THE VISUAL AIDS ON THE FOLLOWING PAGES ARE FOR REFERENCE ONLY AND NOT INTENDED FOR OFFICIAL USE.

TO PURCHASE OFFICIAL VISUAL AIDS PLEASE CONTACT
THE SPECIALTY CROPS INSPECTION DIVISION'S
EQUIPMENT AND FORMS DEPOT

USDA, AMS, FVP, SCI 831 MITTEN ROAD, ROOM 200 BURLINGAME, CA 94010

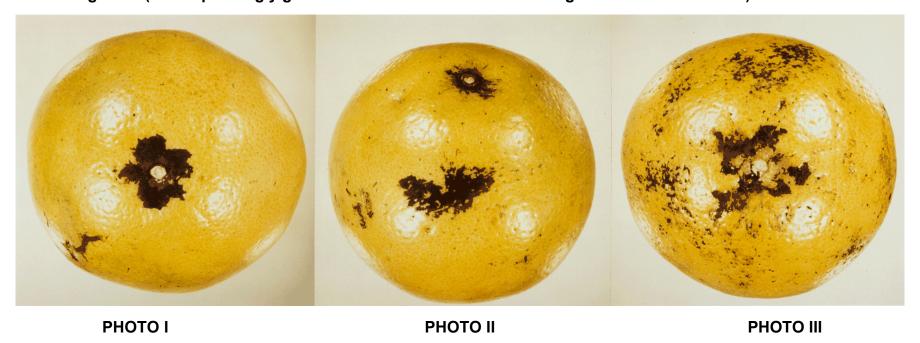
PHONE: 650-552-9073

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EQUIPMENT CATALOG

CALIFORNIA/ARIZONA, TEXAS AND FLORIDA CITRUS

SOOTY MOLD: This disorder is caused by a fungus that aheres to excretions of the White Fly in Florida or Black Scale in California. It may occur as light deposits scattered over the surface of the fruit or as heavily concentrated areas at the stem end. Normal washing procedures usually do not remove all fungus deposits. However, they can be easily removed if scraped with a finger or knife. Sooty Mold is a permanent grade defect (not discoloration) and scored on an appearance basis. As a guide, allow an aggregate area 1" in diameter on a 27 size grapefruit, 3/4" on a 36 size and 1/2" area on a 48 size for the U.S. No. 1 grade. Alow an aggregate area 1-5/8" in daimeter on 27 size grapefruit, 1-3/8" on 36 size and 1-1/8" on 48 size fruit for the U.S. No. 2 grade. (Correspondingly greater or lesser areas allowed on larger or smaller size fruit.)



PHOTOS NO. I & II – U.S. NO. 1, LOWER LIMIT These photos illustrate areas approximately 3/4" in diameter on 36 size grapefruit.

PHOTO NO. III – U.S. NO. 2, LOWER LIMIT This photo illustrates an area aggregating approximately 1-1/2" in diameter on a 32 size grapefruit.

CIT(CA&AZ,FLA&TX)-CP-1 Sooty Mold September 1989 (Previously Sooty Mold & Smudged Discoloration, August 1977)

CALIFORNIA/ARIZONA, TEXAS AND FLORIDA CITRUS

<u>SMUDGED</u>: This term is commonly applied to fruit more or less covered with a smoky deposit which cannot be rubbed off with the hand. This disorder is caused largely by smoke from orchard heaters during the season when frost has threatened.

(Florida and Texas Citrus only.)

Smudged Fruit shall be scored on the same basis as "Discoloration" and reported on the certificatge as "excessive discoloration" describing the shade of discoloration and showing percentage of surface affected.



Maximum extent appearance can be affected and still grade U.S. No. 1.

