1) INTRODUCTION

1.1 Over view

Please note that agricultural production can vary from year to year due to factors like weather conditions and government policies. For the most up-to-date information, I recommend checking the latest reports and statistics from the Indian government or relevant agricultural agencies.The major crops are wheet ,rice, sugar cane and etc...

1.2 Purpose

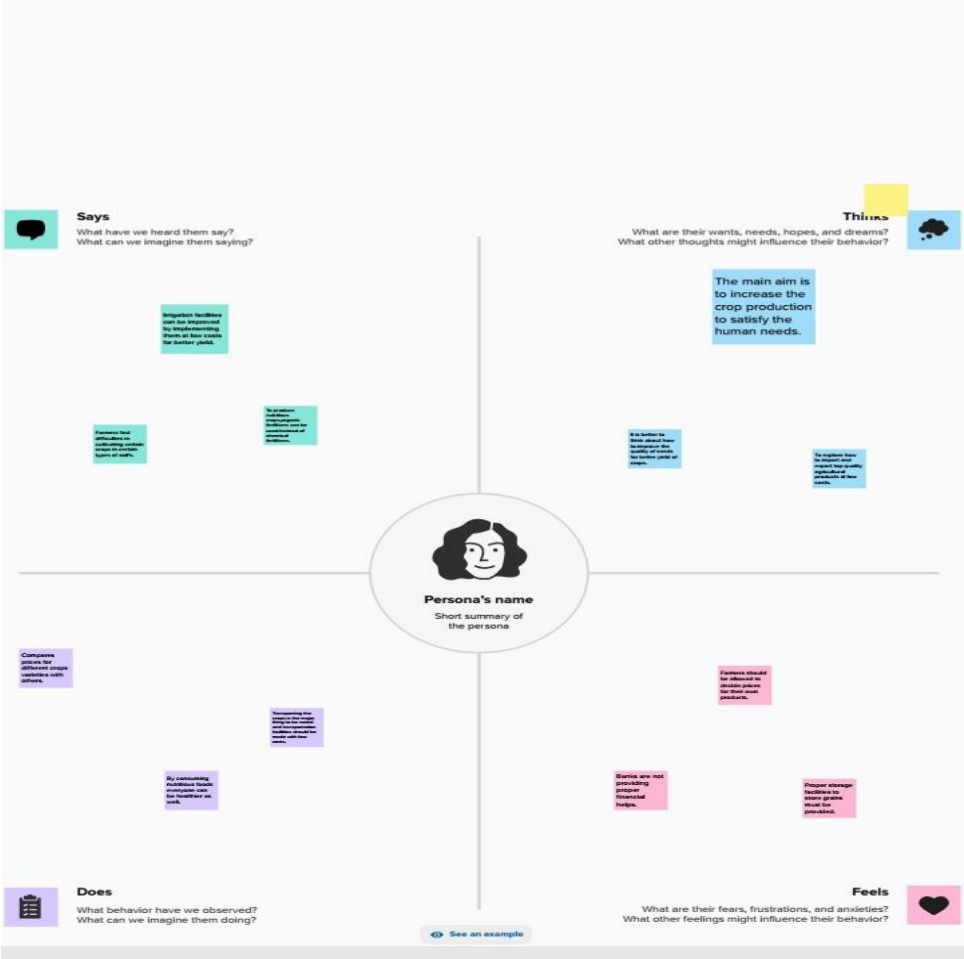
The purpose of agricultural crop production in India is multifaceted:

Food Security: Crop production is essential to ensure an adequate food supply for the

country's growing population. It helps meet the dietary needs of the people .

2)PROBLEM DEFINITION AND DESIGN THINKING

2.1 Empathy Map



2.2 Brain Storming Map

1 Define your problem statement

What problem are you trying to solve? Frame your problem as a How Might We statement. This will be the focus of your brainstorm.

⏱ 5 minutes

PROBLEM

India faces several challenges in its agricultural crop production including water scarcity, soil degradation,pest and disease management,small landholdings,market access,farmer's welfare etc. Addressing the challenges requires a combination of sustainable farming practices and supportive government policies.

