POST-HARVEST DISEASES IN POMEGRANATE

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Post-Harvest Diseases Originating in the Orchard

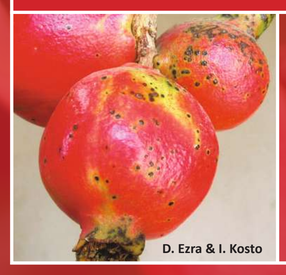
Systemic and latent infections on pomegranate orchard trees can cause fruit symptoms to develop after harvest and during storage. These diseases should be identified and managed according to an integrated control strategy during the fruit production stages prior to harvest.

Botrytis cinerea

- Spores accumulate in crown on stamems in orchard
- Spore germination during humid and hot conditions

Control
Orchard treatment
Orchard sanitation

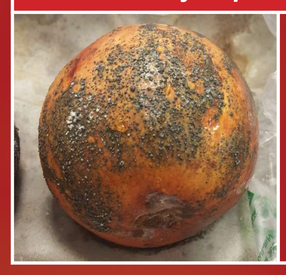
Alternaria alternata



- Also known as Alternaria fruit spot
- Dark spots develop on fruit and leaves
- Symptoms limited to fruit surface

Control
Orchard treatment
Orchard sanitation

Cytospora punicae



- Systemic infection in trees
- Spores spread between trees through water or pruning. Mummified fruit on the orchard floor is inoculum

Control
Orchard sanitation
Orchard treatment

Coniella granati

- Systemic plant infection
- Spores can spread from fruit to fruit during handling and storage

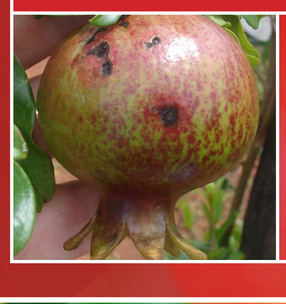
Control
Orchard treatment
Post-harvest fruit treatment

Colletotrichum sp.

- Known as Anthracnose
- Dark spots develop on leaves and fruit
- Spread during periods of high humidity and temperature in orchard

Control
Orchard treatment
Orchard sanitation

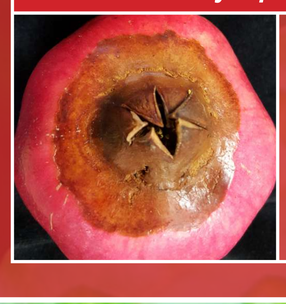
Xanthomonas axonopodis



- Also known as Bacterial blight
- Systemic infection in trees
- Diseases can spread from tree to tree in humid conditions and through pruning

Control
Clean propagating material
Orchard sanitation

Botryosphaeria sp.



- Systemic infection in trees
- Diseases can spread from tree to tree in humid conditions and through pruning

Control
Orchard sanitation
Orchard treatment

Elsinoë punicae

- Also known as scab
- Spores spread from tree to tree in humid conditions and through pruning

Control
Orchard sanitation
Orchard treatment

Diseases Developing in Storage - After Harvest and Packing

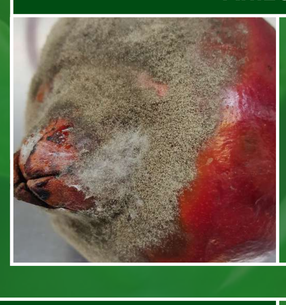
Symptoms of postharvest diseases develop during storage, but infection of fruit by decay-causing pathogens could occur during the harvesting process (in the orchard), at post-harvest handling (transport, storage), packing process (treating, sorting and packing) as well as during storage (general storage conditions).

Penicillium spp.