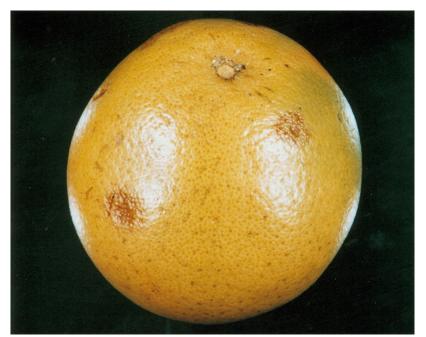
CIT(CA&AZ,FLA&TX)-CP-1-A Smudged Discoloration September 1989 (Previously Sooty Mold & Smudged Discoloration, August 1977)

CALIFORNIA/ARIZONA, TEXAS AND FLORIDA CITRUS

These photographs illustrate various tages of oil spotting on Florida and Texas citrus.

Oil spotting does not ordinarily change materially under normal transit and storage conditions. Therefore, this defect is considered a quality factor. At times, however, the area of rind immediately surrounding or within the oil spots will start to pit and turn into skin breakdown. For illustrations of this type injury see visual aid CIT-(FLA&TX)-3-IDENT-B.

Photo No. 1 Photo No. 2





OIL SPOTTING

In the above two photos note that the spots have little depth with no pitting. The pebbly or granular texture of the ruptured oil cells is one of the best ways to distinguish oil spotting from skin breakdown.

FOR IDENTIFICATION ONLY

CIT(FLA&TX)-1-IDENT-A
Oil Spotting
March 1990
(Previously CIT-(FLA&TX)-1-IDENT
August 1976, Side I)

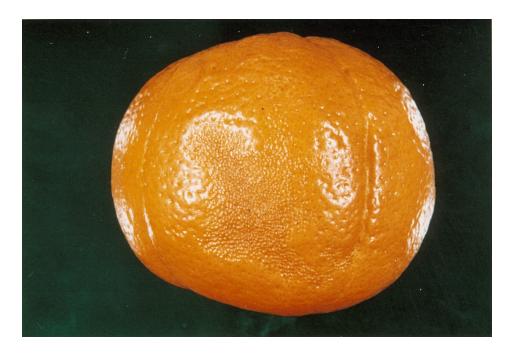


Photo No. 3

Extensive oil spotting on a Tangelo. (Note the granular appearance of the oil cells and the absence of pitting).

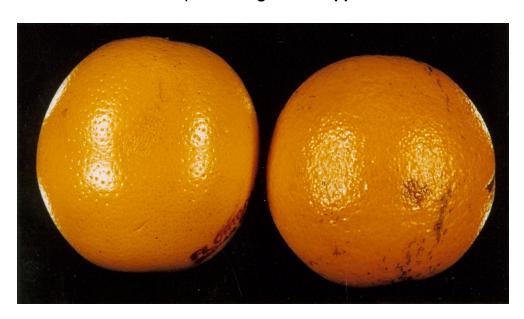


Photo No. 4

Illustration of two types of oil spotting.

Right: the oil spot is slightly sunken and the oil from the

ruptured cells has discolored the rind.

Left: the oil cells have little depth and are not discolored.

FOR IDENTIFICATION ONLY

CIT-(FLA&TX)-1-IDENT-B
Oil Spotting
March 1990
(Previously CIT-(FLA&TX)-1-IDENT
August 1976, Side II)

These photographs illustrate various types of skin breakdown on Florida and Texas citrus.

Since skin breakdown is progressive it is a condition defect. Skin breakdown is a more serious defect than oil spotting as the lesions become larger, deeper, more discolored with age, and are frequently followed by decay.

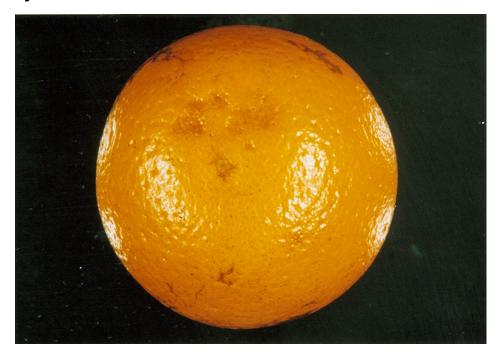


Photo No. 1

Early stage.

