

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

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**[EQUIPMENT CATALOG](#)**

## CALIFORNIA/ARIZONA, TEXAS AND FLORIDA CITRUS

**SOOTY MOLD:** This disorder is caused by a fungus that adheres 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. Allow an aggregate area 1-5/8" in diameter 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.)



PHOTO I

PHOTO II

PHOTO III

**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

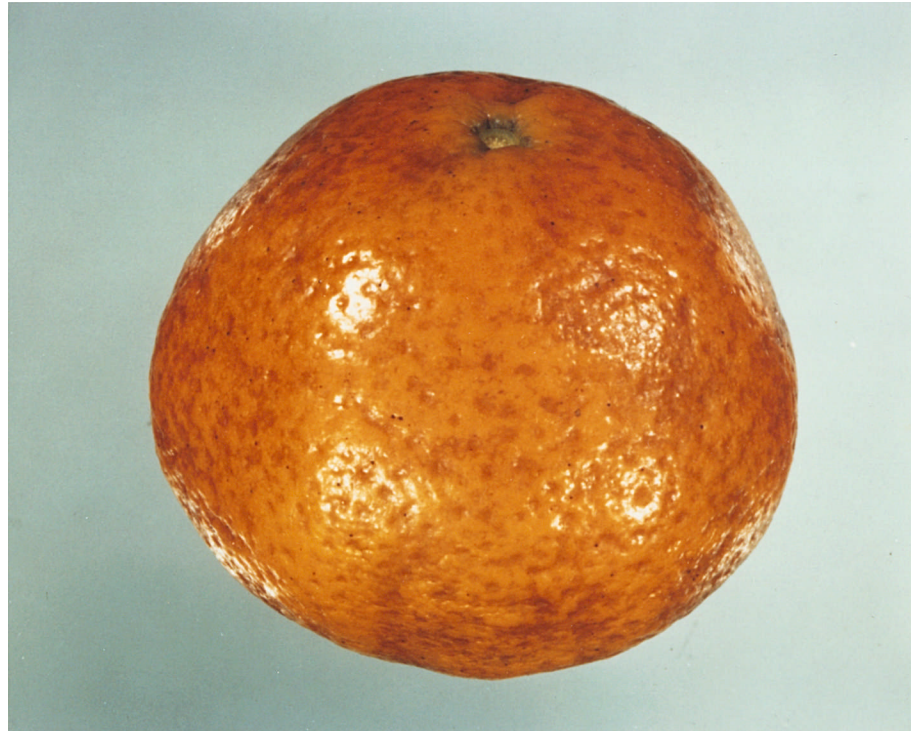
(Previously Sooty Mold & Smudged  
Discoloration, August 1977)

## CALIFORNIA/ARIZONA, TEXAS AND FLORIDA CITRUS

**SMUDGED**: 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 certificate as “excessive discoloration” describing the shade of discoloration and showing percentage of surface affected.

