

INDIA'S AGRICULTURAL CROP PRODUCTION ANALYSIS (1997-2021)

TEAM ID : NM2023TMID36198

J. INUL INAYA

K. KALPANA

V. KAVISHREE

S.KARISHMAA



1.INRODUCTION :

This report delves into the captivating realm of India's agricultural cultivation, providing a comprehensive visual exploration of key aspects and trends in the agricultural sector. Through the visual representations, readers can gain valuable insights into crop production, seasonal variations and overall production trends. These visualizations enable intuitive analysis, allowing stakeholders to uncover patterns, identify areas of growth or concern, and make data-driven decisions.

By harnessing the power of Tableau, this report not only presents the data in a visually appealing manner but also provides an interactive experience for readers to explore the intricacies of India's agricultural cultivation. To Extract the Insights from the data and put the data in the form of visualizations, Dashboards and Story we employed Tableau tool.

1.1OVERVIEWS

India is a global agricultural power house. Agricultural is a backbone of India. This report delves into the captivating realm of India's agricultural cultivation, Different crops are cultivated in many acers of India. The production of the crop in year wise is 9,688,954,548.Through the visual representation insights into crop production, seasonal variations and overall production in crops. It involves collecting of data on crop yields, land usage, and other factor to assess productivity and identify area for improvement. This analysis is help in making informed decisions for sustainable agriculture. India among the top producers of

several crops such as wheat, rice, sugarcane etc.. . The state are classified in agricultural area. Uttarpradesh is a largest cultivating area is 542,672,635.theKarnataka is a maximum crop production is 63,772,797,345.there are five different types of seasons such as rabi,winnter,kharif,summer,atumn in crop production. The rice production is low in rabi seasons but compare to the other seasons the rice production is maximum. The crop are yield in seasons, in winnter seasons is decreasing yield in year 2001-2002.In other seasons are decreasing yield in year 2021-2021.In three main major crops such as rice, sugarcane and wheat. This crops are maximum production in year is 2019.

1.2 PURPOSE

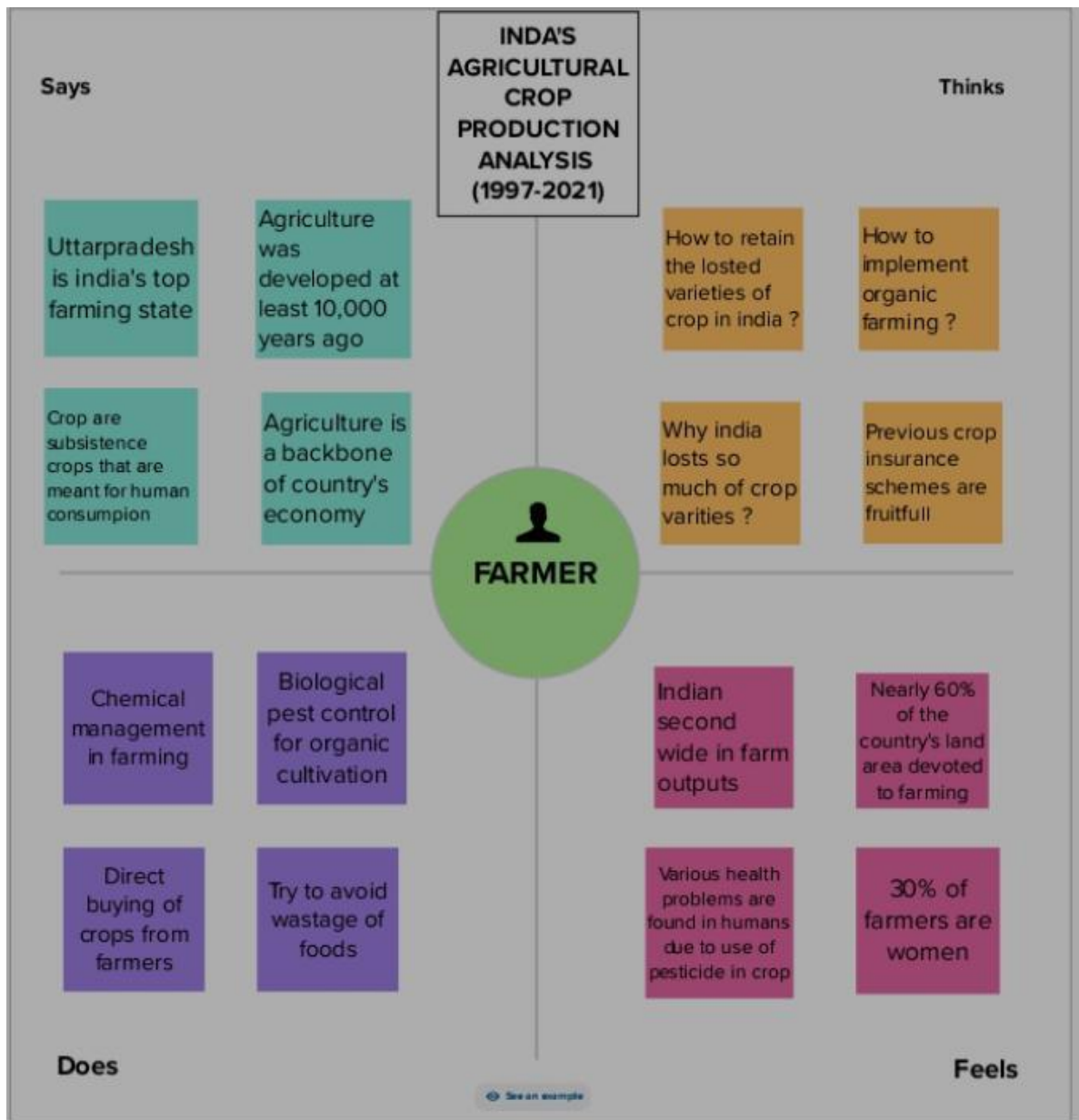
The agricultural crop production analysis for previous twelve years to apply the crop production. In all seasons to increased in all crops.