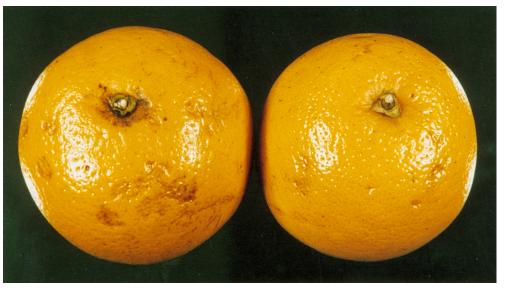


Photo No. 2

Advanced stage.

This type of skin breakdown is known as pitting. Note the depth and angular outline of the spots.

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CIT-(FLA&TX)-2-IDENT-A Skin Breakdown March 1990 (Previously CIT-(FLA&TX)-2-IDENT August 1976, Side I)

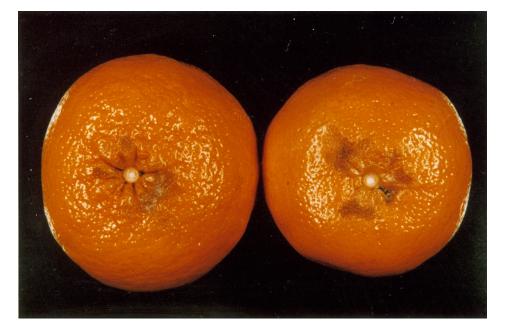


Photo No. 3

Illustration of advanced stages of skin brakdown on a Tangelo (aging).



Photo No. 4

Skin breakdown occurring on the side and around the stem end of the fruit.

NOTE: Skin breakdown normally occurs as pitted or markedly sunken discolored areas.

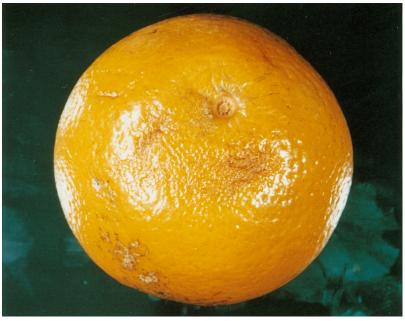
FOR IDENTIFICATION ONLY

CIT-(FLA&TX)-2-IDENT-B Skin Breakdown March 1990 (Previously CIT-(FLA&TX)-2-IDENT August 1976, Side II) These photographs illustrate the difference between oil spotting and skin breakdown on Florida and Texas citrus.

In Terminal markets individual fruit affected by both oil spotting and skin breakdown shall be scored against grade as follows:

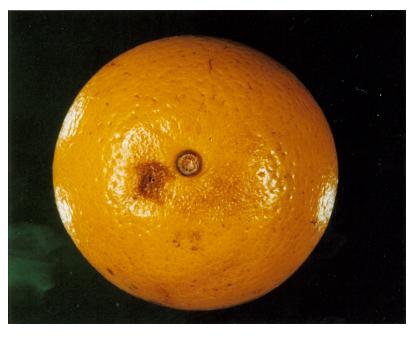
- 1. If the oil spotting alone exceeds the limit permitted by the grade, handle as a quality defect and report as oil spotting.
- 2. If the oil spotting alone does not exceed the limit permitted in the grade but the area of skin breakdown is greater than the grade allows, handle as a condition defect and report as skin breakdown.
- 3. If neither defect by itself is sufficient to affect grade but together they materially affect the apeparance, handle as a condition defect and report as skin breakdown.

Photo No. 1



The original injury to this orange is oil spotting. However, the sunken and discolored areas at the far right and left of the affected area are skin breakdown.

Photo No. 2

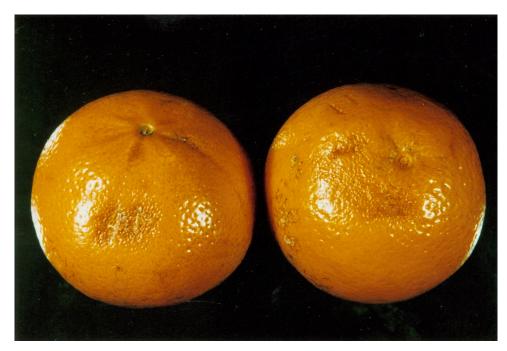


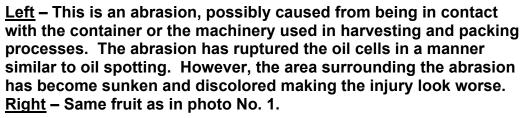
Skin Breakdown at left, Oil spotting at right.