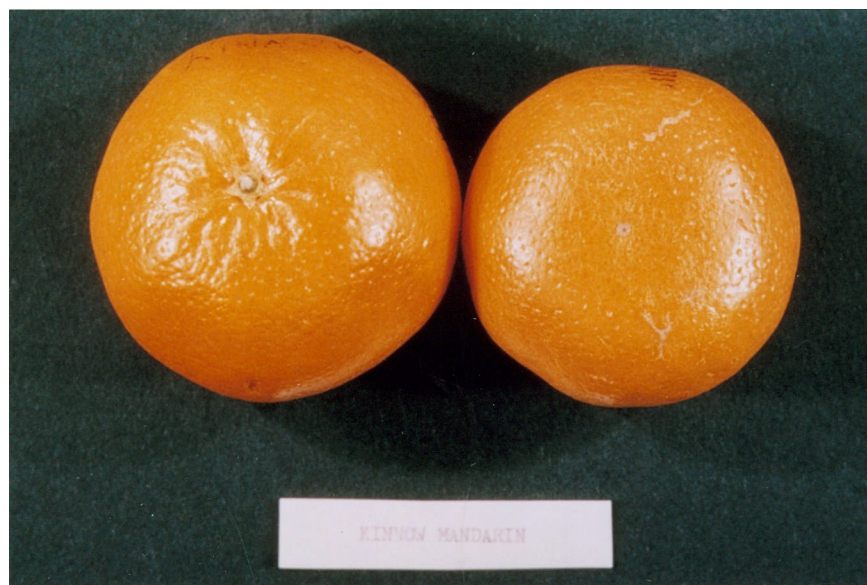


Maximum extent appearance can be affected  
and still grade U.S. No. 1.

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



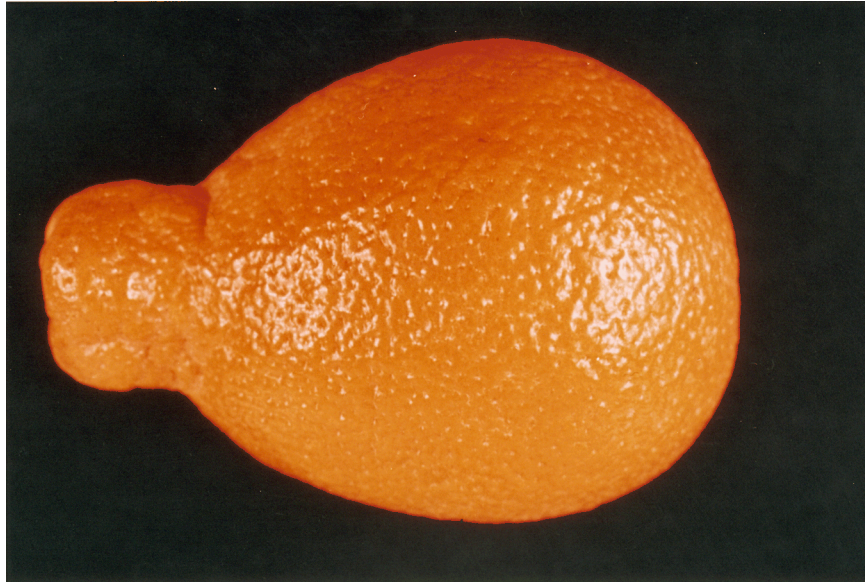
**KARA – (HYBRID MANDARIN – CALIFORNIA)**



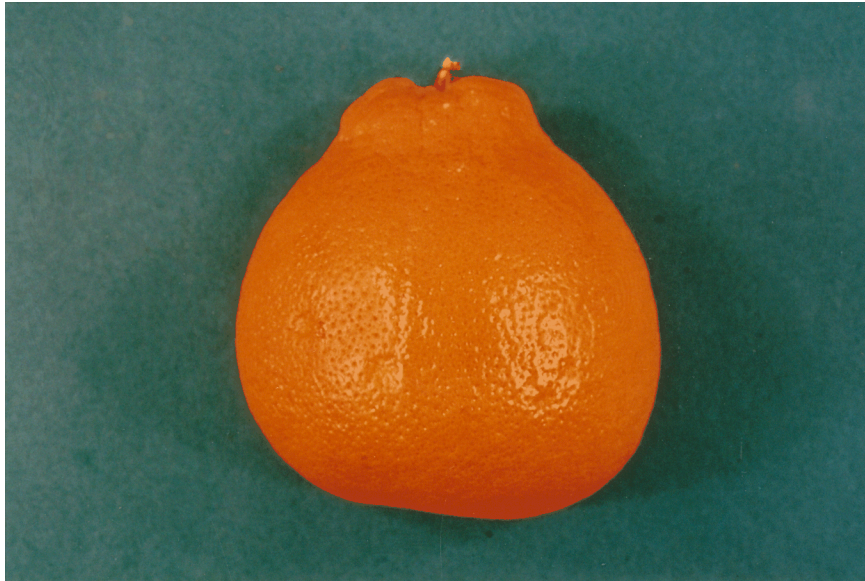
**KINNOW – (HYBRID MANDARIN – CALIFORNIA)**

