

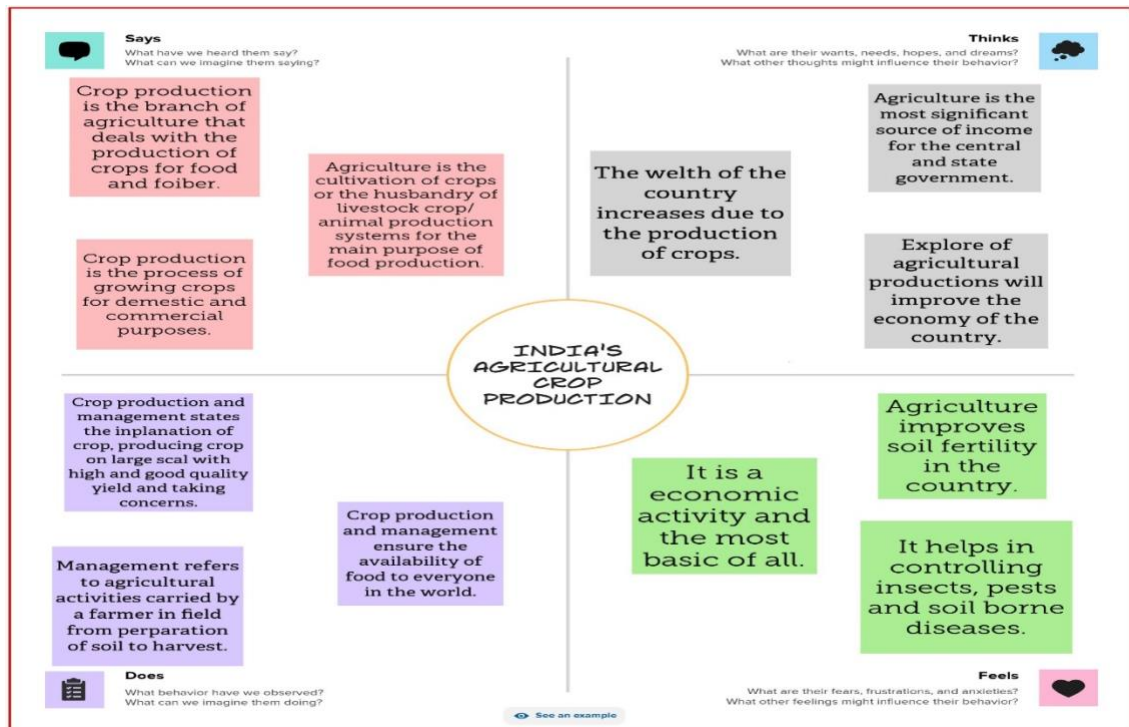
## INDIA'S AGRICULTURAL CROP PRODUCTION

### INTRODUCTION:

Weather plays an important role in agriculture production. Thus there is no aspect of crop culture that is immune to impact of weather. Weather factor contribute to optimal crop growth, development and yield. For rainfall variability needs to be expressed in terms of percentage so that minimum assured rainfall amounts at a certain level of probability. For optimal productivity at a given location crops must be such that their weather requirements match the temporal match of relevant weather elements. A detailed knowledge of rainfall regime at a place is an important prerequisite for agriculture planning and management. Soil fertility refers to the inherent capacity of soil to supply nutrients in adequate amount and in suitable proportion for crop growth and crop yield.

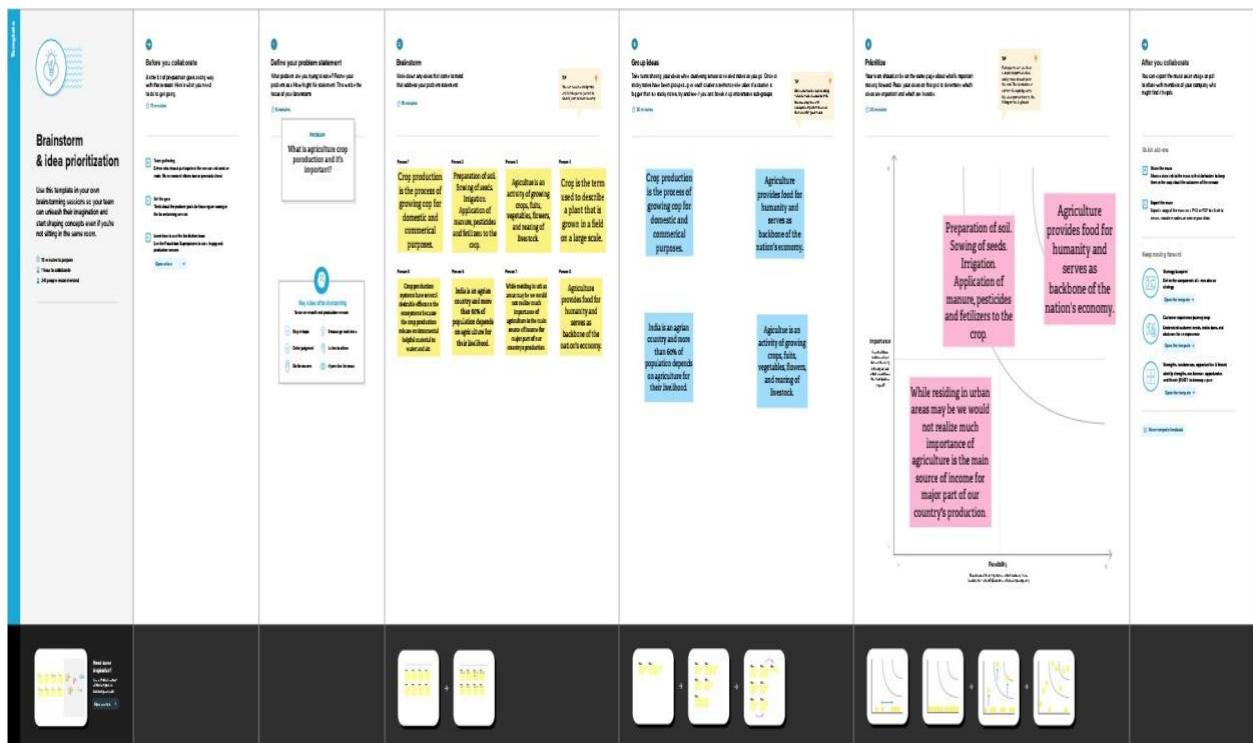
### PROBLEM DEFINITION & DESIGN THINKING:

### EMPATHY MA



- ❖ Define scope and goals. A. ...
- ❖ Gather materials. Your purpose should dictate the medium you use to create an empathy map.
- ❖ Collect research. ...
- ❖ Individually generate sticky notes for each quadrant. ...
- ❖ Converge to cluster and synthesize. ...
- ❖ Polish and plan.

## BRAINSTORMING MAP

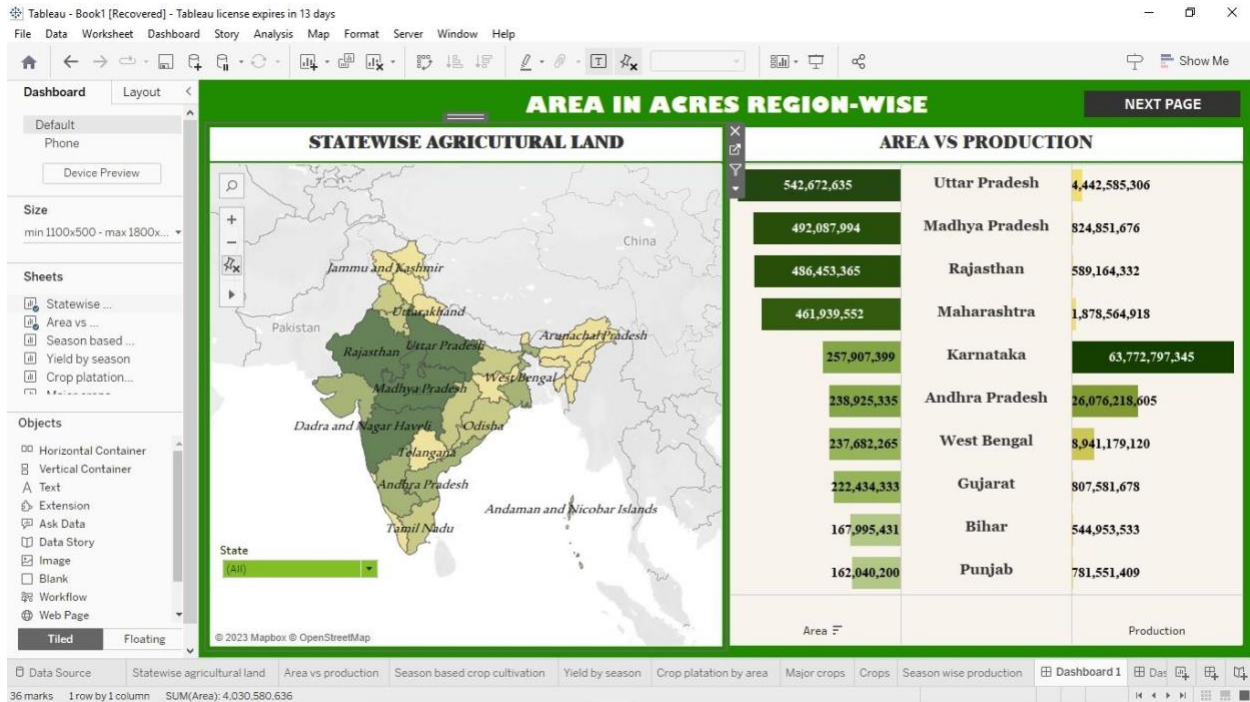


- ❖ Start in the Middle With a Central Idea. This can be a word or an image/picture that represents the central topic you're going to map.
- ❖ Create Branches to Represent Sub-topics. These should be limited to words or short phrases. ...
- ❖ Add Details to Your Mind Map. ...
- ❖ Make Connections.