Key rules of brainstorming

To run an smooth and productive session

- Stay in topic.
- Encourage wild ideas.
- Defer judgment.
- Listen to others.
- Go for volume.
- If possible, be visual.

2 Brainstorm

Write down any ideas that come to mind that address your problem statement.

⏱ 10 minutes

TIP

You can select a sticky note and hit the pencil [switch to sketch] icon to start drawing!

Person 1

Person 2

Person 3

Person 4

Person 5

Person 6

Person 7

Person 8

3

Group ideas

Take turns sharing your ideas while clustering similar or related notes as you go. Once all sticky notes have been grouped, give each cluster a sentence-like label. If a cluster is bigger than six sticky notes, try and see if you and break it up into smaller sub-groups.

20 minutes

TIP

Add customizable tags to sticky notes to make it easier to find, browse, organize, and categorize important ideas as themes within your mural.

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20 minutes

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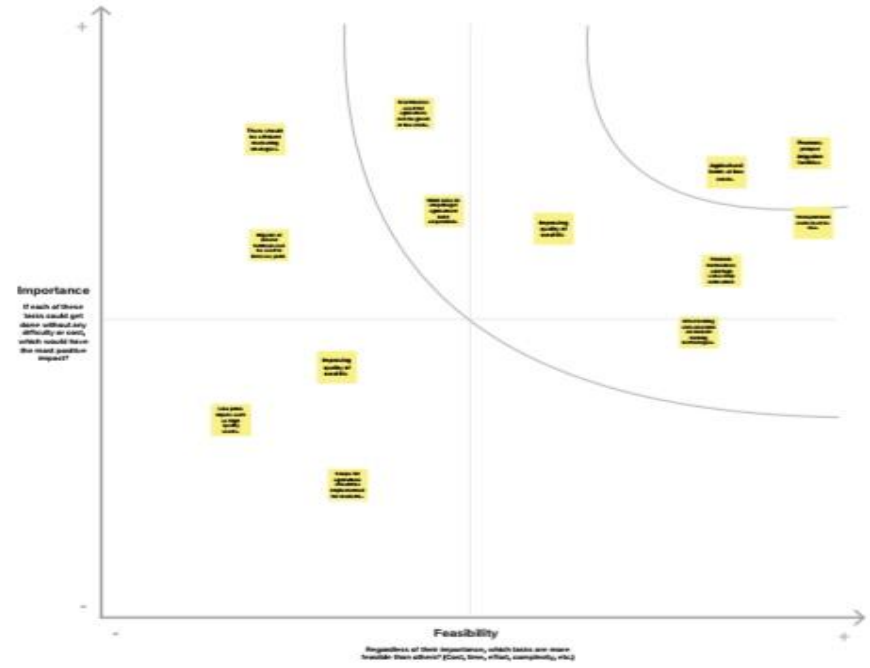
Investing in agricultural research can lead to the development of new crop varieties that are more resistant to pests, diseases and environmental stresses.