**FOR IDENTIFICATION ONLY**

**MANDARIN 1-IDENT**  
**March 1990**  
**(Previously 5/71)**



**MINNEOLA TANGELO (CALIFORNIA)  
CHARACTERISTIC SHAPE**

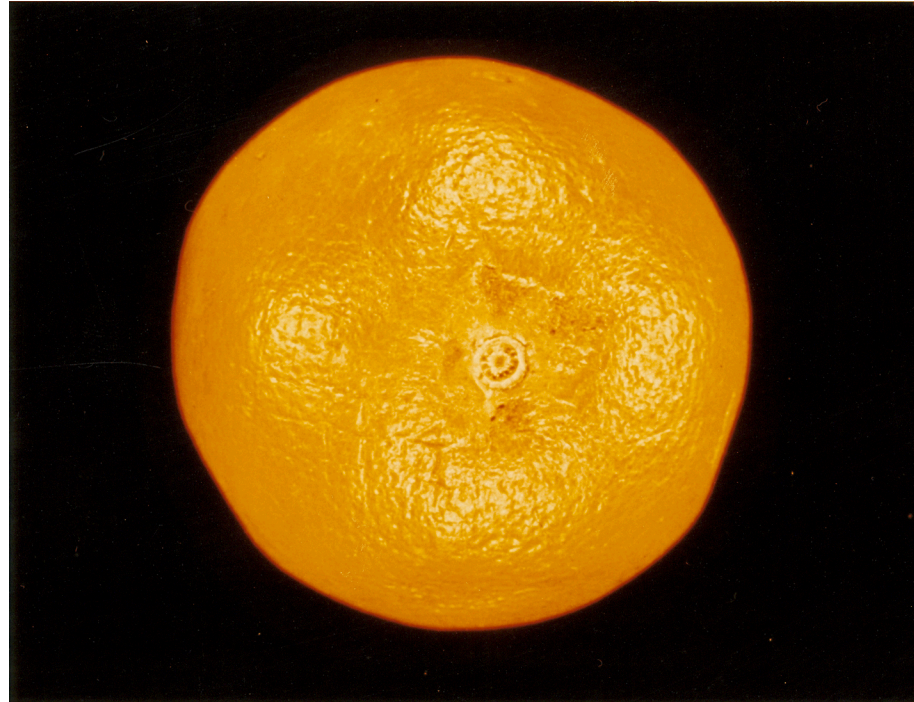


**MINNEOLA TANGELO (CALIFORNIA)  
CHARACTERISTIC SHAPE**

**FOR IDENTIFICATION ONLY**

**MINNEOLA TANGELO 1-IDENT  
March 1990  
(Previously 5/71)**

## ORANGE SKIN-BREAKDOWN



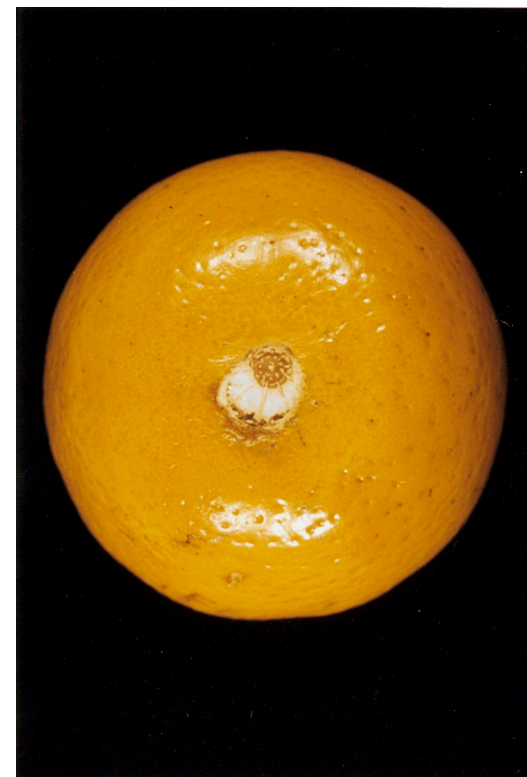
UPPER LIMIT U.S. NO. 2

Skin-breakdown is present only in the four dark areas near the stem scar. Light areas on the shoulders are photographic highlights with no skin injury involved. This orange would be considered the lower limit of U.S. No. 1 if the smallest dark area was not present.