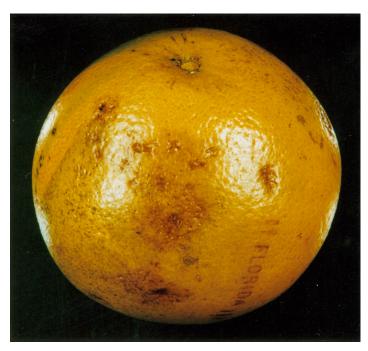
FOR IDENTIFICATION ONLY

CIT(FLA&TX)-3-IDENT-A
Oil Spotting/Skin Breakdown
March 1990
(Previously CIT-(FLA&TX)-3-IDENT
August 1976, Side I)

Photo No. 3 Photo No. 4







Skin breakdown foolowing oil spotting.
The original injury to this fruit was oil spotting.
Subsequently, skin breakdown has started over the oil spotting.

NOTE: In the terminal markets, all the fruit in the above photos would be scored as skin breakdown and reported as a condition defect.

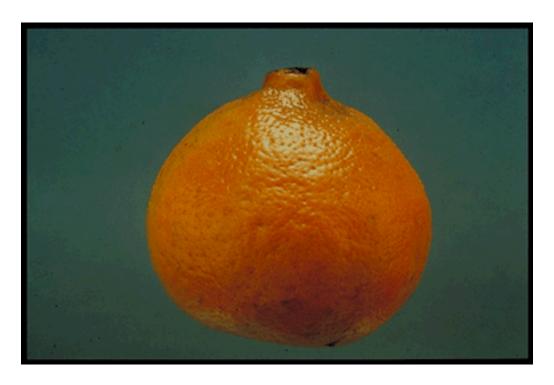
FOR IDENTIFICATION ONLY

CIT(FLA&TX)-3-IDENT-B
Oil Spotting/Skin Breakdown
March 1990
(Previously CIT-(FLA&TX)-3IDENT August 1976, Side II)