4

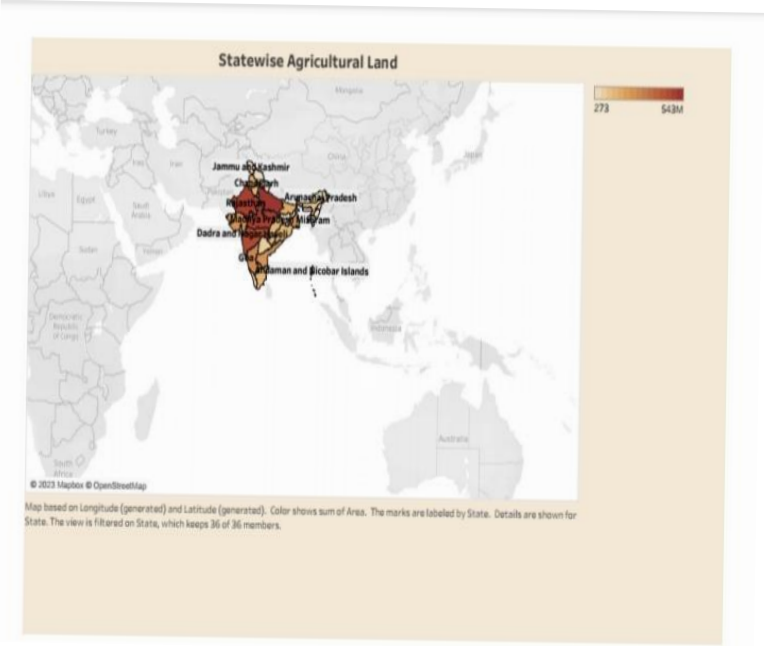
Prioritize

Your team should all be on the same page about what's important moving forward. Place your ideas on this grid to determine which ideas are important and which are feasible.

20 minutes



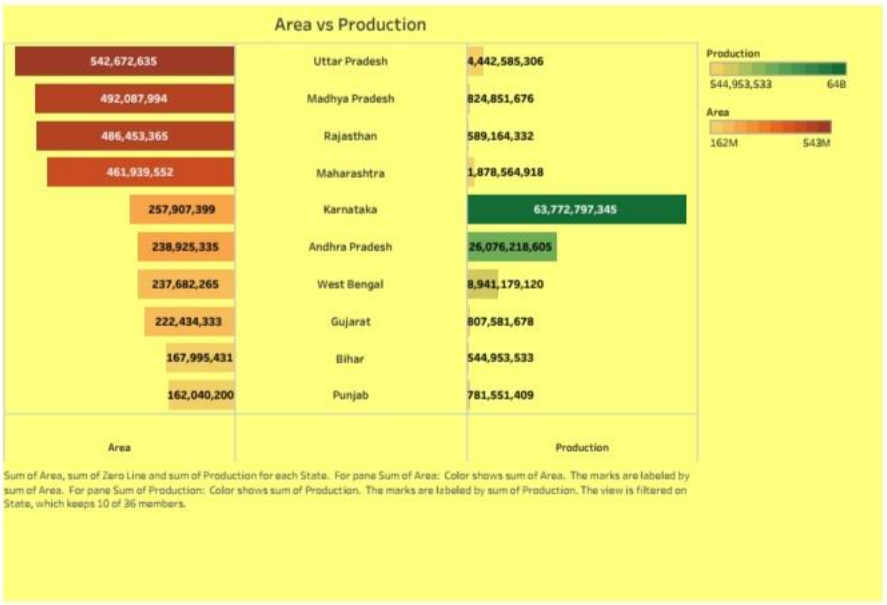
3.RESULT



3.1 Sheet Creation

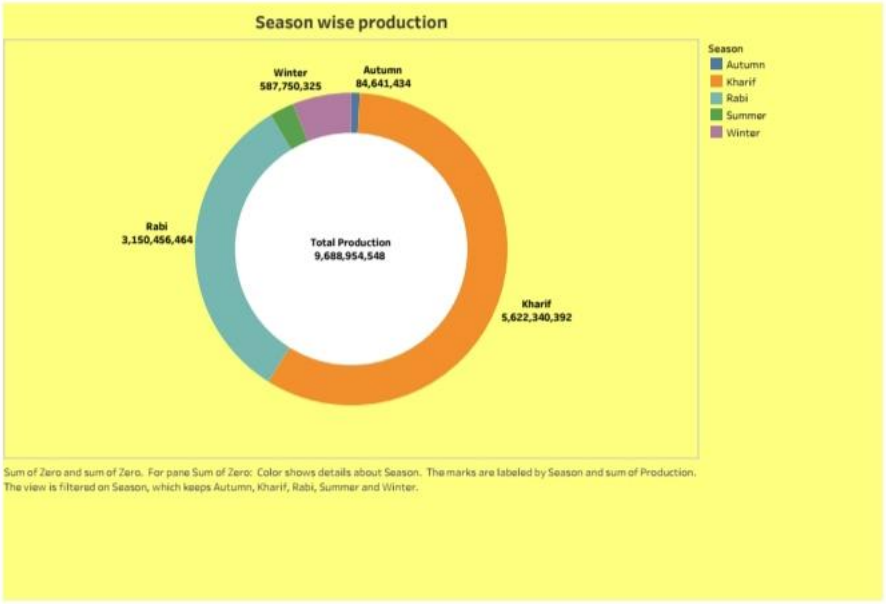
The location of the data can the determined using this sheet. Here,we

