# Statistics for Agriculturists

## Selecting Statistical Variables

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### What is statistics?

MedTech

Ideas to products

IMAGINEERING

LAB I IIT KANPUR

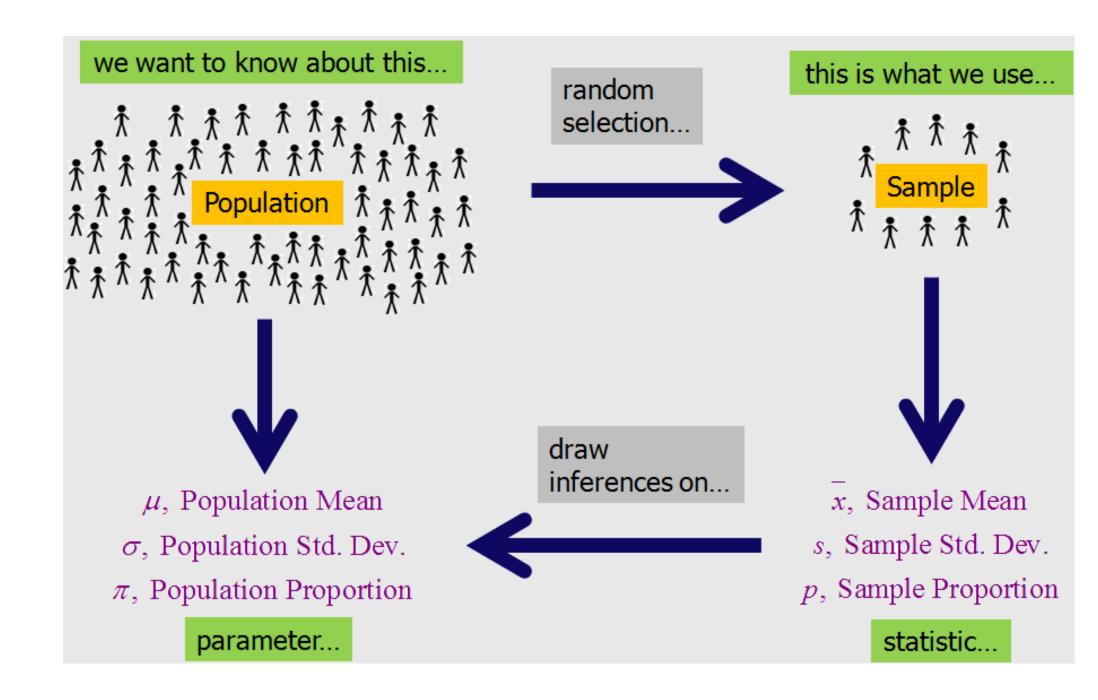
Statistics as a discipline it is concerned with the collection, analysis, and interpretation of data, as well as the effective communication and presentation of results relying on data.





