

# **CHS3403 Principles of Plant Pathology in Cannabis and Medicinal Plant**

**- Characteristic plant disease from environment factor**

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## 4.plant disease symptoms caused by improper environment and their prevention and control

### **Abnormal environment**

4.1 Shrinking bouquet

4.2 The trunk and branches  
are broken.

4.3 Bulb burning

4.4 Abnormal long seedling  
stage

### **innutrition**

4.5 Boron deficiency (B)

4.6 Calcium deficiency (Ca)

4.7 Iron deficiency (Fe)

4.8 Magnesium deficiency (Mg)

## 4.plant disease symptoms caused by improper environment and their prevention and control

### Abnormal environment

#### 4.1 Shrinking bouquet

##### Cause:

- Too little light during flowering
- High temperature exposure during flowering
- innutrition

##### symptom:

Inflorescence is light and shrunk, and only a few trichomes are found in the inflorescence.



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### 4.1 Shrinking bouquet

Administration:

- Increase the number of light hours during flowering.
- Reduce the temperature in the shrub shape by increasing the distance between plants and bulbs to reduce the heat when planting in greenhouse conditions. Under the conditions of plot with planned planting date, avoid high temperature period in flowering period to reduce problems.
- Increase potassium content in the middle and late flowering stage.

## 4.plant disease symptoms caused by improper environment and their prevention and control

### 4.2 The trunk and branches are broken

#### Cause :

- due to the presence of a large number of branches in the tree When rain and wind cause the branches to gain weight and tear.

#### symptom :

- The branches are broken from the trunk, the trunk is overturned.



## 4.plant disease symptoms caused by improper environment and their prevention and control

### 4.2 The trunk and branches are broken

#### Administration:

- Use of wood or supporting materials or may use a pair of ivy nets to support the tree



## 4.plant disease symptoms caused by improper environment and their prevention and control

### 4.3 Bulb burning

#### Cause :

- distance between leaf and bulb

#### symptom :

- The leaves were burnt brown due to the heat of the bulb.

#### Administration:

- The distance between the plant and the bulb should be increased by at least 5 cm, and the plant should be checked regularly. If the leaf is burnt, the burnt part should be cut off. To reduce the accumulation of fungi.



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### 4.4 Abnormal long seedling stage

#### Cause :

- Insufficient light

#### symptom :

- Abnormal elongation of seedlings.

#### Administration:

- Increase the amount of light or adjust the distance of the lamp to get close to the seedlings.





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### innutrition

Malnutrition can be divided into two parts:

1. Soft leaf anomaly caused by boron, calcium, copper, iron, manganese, molybdenum, sulfur and zinc  
In the trunk.
2. Senile leaf disease caused by nitrogen, phosphorus, potassium and magnesium.

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### 4.5 Boron deficiency (B)

#### Cause :

- Boron deficiency, mainly found in sand.

#### symptom :

- The leaf tip burns in the tender leaves, and the tender buds bend.

#### Administration:

- Spraying boron fertilizer on leaves



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### 4.6 Calcium deficiency (Ca)

#### Cause :

- Calcium deficiency is mainly found in sandy land and acidic soil.

#### symptom :

- It appears on the tender leaves. The leaves form scars on the plant leaves due to cell death.

#### Administration:

- Spray calcium nitrate or dolomite in the plot



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### 4.7 Iron deficiency (Fe)

#### Cause :

- Iron deficiency.

#### symptom :

- appear on young leaves whose leaves are bright yellow due to the loss of chlorophyll, But the midrib is dark green.



#### Administration:

- Use iron leaf fertilize

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### 4.8 Magnesium deficiency (Mg)

#### Cause :

- Magnesium deficiency

#### symptom :

- The leaves appear in the leaves, and the leaves are green from the veins and the central area, but the edge area of the leaves is yellow. If there are serious symptoms at the tip, it is dry.

#### Administration:

- Spraying Magnesium Sulphate Fertilize



**GRACIAS**  
**ARIGATO**  
**SHUKURIA**  
**JUSPAXAR**  
**GOZAIMASHITA**  
**EFCHARISTO**  
**KOMAPSUMNIDA**  
**MAAKE**  
**GRAZIE**  
**MEHRBANI**  
**PALDIES**  
**BOLZIN**  
**MERCI**  
**TASHAKKUR ATU**  
**SUKSAMA**  
**EKHMET**  
**YUQHANYELAY**  
**TINGKI**  
**BIYAN**  
**SHUKRIA**  
**THANK**  
**YOU**