used geographical map for finding the location.



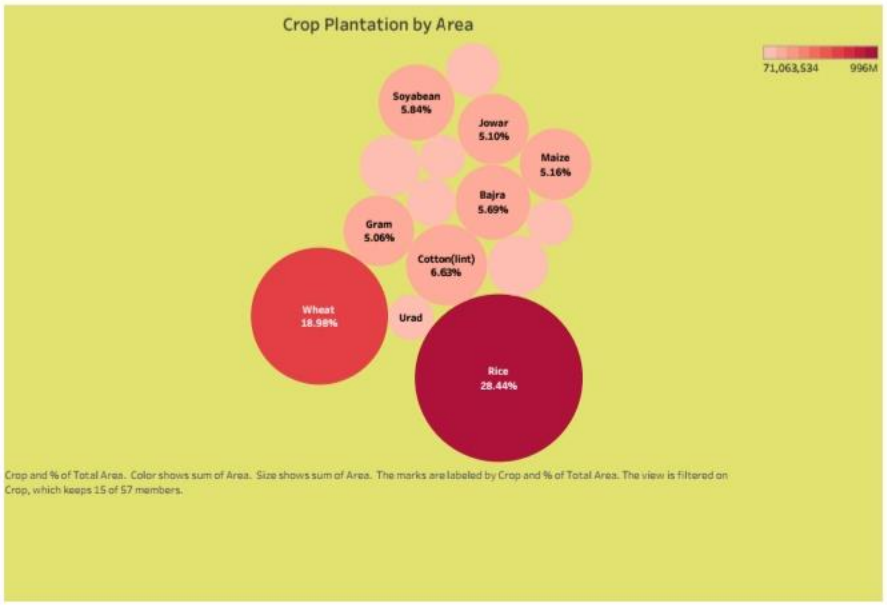
Analysing the area vs production in a given area based acres can provided

insight into they production in that



states.