## RESULT:

### DASHBOARD 1:

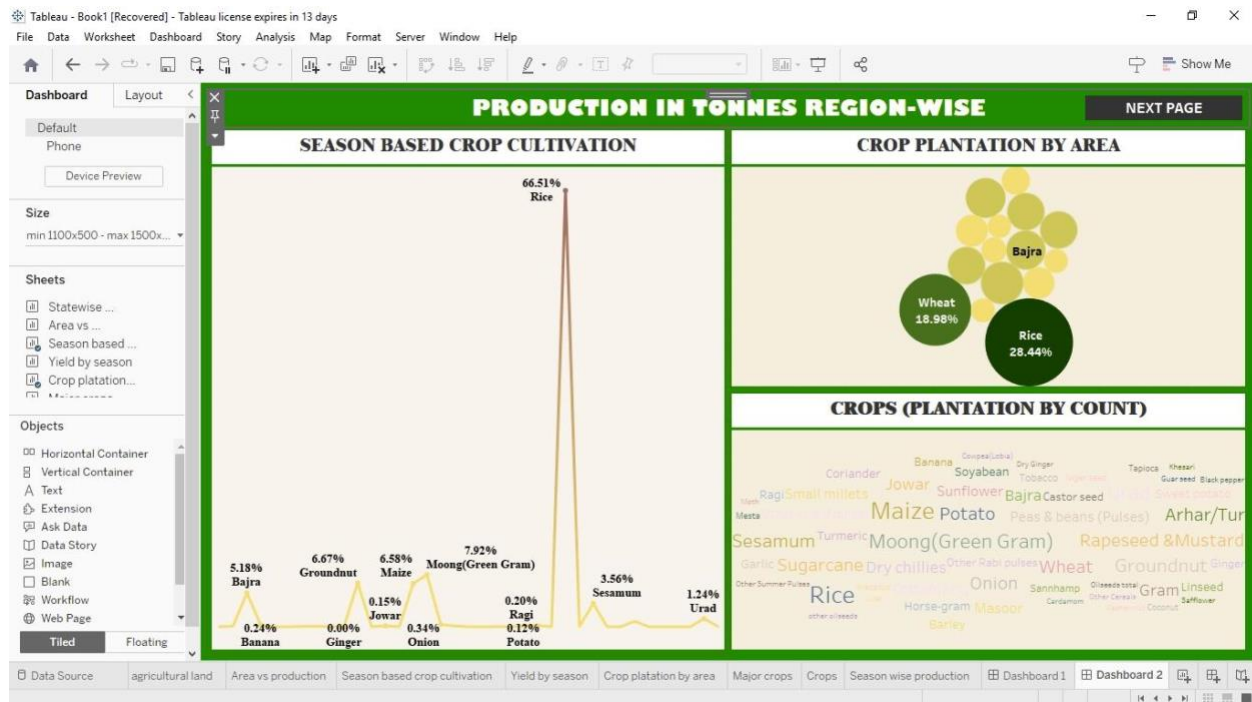
#### AREA IN ACRES REGION-WISE



- ❖ Uttar Pradesh comes under the top farming state in India and the rank of Uttar Pradesh counted under major state wise crop production in India, bajra, rice, sugarcane, food grains, and many more.
- ❖ It comes under the top wheat producing states in India, followed by Haryana, Punjab, and Madhya Pradesh.

## DASHBOARD 2:

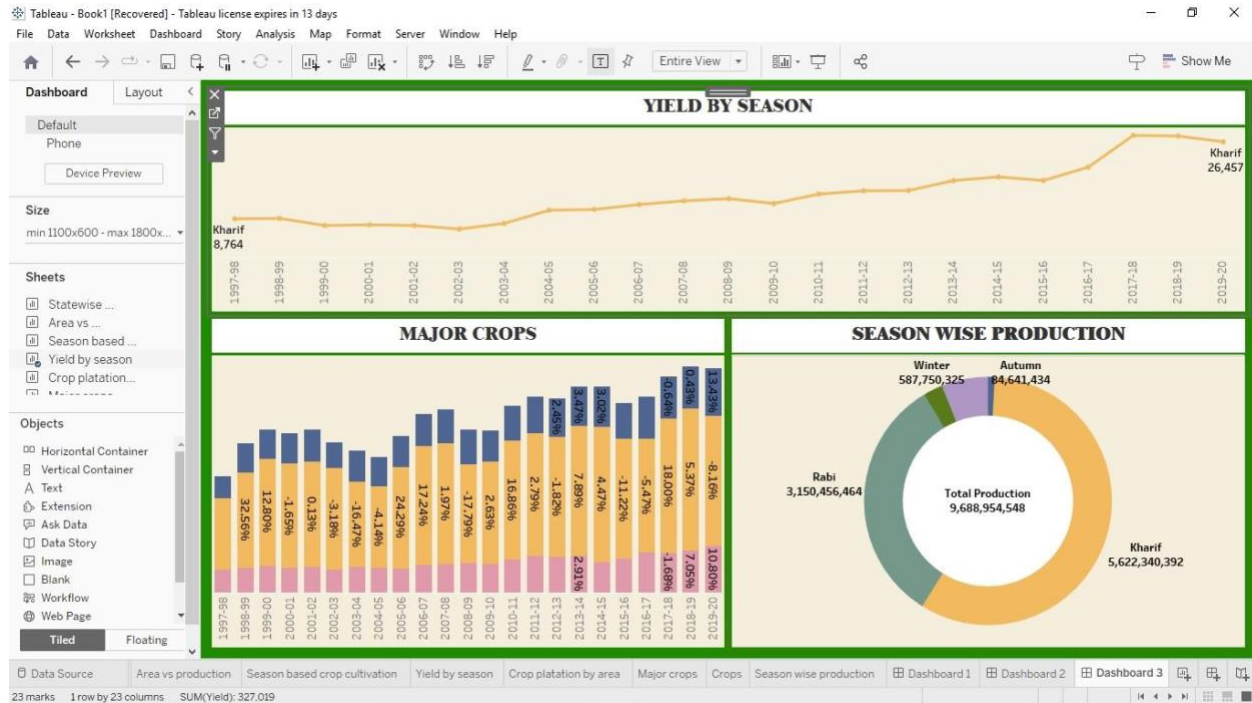
### PRODUCTION IN TONNES REGION



- ❖ There are three distinct crop seasons in India, namely Kharif, Rabi and Zaid.
- ❖ The Kharif season started with Southwest Monsoon under which the cultivation of tropical crops such as rice, cotton, jute, jowar, bajra and tur are cultivated.

