2. Medium sizes
3. Small sizes

For big sized onion MRP is about 40 Rs. Per kg for medium sized onion MRP is about 30 Rs. Per kg for small sized onion MRP is about 20 Rs. Per kg



*Survey of onion in Chitradurga Taluk*





## *Survey of onion in Chitradurga Taluk*