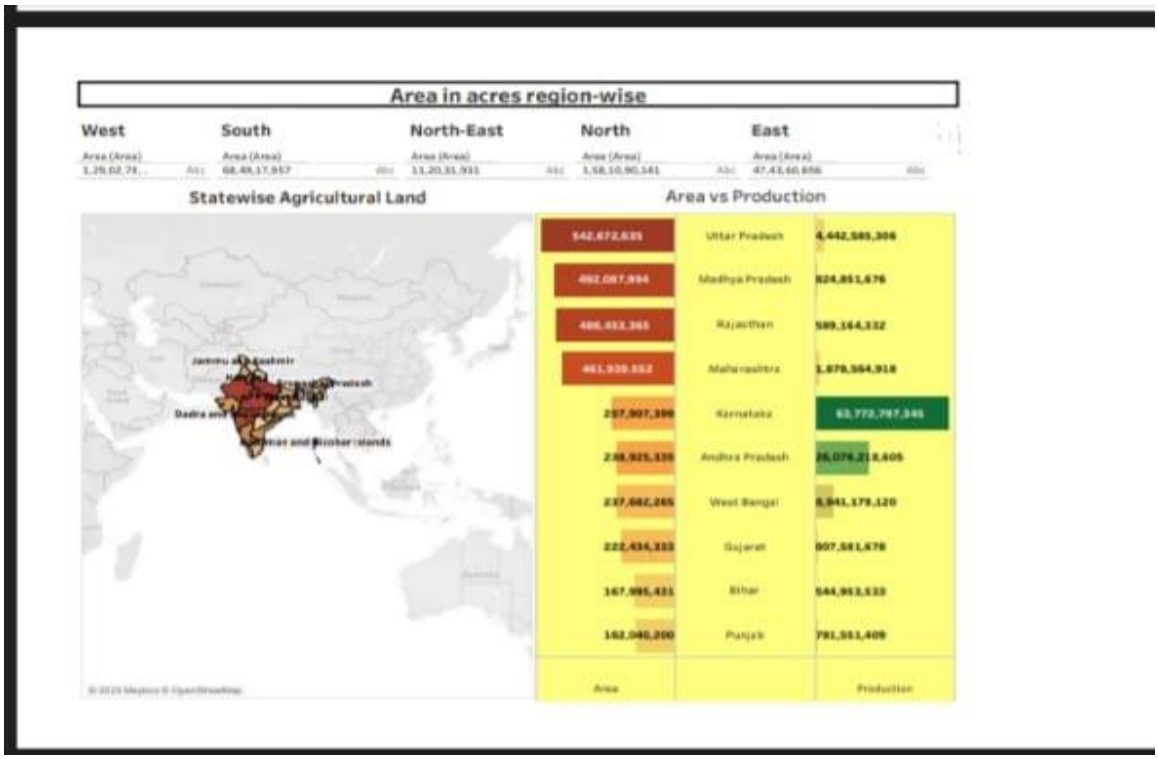
Using piechart, we have created a visualisation which shows they availability of season wise production.