### DASHBOARD 3:

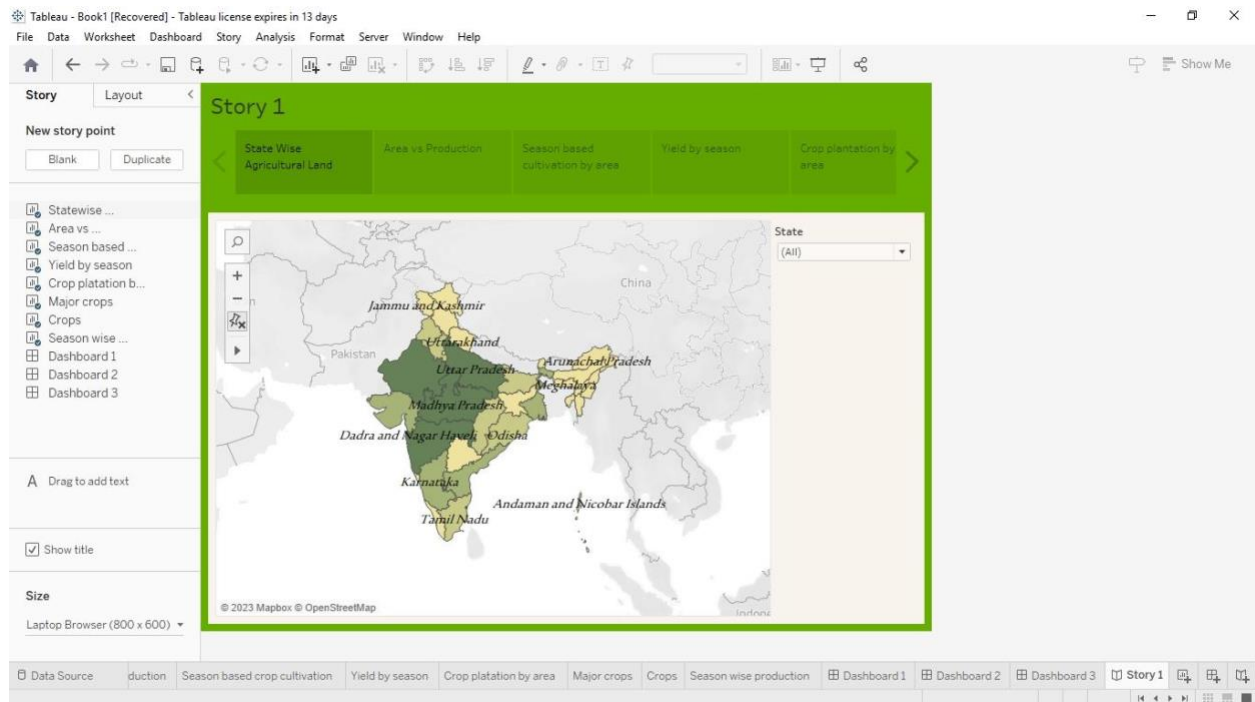
### YIELD BY SEASON



- Plantation crops are those which are cultivated on extensive scale like tea, coffee and rubber.
- Here the term plantation or estate is used synonymously.
- Estate or plantation means large scale agricultural unit usually of a single crop.

## STORY:

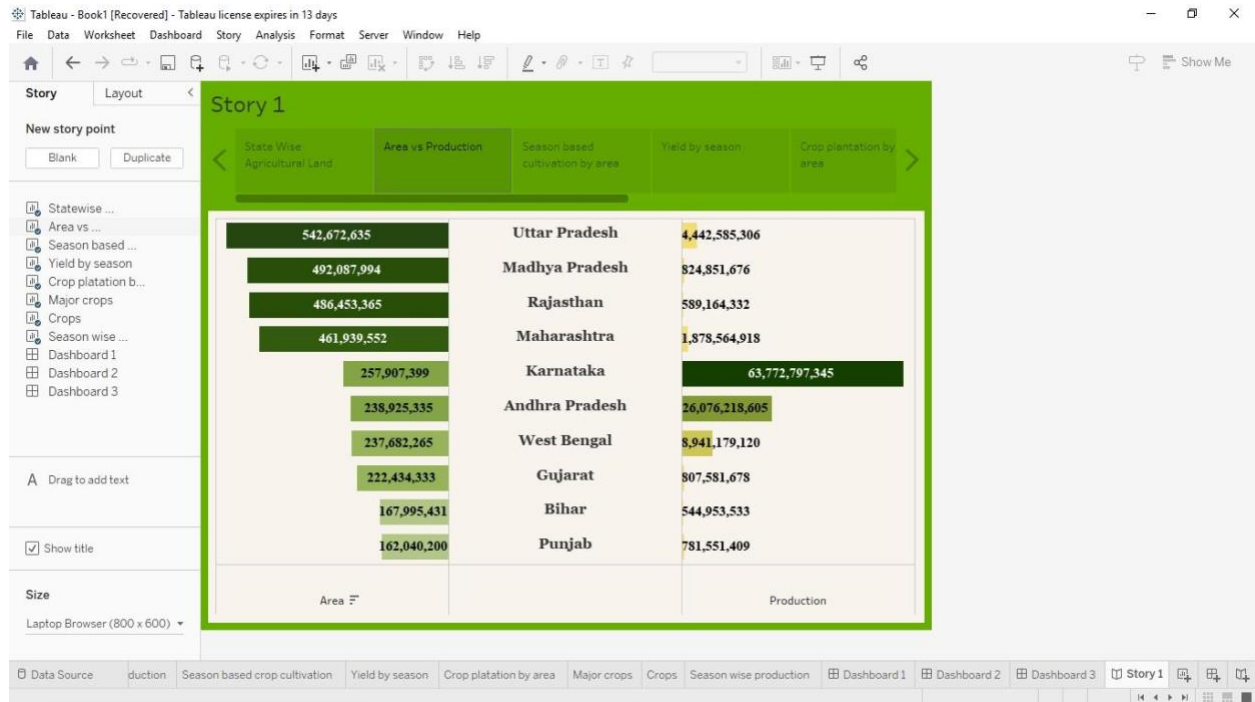
### State wise Agricultural Land



The top 10 agricultural states of India.

