

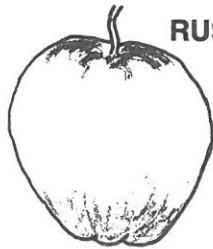
# Pests of Apple Fruit Of Bugs & Blights

by  
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**APPLE SCAB\***

- fungus lesions with zones
- small to large, roughly circular spots coalesce
- cracking occurs in severe infections



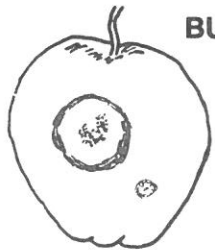
**RUSSETING\***

- smooth russetting at calyx end may be due to rust mite



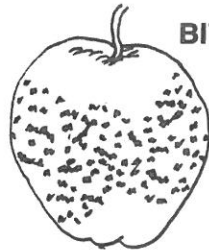
**APPLE MAGGOT**

- maggot without a definite head capsule
- shallow mines on apple surface
- "worm" tunnels through fleshy portion, brownish rot follows



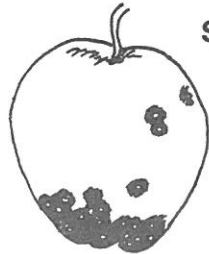
**BULL'S EYE ROT**

- margin darker than surrounding tissue
- brown spongy tissue beneath spot



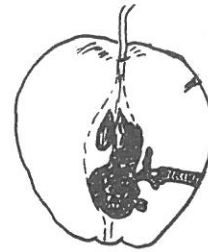
**BITTER PIT\***

- physiological disorder
- caused by localized calcium deficiency
- pits are only surface deep & don't penetrate fruit
- some varieties more susceptible



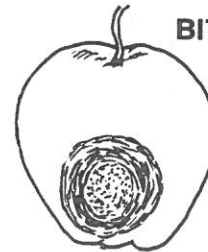
**SAN JOSE SCALE\***

- gray-white scale in slight depression
- reddish discoloration on skin
- watch for scales on bark of twigs and branches



**CODDLING MOTH\***

- caterpillar with definite head capsule
- frass on outside of fruit
- "worm" heads for center of fruit



**BITTER ROT**

- fungus infection



**LEAF ROLLERS or CUTWORMS\***

- external injury includes deep holes and/or bumps or craters of callused old injury
- reduces grade



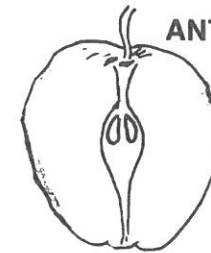
**FRUIT DROP**

- no seed inside shrivelled fruit
- lack of pollination due to:
  - lack of cross-pollinizer
  - spring frost
  - lack of bees to carry pollen
  - too cold for bees to fly



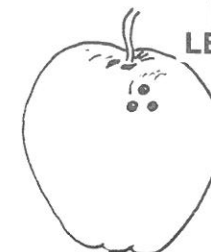
**ROSY APPLE APHID\***

- small distorted fruit
- accompanying leaves may be curled, distorted or yellow
- confined to fruit spur



**APPLE ANTHRACNOSE\***

- small circular light brown areas with spongy brown tissue beneath; slowly enlarge in storage
- small bumps (spores) may form in the center



**PANDEMIS LEAF ROLLER**

- tiny pinholes
- some webbing may remain

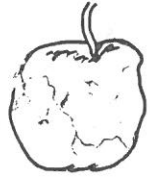


**BIRD INJURY**

- deep or shallow gouges in fruit
- beak marks often visible

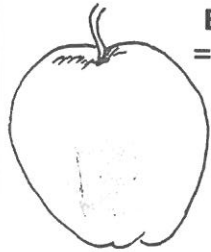
# Bugs

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from Page 4



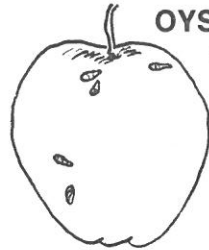
**VIRUS or BORON DEFICIENCY**

- small fruit with irregular sunken "scars"



**BUCKSKIN = SUNBURN**

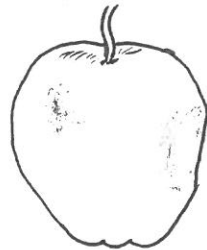
- bronzed area on young fruit due to too much sun on fruit
- usually on surface which is at right angle to sun
- lowers grade



**OYSTERSHELL SCALE**

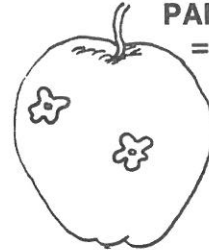


- minor damage to fruit
- reduces grade
- watch for clusters at branch nodes on bark trunk



**BRUISED**

- bruises occur when fruit drops from tree or when packed roughly



**PANSY SPOT = THRIPS**

- caused by egg puncture of a thrip
- faintly discolored area around egg
- reduces grade



**HONEYDEW DROPS**

- droplets of sticky honeydew produced by woolly apple aphid or other sucking insects



**SMALL SIZE**

- small size on an otherwise perfect fruit may be due to lack of water at critical growth phase or need for thinning to one or two apples per spur



**CRACKING**

- sudden growth after a period of slow growth that allowed skin to toughen such as sudden abundant water after a long dry spell



**RUSSETTING\***

- spidery corky tissue
- causes include weather, sprays, powdery mildew (may also cause cracking), honeydew, etc.
- some varieties russet more easily than others



**HEALTHY FRUIT**

- size color and shape typical for the variety
- lack of blemishes and perfection of fruit qualifies it for fancy and thus top price (such is the marketplace)

\*Denotes fairly common problems in Washington State. There may be considerable variation in local regions.