C-1, March 1990  
(Previous photo had no date)

## PULLED STEMS

Torn rind areas occurring adjacent to the stem button caused by pulled stems (plugs) shall be scored as damage, serious damage, or very serious damage respectively when materially, seriously or very seriously detracting from the appearance or marketing quality of the orange.



**“Damage”** – When the rind adjacent to the stem button is torn more than the aggregate area of a circle  $\frac{3}{16}$  inch in diameter.

**“Serious damage”** – When the rind adjacent to the stem button is torn more than the aggregate area of a circle  $\frac{1}{4}$  inch in diameter.

**“Very serious damage”** – When the rind adjacent to the stem button is torn more than the aggregate area of a circle  $\frac{5}{16}$  inch in diameter or when the flesh is exposed.

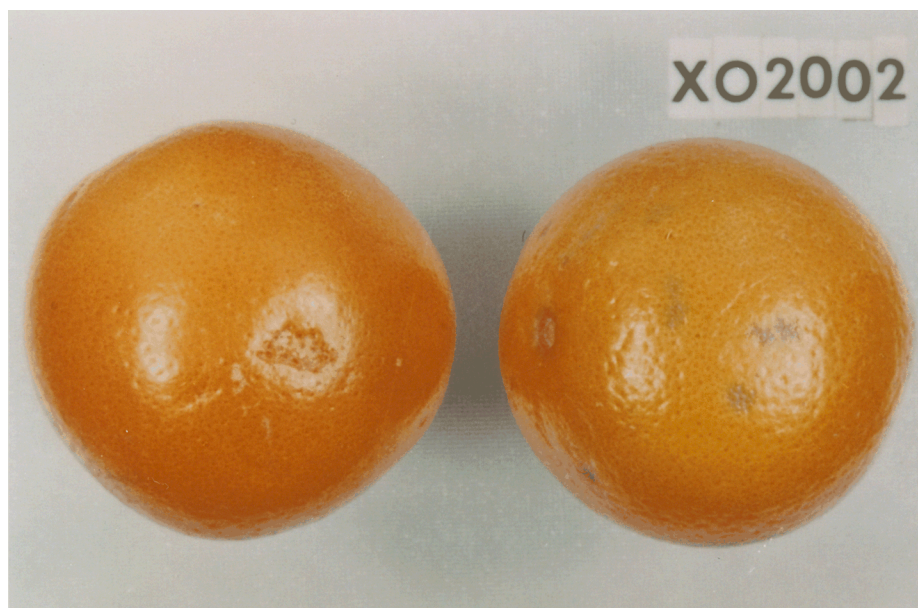
The aggregate areas specified in the definitions are equivalent to the various circle diameters on a 100 size Florida or Texas orange or an 88 size Arizona or California orange.

ORG-CP-1  
Pulled Stems  
February 1990  
(Previously Pulled Stems, August 1970)

## CALIFORNIA/ARIZONA: SKIN BREAKDOWN AND OIL SPOTTING

Since Skin Breakdown (“pitting” when on the side of the fruit, “aging” when occurring near the stem button) is progressive, it is a more serious defect than oil spotting. The lesions become larger, deeper and more discolored with age, and are frequently followed by decay.

Oil spotting does not ordinarily change materially under normal transit and storage conditions. This defect should not be scored as “skin breakdown” under the Standards for Export.