- **Uttar Pradesh**
- **West Bengal**
- **Madhya Pradesh**
- **Karnataka**
- **Maharashtra**
- **Punjab**
- **Andhra Pradesh**
- **Assam**
- **Haryana**
- **Gujarat**

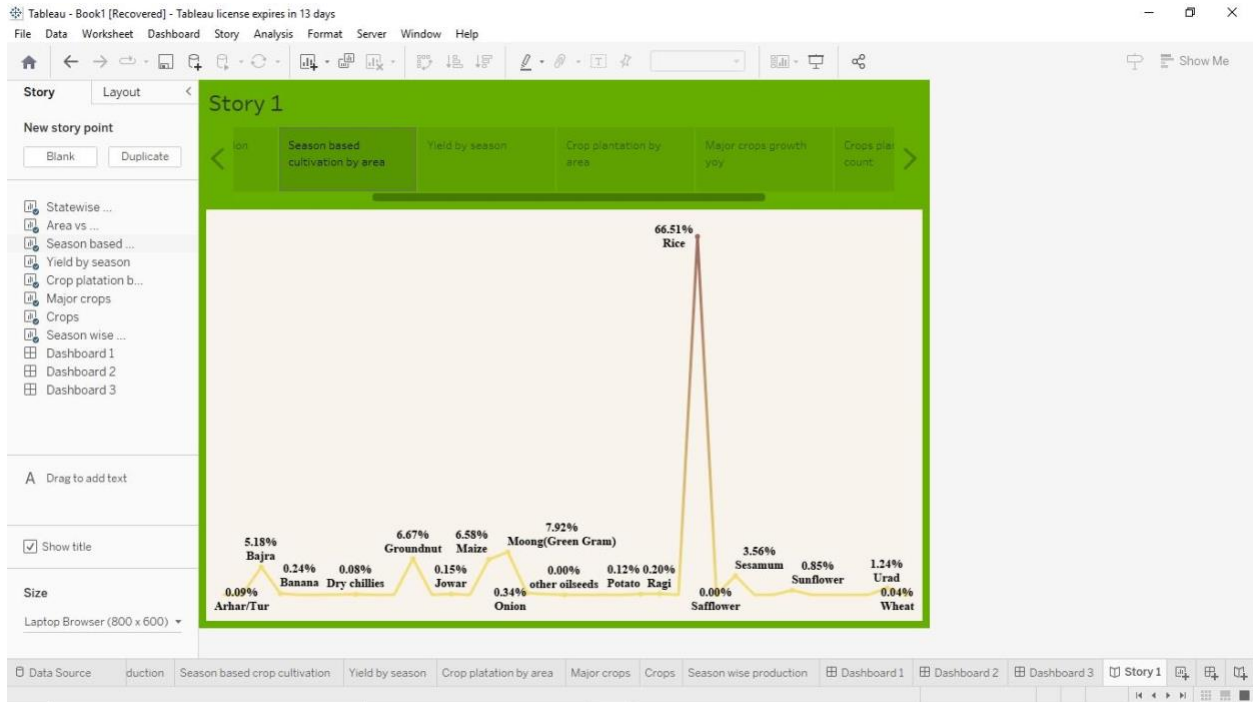
## Area vs Production



- The use of land for agriculture depends on soil type, irrigation facilities, and climate. In India, about 51.09% of the land is under cultivation, 21.81% under forest, and 3.92% under pasture.