The crop production is one the fundamental branches of agricultural crop production is the basis for providing the live stock industry with feed and the population with food. Therefore there is a ned for less dependency on the agricultural continues to play a major role in economy.

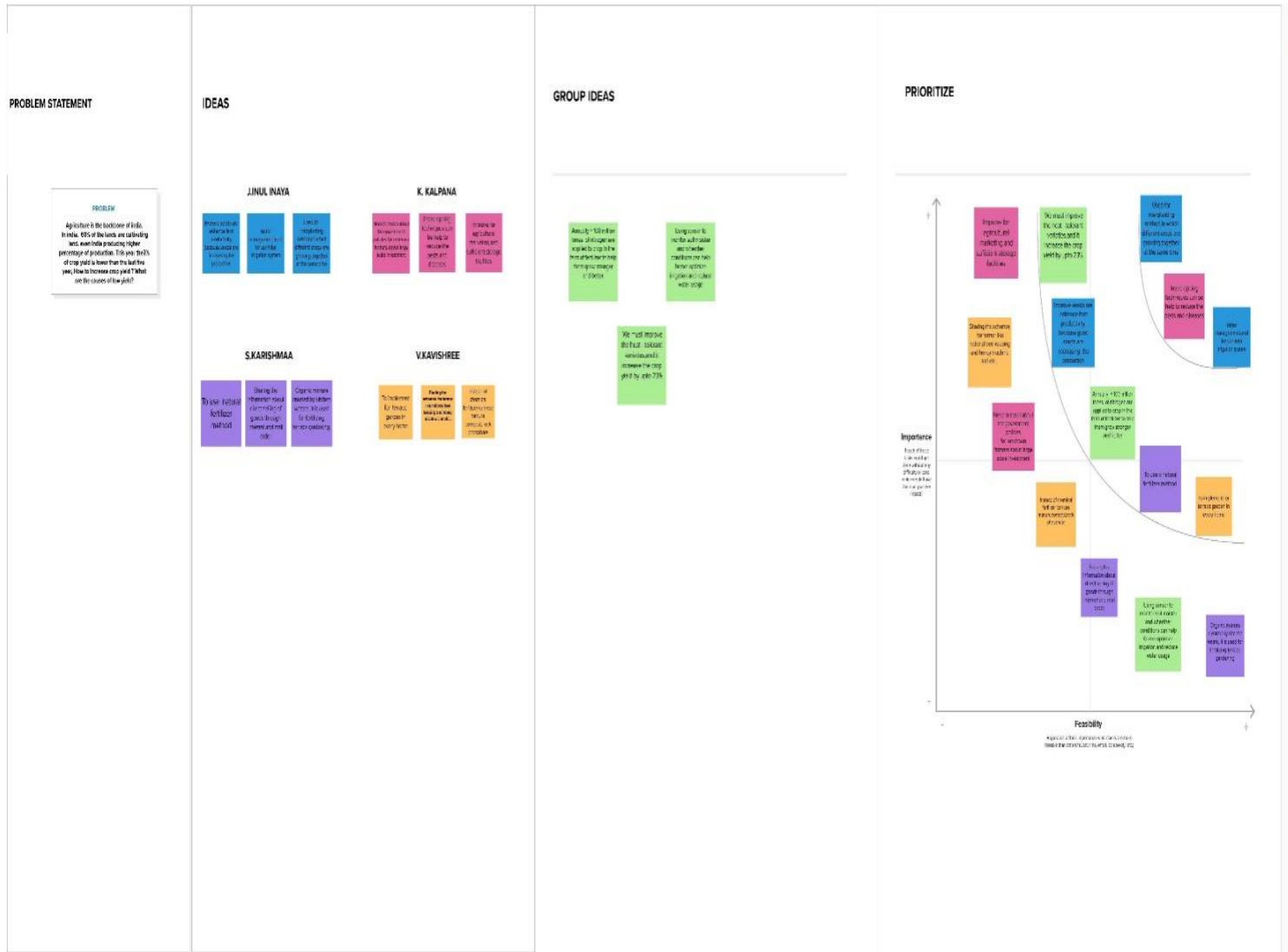
Crop production analysis involves evaluating various factor such as yield, input crops, market demand and environmental input to assess the performance and profitability of crop production system. It helps in making informed decisions and optimizing agricultural practices for sustainable and efficient crop production.

2.PROBLEM DEFINITION AND DESIGN THINKING:

2.1 EMPATHY MAP



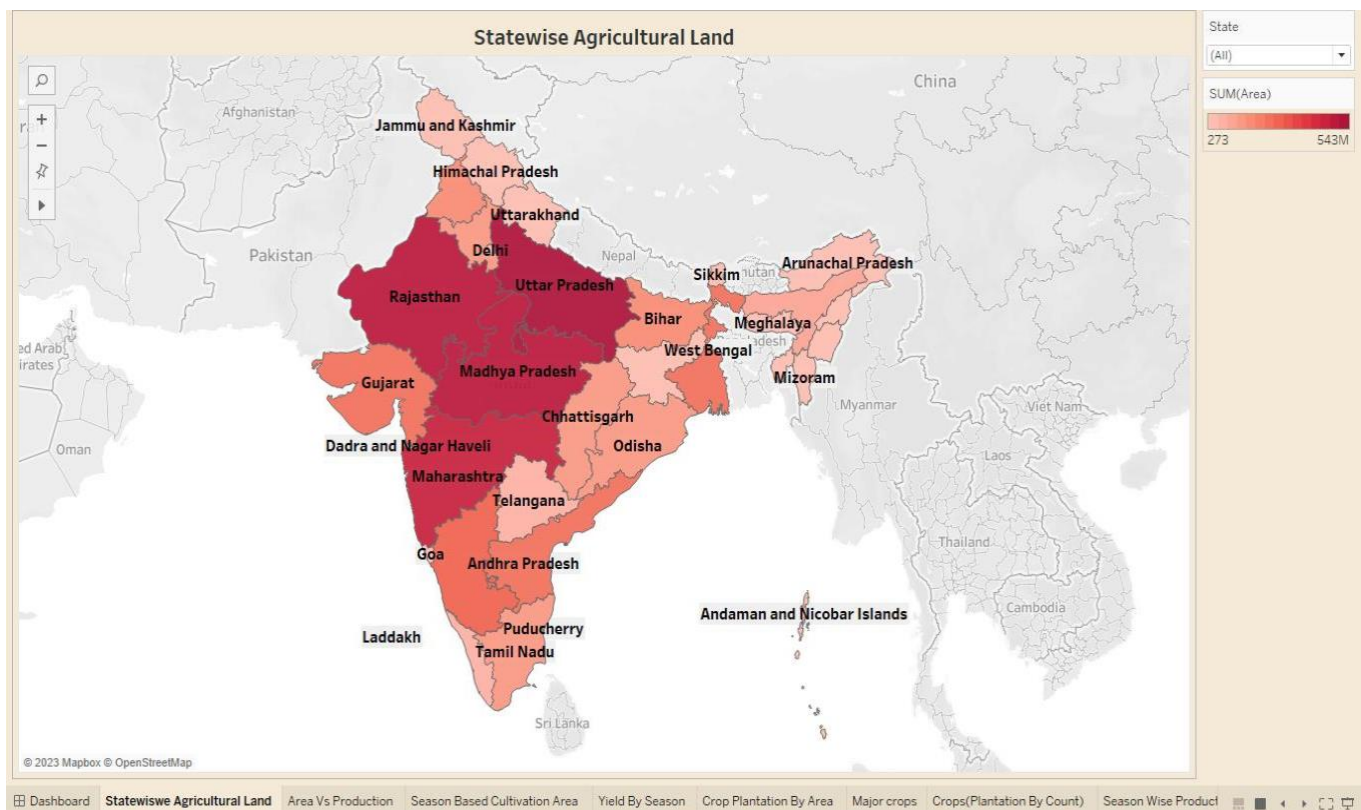
2.2 IDEATION AND BRAINSTORMING MAP



3.RESULT:

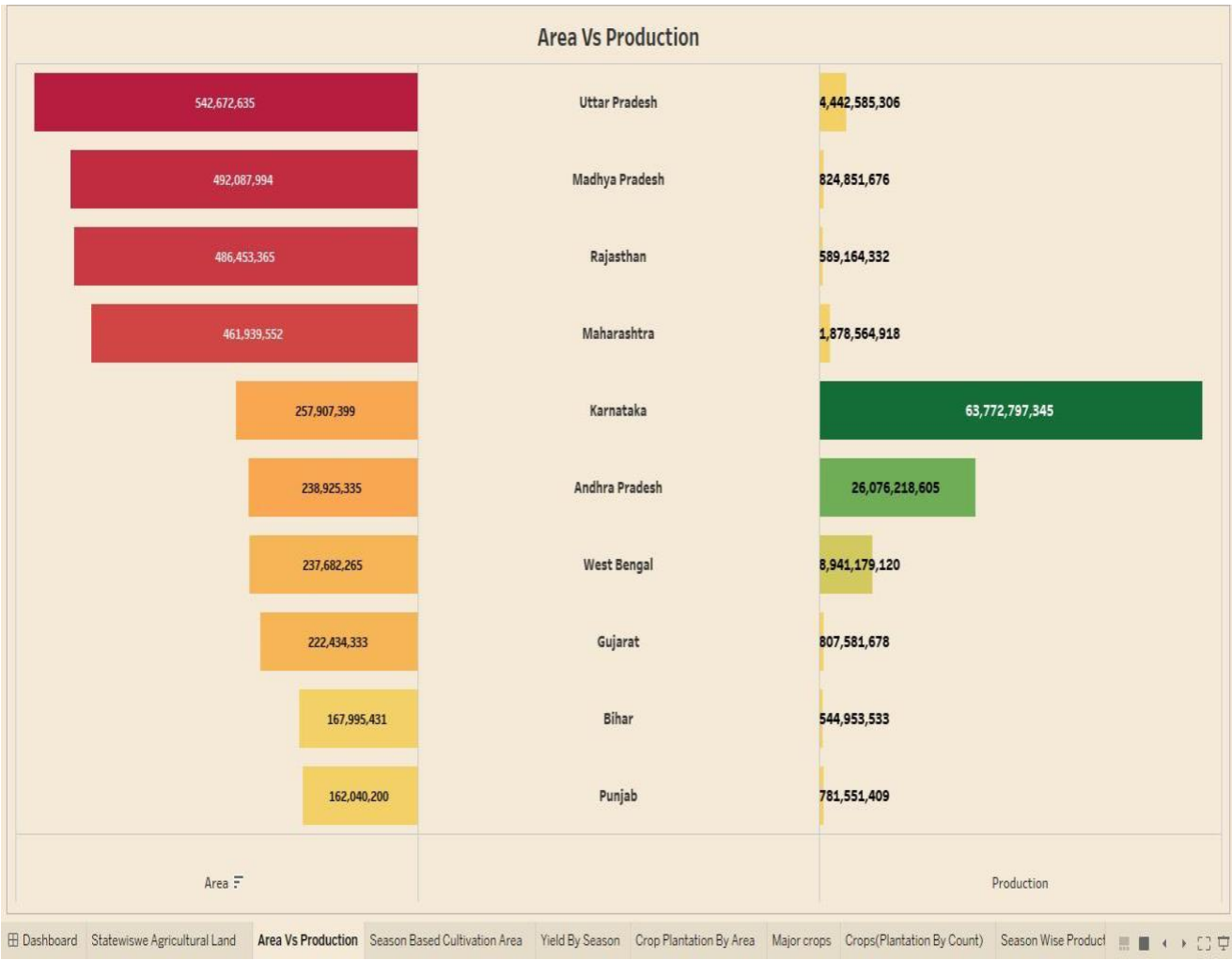
3.1 STATEWISE AGRICULTURAL LAND

The states are classified in a agricultural area. The uttarpradesh is a largest cultivating area is 542,672,635.Mizoram is a minimum cultivating area is1, 542,541.



