

Salahaddin University \Erbil  
College of Agriculture  
Field crop Department  
4<sup>th</sup> class



# Field crop diseases \Practical 5<sup>th</sup> lab.

## Corn diseases

Assist lecturer:

Nask SH. Salh

Email: [nask.salh@su.edu.krd](mailto:nask.salh@su.edu.krd)

2023-2024

# Corn disease

# 1-Common smut

Pathogen: Fungus- *Ustilago maydis*.

HOSTS: Maize (*Zea mays*),



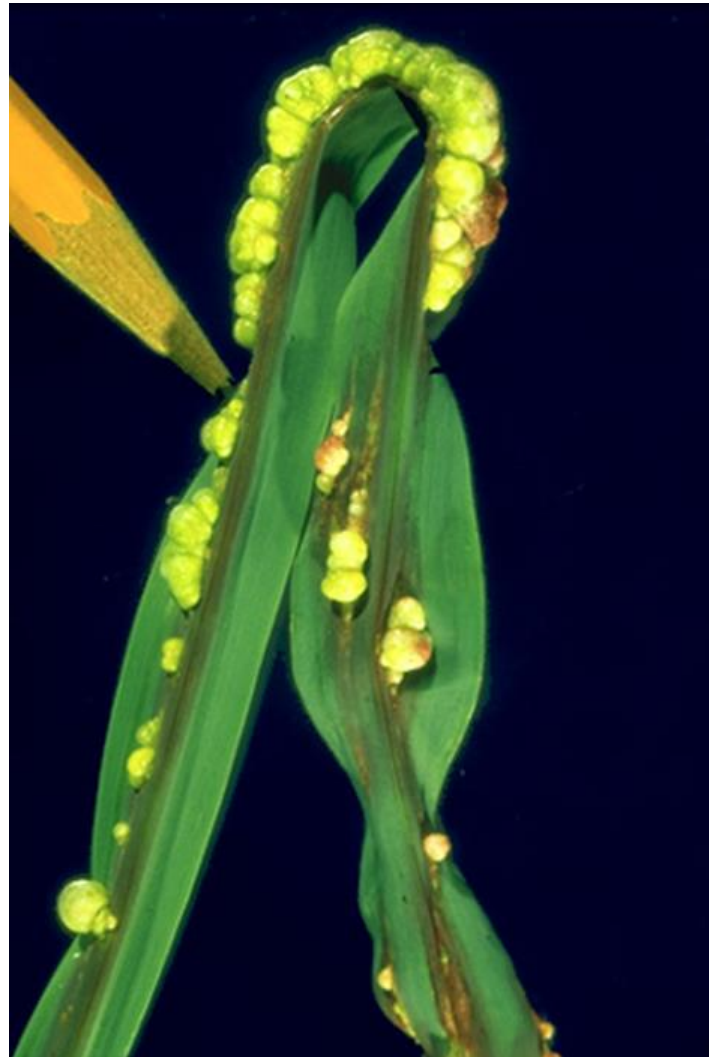
# Signs/Symptoms:

1- Large galls - primarily on stalks or ears, but may be on tassels and leaves.

2- Galls are covered with white or greenish-white tissue. Interior will darken and turn to a powdery, black mass of spores.



5- Galls on the leaves usually remain small, hard and dry.



# 2-Stewart's Bacterial Disease

**Pathogen:** Bacterium.

*Pantoea stewartii*

## **Inoculum Dispersal:**

- 1- Insect vector (corn flea beetle)
- 2- infected seed.

## Symptoms:

1- Leaf blight symptoms consist of long, irregular, pale green to yellow water-soaked streaks with wavy margins, becoming grayish brown with age.



2- Lesions are associated with flea beetle feeding scars on leaves (bacteria are transmitted from beetles into feeding scars). Systemic infection . Plants with systemic infections are stunted, wilted and/or discolored.





# 3-Bacterial Stalk Rot

Pathogen name: *Erwinia chrysanthemi*  
pv. *zeae* (Sabet)



# Symptoms

1-One or more of lowest internodes will turn tan to brown and become water soaked, soft, or slimy and there may be a foul odor.



2-Upper leaves wilt and a soft rot can occur at the base of the whorl, and this may spread rapidly down the plant.