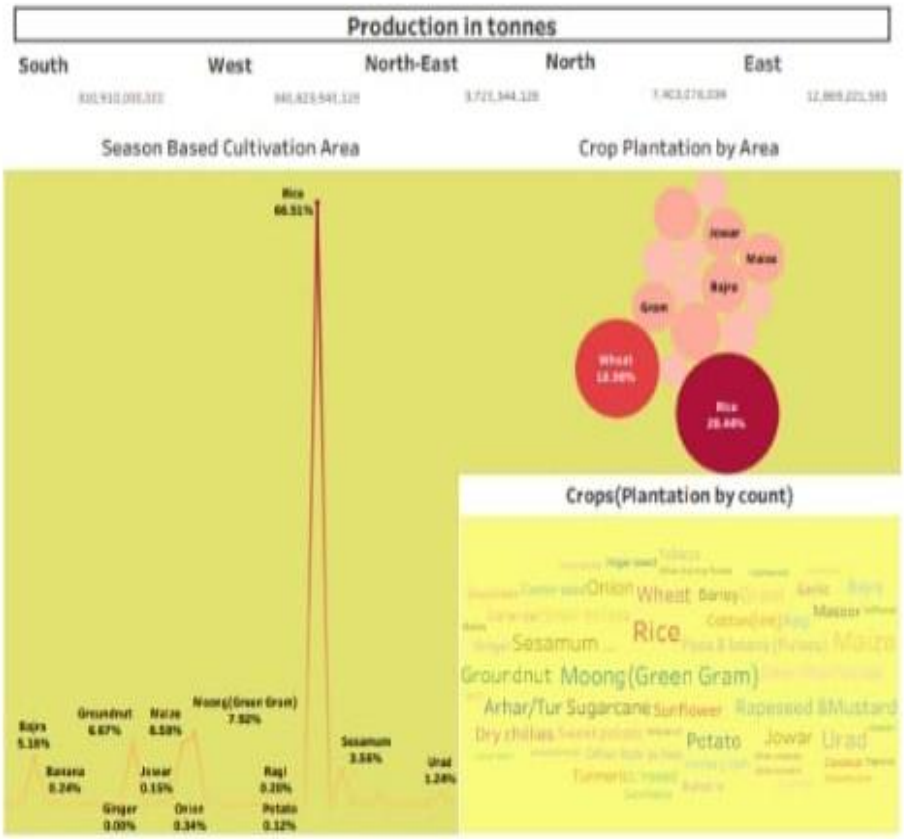


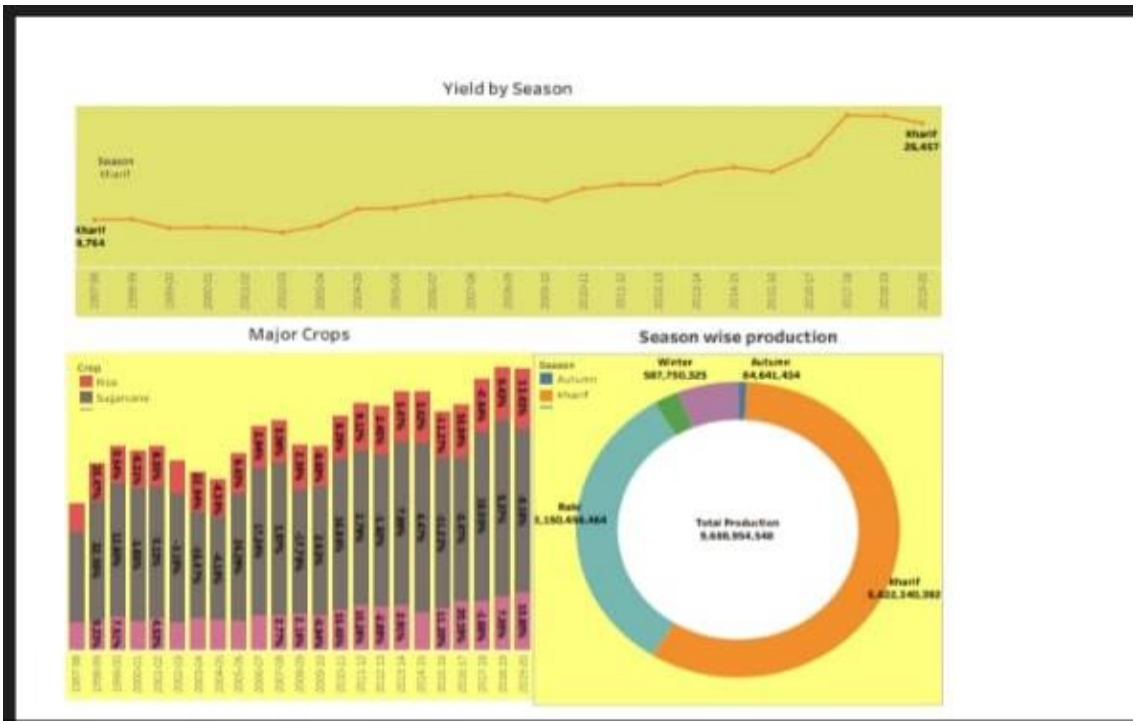
Using bubble chart,we have created a visualisation which shows

they availability of crop plantation by area.

3.2 Dashboard and Story Creation


Area in acres region-wise
West
Area (Area)
1,29,02,79...
South
Area (Area)
68,49,17,957
North-East
Area (Area)
11,20,31,931
North
Area (Area)
1,58,10,90,141
East
Area (Area)
47,43,60,656
Statewise Agricultural Land
Area vs Production
Uttar Pradesh
Madhya Pradesh
Rajasthan
Maharashtra
Karnataka
Andhra Pradesh
West Bengal
Gujarat
Bihar
Punjab
Area
Production