**Left:** Skin Breakdown (pitting) in comparatively early stage. Note depth of spot. This type of injury will increase in depth and area and will usually darken. This one spot illustrates the maximum permitted on an orange of this size in U.S. No. 1 grade.

**Right:** Oil spotting (green spots). Note that spots have little if any depth. There will be relatively little change in these spots as compared to pitting lesions. This is less than the maximum area permitted in U.S. No. 1 grade but no more than 7 green spots would be allowed.



**Illustration of advanced stages of skin breakdown (aging).** This shows how spots will progress. Lesions such as these afford ready entrance for decay organisms. Both oranges are seriously damaged.

ORG-CP-2-A, March 1990  
(Previously ORG-CP-2, 1962)



## CALIFORNIA/ARIZONA: SKIN BREAKDOWN AND OIL SPOTTING



**Left:** Oil Spotting. The large, elongated spot follows contact with a tree limb or other object. The depression results from the original injury, not from the oil spotting. However, this fruit is damaged because the oil spotting and the depression, taken together, materially affect the appearance of the fruit.

**Right:** Oil spotting and a brown discoloration. This is older fruit but oil spots have not sunken. This fruit is damaged by combination of oil spots and brown discoloration materially affecting the appearance.

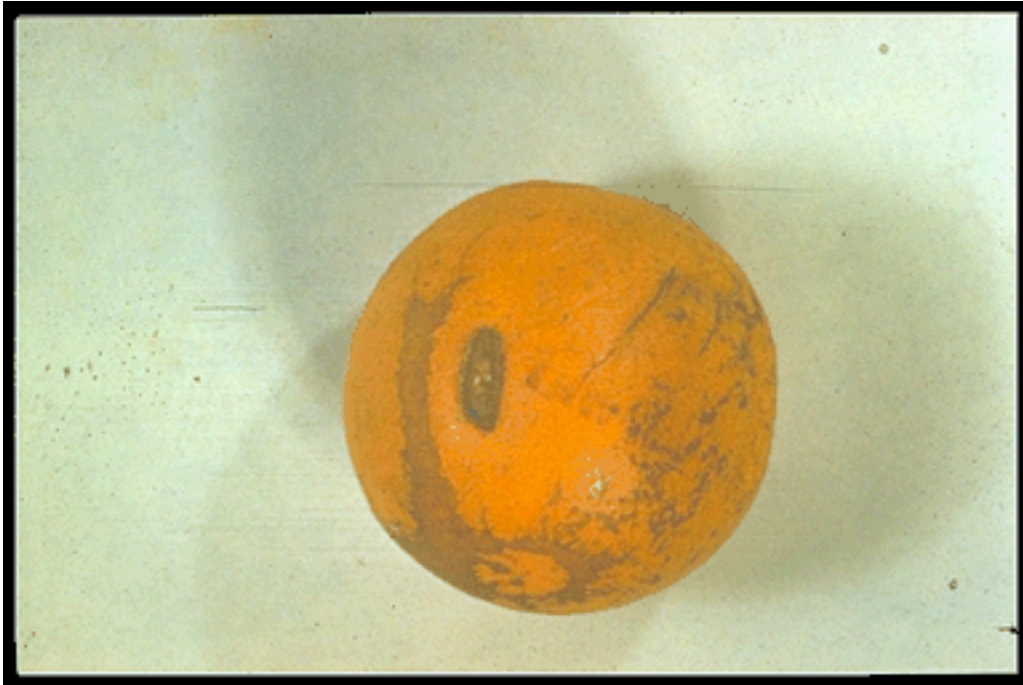


**Oil Spotting** at left, **Pitting** at right. Neither by itself is sufficient to affect grade but together they are considered damage, materially affecting the appearance. Such a combination of oil spotting and skin breakdown is scored as damaged by skin breakdown.

ORG-CP-2-B, March 1990  
(Previously ORG-CP-2, 1962)

# ORANGES

SLIDE 95 – DEEP SCARS



# ORANGES

SLIDE 96 -- SCALE

