**Early Blight of Potato:**

**Occurrence & importance:**

* Occurs in humid and warm areas of world
* Cause losses up to 5-78%
* $45 million is spent on fungicides to control early blight of potato.

**Etiology:**

Causal organism: *Alternaria solani* Order: Moniliales  
Family: Dematiaceae

**Symptoms:**

* On leaves dark brown spots appear surrounded by yellow halo.
* Concentric rings (like target board) develop. These spots resemble with bull’s eye.
* In drought spots turn hard, in humid rotting patches appear
* Stem show brown to black lesions
* In severe attack leaves shriveled, dehisce\*(split apart) & fall off.
* On infected tubers sunken\*(deepen from normal surface) and irregular lesion appear.

**Disease cycle:** soil, warm humid, PLB (cool, moist)

* Fungi remain viable in dry infected leaves or debris for a year or more
* Contaminated tubers also primary source of inoculum
* Secondary infection occurs through wind, water & insects that aid fungal spores to move from infected to healthy plants.

**Epidemiology:**

* 13.6-23.6°C,
* Dew, Infrequent rain & more than 80 % RH favors the fungal growth.

**Management:**

* Cultural practices: a) crop rotation (b) Sanitation (c) burning of residues
* Spray Zineb, Dithane M-45 0.2%, Blitox-50 0.25% at 10-21 days interval.
* Resistant genotypes i.e. Desiree