

# PREPARATION OF BORDEAUX MIXTURE

# INORGANIC FUNGICIDES

- The fungi causing plant diseases are the most effective competitors of man for the products of his agricultural labour .
- FUNGICIDE –“ Any agency which has the ability to kill fungus”. Fungicides are classified into two : (a) Inorganic (b) organic
- In the inorganic group, various preparations of  $\text{CuSO}_4$ , copper carbonate, nickel chloride are usually used.

# BORDEAUX MIXTURE

- ▣ Bordeaux mixture is an inorganic fungicide. It is the most common  $\text{CuSO}_4$  preparation used as a fungicide.
- ▣ Bordeaux mixture is prepared by mixing a slurry of lime in water and copper sulphate solution in water. This mixture is actually a light blue gelatinous precipitate.

# PREPARATION OF 1% BORDEAUX MIXTURE

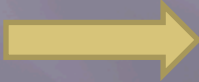
Aim - To prepare 1% of  
bordeaux mixture

Total ingredients (CuSO <sub>4</sub> in gm)	Total ingredients(CuSO <sub>4</sub> in kg)
CuSO <sub>4</sub> - 1gm in 50ml H <sub>2</sub> O	CuSO <sub>4</sub> - 1kg in 50 l H <sub>2</sub> O
CaOH - 1gm in 50ml H <sub>2</sub> O	CaOH - 1kg in 50 l H <sub>2</sub> O
H <sub>2</sub> O - 100ml	H <sub>2</sub> O - 100 l

Ratio - CuSO<sub>4</sub> : CaOH : H<sub>2</sub>O = 1:1:100



# PROCEDURE FOR PREPARATION OF 1% BORDEAUX MIXTURE

1. 1gm of  $\text{CuSO}_4$  is dissolved in 50ml of water in a glass container.
2. 1gm of (quick lime)  $\text{CaOH}$  is dissolved in little water to make it slaked lime (chunnamb).  
quick lime  slaked lime
3. Then 50 ml  $\text{H}_2\text{O}$  is added into the slaked lime .
4.  $\text{CuSO}_4$  solution is poured into and mixed with quick lime water with continuous stirring .

- ▣ Bordeaux mixture can be prepared in wooden or glass vessel . But never in the metallic bowls
- ▣ This mixture is unstable and hence it is advisable to use immediately after preparation.
- ▣ By this procedure 100litre of 1% of bordeaux mixture is obtained.

# PREPARATION OF 10% BORDEAUX MIXTURE

Aim - To prepare 10% of  
bordeaux mixture

Total ingredients (CuSO <sub>4</sub> in gm)	Total ingredients (CuSO <sub>4</sub> in kg)
CuSO <sub>4</sub> - 1gm	CuSO <sub>4</sub> - 1kg
CaOH - 1gm	CaOH - 1kg
H <sub>2</sub> O - 10ml	H <sub>2</sub> O - 10l

Ratio - CuSO<sub>4</sub> : CaOH : H<sub>2</sub>O = 1:1:10

# PROCEDURE FOR PREPARATION OF 10% BORDEAUX MIXTURE

1. 1gm of  $\text{CaOH}$  dissolved in 5ml of water.
2. 1gm  $\text{CuSO}_4$  dissolved in 5ml of water.
3. Now add  $\text{CuSO}_4$  solution into lime water with slurry.
4. This is like a paste. It can be applied to infected paste with the help of a brush.
5. By this procedure 10% bordeaux mixture is obtained.



# ADVANTAGES OF BORDEAUX MIXTURE

- ▣ It is very safe to use because ,its toxicity to humans and animals is very low .
- ▣ Usually the Bordeaux mixture is used for spraying against fungal diseases of rubber trees, coconut trees ,pepper plants, vegetables etc.....