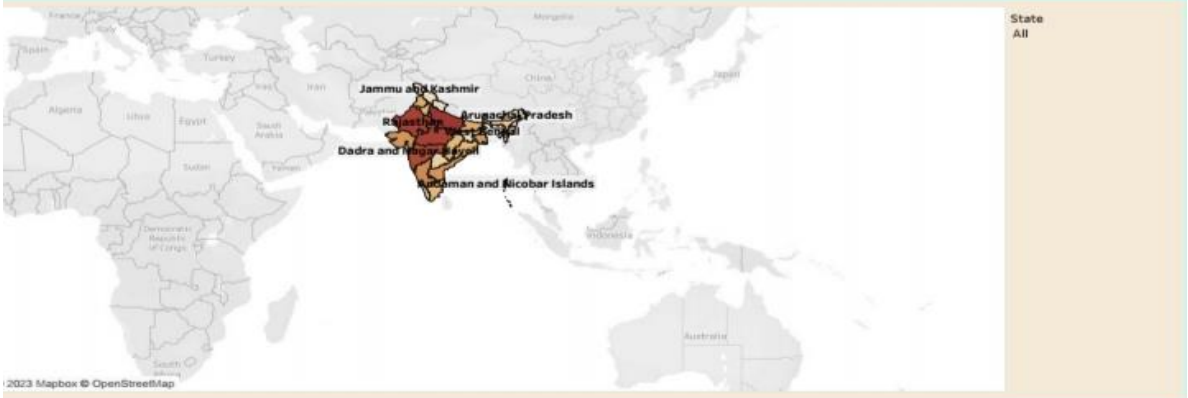

Production in tonnes
South
West
North-East
North
East
Season Based Cultivation Area
Crop Plantation by Area
Rice
66.51%
Bajra
5.18%
Groundnut
6.67%
Maize
6.58%
Moong(Green Gram)
7.92%
Banana
0.24%
Jowar
0.15%
Ragi
0.26%
Sesamum
3.56%
Urad
1.24%
Ginger
0.09%
Onion
0.34%
Potato
0.12%
Jowar
Maize
Bajra
Gram
Wheat
12.36%
Rice
26.44%
Crops(Plantation by count)
Onion
Wheat
Barley
Garlic
Bajra
Maize
Rice
Sesamum
Groundnut
Moong(Green Gram)
Arhar/Tur
Sugarcane
Sunflower
Rapeseed &Mustard
Dry chillies
Potato
Jowar
Urad
Turmeric



The major crops based on yield by season and season wise production. Analysing the correlation between Crop plantation by area and crop plantation by crops can help in predicting the value of they major based on it yields.

Insights into India's agricultural cultivation

Indian States Visualising Areas of top crop production. | Area vs Production:Top states with wise area produ.. | Cultivation of crops in India season wise. | Year on Year persentage of crops.