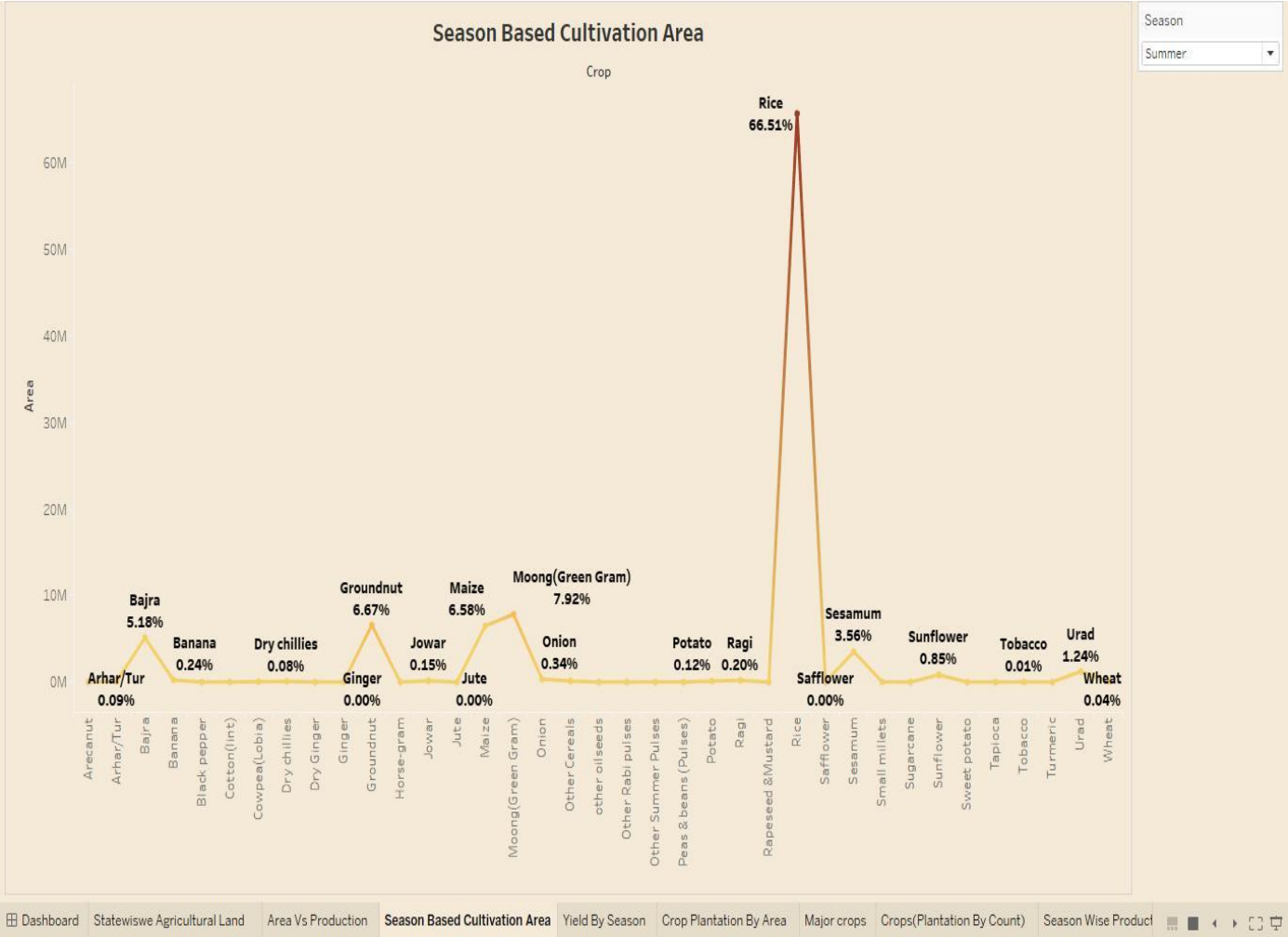
3.2 AREA VS PRODUCTION

In top ten states compare between area vs production. Production is maximum in Karnataka but compared to the area of the uttar pradesh is large.



3.3 SEASON BASED CULTIVATION AREA

The crops are cultivated in 5 different types of seasons. In all seasons rice cultivating area is maximum. Rabi seasons is wheat cultivating area is maximum .but rice cultivated in 2.46% of area.