## Season based cultivation



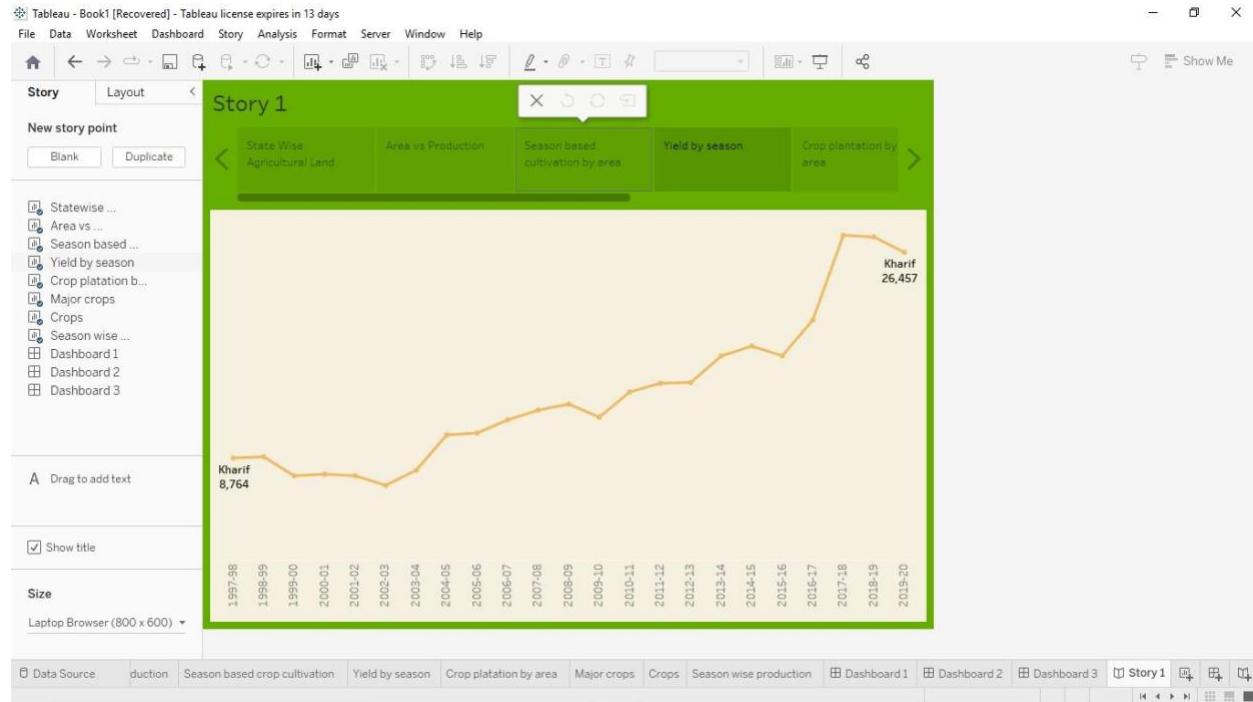
**Kharif-June-Early days of November-Paddy, Maize, Jute, Sugarcane, Cotton, Millet.**