- Population
- Parameter
- Sample
- Statistic



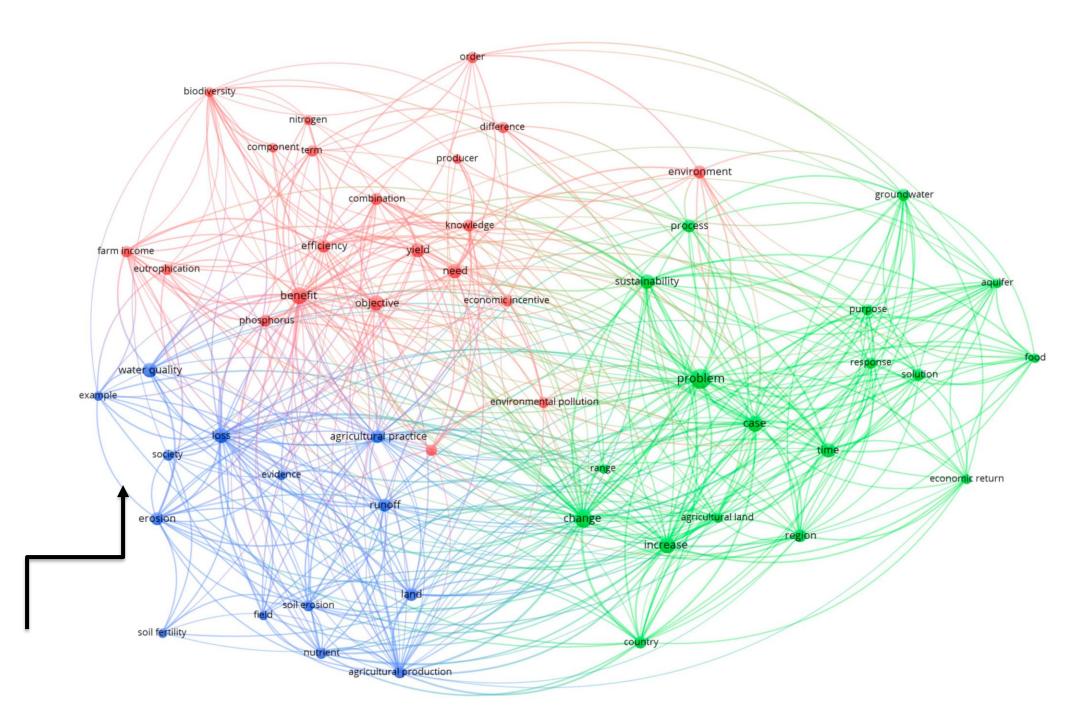




## Vital terms

#### Sources of Data:

- Primary Data
- Secondary Data
- Data set
- Data sets are of three types:
- a) Record data
- b) Graph based data
- c) Ordered data