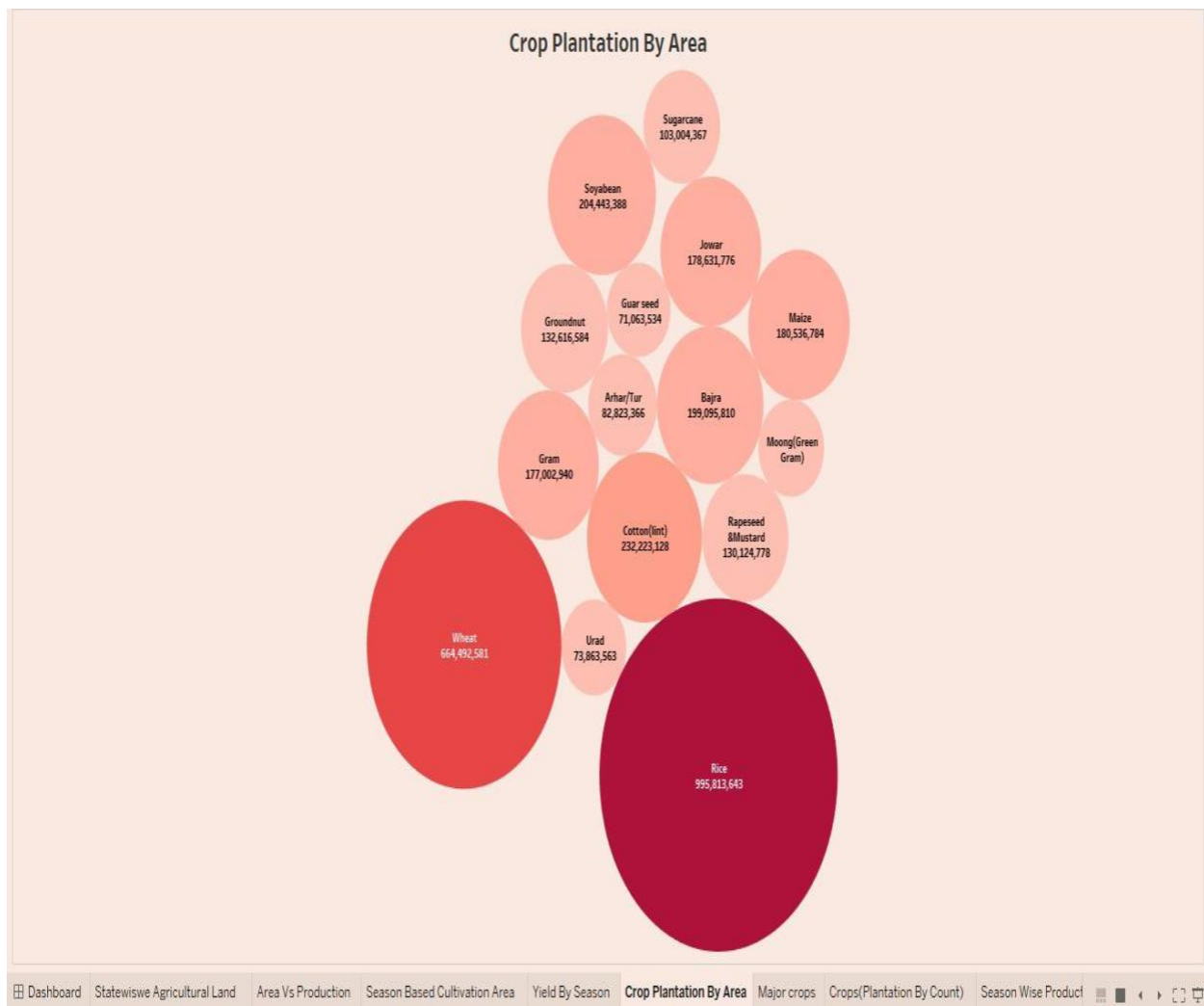
3.4 YIELD BY SEASON IN YEAR

The crops are yield in different type of season analysis in year (1997- 2021).In four season are decreasing from yield in year 2020 to 2021.In winter season are decreasing from yield in 2001to 2002.



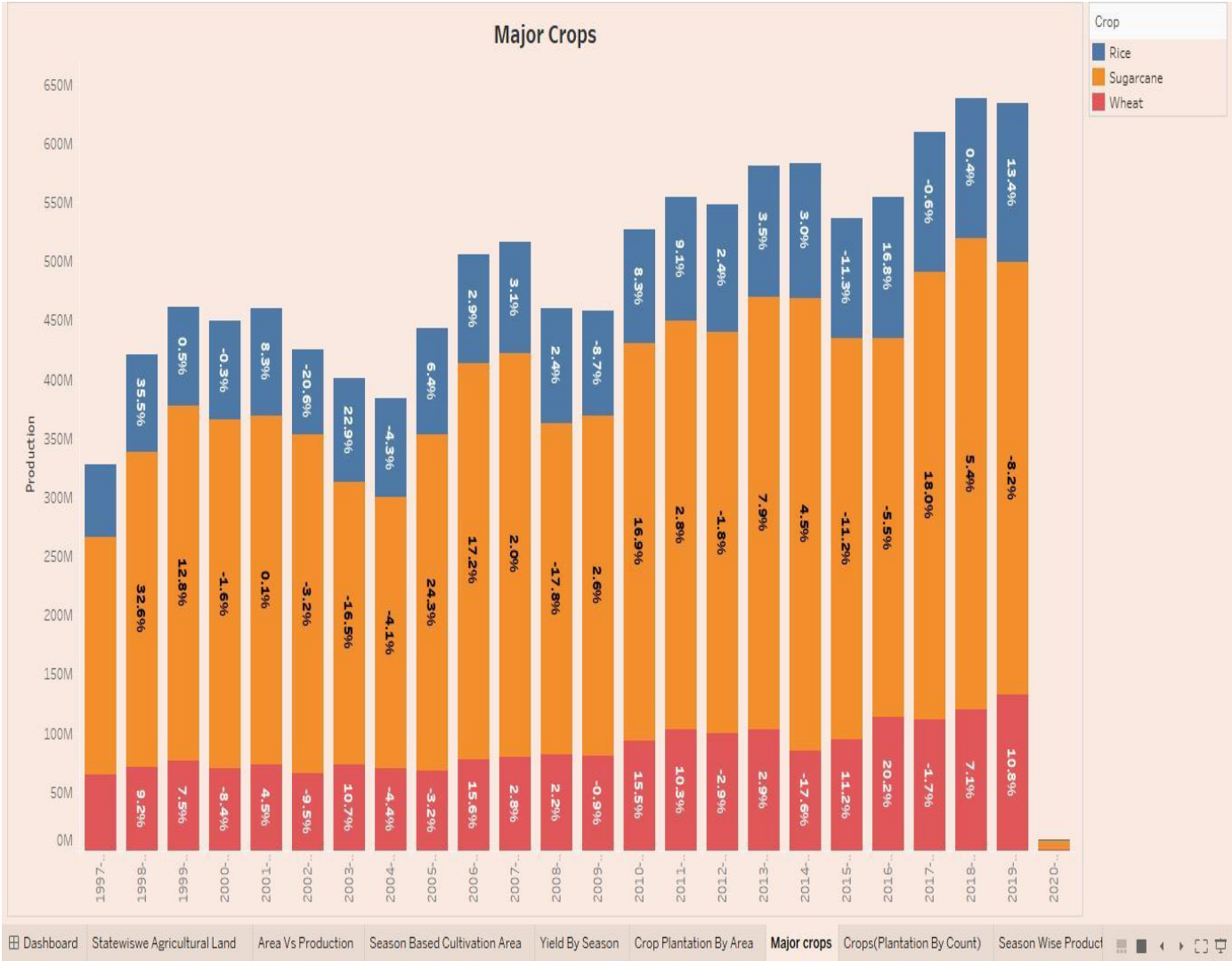
3.5 CROP PLANTATION BY AREA

In top 15 types of crops are plantation by area. Rice is maximum plantation area is 995,813,643.