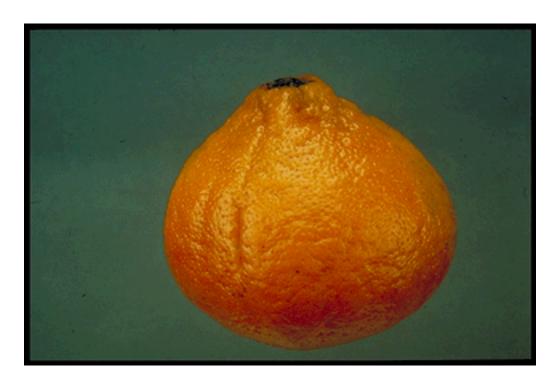
SLIDE 113 – WELL FORMED



TANGERINES SLIDE 114 – FAIRLY WELL FORMED



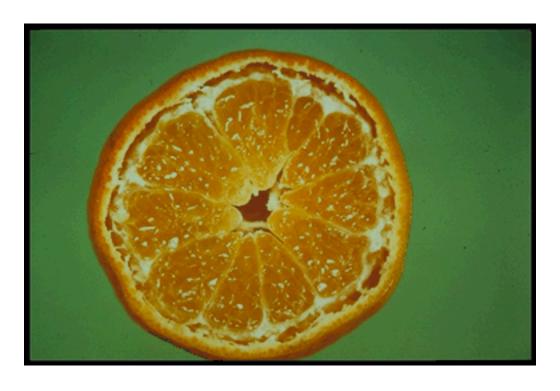
SLIDE 115 -- MISSHAPEN



TANGERINES SLIDE 116 – NOT SERIOUSLY LUMPY



SLIDE 117 – BADLY PUFFY



TANGERINES

SLIDE 118 – FAIRLY WELL COLORED

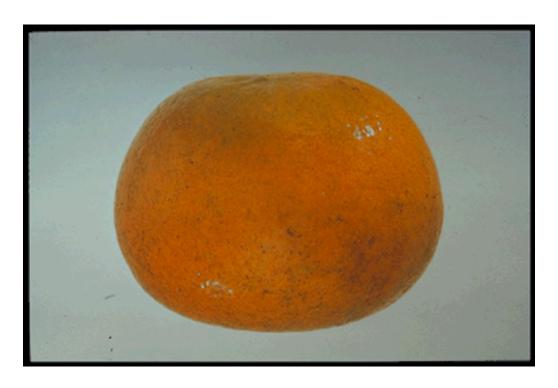


TANGERINES

SLIDE 119 – FAIRLY WELL COLORED



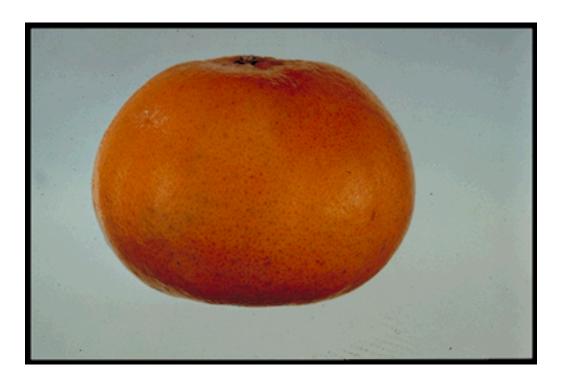
TANGERINES SLIDE 120 – HONEY TANGERINE



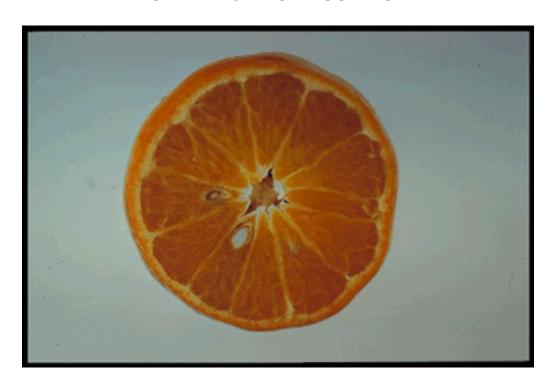
TANGERINES SLIDE 121 – HONEY TANGERINE CUT



