

CHS3403

PLANT PATHOLOGICAL PRINCIPLES OF CANNABIS AND HERBS

2. BASIC PRINCIPLES OF PLANT DISEASE CONTROL IN CANNABIS AND HERBS



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Topic

1. Definition of plant disease control
2. Principles of plant disease control
3. Principles of plant disease management
4. How to control plant diseases



1. Definition of plant disease control



plant disease control

Plant disease control refers to any behavior that can reduce the severity of the disease to reduce the losses caused by the disease. Disease control is preventive. (Protection) and elimination of diseases (elimination) to prevent the occurrence of diseases and reduce the severity of diseases by destroying the bacteria of diseased plants. It will not produce colonies that damage other normal parts or plants



Main principles of plant disease management

1. Reducing the food accumulation of pathogens It is practice to reduce the source of the initial pathogen accumulation by various methods. to reduce the number of initial pathogens as low as possible Since the number of original pathogens determines the severity of the disease outbreak, Practices will focus on how to eliminate pathogens present in different sources. not to increase the amount to destroy the plants

2.Reducing the invasion rate of pathogens is practice to make pathogens reduce the rate of infection to plants by various methods to prevent the destruction of germs



2.Principles of plant disease control



2. Principles of plant disease control

1. Avoid bacteria
2. Exclusion
3. Sterilization
4. Disease prevention
5. Disease resistance
6. Treatment of plant diseases

Principles of plant disease control

1. Avoidance of pathogens (Avoidance) is the avoidance of disease by selecting the appropriate planting period or selecting a planting area that is free of pathogens. Or areas where the environment is not conducive to disease infection, such as choosing a planting time, such as postponing the planting date to a day that causes germs to lack food and have to fight with changing environments Selection of varieties and planting sites Choose a planting site where the disease has not been reported. Cleaning the planting plots such as removing plant debris and weeds from the planting fields and destroying them.

Principles of plant disease control

2. Exclusion is to prevent the introduction of pathogens into the planting field, such as by using legal methods. Specify plant species or types of pathogens that are forbidden to be imported into the country. Elimination of pathogens that come in contact with plant propagators such as seeds, tubers, cuttings by covering the seeds with chemicals. Soaking the cuttings in hot water Elimination of vectors such as the use of chemical insecticides. to help reduce the spread of the disease to the new plots

Principles of plant disease control

3. Elimination of germs (Eradication) is the destruction of the pathogens of the disease. so that pathogens cannot cause disease

There are many methods of eradicating diseases such as biological control of plant diseases. is the use of living organisms or microorganisms to control the population of plant pathogens crop rotation Control of plant diseases by using chemicals. The use of heat to eliminate pathogens of plant diseases.

Principles of plant disease control

4. Prevention of disease (Protection) is the prevention of disease by using toxic chemicals or creating a barrier to the destruction of pathogens, such as using chemicals to cover seeds to prevent the destruction of pathogenic bacteria. Use of chemicals to eliminate vectors Setting up an environment suitable for plant growth maintenance of plants to be strong, such as fertilization

Principles of plant disease control

5. Resistance to disease (Resistance) is the selection of plant varieties that are resistant or resistant to the destruction of plant pathogens. The resistance of plants to disease may be caused by various methods such as selection, budding , grafting, which involves grafting buds or cuttings onto rootstocks that are resistant to disease. mutation induction by using chemicals or X-rays, gamma rays, the use of genetic engineering techniques by transferring disease-resistant genes

Principles of plant disease control

6. Treatment of diseased plants (therapy) is the treatment of plant diseases while the infection has already destroyed the plant. treatment using chemicals heat treatment This method is commonly used to eliminate plant diseases in seeds. Pruning off diseased branches, stems or plant parts.



3. Principles of plant disease management

Principles of plant disease management

Principles of plant disease management is the selection system and any suitable method of use. Whatever can reduce the damage of the plant to the level that the plant can tolerate. plant disease management It is different from plant disease control, that is, plant disease control. Indicates action to prevent plant disease by some means and stop immediately. See if it works or not. This is a shorter process than disease management. Plant disease management is a system that is planned both before and after planting. as well as assessing the value of crop production Therefore, plant disease control It is one of the systems of plant disease management.



Why should we manage plant diseases?



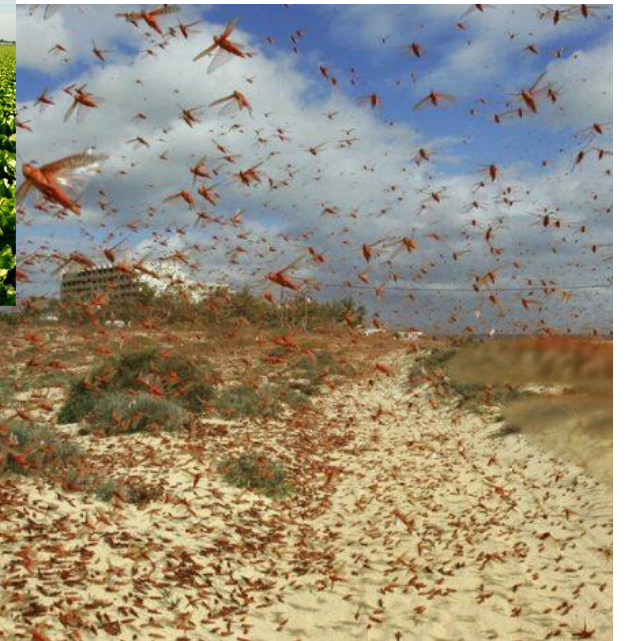
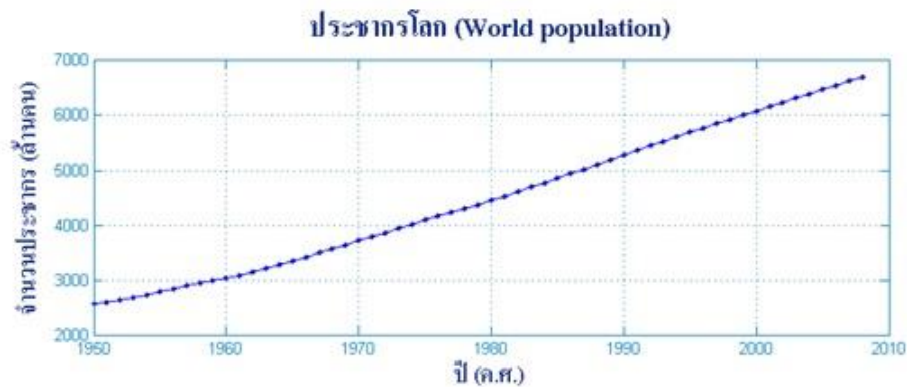
Why should we manage plant diseases?

1. Excessive use of chemicals in the past will lead to plant disease adaptation, chemical resistance or chemical residue damage to the environment.



Why should we manage plant diseases?

2. The increase in world population is the main reason for the increase in food production. It is necessary to adapt and change the agricultural environment, leading to ecological imbalance and pest outbreaks.





4.How to control plant diseases



How to control plant diseases

1. Physical control of plant diseases
2. Biological control of plant diseases
3. Chemical plant disease control
4. Use of resistant strains to control plant diseases
5. Control plant diseases by legal means