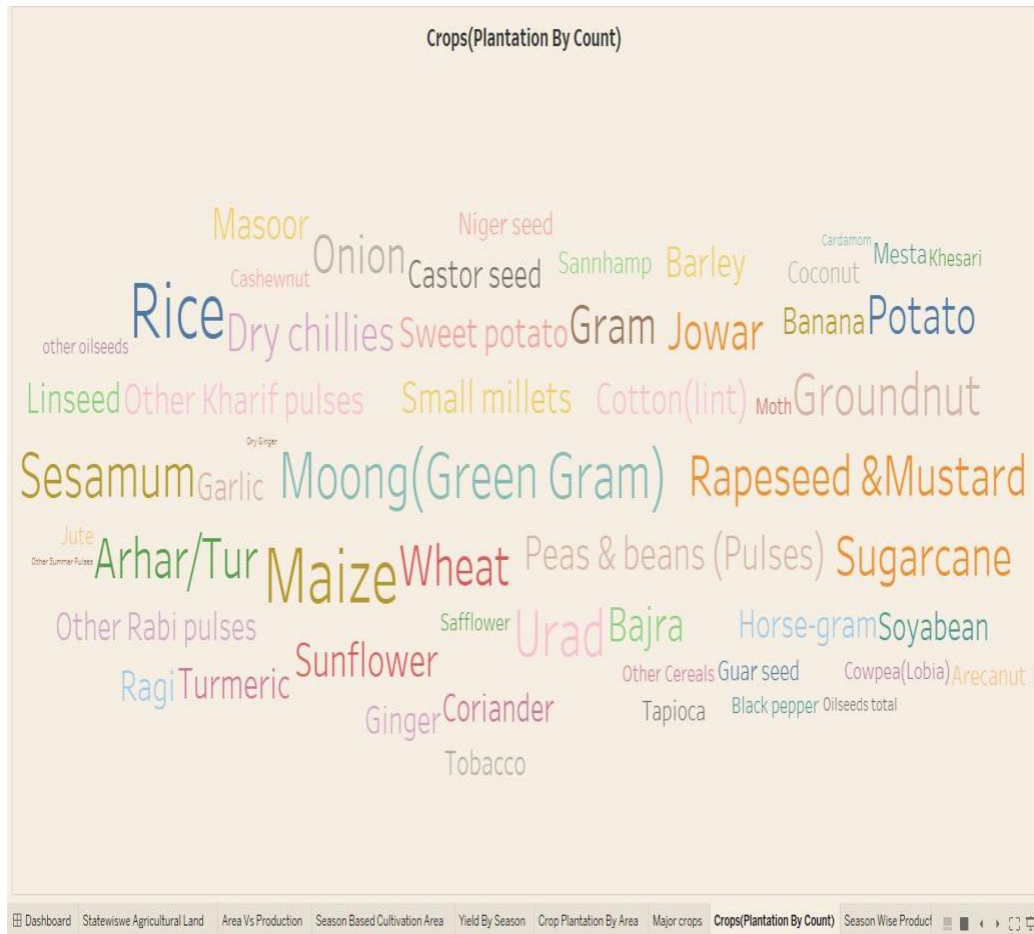
3.6 MAJOR CROPS

In three main major crops in year for production analysis in (1997-2019). Wheat and rice crop is maximum production yield in year 2019.sugarcane crop is maximum production yield in year 2018. The three major crops are minimum production yield in year 2020.