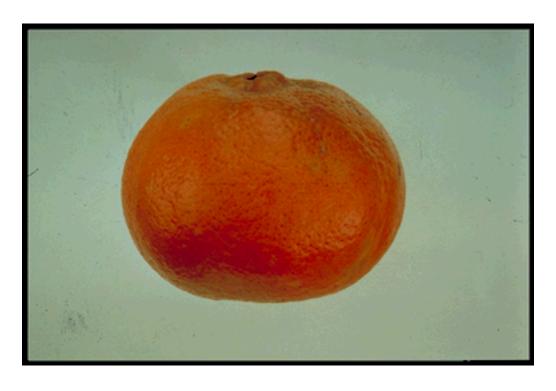
SLIDE 122 – ROBINSON



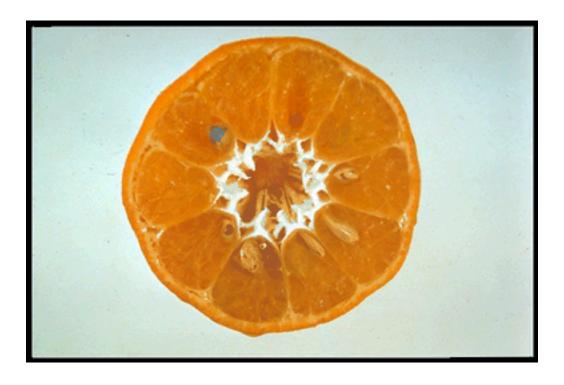
SLIDE 123 – ROBINSON CUT



SLIDE 124 - DANCY



SLIDE 125 – DANCY CUT



SLIDE 126 – BUCKSKIN



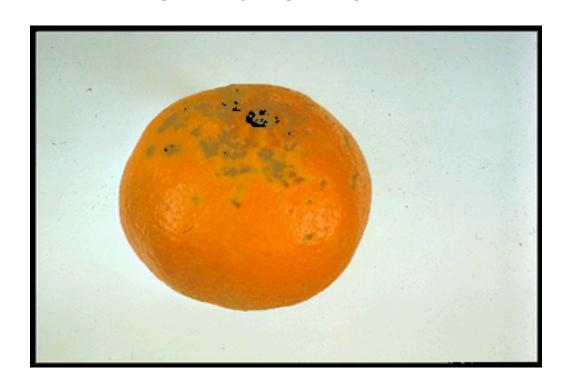
SLIDE 127 – GREEN SPOTS



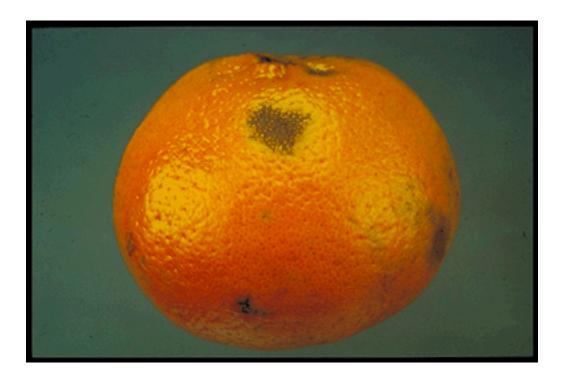
SLIDE 128 – SCALE RED



TANGERINES SLIDE 129 – PURPLE SCALE



SLIDE 131 – OIL SPOTS



SLIDE 132 -- SCARS



SLIDE 133 -- SCARS



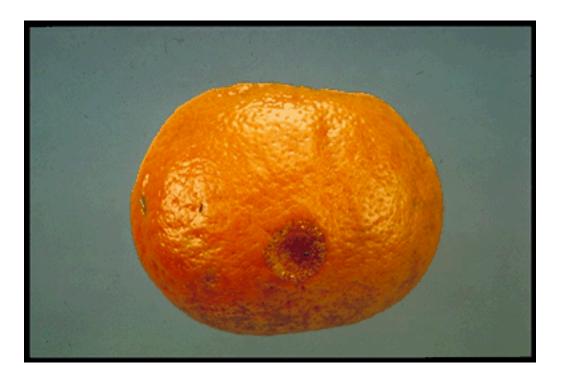
SLIDE 134 -- SCARS



SLIDE 135 -- SCARS



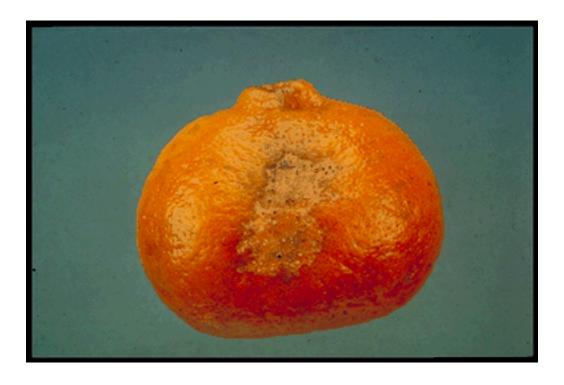