- Primarily a wound or secondary pathogen
- Can spread to adjacent fruit in packed cartons

Control
Avoid fruit damage during harvest and packing
Post-harvest treatments

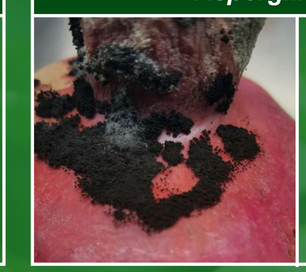
Rhizopus



- Also known as Black bread mould
- Acts mostly as saprophyte on dead tissue

Control
Avoid fruit damage
Post-harvest treatments

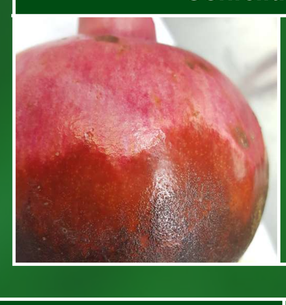
Aspergillus niger



- Also known as Black mould
- Could occur also inside fruit following orchard infection

Control
Avoid fruit damage
Post-harvest treatments

Coniella granati



- Can spread via spores from fruit to fruit
- Can spread to adjacent fruit in packed cartons

Control
Avoid fruit damage during harvest and packing
Post-harvest treatments

Botrytis cinerea

- Also known as Crown rot
- Can spread to adjacent fruit in packed cartons

Control
Post-harvest treatments

Alternaria alternata

- Also known as Black Heart Disease
- Infection initiated during flowering
- Not visible from outside of fruit

Control
Orchard treatment
Orchard sanitation

Physiological and Mechanical Disorders

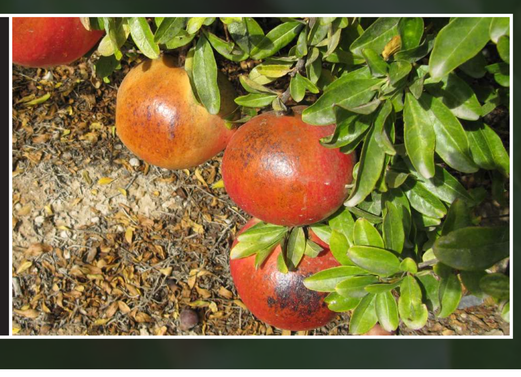
Hail Damage

Stem end russet

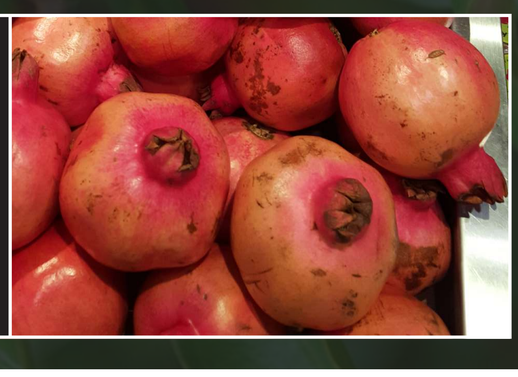
Scratches

Fruit crack

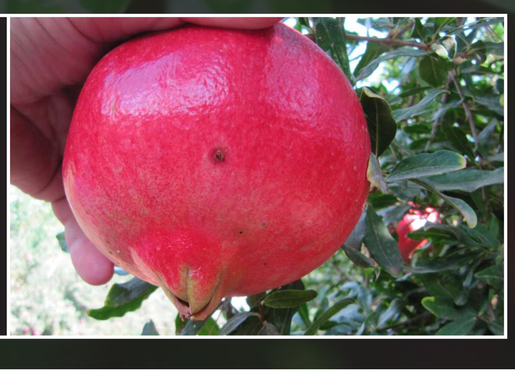
Sunburn



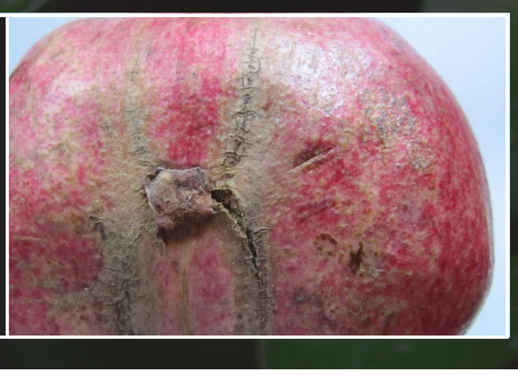
Fruit bruising



Insect damage



Malformed fruit



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