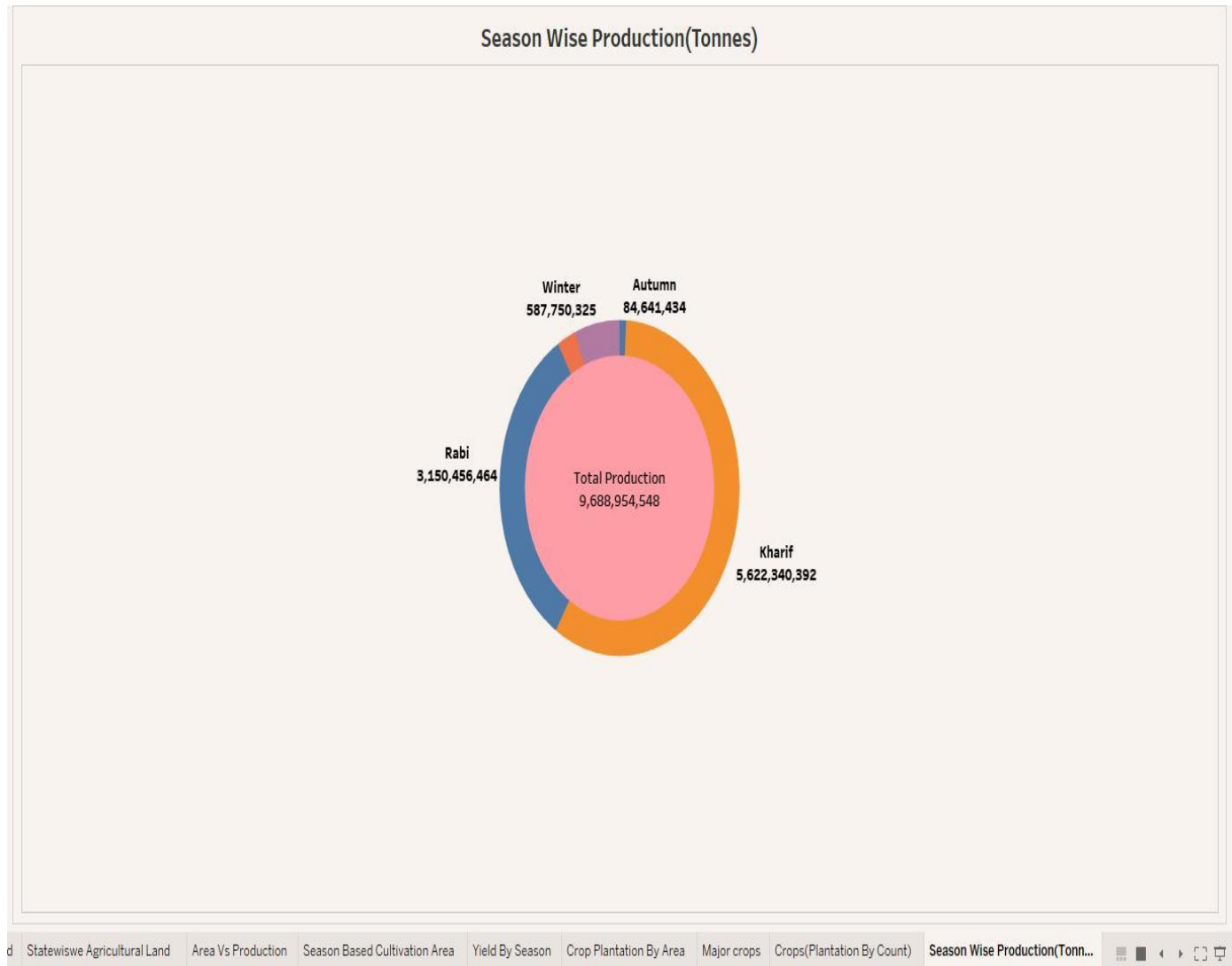
3.7 crops (plantation by count)

Rice crops is plantation by count is maximum. Dry ginger crop is plantation by count is minimum.



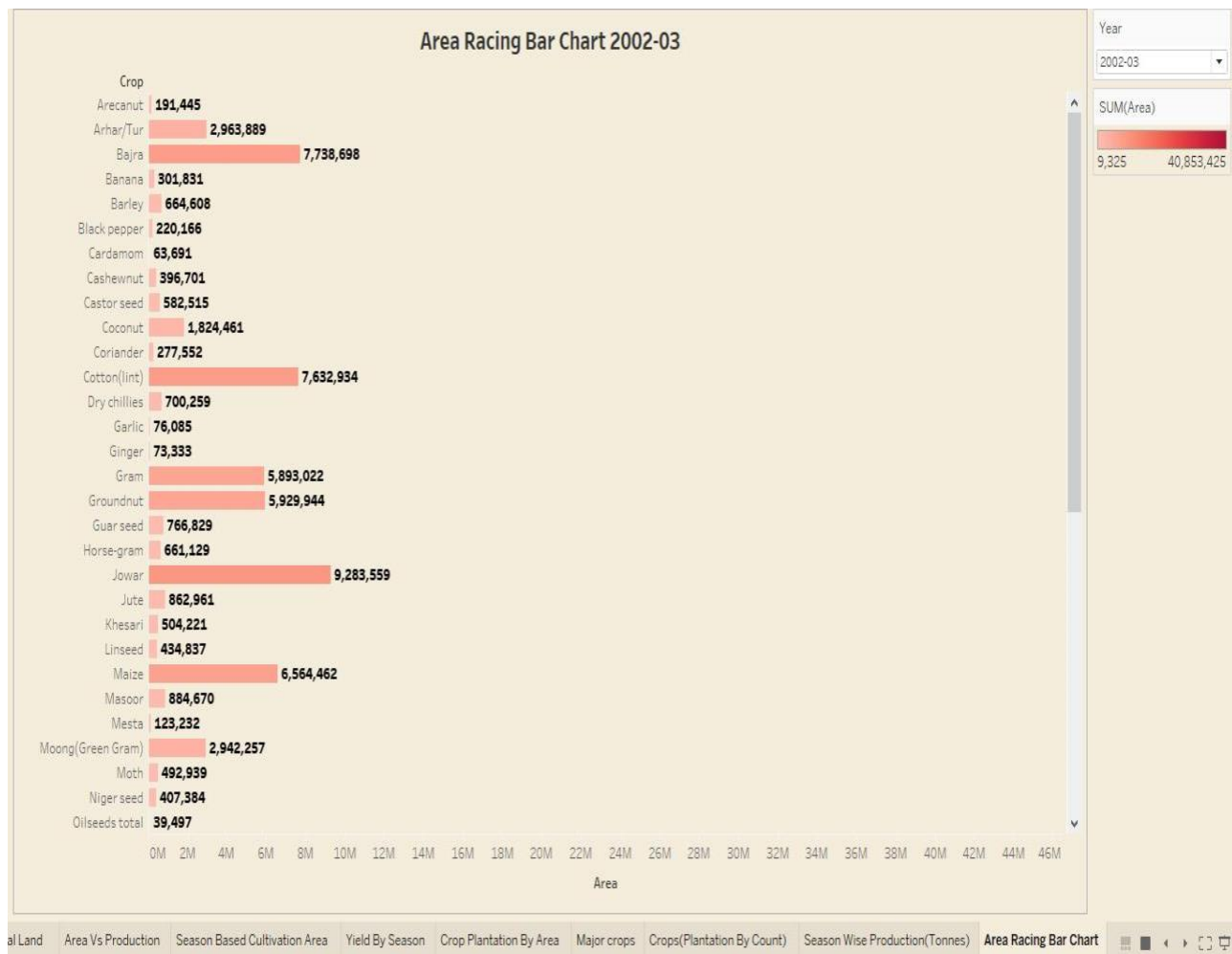
3.8 seasonwise production (Tonnes)

The season wise production is maximum in kharif season. But Autumn season is minimum. The season wise total production is 9,688,954,548.