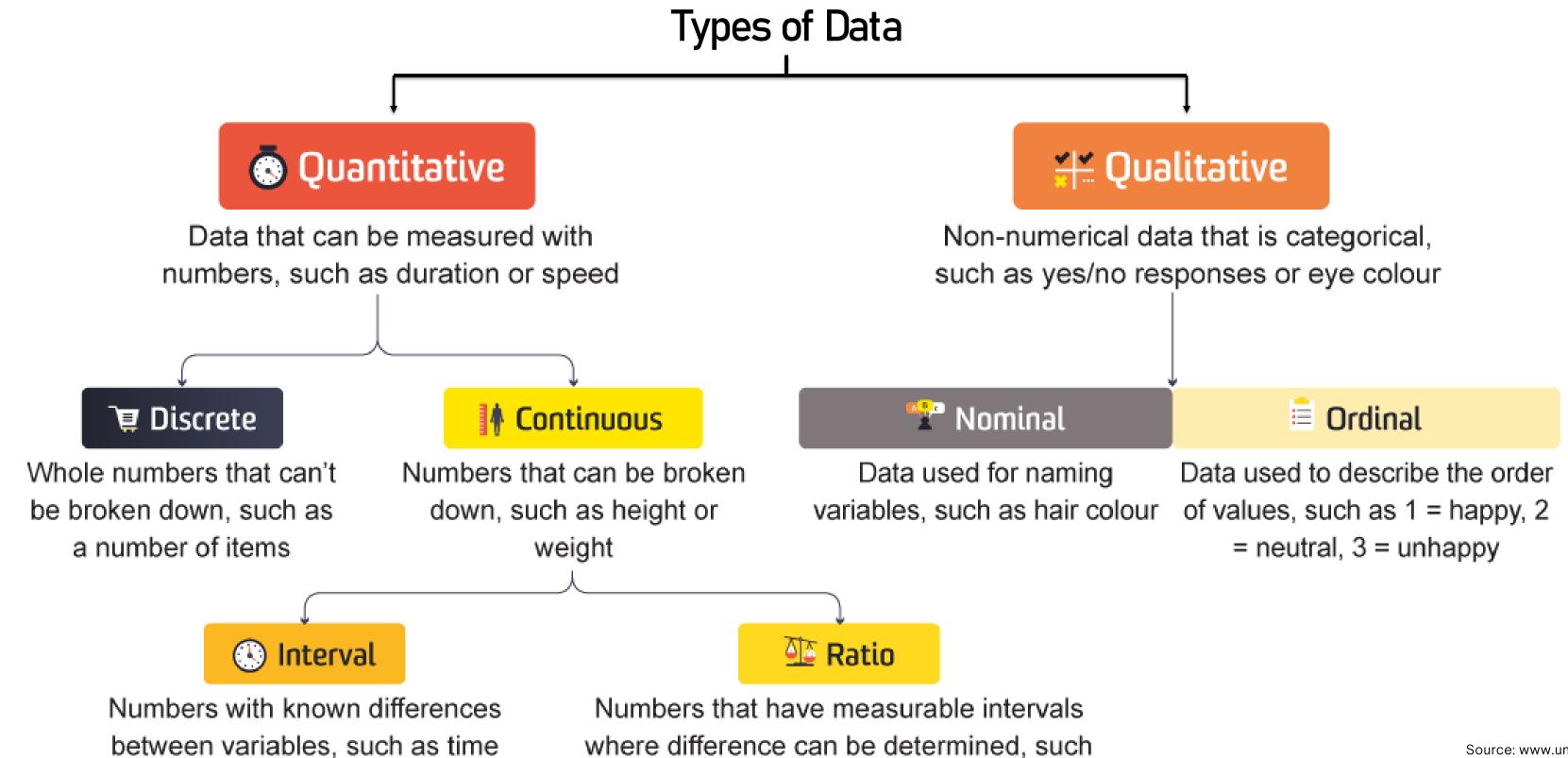


## **Basic Terminologies**









as height or weight

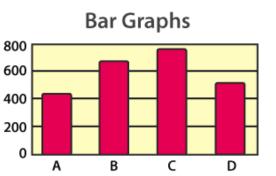


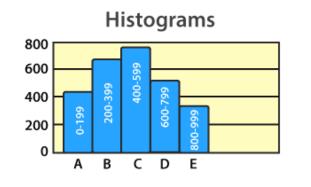
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- Bar graph
- Histogram
- Frequency Table
- Circle Graph
- Line Graph
- Stem and leaf plot
- Line Plot
- Box and whisker plot

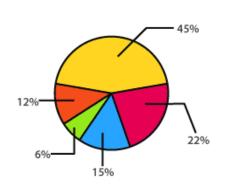


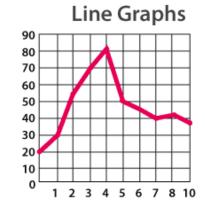


#### Frequency Table

Rulers of France		
Reign (Years)	Tally	Frequency
1-15	ווו זאע זאע זאע	18
16-30	וזאע זאע	11
31-45	ו זאג	6
46-60	III	4
61-75	I	1





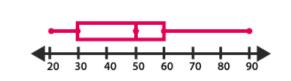




Stem	Leaf	
0	1, 1, 2, 2, 3, 4, 4, 4, 4, 5, 8	
1	0, 0, 0, 1, 1, 3, 7, 9	
2	5, 5, 7, 7, 8, 8, 9, 9	
3	0, 1, 1, 1, 2, 2, 2, 4, 5	
4	0, 4, 8, 9	
5	2, 6, 7, 7, 8	
6	3, 6	
Key: 6   3 = 63 Year		



**Box and Whisker Plot** 



Source: www.byjus.com

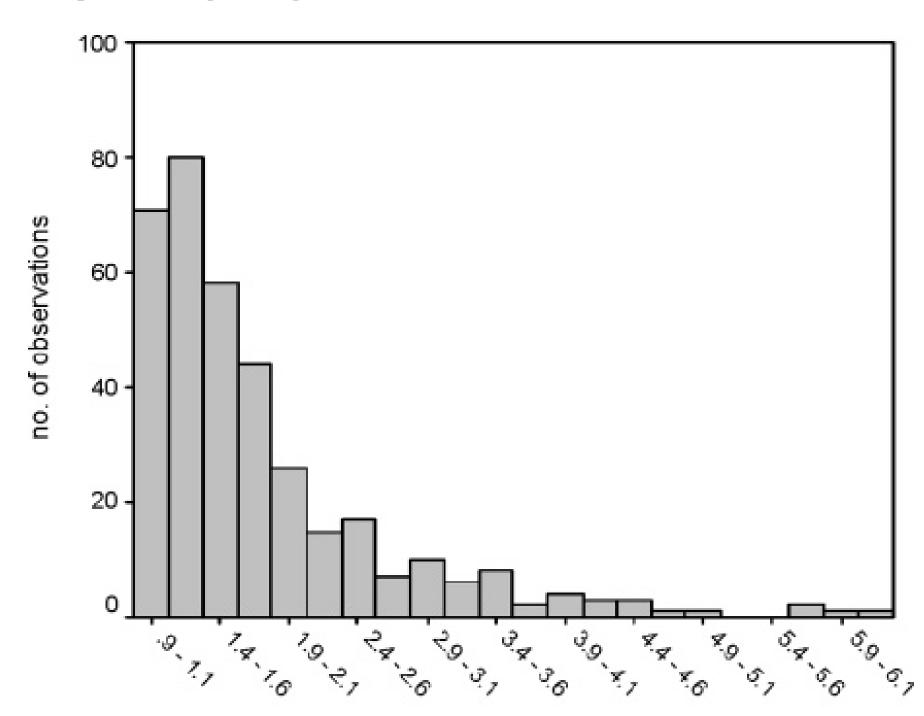




### Formation of class intervals

It's a 3 step easy process:

- 1. Use intervals of equal length at convenient round numbers
- 2. For small data set use small number of intervals
- 3. For a large data set use more intervals



relative change in yield

## Thank you