SLIDE 136 -- SCARS



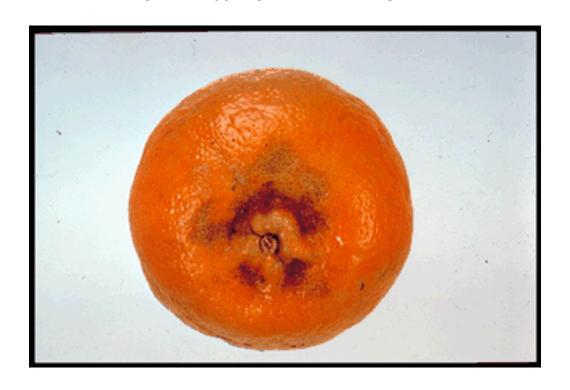
SLIDE 137 -- SCARS



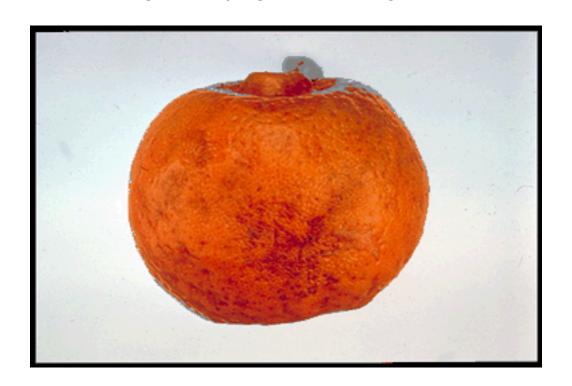
SLIDE 138 -- SCARS



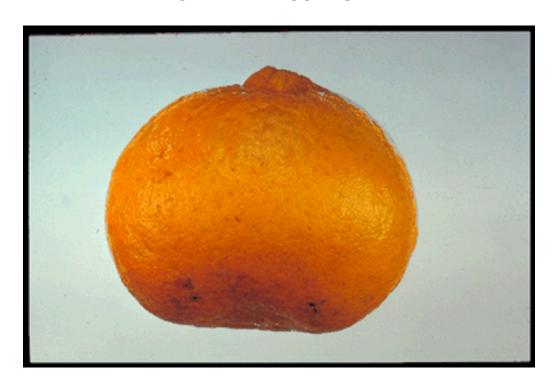
TANGERINES SLIDE 139 – SKIN BREAKDOWN



TANGERINES SLIDE 140 – SKIN BREAKDOWN



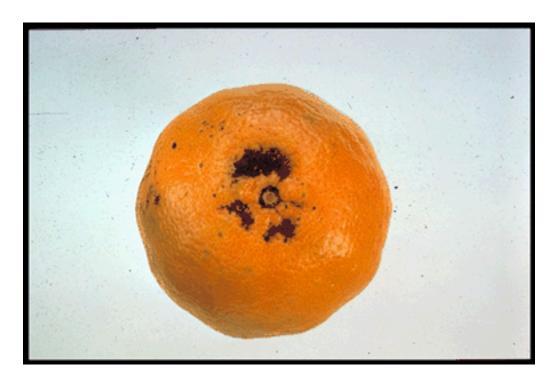
SLIDE 141 – SUNBURN



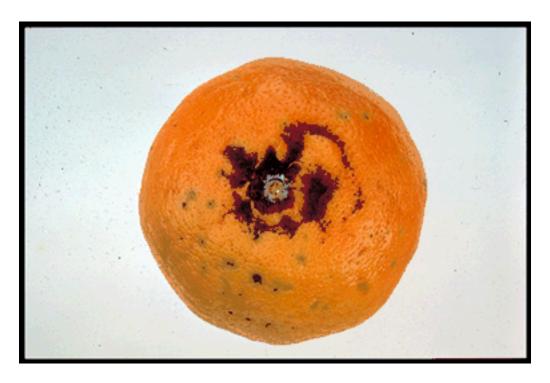
SLIDE 142 – SUNBURN CUT



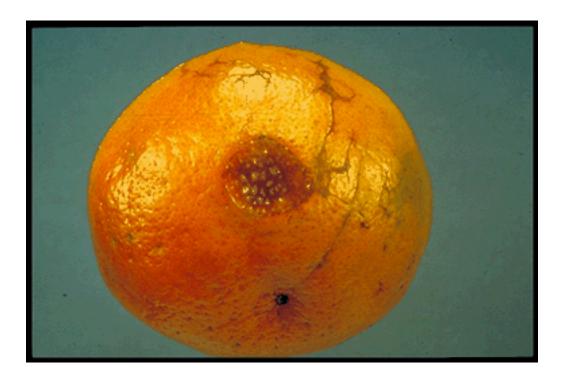
TANGERINES SLIDE 145 – UNSIGHTLY DISCOLORATION



TANGERINES SLIDE 146 – UNSIGHTLY DISCOLORATION



SLIDE 147 -- HAIL



SLIDE 148 – CLIPPER CUT