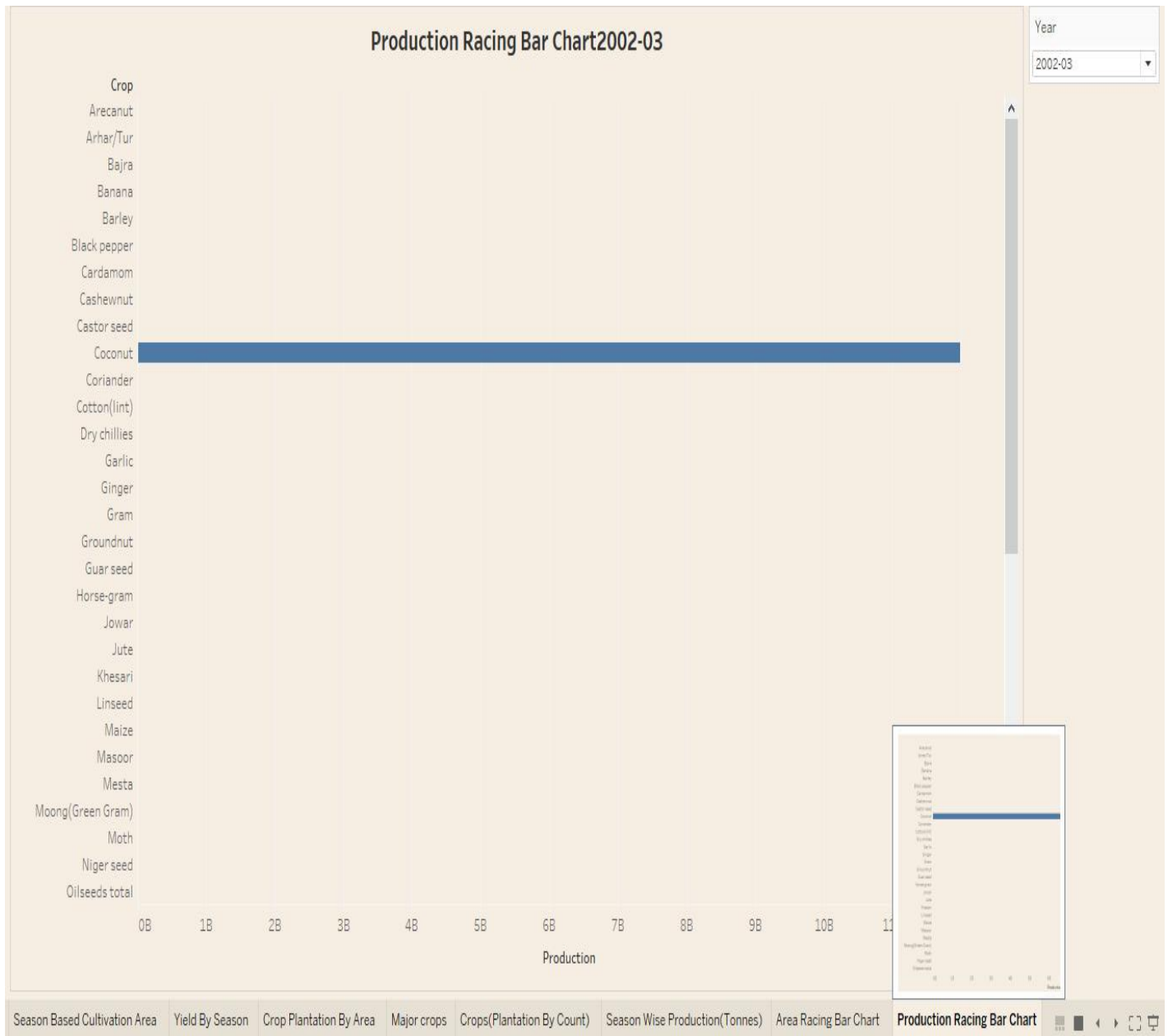
3.9 AREA RACING BARCHART IN YEAR

Area of crop production cultivated in area. Rice cultivated area is large in year(1997 to 2021).wheat is cultivated area is large in year 2021.



3.10 PRODUCTION RACING BAR CHART IN YEAR

The production wise crops yield in India , the coconut production increases in year 1997 to 2021.



4. ADVANTAGE :

- ❖ Crop production analysis in India is a valuable tool for understanding agricultural trends and making informed decisions.
- ❖ It helps farmers make informed decisions about crop management.

DISADVANTAGE:

- ❖ It doesn't explain in climatic changes.
- ❖ One disadvantage of agricultural crop production analysis in India is the limited access of resource.

5.APPLICATION :

- ❖ By leveraging technologies such as data analytics and precision agricultural. Farmers can make informed decisions regarding crop selection management.
- ❖ This helps optimize resource utilization, increase yields and reduce environmental impact.

6. CONCLUSION:

After analyzing India's agricultural crop production, the rice remains India's mostly grown crop. The crop are cultivated in five different type of seasons. In rabi seasons wheat cultivating area is maximum but compare the rice is cultivated in 2.46% of area. In top 15 types of crop are plantation by area rice is the maximum plantation by area. The total crop production (tonnes) for all seasons is 9,688,954,548. rice is a maximum crop plantation by count. Dry ginger is minimum crop plantation by count. Sugarcane is a largest production in India. This analysis is very useful for the farmers.

7.FUTURE SCOPE:

- ❖ **Predict appropriate crop and maximum yield in the climate change.**
- ❖ **Collection of data analysis of it and modification of the algorithm**
- ❖ **IOT application in agricultural, automation in production line and man free agriculture. This is the first step of future world.**