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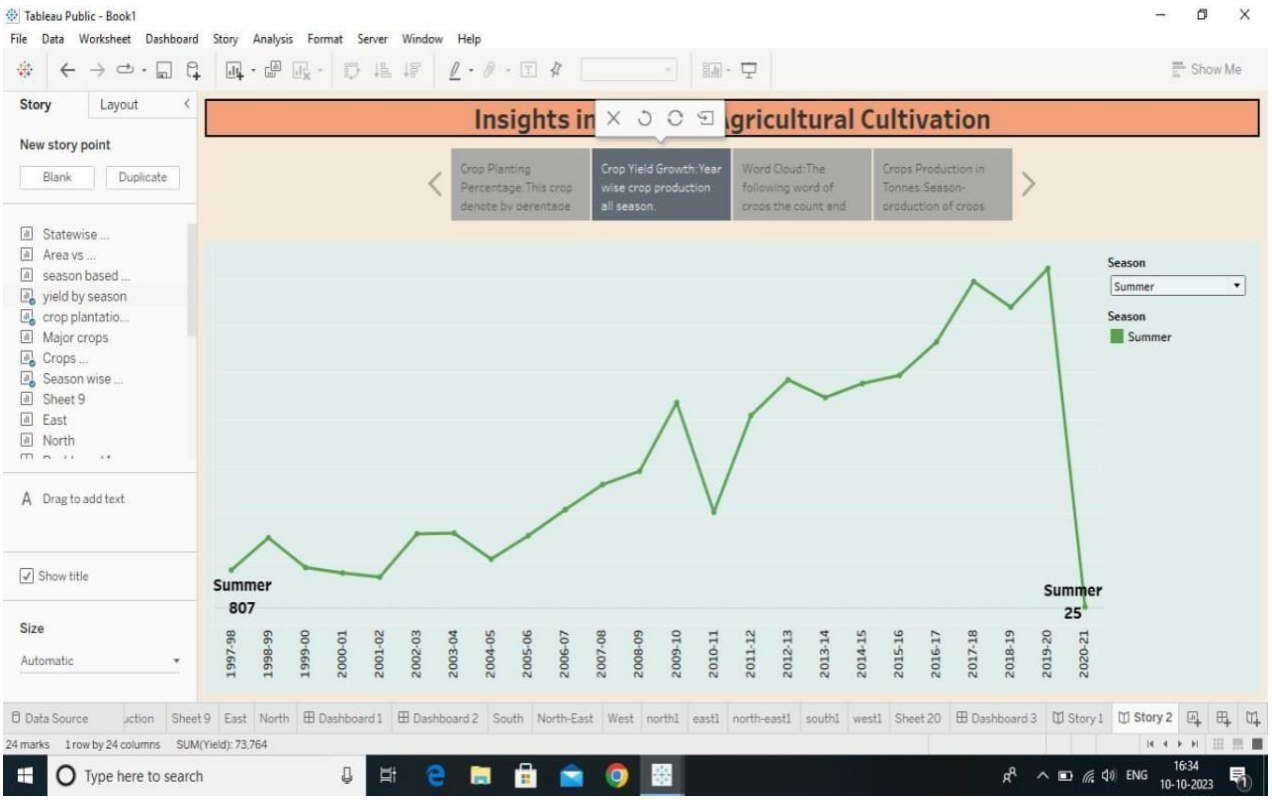

Story is a graphical visualisation with a caption that helps to present our visualisation in an effective way.

Here,we analysed the insight into India's agricultural crop production.

4.ADVANTAGES

1. Food security
2. Economic contribution
3. Export potential
4. Sustainability

DISADVANTAGES

1. Data quality
2. Weather dependence
3. Market volatility
4. Land degradation

5) APPLICATION

Food Security: Monitoring crop production helps ensure food security for the country. It allows the government to assess the availability of essential crops and plan interventions in case of shortages.

Resource Allocation: Understanding which crops are grown where and in what quantities helps in allocating resources effectively. This can include distributing subsidies, providing irrigation facilities, or promoting certain crops in specific regions.

Crop Planning: Analysis of historical data can aid in crop planning. Farmers and policymakers can use this information to decide which crops to plant in a given season, taking into account market demand and environmental factors.

Pricing and Trade: Crop production data influences commodity prices and international trade. It's valuable for making decisions on exports and imports, which can have economic implications.

Risk Management: Crop production analysis can help in managing risks related to climate change and extreme weather events. It aids in developing strategies to mitigate the impact of such events on agriculture.

Research and Development: Researchers can use this data for studying long-term trends, the impact of agricultural practices, and the development of new technologies to enhance crop yield.

6.CONCLUSION

In conclusion, India's agricultural crop production analysis is of paramount significance for the nation's food security, economic development, and sustainable agriculture. This data serves as the foundation for informed decision-making in various domains, ranging from government policies and resource allocation to research and development. It plays a pivotal role in ensuring that the diverse agricultural needs of India's vast and populous

landscape are met efficiently, while also promoting sustainable practices and resilience in the face of environmental challenges. As India continues to evolve and adapt in the realm of agriculture, the analysis of crop production remains a critical tool for shaping the future of this vital sector.

7)FUTURE SCOPE

Precision Agriculture: The use of technology, such as drones, IoT, and AI, will continue to grow. This enables farmers to make data-driven decisions,

optimizing resource utilization and crop yields.

Climate Resilience: As climate change poses challenges, there is a need for advanced analysis to develop resilient crop varieties and adapt farming practices to changing conditions.

Market Analysis: Analyzing market trends and consumer demands can help farmers make informed choices about which crops to cultivate, leading to better income opportunities.