# 4-Fusarium Ear Rot

Caused by *Fusarium verticillioides*  
(previously known as *Fusarium moniliforme*)



# Symptoms

Fusarium-affected kernels can appear tan or brown

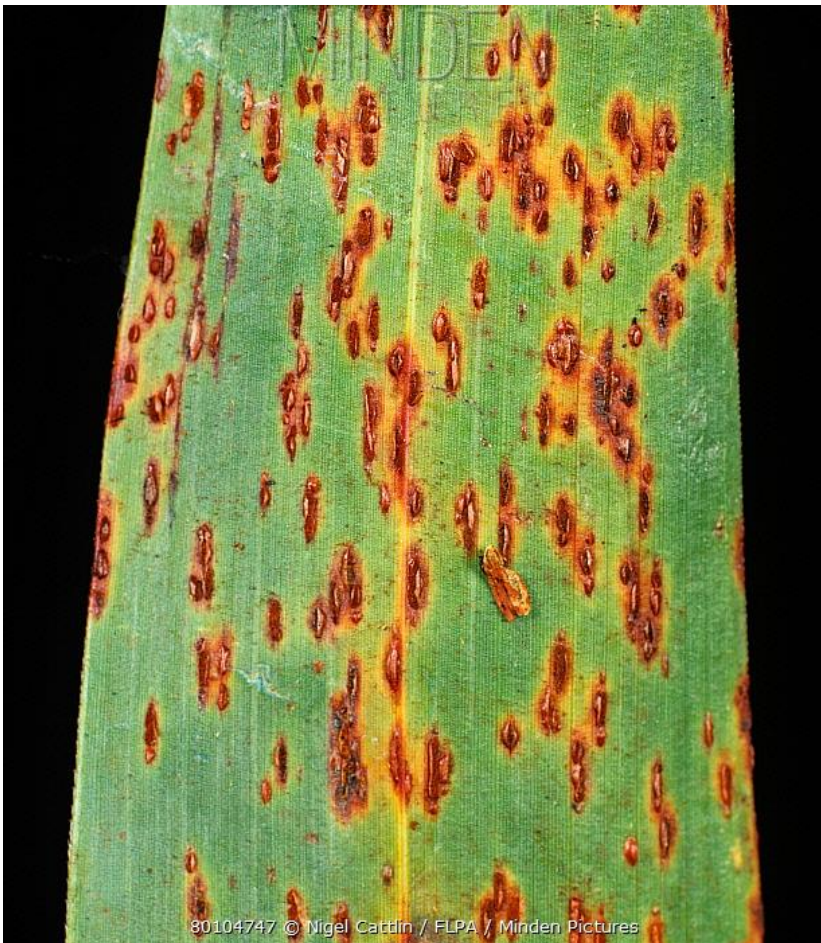


In cases where fungal growth is visible on the ear , infected kernels will appear white to pink or salmon-colored. In some cases, the kernels will have white streaks.



# 5-Common Rust

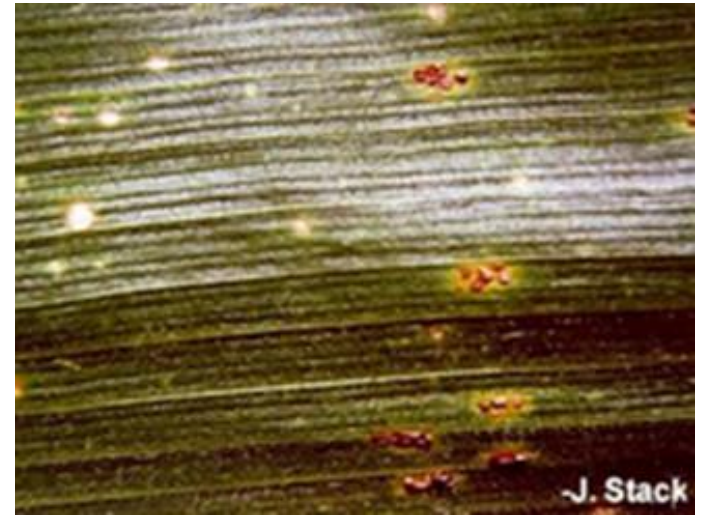
## *Puccinia sorghi*



# Symptoms

Early lesions on leaves are small, circular to elongate, and often occur in clusters.

As lesions mature, the fungus erupts through the leaf surface (epidermis) and the lesions become more elongated. At this stage, a prominent yellow halo is usually evident.





Brownish-red oblong pustules are the characteristic symptom on leaves; urediniospores that rub off on fingers are what impart the color to the lesion, lesions of common rust are sparsely spread over the leaf and occur on both upper and lower leaf surfaces.



Spores are wind-blown with new infections occurring every 7 to 14 days. As the season progresses, black teliospores are produced within the lesions.