**Rabi-November-March-Wheat, Tobacco.**

**Zaid-March-June-Fruits, Vegetables**

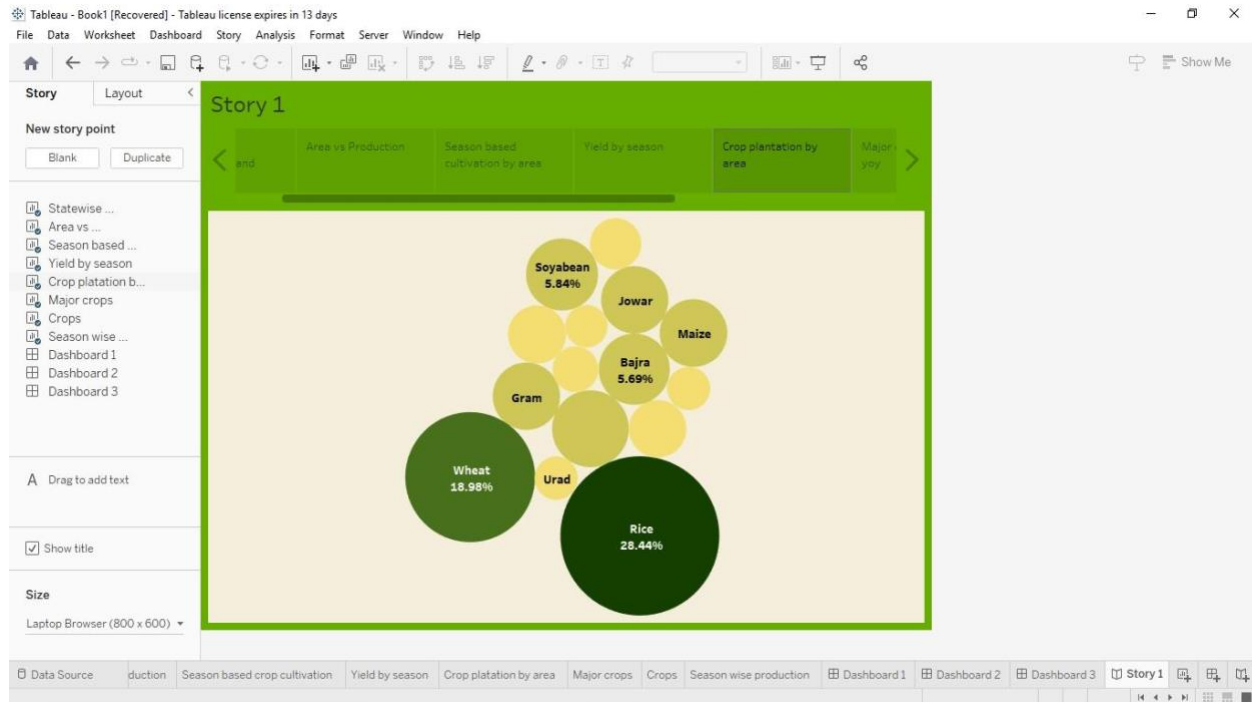


## Yield by season



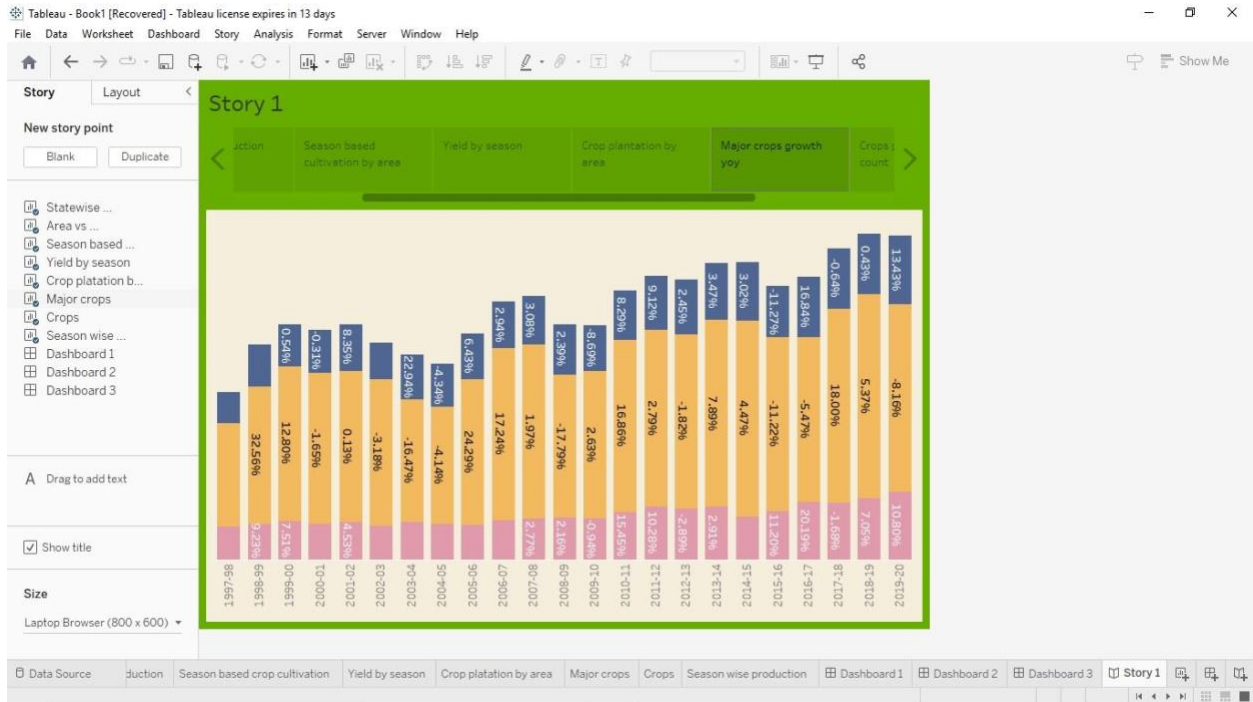
- The crops which give the highest yield are rice, wheat, pulses

## Crop plantation by area



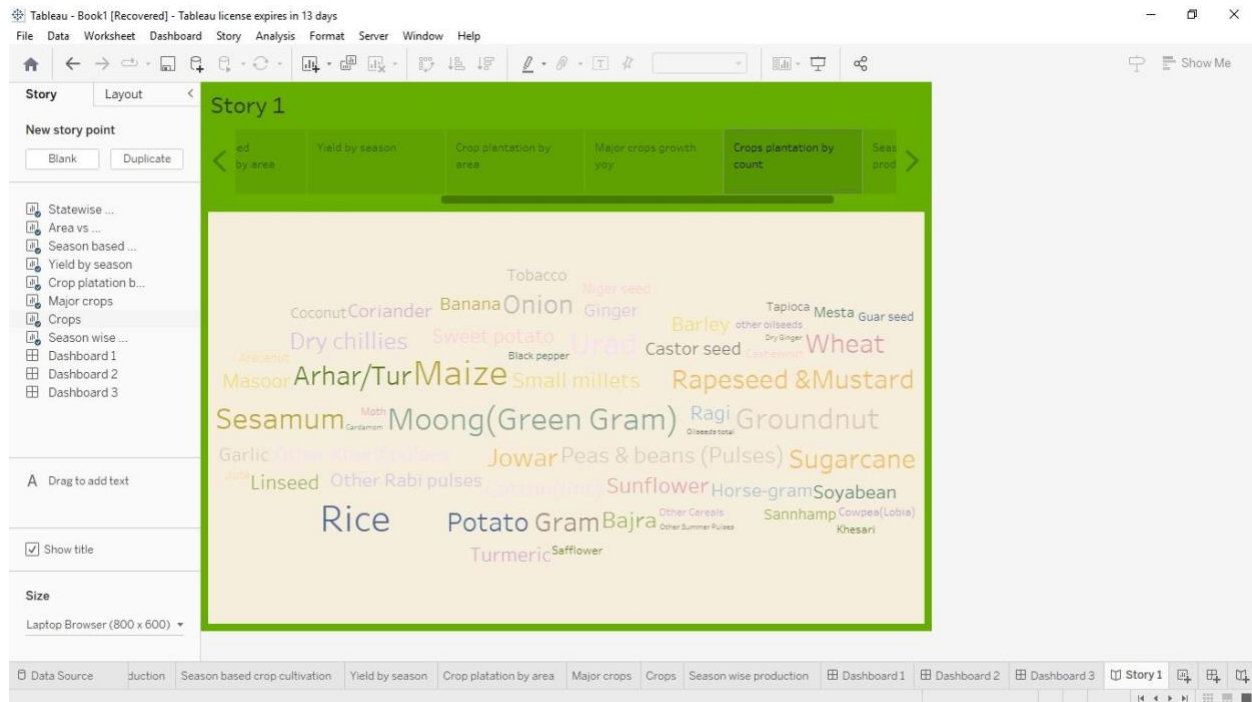
- Area occupied by plantation crops in India = 4 million ha. =2.8% of total cropped area.
- Earnings from export of plantation crops is 27% of total agricultural . Commodities and 4.8% of total export.

## Major crops growth Yoy



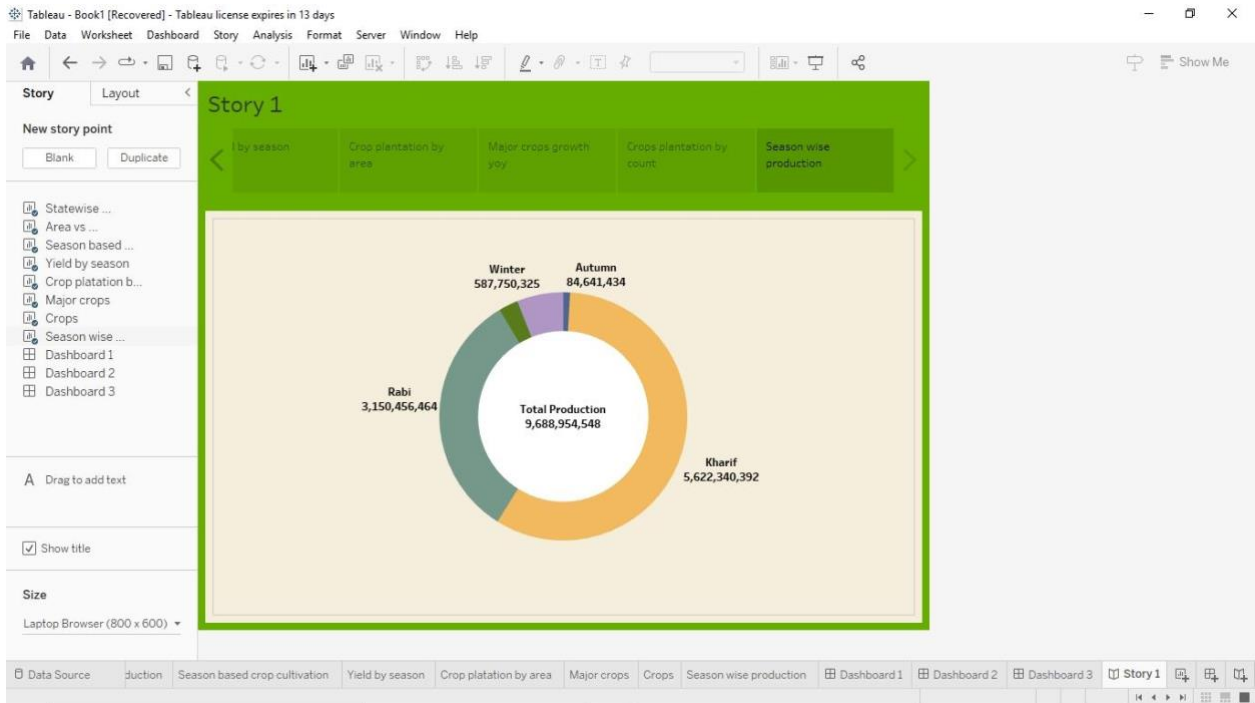
**Sugarcane – 414.04 million tonnes. (record) • Cotton – 34.06 million bales (each of 170 kg). Jute & Mesta – 9.57 million bales (each of 180 kg). Further, the production during 2021-22 is higher by 25.35 million tonnes than the previous five years’ (2016-17 to 2020-21) average production of food grains.**

## Crops



**Production of Plantation Crops has increased from 16.12 Million Tonne in 2019-20 to 16.63 Million Tonne in 2020-21. Production of Spices has increased by 9.7%, from 10.14 Million Tonne in 2019-20 to 11.12 Million Tonne in 2020-21.**

## Season wise production



**The kharif cropping season is from July –October during the south-west monsoon and the Rabi cropping season is from October-March (winter). The crops grown between March and June are summer crops.**

#### **ADVANTAGE:**

- ✓ There is over all increase in yield of crops mainly due to maintaining physical- chemical properties of soil. ...
- ✓ It helps in controlling insects, pests and soil borne diseases. ...
- ✓ Prevent or limit periods of peak requirements of irrigation water.

#### **DISADVANTAGE:**

- ✓ One disadvantage of crop rotation is that it involves risk.
- ✓ Despite high initial costs in machinery and different seedlings, the success of each rotation is not guaranteed.
- ✓ Additionally, diseases and diseases from other crops used in rotation may infect other crops, adversely affecting production.

#### **APPLICATION:**

- ✓ A crop is a plant or plant product that can be grown and harvested for profit or subsistence. By use, crops fall into six categories: food crops, feed crops, fiber crops, oil crops, ornamental crops, and industrial crops. Food crops, such as fruit and vegetables, are harvested for human consumption
- ✓ E-Agriculture is a global Community of Practice, where people from all over the world exchange information, ideas, and resources related to the use of information and communication technologies (ICT) for sustainable agriculture and rural development.

#### **FEATURE SCOPE:**

- ✓ Indian Agriculture is mainly of intensive subsistence type.

- ✓ It is mainly practised in areas of high population pressure on land.
- ✓ It is labour intensive farming where high doses of biochemical inputs and irrigation are used for obtaining high yields.
- ✓ Farmers continue to take maximum output from the limited land with absence of alternate source of livelihood which leads to enormous pressure on agricultural land.
- ✓ The right of inheritance has led to division of land among successive generations and rendered the size of land holding uneconomical.

#### **CONCLUSION:**

- ✓ The agricultural sector is of vital importance for the region. It is undergoing a process of transition to a market economy, with substantial changes in the social, legal, structural, productive and supply set-ups, as is the case with all other sectors of the economy.

*Thank you*